

»The further from the surface of life they journeyed, the happier they became« (Salman Rushdie 1999: The ground beneath her feet.- chapter 2: Melodies and silences)

CONTENTS

Geography, geology	1
Cave potential	7
Nitre caves	9
Temple caves and cave temples	12
Troglodytism and Veddah caves	12
The maximal caves of Sri Lanka	14
Cave registry	15-198
Glossary	199-202
Acknowledgements	203
Bibliography	203-231

Since several tens of millenia both familiar and unexplored caves have been known to exist on the island of Sri Lanka (Ceylon).

To draw now the attention of the speleological world not only to the well-known but also to a few partly explored or uncharted caves and karst areas, the current compilation recollects some aspects of what is already known and has been accomplished.

Considered are mostly aspects of archaeology, biospeleology, cultural history, earth sciences, karstology, pre-history, and the speleo-history of both natural and modified caves and rock shelters of natural origin along with a few man-made undergrounds carved by man (rock temples, mines), karst surface features, unconfirmed and (or) fabulous "cavish objects" and suspicious place names.

1. GEOGRAPHY

Bibliographical reference: Adams, Frank Dawson 1929; Arnberger, Erik & Arnberger, Herta 1988, 1993; Cook, Elsie Kathleen 1931; Cooray, P Gerald 1967; Deraniyagala, Siran Upendra 1987; Domrös, Manfred 1976, 1977; Forbes, Jonathan 1840, 1841; Herath, J W 1978; Lonely Planet, Sri Lanka 2003; Tennent, J E 1859, 1860.

The former Ceylon, since 22nd May 1972 called Sri Lanka, is an island near 8° northern latitude and 80° eastern longitude, and some 40 km off the southern tip of India.

»In its general outline the island resembles a pear« (TENNENT 1859, 1: 12) or is »ovate« (COOK 1931), and resembles in shape »nearly a ham« (HAMILTON 1828, 1: 382) or a »tear drop falling from the southern end of India« (LONELYPLANET 2003: 18) and the inverted profile of the entrance to →Ravana Ella Cave (CEYLON TRAVELLER 1974, 1983). Some of the island's dimensions resemble

area	long	wide	
km2	N-S	E-W	
69,930	434	233	Hamilton (1828, 1: 381)
64,750	442	161	Forbes (1841, 1: 12)
65,610	435	225	Cooray (1967: 53); Herath (1978); Ceylon Traveller (1983: 1)
65.660	--	--	Domrös (1976)
--	400	220	Deraniyagala, S U (1987)
65,609.6	435	225	Arnberger & Arnberger (1993: 368)
66,000	433	244	Lonely Planet, Sri Lanka (2003: 18)

Physiographically, the island is composed of three peneplains separated by escarpments. These peneplains are at circa 3 m, 420 to 750 m, and 1600 to 2400 m asl, with the highest forming the central highlands.

The highest mountain is broad-backed Mt Pidurutalagula (N07°00': E080°46': 2524 m), rising above Nuwara Eliya. However, the pyramid profile of Adam's Peak (N06°48'30": E080°29'53" WGS84: 2243 m asl), is better known and far more spectacular. The Mahaveli Ganga, Sri Lanka's longest river, has its source close to Adam's Peak and runs generally north-west into the sea near Trincomalee (N08°34': E081°14').

1.1 CLIMATE: Sri Lanka lies in the monsoon region of South Asia and it has a tropical climate. The division into a Wet Zone (southwestern sector) and a Dry Zone (southeastern and northern sector), which merge into an Intermediate Zone, is widely recognised geographical features (COOK 1931).

The average rainfall varies from below 1250 mm in the northwestern and southeastern parts of the lowland zone to over 5000 mm on the southwestern slopes of the central hill country. The mean annual rainfall for the island is 2000 mm. The average mean temperatures varies between 21°C and 29.5°C in the Wet Zone, and it may be nearer to 32°C in the Dry Zone. In the highlands, the mean temperature ranges between 14.5°C and 25.5°C according to elevation.

1.2 ECO-ZONES: DERANIYAGALA, S U (1985, 1987: 99) divides the country into two major ecozones, the Wet Zone in the west and south-west and the Dry Zone encompassing the balance two-thirds of the island. The Wet Zone itself can be divided into lowlands, uplands and highlands, and the Dry Zone into arid, semi-arid and dry lowlands, dry uplands and the intermediate dry lowlands. It is important to bear in mind that the central mountains act as a rain trap for the summer Southwest Monsoon, which then traverses the Dry Zone as a dry katabatic wind. Winter witnesses cyclonic rain storms affecting the summer-dry Dry Zone. The Wet Zone averages around 2500 mm of rain per annum, whereas the Dry Zone varies between 950 and 1900 mm.

1.3 GEOLOGY: Over 90 percent (HERATH 1978: 711) of the surface area of the island of Sri Lanka is underlain by Precambrian rocks consisting of a complex series of high-grade metamorphic rocks, most of which have been derived from sediments altered by one or more metaamorphism. Associated with these metamorphic rocks are granites and granitoid rocks of igneous origin. The Precambrian crystalline complex consists mainly essentially of two sub-divisions: A charnockite meta-sedimentary series (Highland Series), and a complex of gneisses, granites and migmatites. These rocks have been folded into a series of synforms and antiforms, generally trending in a north-west / south-east direction.

Rocks of Jurassic age occupy a restricted outcrop area in the west. They are shallow water non-marine deposits, consisting mainly of shale and arkosic sandstone. The most extensive sedimentary formation is the Miocene limestone in the north-western area.

The Pleistocene deposits, which are developed in the western and north-western part of the island, are mainly gravels and red earths, while laterite is mainly developed in the south-western sector of the island and clearly a residual deposit.

1.4 ADMINISTRATIVE DIVISIONS (1):

province (2)	km ²	districts (3)
Northern	8882	Jaffna, Mannar, Vavuniya
North Central	10773	Anuradhapura, Polonnaruwa
North Western	7812	Kurunegala, Puttalam
Central	5590	Kandy, Matale, Nuwara Eliya
Eastern	9951	Batticaloa, Amparai, Trincomalee
Western	3709	Colombo, Kalutara
Sabaragamuwa	4902	Ratnapura, Kegalle
Uva	8482	Badulla, Monaragala
Southern	5559	Galle, Matara, Hambantota..

2. SRI LANKA " CAVESTONES "

including: crystalline and coral limestones, in addition to gneisses, calc-granulites, and laterites

Bibliographical reference: Coates, J S 1935; Cook, Elsie K 1931; Coomaraswamy, Ananda K 1902, 1906; Cooray, Gerald P 1967, 1978; Dahanayake, Kapila 1978; Deraniyagala, P E P 1958, 1961; Herath, J W 1978; Herath, J W, Pattiaratchi, D B & Fernando, L J D 1961; Money, N J & Cooray, P Gerald 1966; Pattiaratchi, D B & Herath, J W 1963; Tewari, B S & Tandon, K K 1960; Vitnage, P W 1959; Wayland, E J 1925; Wayland, E J & Davies, A M 1923.

The allegedly »several hundred metres thick« (4) or up to more than 75 m thick (COORAY 1967: 136) Jaffna Limestone of Miocene age underlies many square kilometres of the land surface (5) in the lowlands of north-western Sri Lanka. Scattered all over the island, though mostly in the Hill Country, metamorphosed limestones (if pure: marbles) and calc-granulites occur in the »Crystalline Complex« (6) of the Pre-Cambrian to Cambrian Khondalite Group of rocks.

2.1 (Pre-) CAMBRIAN (7)

The Khondalite Group of rocks is made up of a variety of granulites, schists, and gneisses, all of which can be seen anywhere in the Hill Country as a well bedded series of strata. These rocks are the metamorphosed equivalents of sedimentary rocks such as shales, sandstones, limestones, sandy clays, calcareous sands, and similar intermediate types. They can be subdivided according to their mineralogical composition, which is in turn a reflection of their chemical composition and the degree of metamorphism that they have undergone:

- i) garnet-sillimanite schists and gneisses
- ii) quartzites and quartz schists
- iii) quartz-feldspar granulites and garnetiferous gneisses
- iv) crystalline limestones and calc granulites
- v) graphitiferous schists

More often than not, the crystalline limestones and calc granulites are the most relevant for caves and cavers.

4 These »several hundred metres« (WADIA 1975 edited 1998: 295) possibly translate as "several hundred feet" and mean the thickness of the »Jaffna limestone« or »Jaffna beds ... the large outcrop of horizontally bedded, richly fossiliferous limestone seen along the coastal strip of N.W. Sri Lanka ... on palaeontological basis considered to be Middle or Upper Miocene, homotaxial with the [continental Indian] Travancore beds (the species *Orbiculina malabarica* is common to both) but older than the Karikal beds, which are regarded as of Upper Miocene to Pliocene age.«

5 Some 2,072 square kilometres or »800 square miles« (COORAY 1967: 136).

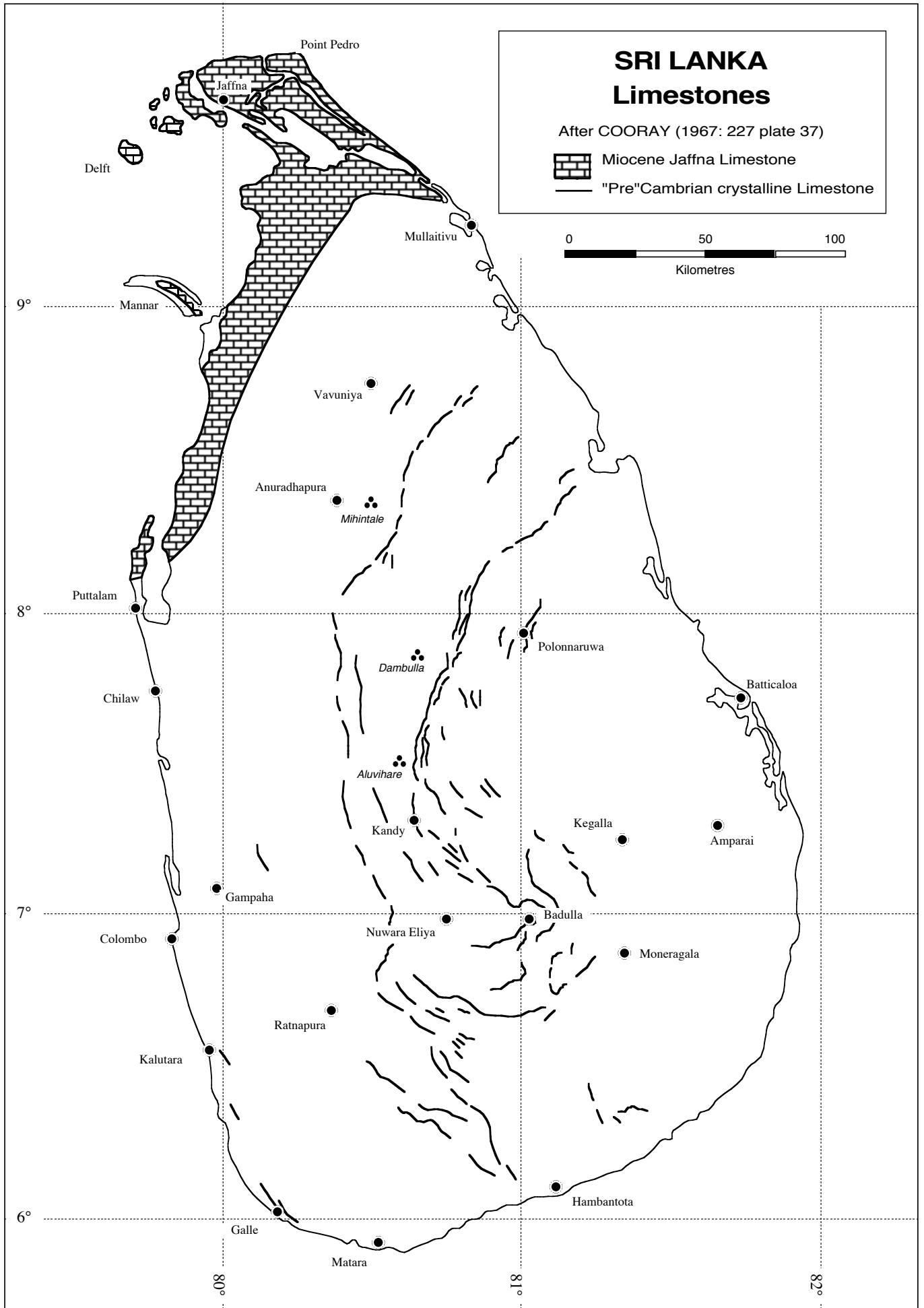
6 Crystalline Complex: »We have necessarily to describe these rocks individually rather than according to regional distribution because it has not been possible, so far, to recognise any significant pattern in their occurrence« (COORAY 1967: 91).

7 After COORAY (1967: 90-97).

¹ ARNBERGER & ARNBERGER 1993: 379)

² The nine provinces have no administrative function.

³ Colombo, Kandy, and Galle had been municipalities before independence and were confirmed in 1947.



Era	Period	Formation
		secondary formations: Laterite, nodular ironstone, chert, travertine, kankar
Cenocoic	Quarternary	Younger Group Coral reefs Alluvium; lake deposits Lagoonal and Estuarine beds Unconsolidated sands (beach and dune) Littoral sandstone
		Older Group Red Earth Group Terrace Gravels Basal ferruginous gravel
	Tertiary	Miocene Jaffna Limestone Ratnapura Beds Minihalgalkanda Beds
Mesozoic	Cretaceous	Upper Gondwana Dolerite dykes
	Jurassic	Tabbowa Beds ; Andigama Beds
Palaeozoic	Upper	Granites and granite gneisses of the SW region Pegmatites
	Lower	VIJAYAN SERIES Bintenne Gneisses, Wannu Gneisses, Tonigala Complex
Pre-Cambrian		HIGHLAND SERIES Khondalite Group, Charnockites, Kudugannawa Gneiss, Kataragama Complex
		? basement rocks (not seen)
COORAY (1967: 85): Formations present in Ceylon		

2.1.1 CRYSTALLINE LIMESTONES, the pure varieties of which are called marbles, are metamorphosed sedimentary limestones. Calcite and dolomite, carbonates of calcium and magnesium, are the two main constituents of these rocks, but the original sediments generally contained small amounts of silica (in the form of sand), alumina (as clay), and iron oxide (as grains of ilmenite and magnetite). Consequently, most crystalline limestones have a variety of silicate materials in greater or lesser amounts. Among the most common of these are a greyish olivine called forsterite (magnesium-iron silicate), green diopside (calcium-magnesium-iron silicate), phlogopite (a brown mica containing calcium and magnesium), blue or green apatite (a calcium phosphate resembling light blue sapphire), purplish and blue spinels (aluminium oxides with magnesium and calcium), brassy looking pyrite and pyrrhotite (sulphide minerals), and graphite. Some crystalline limestones contain a striking orange-coloured mineral known as chondrite, and others, such as the marble at Rupaha (N07°02': E080°54'), are green owing to the presence of the hydrated mineral serpentine.

The silicate minerals very often occur in bands in the crystalline limestones of Sri Lanka, and this suggests that the quiet seas in which the calcareous sediments were laid down were from time to time inundated with sand and clay, perhaps brought down by flood waters.

Crystalline limestones occur in all parts of the Sri Lanka Highlands (8) and their presence is often given away by the numerous lime-burning kilns in their vicinity. One of the longest bands of crystalline limestones is the one running northwards from Matale (N07°28'18": E080°37'28" WGS84) to Nalanda (N07°40'32": E080°38'35" WGS84) and beyond that to Habarana (N08°02': E080°45'), a total distance of about 100 km. Parts of this band can probably be traced in scattered outcrops through Kaudulla (N08°09': E080°55') and Kantalai (N08°22'06": E081°01'41" WGS84), and even up to Trincomalee (N08°34': E081°14'). The thickness of the Matale-Nalanda limestone band varies from 30 to about 650 m (VITANAGE 1959) but most crystalline limestones on the island are between two and 20 m thick.

8 Some of the best known occurrences of crystalline limestones in the Highlands of Sri Lanka are near Matale (N07°28'18": E080°37'28" WGS84), Nalanda (N07°40'32": E080°38'35" WGS84), Habarana (N08°02': E080°45'), Kandy (N07°17'47": E080°38'06" WGS84), Badulla (N06°59': E081°03') and Welimada (N06°54'04": E080°55'22" WGS84).

2.1.2 CALC GRANULITES (9) and gneisses are very impure calcareous rocks formed by the metamorphism of calcareous muds (or marls) and calcareous sands. In the Central Highlands (10), the calc granulites are completely subordinate to the crystalline limestones, but in the South-western region, they are important.

The calc granulites and gneisses are generally banded, and are either equigranular rocks or streaky, gneissic ones varying in colour between greyish, greenish white, or "dirty" white. Their mineral composition is characterised by the presence of wollastonite (a white, fibrous, silky-looking calcium silicate), white, equigranular scapolite (a sodium-calcium silicate), green diopside, and the accessory mineral sphene (a calcium-titanium silicate) with its honey brown colour and wedge shape (COOMARASWAMY 1902: Point-de-Galle group of wollastonite - scapolite gneisses). Dark greenish hornblende is sometimes present and graphite as well as the sulphide minerals pyrite and pyrrhotite are commonly found. The presence of the sulphide minerals in appreciable amounts gives the weathered surfaces of these rocks a rusty, sulphurous appearance, and it is by this feature that they can often be recognised in the field.

Calc granulites and gneisses occur mostly as narrow bands, less than a metre thick, or as narrow ribs, a few decimetres thick, in a variety of other rock types. They can, however, be traced for long distances and several continuous bands are present in the Alutgama (N06°26'33": E080°00'14" WGS84) and Ambalangoda (N06°13'30": E080°03'24" WGS84) areas (11).

The calc granulites and gneisses are almost the only recognisable rocks of calcareous composition in the south-western region, a fact which seems to be of some significance. Crystalline rocks appear for the first time about 25 km east of the coastline, near Ingiriya (N06°45': E080°10').

2.2 JURASSIC (12)

Sedimentary rocks of Upper Jurassic age are preserved in at least two faulted basins within the crystalline Vijayan Series in north-west Sri Lanka. Only the Tabbowa basin is exposed on the surface. The other, which is at Andigama and about 30 km south of Tabbowa, is completely covered by more recent deposits. These two known occurrences lie almost in a straight line with similar faulted basins near Chennai (ex Madras N13°05': E080°17') on the east coast of peninsular India, nearly 3000 km to the north, and it is probably that all these Jurassic sediments were deposited at the same time (13).

9 After COORAY (1967: 97-98, 110).

10 The calc granulites present in the Central Highlands are dark greenish to blackish-green rocks composed mainly of diopside, scapolite, and hornblende, with abundant sulphide minerals; some of these rock also contain much mica (COORAY 1967: 97).

11 COORAY (1967: 110): The best known of these bands are found near Migahatenne / Meegahatenne (N07°31': E080°27'), Bussa (N06°04'53": E080°09'25" WGS84 near Galle N06°03'13": E080°12'42" WGS84), and Kotagoda / Kottegoda (N06°10': E080°06' near Baddegama N06°10': E080°10').

12 After COORAY (1967: 125-135).

13 COORAY (1967: 135): Sediments similar to those at Tabbowa were found in drill cores in the Mannar (N08°59': E079°54') area, lying below 75 m of Miocene limestone. It is thus possible that still other deposits of Jurassic age may exist in faulted basins within the crystalline basement in this north-western part of the island, hidden by later deposits of Miocene and Quaternary age.

2.2.1 TABBOWA BEDS

The Jurassic sediments near the village of Tabbowa (N08°05': E079°56'), first described by WAYLAND (1925) cover an area of about 5 or 8 square kilometres and form the relatively high ground around kilometre 12 on the highway A12 from Puttalam (N08°02': E079°49') generally north-east to Anuradhapura (N08°21': E080°23'), where massive sandstones are exposed by the side of the road.

The Tabbowa beds consist mainly of a well bedded series of feldspathic sandstones, arkoses (feldspathic sandstone with over 30 percent feldspar), siltstones, and mudstones, the last being the more modern terms for what Wayland described earlier as grit, shaley beds, and pipeclay (WAYLAND & COORAY 1966). A few thin beds of nodular limestone are also present.

2.2.2 ANDIGAMA BEDS

The small basin of Jurassic sediments, somewhat similar to those at Tabbowa, is known to be present at Andigama (N07°46'39": E079°57'10" WGS84), a small village 13 km east of Kiriyanjali (N07°45'48": E079°49'56" WGS84). These beds do not, however, outcrop on the surface, but can be seen in well cuttings over an area of about 8 square kilometres. They consist mainly of black carbonaceous shale and some concretionary hematite. Though the fossil evidence is meagre, it suggests a Jurassic age for the Andigama Beds.

2.3 TERTIARY (Miocene)

2.3.1 JAFFNA LIMESTONE (14).

2.3.1.1 Extent: The dominant member in the north of the island of Sri Lanka is the pure Jaffna Limestone (52% CaO). At the current state of marine transgression (15), the Jaffna limestone underlies the whole of the Jaffna Peninsula

14 After COORAY (1967: 135-141)

15 The rise and fall of sea level (due to cold / warm fluctuations in the global climate) controls not only the exposure / marine submersion of the Jaffna Limestone but also determined the periodicities of the island's connections with the Indian subcontinent: »*The last separation having occurred at ca. 7000 BP*« (DERANIYAGALA 1992).

Already at the close of the 13th century, Marco POLO (edited by YULE 1871, 1875, revised by CORDIER 1903, e-book produced 2004) vol..2, chapter XIV »*Concerning the Island of Ceilan*« had drawn attention to the marine transgression of parts of the Jaffna peninsula, though he explained it with causes no more accepted: »*The north wind there blows with such strength that it has caused the sea to submerge a large part of the Island; and that is the reason why it is not so big now as it used to be. For you must know that, on the side where the north wind strikes, the Island is very low and flat, insomuch that in approaching on board ship from the high seas you do not see the land till you are right upon it.*«

YULE (2004, vol. 2, chapter XIV, note 2) points out that »*Valentyn appears to be repeating a native tradition when he says: "In old times the island had, as they loosely say, a good 400 miles (i.e. Dutch, say 1600 miles) of compass, but at the north end the sea has from time to time carried away a large part of it."* (Ceylon, in vol. V, p. 18). Curious particulars touching the exaggerated ideas of the ancients, inherited by the Arabs, as to the dimensions of Ceylon, will be found in Tennent's Ceylon, ch. i. The Chinese pilgrim Hiuen Tsang has the same tale ...«

(N09°45': E080°10') and the surrounding islands and also extends southwards along the west coast of the mainland as a gradually narrowing belt (16).

Its total extent is about 2000 square kilometres and the limestone is at least 75 m thick, as shown by borings.

Also probably underlying all this coastal belt (17), most of the limestone here is covered by later (Quaternary) deposits, scattered outcrops of limestone being seen along the coast, on the sides of ridges like Aruakalu / Aruvakalu (N08°16': E079°51'), or in stream sections where erosion has removed the overlying deposits (18).

The Jaffna Limestone thins out eastwards on the floor of Pre-Cambrian rocks on which it lies unconformably (19). It passes westwards under the sea, forming the bed of the Palk Strait at a depth of only »20 fathoms« (40 m). Tertiary rocks outcrop again on the south coast of India, at Warkalli / Varkala (N08°44': E076°43') and Cuddalore (N11°45': E079°45'), where Miocene limestones possibly lie below the Pliocene sandstones and other formations that appear on the surface.

COOK (1931: 67): »Along the southern coast there is also a narrow bed of limestone not formed in an ordinary coral reef, which must have developed during a short period of subsidence; this can be seen at Hambantota« (N06°07': E081°07').

Overlying the limestone in the Jaffna Peninsula are recent sand dune (as at Point Pedro and Mannar) and coral reefs (along the northern coast); on the mainland it is covered by Quaternary Red Earth and gravels as well as by red earth (DAHANAYAKE 1978) and other alluvium.

2.3.1.2 Structure: The Jaffna Limestone is flat-bedded over nearly all the area in which it occurs, though here and there a slight dip to the west may be present. It is generally at surface level or a little below it, but at Kirimalai (N09°49': E080°00'), Kolankanatta (10 km south of Kudremalai Point N08°32': E079°52'), and on the »Moderagam Aar« (Modaragam Aru N08°32': E080°00') it forms cliff about 15 m high (20).

16 One of the most southerly exposures of the Jaffna Limestone are seen in low cliffs near Karaitivu (N08°13': E079°48'), 24 km north of Puttalam (N08°02': E079°49') but a small outcrop of what is probably Miocene limestone was noted (in 1964) near Villuke (N08°04': E079°51'), just south of the Mi Oya (N08°05': E079°48') and about 5 km north of Puttalam. The alluvium of the Mi Oya north of Puttalam probably also rests on Miocene limestone.

17 The eastern boundary has not been mapped but it must lie north-west of a line running through Karaitivu (N08°13': E079°48'), Madhu Road (N08°46': E080°09'), and Mankulam (N09°08': E080°26') where Pre-Cambrian crystalline rocks of the Vijayan Series are exposed. In the extreme south this boundary cannot be more than 6 or 8 km from the coast, but elsewhere the limestone belt may be more than 15 km wide.

18 DAHANAYAKE (1978) noticed buried karst (not mentioned by name) in the »pure, massive limestone« embracing the Puttalam Lagoon as »former erosion [sic] qua: corrosion] cavities about 1 m deep« in the shape of »limestone with numerous fillings of sands, gravels and pebbles cemented with calcite and dolomite« in addition to »limestone with numerous cavities filled with ilmenite, magnetite, mica and clay in parallel layers, all cemented with calcite and dolomite.«

19 Director General (1964): Administrative report for 1962-1963.- (Colombo: Geological Survey Department).

20 COORAY (1967: 138 plate 19 A) gives a photograph showing »Low cliffs in Jaffna Limestone, Jaffna. Note caves at sea level (D.N. Wadia).«

The limestone beds are extremely well jointed and the aerial photographs of the Peninsula reveal a marked rectangular pattern of closely spaced joints running NW-SE and NE-SW.

2.3.1.3 Lithology: The typical Jaffna Limestone is a hard, partly crystalline, compact, indistinctly bedded, creamy coloured rock. It is massive in parts but some layers are richly fossiliferous and weather into a honeycombed mass.

2.3.2 MINIHAGALKANDE BEDS (21).

A small outcrop of Lower Miocene beds occurs on the south coast of Sri Lanka at Minihagalkande (Minihagalkanda N06°24': E081°35'), the "rock shaped like a man" in the Yala National Park and about 60 km northeast of Hambantota (N06°07': E081°07'). The beds are exposed in small, semi-circular, cliff-like »amphitheatres« (DERANIYAGALA 1961). They consist of an unfossiliferous basal bed of ferruginous grit and sandstones, 1.2 to 1.8 m thick, above which are about 15 m of brownish and yellowish sandy and sandy-clayey beds. Within the latter are thin layers of nodular limestone with fossil sponges, echinoids, corals, and purplish concretions similar to the fossil remains in the Jaffna Limestone. The uppermost beds are limestone containing fossil shells and echinoids. The most characteristic fossil is the mollusc *Ostrea (opha) virletti* Deshayes (WAYLAND & DAVIES 1923).

The high land formed by the Minihagalkande beds extends inland for about about 400 m, and then descends steeply to plains covered by recent alluvium through which crystalline rocks appear.

2.4 QUATERNARY

Resting on the Miocene and crystalline rocks in many part of the island are a variety of unconsolidated or partly consolidated deposits consisting largely of gravels, sands and clays. Also included in the Quaternary system are several formations that are classed as 'secondary' as they have resulted from the action of later processes (such as weathering and dissolution) of pre-existing formations (DAHANAYAKE 1978). The most important of the secondary formations are potentially cavernous laterite and nodular ironstone, both of which are fairly widespread, but in different parts of the country; the others, such as chert, flint, travertine (calcareous tufa), and kankar are of restricted occurrence.

21 After COORAY (1967: 141).

2.4.1 LATERITE, locally known as »cabook« (COORAY 1967: 176) or »kabouk« (COOK 1931: 78), is the most most extensive of the secondary formations, and is a product of weathering of the rocks underlying it (22). Further, true laterite is found only within a well marked coastal belt in the Wet Zone of Ceylon, and is restricted to the south-western part of the island (23).

A typical cross-section through laterite from Hendala (N06°59'02": E079°52'35" WGS84) shows the following zones from top to bottom (PATTIARATCHI & HERATH 1963):

- A ironstone cap (ferricrete) forming a hard crust, which, where exposed, is breaking down to nodules and pellets;
- B laterite, hard and cellular, with a skeleton of iron oxides and clay-filled cavities;
- C soft, clayey laterite in various colours;
- D weathered bedrock showing traces of the structure of the parent rock and in which the feldspars are kaolinised;
- E parent rock of garnetiferous gneiss.

2.4.2 "TRAVERTINE" (calcareous tufa) has been reported (24) from such widely separated localities as Agratenne (near Passara N06°56': E081°09'), Bibile (N07°10': E081°13'), Mankulam (N09°07': E080°28'), Talawa, Dombakota (near Habarana N08°02': E080°45'), Telulla (N06°12': E081°17') and Pelawatte (near Weragantota N07°19': E080°59'). In all these instances calcium carbonate has been dissolved from Precambrian crystalline limestone, leaving karst areas, gour dams (25) and, perhaps, caves behind.

2.4.3 KANKAR occurs in the dry zone within a few centimetres of the surface, forms mainly nodules and occasionally nodular beds, and is believed to have formed by the leaching out of calcium from the underlying gneisses and by precipitation from solution during the dry periods. The cave potential of kankar is almost nil but the role it plays in the global carbon dioxide cycle remains to be understood and evaluated.

3.3 CAVE POTENTIAL

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Brooks, Simon J 1995; Brooks, Simon J et al. 2002; Ceylon Traveller 1974, 1983; Cook, Elsie Kathleen 1931; Wilson, Jane M 1988.

The karst and cave areas of Sri Lanka are as undiscovered like the proverbial seven-eighths of an iceberg.

Miocene Jaffna Limestones are exposed on quite a large percentage of the land surface but appears to form mostly inaccessible caves hidden underground in the vadose and phreatic zones. Pre-Cambrian to Cambrian limestones and pockets of calc-granulites occur in the Highlands and tend to form comparatively voluminous or extensive caves as » ... a stream may suddenly disappear underground when it runs from the gneiss on to the limestone, or the limestone vein is worn by solution, etc. ... These interesting regions in the hill country await further study« (COOK 1931: 137).

DERANIYAGALA (1965: 143): »Ceylon possesses an abundance of caves and rock shelters ... The few sites which have been investigated ... have yielded results that have attracted the attention of of authors of important scientific papers and text books on these fields.«

CEYLON TRAVELLER (1974: 237-238; 1983: 239-240): Not only »Spelaeology (or the art and science of 'caving' in and out« but also »the hobby of caving and pot-holing ... is hardly known in this country. Why this should be so may be attributed to the fact that Sri Lanka, as far as is known, possesses only a few natural formations that lend themselves to this type of activity and so very little is known concerning such formations that we do have; even their locations are often matters of myth and legend, while only some of them, mainly those with historical and religious connections, have been honoured with a place on the map.

Our little island does ... have some that so far have been but barely explored and which invite both amateur and professional to further investigation.«

CEYLON TRAVELLER (1983: 351): »From time immemorial the people of Sri Lanka have taken to rocks and caves with as much alacrity as ducks to water.«

WILSON (1988: 23): »Cave potential on Sri Lanka must be about nil.«

BROOKS (1995: 22): »Kandy area is potentially the richest cave area in Sri Lanka as it has significant areas of limestone and if Sri Lanka has caves formed in gneiss then it also must have cave in the limestone ...«

AELLAN et al. (2001: 1977): »Limestone is scarce in the island of Ceylon, karst phenomena are little developed and caves are generally small. The metamorphic rocks of the Highland series ... contain a number of caves. Along the north-west and north coasts is a rather broad fringe of karstified limestones ... [with] caves, natural anchihaline wells, and artificial wells dug into the quite compact, coralline limestone.«

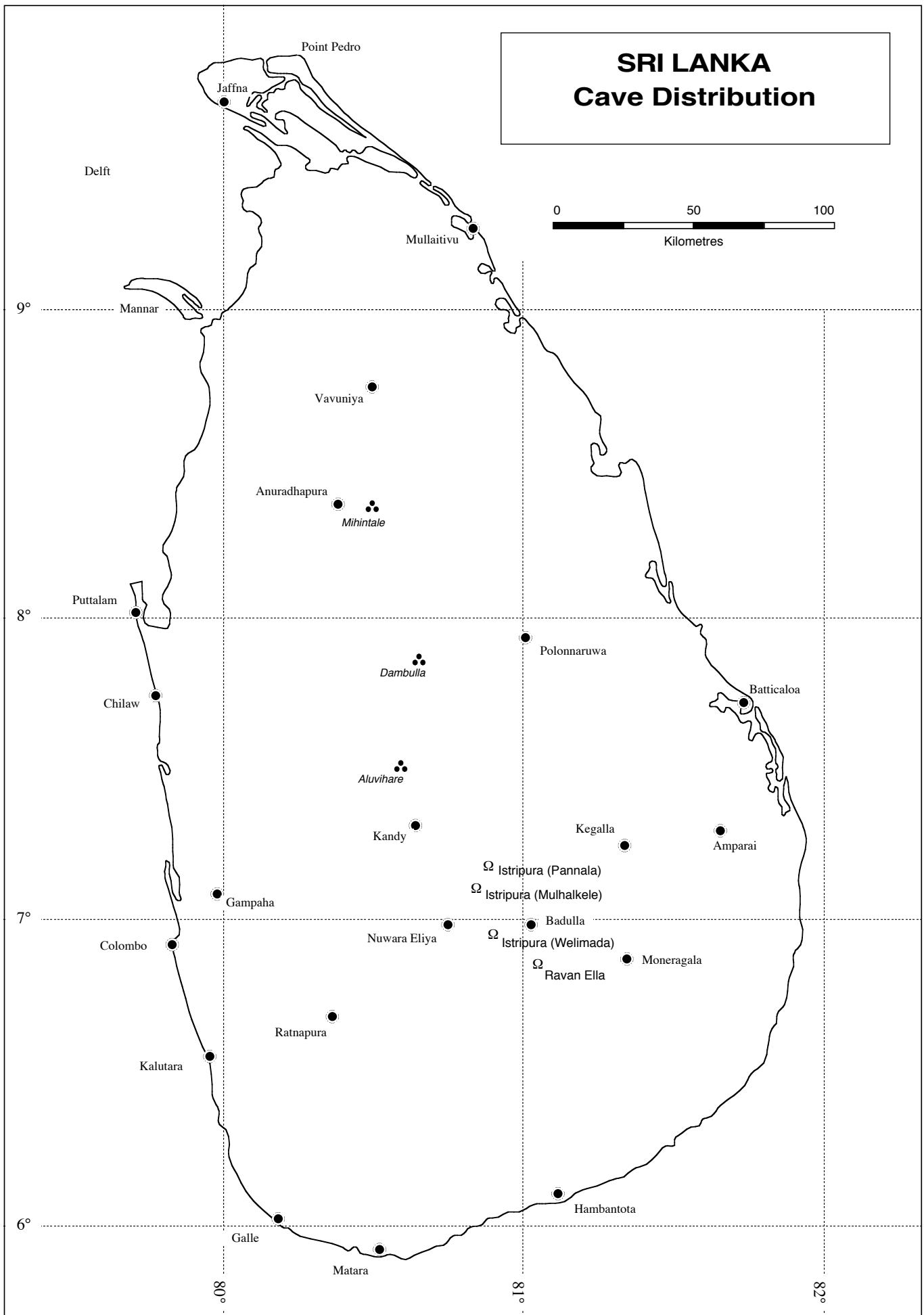
BROOKS et al. (2002: 19): »The karst areas of Sri Lanka are on two separate regions. On the northern tip of the island, the barren Jaffna peninsula has a low-level doline karst containing many small shafts and a few short, well-decorated caves, while tidal shafts [sic!] have been explored ... Further south, narrow bands of of limestone and marble extend from Trincomalee on the east coast, through the central highlands, to Matara on the south-est coast. It is in this area that the largest and most complex caves on the island are located.«

22 Necessary for lateritisation are tropical temperatures and vegetation combined with an alternation of a wet and a dry period in the climatic conditions of the area where it forms. During the wet season, when the water-table is high, silica, aluminium and the alkali metals like sodium, potassium, and calcium, are leached out of the rocks and carried away. During the dry season, when the water table is low, iron and aluminium oxides in their hydrated forms are deposited in the laterite-forming zone. How and why in cases quite large caves develop in laterite remains unexplained.

23 Laterite is best developed in the south-west of Sri Lanka within a belt extending 10 or 12 km inland from the coast and up to about 35 m above the sea level. Good examples can be seen at Ragama (N07°01'51": E079°55' WGS84), Hunupitiya (N06°59': E079°54'), Colombo, Homagama (N06°50'27": E080°00'50" WGS84), Beruwela and Ambalangoda (N06°13'30": E080°03'24" WGS84).

24 Among the streams depositing calcareous tufa on the island, the →Matti Aru is famous.

25 COORAY (1967: 182): »Travertine is often deposited on the leaves, branches, trunks and roots of the trees, sometimes forming a step-like series of clear water pools« at an unidentified location somewhere »in the midst of the forest.«



No.	(DAVY 1821: 31)	district 1821	district 1977	village	toposheet (s)
1.	Werengodde	Seven Korles	Kurunegala		Wariyapola or Nalanda
2.	Medellenewa	Seven Korles	Kurunegala	Midellawa	Wariyapola or Nalanda
3.	Paremakande	Seven Korles	Kurunegala		Wariyapola or Nalanda
4.	Giribawah	Seven Korles	Kurunegala		
5.	Maha-kelle	Seven Korles	Kurunegala		
6.	Galgiriawah	Seven Korles	Kurunegala	Galgiriyawa	Dambulla or Galgamuwa
7.	Kadooroo-wuva	Seven Korles	Kurunegala	Kaduru Wewa	
8.	Kaddigaway	Seven Korles	Kurunegala	Kadigawa	Galgamuwa or Wariyapola
9.	Ressirowey	Seven Korles	Kurunegala		
10.	Wadingapallama	Neurrakalava	Anuradhapura		
11.	Agalwatte	Matale	Matale	Agalawatta	Kurunegala
12.	Kaloodawella	Matale	Matale	Kaludawella	Kurunegala or Rangala
13.	Oonaweroowa	Matale	Matale	Unaweruwa	Kurunegala
14.	Nalandi	Matale	Matale	Nalanda	Nalanda
15.	Memooraa	Doombera	Kandy	Mimura, Mimure	Hanguranketa
16.	Rajahvilla	Doombera	Kandy	Rajawella	Hanguranketa
17.	Wellaway	Ouva	Monaragala	Wellawaya	Haputale
18.	Maturatta	Hewahette	Nuwara Eliya	Maturata	Hanguranketa or Nuwara Eliya
19.	Kodigomoova	Four Korles	Kegalla	Kadigomuwa	Gampaha or Kandy
20.	Doonoogama	Four Korles	Kegalla	Dunugama	Kandy
21.	Meddegama	Saffragam	Ratnapura	?	Nuwara Eliya or Ratnapura
22.	Hapolacadavette	Welassey	Badulla, Nilgala	Hapola, Ketawetta	Nilgala

Nitrate Caves of Sri Lanka (modified after DAVY 1821)
Identified are 14 Lunuge Cave, 15. Lunugala Lena?, 17. Wellawaya Cave

4. NITRE CAVES

Bibliographical references: Brohier, Richard Leslie 1956; Davy, John 1821; Cook, Elsie Kathleen 1953; Cooray, P. Gerald 1956, 1961b; Ferguson, A M 1859; Forbes, Jonathan 1840; Hamilton, Walter 1828; Knox, Robert 1681 edited 1841, 1958, 1689 edited 1704; Leiter, N 1948; »Malte Brun, M« (Malthe Bruun, Konrad) 1834; Marshall, H 1840; Pieris, P E 1950; Pridham, Charles 1849; Skeen, William 1868; Tennent, James Emerson 1859, 1860; Uragoda, C G 1973; Van Goens, Ryskloff 1663-1675 edited by Reimars, E 1932..

At the turn of the 19th century, the sediment of the nitre caves in Sri Lanka had been exploited for potassium nitrate (nitre, saltpetre, NaNO_3), an important ingredient in the manufacture of gun powder, which is obtained by mixing it with sulphur and carbon: »*The Sinhalese obtained these ingredients locally, carbon being the charcoal from the wood Pavetta indica*« (URAGODA 1973: 40). A generation later, TENNENT (1859, 1860 vol. 1: 31) claimed that »*in Saffragam alone [26] there are upwards of sixty caverns [unidentified] known to the natives, from which it [nitre, saltpeter] may be extracted, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable.*«

26 »*Saffragam*« (TENNENT 1859, 1860) or »*the district of Saffragam*« (DAVY 1821) corresponds more or less to the Ratnapura district covering parts of the area between circa N06°15': E080°15' and N06°50': E080°50' (Survey Department 1977: Road Map of Sri Lanka).

4.1 NITRATE EXPLOITATION: MARSHALL (1854 edited 1954: 25), who arrived in Ceylon in 1808, writes that »*natives manufacture tolerably good gun powder. Saltpetre is found in abundance in the island ...*«

DAVY (1821: 265ff) gives a detailed account on the nitrate manufacturing process where chippings from the cave are powdered and mixed with an equal quantity of wood ash, which acts as an alkali. The mixture is put on a matting and washed with cold water. The solution is concentrated by evaporation and the saltpetre allowed to crystallise.

DAVY (1821: 207 note 3) records that the manufacture of saltpetre was stopped by the British for political reasons, and URAGODA (1973: 40-41) suspects that »*apparently the ban was never lifted, and this restraint on a process which the Sinhalese had practised for many years may have led to the stifling of this manufacturing skill and its reduction to a dead art. The tailing off of this industry is implied in a subsequent reference where Tennent [1860, 1: 31], who came to Ceylon in 1845, says that saltpetre was being sparingly manufactured and therefore was imported from India*« (27).

27 TENNENT (1859, 1860 vol. 1: 31): »*Nitre has long been known to exist in Ceylon, where ... there are ... caverns known to the natives, from which it is extractable, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable. Yet so sparingly has this been hitherto attempted, that even for purposes of refrigeration, crude saltpetre is still imported from India.*«

URAGODA (1973: 41-42): »Once the necessity for military preparedness eased off ... the villagers with commendable resourcefulness turned to the peaceful use of saltpetre in the field of agriculture. Villagers living close by visit the [Lunugala Lena] cave periodically to collect the bat's guano. They use it as a manure for their paddy fields though nowadays its use has declined as a result of the ready supply of conventional fertilizers ...«

4.2 MINERALOGY: DAVY (1821: 29-34) reports from the island of Ceylon that »the saline productions ... are far from numerous. The only salts, the existence of which I have ascertained in a satisfactory manner, are the following, viz. nitre, nitrate of lime, sulphat of magnesia, alum, and common salt. These salts, with the exception of common salt, have been found hitherto in the Interior only, and in certain caves, where, not being liable to be washed away by the heavy tropical rains, they admit being detected.«

There were two schools of thought as to the origin of the saltpetre that is present in the nitre caves of the island. One is that it originates from the guano of the innumerable bats inhabiting the caves for generations, while the other theory expresses the view that it is found in the rock itself.

DAVY (1821: 33-34) gives two chemical compositions of samples collected from »the nitre-rock of Memora cave in Doombera« (28) and »nitre-earth from the great cave near Wellaway in Lower Ouva« (29) in comparison with »nitre earth from the district of Tirhoot, Bengal« (30).

DAVY (1821: 31-33) concluded that the saltpetre produced in the nitre caves originates from the decomposition of the cave bearing rock itself: »Judging from the four nitre caves that I have examined, I believe that they are very similar; and that the rock in which they occur, in every instance contains at least felspar and carbonat of lime; from the decomposition of the former of which, the alkaline base of the salt is generally derived, and by the peculiar influence of the latter, (yet not fully understood,) on the oxygen and azote of the atmosphere, the acid principle is generated ...

... my country men in in Ceylon ... generally attributed the saltpetre of the caves in question to the dung of bats, with which it the caves are more or less infested. It is easy to refute such a notion; and to show that the dung of these animals, like any animal matter, is not essential, merely an assistant circumstance. For this purpose, it will be sufficient to remark, that in the nitre-cave near Meemora in Doombera, in a very compounded rock consisting of calcspar, felspar, quartz, mica, and talc, in a humid state, exposed to the air, and slowly decomposing, I have found a rich impregnation of saltpetre, though quite free from the dung of bats, or any oher animal matter.«

PRIDHAM (1849, 2: 708-709) compiled from unacknowledged sources that »Most of the nitre caves are very similar as regards geological formation; the rock in which they occur contains felspar and carbonate of lime, from the decomposition of the former of which the alkaline base of the salt is generally derived, and the acid principle is generated by the peculiar influence of the latter on the oxygen and azote of the atmosphere ... Animal matter is by some considered the chief source of nitre, and the dung of bats, with which the caves are more or less infested, has been assigned as the cause. That this is a merely co-operative, and not an essential circumstance, is proved by the nitre cave near Doombera, where a rich impregnation of saltpetre is found in a very compounded rock, consisting of calcspar, felspar, quartz, mica, and talc, in a humid state, exposed to the air and slowly decomposing, and free from bat dung or other animal matter ...«

LOCATIONS: DAVY (1821: 31 footnote) provides »the names of twenty-two places may be enumerated in which saltpetre is produced ... [from] nitre-caves ... In the district of the Seven Korles; 1. Werengodde; 2. Medellenewa; 3. Paremakande; all three in the Demoole-pattoo; 4. Giribawah in the Mahamedde-pattoo; 5. Maha-kelle; 6. Galgiriawah; 7. Kadooroo-wuva; all three in the Hatilispahay korle; 8. Kaddigaway, in the Magoole korle; and 9. Ressiroowey, in the Naganpahay korle. In the district of Neurakalava; 10. Wadingapallama. In the district of Matale; 11. Agalwatte; 12. Kaloodawella; 13. Oonaweroowa; and 14. Nalandi. In the district of Doombera; 15. Memoora; and 16. Rajahvilla. In the district of Ouva; 17. near Wellaway. In the district of Hewahette; 18. Maturatta. In the district of the four Korles; 19. Kodigomoova; 20. Doonoogama. in the district of Saffragam; 21. Meddegama. In the district of Welasse; 22. Hapolacadavette. These names, it may be clearly remarked, are not those of the caves themselves, which are generally nameless, but of the nearest inhabited places, which are in many instances several miles remote, most of the caves being situated in the wildest and most deserted parts of the country.«

HAMILTON (1828, 1: 385) confirms that »In certain caves of the interior [of »Ceylon« or Sri Lanka], nitre, nitrate of lime, sulphate of magnesia, and alum are found. Twenty-two of these caves have been recorded, but the manufacture of gunpowder being prohibited by the British government, they are now much neglected.«

MALTE BRUN (1834, 1, book 48) confirms: »The country contains several nitre caves.«

PRIDHAM (1849, 2: 708-709) had compiled (without acknowledgement) that »nitre and nitrate of lime are of frequent occurrence« on the island of Ceylon: »The names of nearly thirty places might be mentioned [31] where saltpetre is produced and has been manufactured. The caves are generally remote from inhabited places, being situated in the wildest and most desolate parts of the country ...«

28 »Memora cave in Doombera« (DAVY 1821: 33) appears to be →Lunugala Lena.

29 The »great cave near Wellaway in Lower Ouva« (DAVY 1821: 34) is →Wavul Galge (Gampaha).

30 DAVY (1821: 34) does not specify from where exactly the »nitre earth from the district« was collected in »Tirhoot, Bengal« but Tirhoot (N26°07': E085°24') lies in the marshy plains drained and swamped by the Buri Gandaki (Survey of India sheet 72-F; AMS sheet NG45-05 Muzzafarpur) in Uttar Pradesh state, India.

31 PRIDHAM (1849, 2: 708) does not identify »the names of nearly thirty places« which appear to reflect a positively inclined copyist's mistake based on »the names of twenty-two places may be enumerated« (DAVY 1821: 30) and were listed by DAVY (1821: 31 footnote).

TENNENT (1859, 1860 vol. 1: 31) writes that »*in Saffragam alone [32] there are upwards of sixty caverns [unidentified] known to the natives, from which it [nitre, saltpeter] may be extracted, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable.*«

BROHIER (1956) takes up the question of »*where did the Sinhalese in times of old obtain nitre for manufacturing gunpowder.*« Having visited →Wavul Galge (Gampaha) in 1942, he draws attention to »... *several small nitre caves in the North Western Province: one in Nuwarakalawiya, and at least two large ones in the Central Province. As a fairly well-known feature one of the latter [i.e. →Lunugala Lena] lends itself to distinguish the country off Rangala, known as the Nitre Cave district. This cave too, off the secluded village called Mimure has claimed Dr. Davy's attention. He stresses that his excursion into " the hitherto unexplored district of Doombera," was chiefly for the purpose of examining the nitre cave.*«

4.3 NITRE CAVE EXPLORATION: Stunningly few of the nitre caves noticed by DAVY (1821), FORBES (1840), PRIDHAM (1849) and BROHIER (1956) are known today.

The Sinhalese probably learnt from the Portuguese the art of manufacture of gunpowder (DAVY 1821: 268; URAGODA 1973: 40).

1616-1679: Robert KNOX (1681), a »*careful observer, who lived captive in the Kandyan areas from 1660 to 1679, does not refer to gunpowder, saltpetre or Nitre Cave*« (URAGODA 1973: 40) but there is evidence that saltpetre was being manufactured during this period, as

1663-1675: VAN GOENS (edited 1932: 43), the Dutch Governor of the Maritime Provinces from 1663 to 1675, writes: »*It would be desirable if we could bring back with us the saltpetre which had been stored by the King's people in a large storehouse there, but if there should be any risk in doing this, it should be set fire to.*«

1817 September: DAVY (1821: 429-430) visited and entered, explored and described »*nitre-cave 17. near Wellaway*« (i.e. →Wavul Galge, Wellaway: Gampaha).

1817 October to 1818: During the days of the »*Kandian rebellion*« (FORBES 1840, 1841; TENNENT 1859, 1: 354) or »*Sinhala rebellion*« (PIERIS 1950; URAGODA 1973), »*gunpowder was prepared daily with saltpetre from Lunugala [33] and sulphur brought ... from Hevahata, bullets being made of native iron as no lead was available*« (PIERIS 1950: 276).

1819: Dr. John DAVY (1821: 31) reports to have personally visited four (34) of the twenty-two registered »*nitre-caves*« (DAVY 1821: 31 footnote).

1907.09.12: Joseph A. DANIEL (1908) visited and explored »*Wellaway Cave*« (Wavul Galge, Wellaway).

1942: Richard Leslie BROHIER (1956) visited »*Waul Galge*« (Wavul Galge, Wellaway) and »... *disclosed that Davy's account from a descriptive standpoint, had lost little despite the time which had elapsed since his visit.*«

1945, end of July: Geoffrey A. PEET (1946) and »*14 hardly souls, most of them raw amateurs*« guided by one »*Panniah*« transported with the help of 19 bulls and 39 native bearers to pay a visit to »*Nitre Cave*« (Lunugala Lena).

1956 August 15-18: »*The Ceylon Geographical Society and the Ceylon Natural History Society*« represented by Gerald P. COORAY (1956) and others including Lieutenants G.W. Schokman and D.G. Fernando, Messrs. Allen Caldera and J. M. Henderson, Lieutenant R. Wijesinghe and seven just about mentionable »*army men*« undertook a five days' »*expedition*« to the »*Nitre Cave*« (Lunugala Lena) where they eventually spent almost a full hour underground (35).

32 »*Saffragam*« (TENNENT 1859, 1860) and the »*district of Saffragam*« (DAVY 1821) corresponds more or less to the Ratnapura district covering parts of the areas between circa N06°15': E080°15' and N06°50': E080°50' (Survey Department 1977: Road Map of Sri Lanka).

33 URAGODA (1973: 40): »*There is hardly any doubt that Lunugala referred to here is Nitre Cave, for the local inhabitants still refer to it by this Sinhala name.*«

34 Among the 22 »*nitre caves*« listed by DAVY (1821: 31 footnote), three are described in detail and these, I guess, were probably among the four »*nitre-caves*« Dr. Davy had personally visited and entered:

»*15. Memooraa*« or Lunugala Lena (DAVY 1821: 379-380), »*17. near Wellaway*« (DAVY 1821: 429-430), and »*18. Maturatta*« or Maturata (Davy 1821: 439-440).

The fourth I cannot figure out.

35 COORAY (1956: 49) »... *the whole team (except Sydney Perera who was slightly indisposed) made the trip to Nitre Cave ... The party left Mimure at about 7 a.m. and did not reach the cave until nearly 2 p.m. owing to the frequent halts ... and discussions, sometimes heated. ... Several members of the team climbed to the inner cave ... Owing to the lateness of the hour the cave could not be explored more fully and the party left at 3 p.m. to return ...*«

5. TEMPLE CAVES & ROCK TEMPLES

In striking contrast to the world famous rock temples (36) of continental India, the sacred caves of Sri Lanka generally consist not of artificially excavated rock temples but of modified natural caves and rock shelters.

TENNENT (1859, 1: 488): »The temples of Buddha were at first as unpretending as the residences of the priesthood. No mention is made of them during the infancy of Buddhism in Ceylon, and at which period caves and natural grottoes were the only places of devotion. In the sacred books these are spoken of as "stone houses" to distinguish them from "the houses of earth" [37] and other materials used in the construction of the first buildings for the worship of Buddha

...
On examining the cave temples of continental India, they appear to exhibit three stages of progress: first mere unadorned cells, like those formed ... in the granite rocks of Behar [38], about 200 B.C.; next oblong apartments with a verandah [39] in front, like that of Ganesa, at Cuttack [40]; and lastly, ample halls with colonnades separating the nave from the aisles, and embellished externally with façades and architectural decorations; such are the caves of Karli, Ajunta, and Ellora [41]. But in Ceylon, the earliest rock temples were merely hollows beneath overhanging rocks, like those still existing at Dambool [i.e. →Dambulla Galge], and the Alu-wihara [i.e. →Alu Vihara] at Matale, in both of which advantage has been taken of the accidental shelter of rounded boulders, and an entrance constructed by applying a façade of masonry, devoid of all pretensions to ornament.

The utmost effort at excavation never appears to have advanced beyond the second stage attained in Bengal, a small cell with a few columns to support a verandah in front; and even of this but very few examples now exist in Ceylon, the most favourable being the Gal-wihara [Gal Vihara] at Pollanarua [Polonnaruwa], which, according to the Rajavali, was executed by Prakrama I., in the twelfth century.«

Another noteworthy rock temple (man-made rock chamber) is the Isurumuniya rock temple at Anuradhapura.

36 Rock temple (cave temple): A man-made, rock-cut chamber (or group of rock chambers) excavated to create a subterranean / endogean space reminiscent of a "true" (natural) cave.

37 TENNENT (1859, 1: 488 footnote): »The king, Walajrambali, who in his exile had been living amongst the rocks in the wilderness, ascended the throne after defeating the Malabars (b.c. 104), and "caused the houses of stone or caves of the rocks in which he had taken refuge to be made more commodious." — Rajavali p. 222.«

38 »Behar« (TENNENT 1859) corresponds more or less to the modern Bihar state (India) and the »unadorned cells formed by Dasartha« are the Marabar and Nagarjun "caves" (N24°35': E085°00') made famous as "Marabar Caves" in Edward Morgan Forster's "Passage to India" (1924).

39 "veranda" YULE & BURNEL (1886, 1903: 964-966) <www.dsal.uchicago.edu/dictionaries/hobsonjobson>

40 Ganesh Gumpha (N20°16': E085°47'), in the hill of Khandgiri and Udayagiri in the south of Cuttack (N20°30': E085°50'), Orissa (India).

41 Karla (N18°47': E073°28'), Ajanta (N20°33': E075°42'), and Ellora (N20°01': E075°10'), all in Maharashtra (India).

6. TROGLODYTISM & VEDDAH CAVES

Bibliographical references: Allchin, Bridget & Allchin, F Raymond 1968; Forbes, Jonathan 1840, 1841; Kempe, David 1988; Kennedy, Kenneth A R 1994; Kopper J S 1973; Moszkowski, Maximilian 1908; Rüttimeyer L 1903a, 1903b; Sarasin, Fritz 1931; Sarasin Fritz & Sarasin Paul 1893, 1907a, 1907b, 1907c, 1908; Schmidt E 1894; Seligmann C G & Seligmann B Z 1908, 1911.

Until very recently, the »supposedly autochthonous« (DERANIYAGALA 1943: 112) aboriginal »Vedda« (42) people of Sri Lanka used daylight-lit natural caves and rock shelters as dwelling sites (43).

ETYMOLOGY: The Tamil verb "vedu" means »hunting« (YULE & BURNELL 1886, ed. 1903: 963)

CULTURAL HISTORY: According to SELIGMAN & SELIGMAN (1911), the use of caves as dwellings was cyclical and movements from one to the other followed game supplies. Improvements to the rock shelter often included the building of a roof extension at the front to extend the drip line outward. In addition, the front may have been closed with hides or a wood and bark construction to keep out dew and rain.

42 Beda RAYNAL (1770, 1776, i: 90): »The Bedas ... go almost naked, and, upon the whole, their manners and government are the same with that of the Highlanders of Scotland.«

Bedda VAN GOENS (1675, iii: 208)

Vadda DERANIYAGALA, S U (2000, 2002)

Vädda DERANIYAGALA, P E P (1965: 146)

Väddah DERANIYAGALA, P E P (1943: 112)

Vedda ALLCHIN & ALLCHIN (1968, 1993); BAKER (1875); DERANIYAGALA, P E P (1941); HARRIGAN (1993); KOPPER (1973); LE MESURIER (1885-1886); STEVENS (1886); <www.vedda.org/> accessed 2009.08.02

Veddah BAKER (1854 edited 1871, 1875, 1898: chapter xii); BAILEY J (1863); SARASIN & SARASIN (1907b, 1907c); SELIGMANN & SELIGMANN (1908a, 1908b); KNOX (1681)

Waedda PARKER, H (1909)

Wedda DESCHAMPS (1891); HAECKEL (1922); HARTSHORNE (1876); MOSZKOWSKI (1908); RÜTIMEYER (1903a, 1903b); SARASIN & SARASIN (1892-1893, 1907a); SCHMIDT (1894); SELIGMANN & SELIGMANN (1908c)

43 Not seen: BAILEY J (1863): An account of the wild tribes of the Veddahs of Ceylon.- *Transactions of the Ethnological Society of London: Second series*, 2. DESCHAMPS E (1891): Les Weddas de Ceylan et l'Anthropologie.- DESCHAMPS E (1892a): Carnet d'un voyageur en pays des Weddas. DESCHAMPS E (1892b): Au pays des Weddas.- FEWKES J W (1901): Cave dwellings in the Old and New Worlds.- *American Anthropologist*, 12: 390-436. HARTSHORNE (1876): The Weddas.- *Fortnightly Review* LE MESURIER (1885-1886): The Veddahs of Ceylon.- *Journal of the Ceylon Branch of the Royal Asiatic Society*. MOSZKOWSKI (1908): Bei den letzten Weddas.- *Globus* 94. SCHMIDT (1894): Ein Besuch bei den Weddas.- *Globus* 65. SELIGMANN (1908) *Man* (London), August 1908. STEVENS (1886): Amongst the Veddahs.- *Journal of the Royal Asiatic Society - Ceylon Branch: Proceedings*.

The classic account is given by the physical anthropologists SARASIN & SARASIN (1892-1893) but STEVENS (1886) actually lived for some time with some Veddah in their shelters. SARASIN & SARASIN (1907a, 1907b, 1907b, 1908) report the archaeological excavation of several shelters, of which some were still inhabited.

KOPPER (1973) gives some details on the social organisation, kinship, living arrangements and demography for three contemporary troglodytic hunting and gathering groups dwelling in natural rock shelters: The Tasaday (Philippines), the Toala (Sulawesi / Celebes) and the Veddah (Ceylon / Sri Lanka, e.g. →Pihilegodagalge). Descriptions of these people's living arrangements show that orientation of the rock shelter is unimportant as a condition for occupancy. All three groups modify the interiors of their rock shelters to make them more habitable. Rock shelter occupation densities range from 0.6 square metres to 6 or even 8 square metres / person. The Veddah practise cave burial and Veddah religion is described as a cult of the dead with shamans as its principle agents. Bodies were laid out in the rock shelters in which the individual died and these were then avoided for a period of 10 to 20 years. Upon re-occupying a site the bones were discarded, not buried (SARASIN 1931: 36; KOPPER 1973).

6.1 CAVES OF THE NITTEVO / NITTAEWO (44)

»Caves and crevices« in remote jungle areas of Sri Lanka are said to have been the homes of the Nittevo (Nittaewo), an extinct and possibly fabulous race of human beings (45). HUSSEIN (46) refers to the Vedda tradition as recorded by Frederick Lewis (47): The Nittevo were about three feet (0.9 m) tall, the females being shorter than the males. They are said to have walked erect, had no tails and were completely naked. Their arms were short and their talon-like nails long and powerful. They lived in trees, caves and crevices while their prey consisted of small animals like the hare, squirrel (*Sciurus* var.) and tortoise. They lived in gangs of 10 or 20 or more and their speech was like the twittering of birds. The Nittevo are said to have lived two generations earlier, so that the extermination of this race — if they ever had existed — may have to be assigned to about the late eighteenth century.

NEVILLE (1886) has Nittevo living at Lenama (48) and HUSSEIN (op. cit.) not only in a so-called »*Tamankaduva area*« (unidentified) but also near Mahalenama (49), in the »*Yala East Intermediate Zone*.«

6.1 ROCK ART: The Veddah practise rock painting and no particular care for preservations of these drawings was taken and they appeared to have been renewed spontaneously and randomly. The paintings were often made by women and the painters reported no significance attached to them other than to provide a diversion and for their aesthetic value. The pigments were made by mixing saliva with ash and charcoal which were then applied to the wall of the shelter with a forefinger. Such a technique, obviously precludes permanence ... surely to the knowledge of the painter. The figures are zoomorphic and anthropomorphic for the most part; subjectively speaking, no deliberate attempt at representationalism or abstraction is apparent. The species, except for man, are not easily identifiable.

DERANIYAGALA (2002) confirms that » *nothing has survived in Sri Lanka which may be referred to as indubitable prehistoric art (Deraniyagala 1992, chap. 5.3.11). The cave drawings encountered in the lowland Dry Zone are ascribable to the Vaddas in historical times, as indeed has been attested by the Seligmans (1911) who watched Vadda women execute these semi-symbolic compositions simply to while away their leisure.*«

6.2 ANTHOLOGICAL STUDIES: Unspecified "caves" (rock shelters) used by Vedda / Veddah / Wedda people are mentioned anthropological studies, viz. SELIGMANN & SELIGMANN (1908a, 1908b, 1908c, 1908d), HADDON (1908), RÜTIMEYER (1903a, 1903b), and MOSZKOWSKI (1908). By courtesy of the British Museum. ALLCHIN & ALLCHIN (1968, plate 2) give a photograph showing »*Vedda family encamped in a rock shelter.*«

6.3 CAVE DWELLINGS: CEYLON TRAVELLER (1974: 249; 1983: 251) applies the expression »*cave dwelling*« as a descriptive term which clearly explains for what these inhabitable caves and rock shelters had been (or still are) used but the nature of these »*cave dwellings*« remains obscure. At least we are told that »*these caves include those at Paramakanda in the Puttalam district, Mihintale, Sasseruwa and Handagala in the Anuradhapura district, Buddhanagehela near Padaviya, also in Anuradhapura district, the Ritigala caves north of the Habarana - Anuradhapura road, the Galgiriya caves near Galgamuwa in the Kurunegala district and the caves at Dambulla, Sigiriya and Pidurutulagala in the Matale district*« (50).

44 Hill, Osman 1945; Lewis, Frederick 1914; Neville, Hugh 1886; Rambukwella, [Captain] AT. 1963.

45 Further reading:

HILL, Osman (1945): Nittaewo: An unsolved problem of Ceylon.- *Loris: Journal of Ceylon Wild Life* (Namunkula); LEWIS, Frederick (1914): Notes on an exploration in Eastern Uva and Southern Panama Pattu.- *Journal of the Royal Asiatic Society of Ceylon* (Colombo); NEVILL, Hugh (1886): The Nittaewo of Ceylon.- *The Taprobanian* (l.i.); RAMBUKWELLA, [Captain] A.T. (1963): The Nittaewo: The legendary pygmies of Ceylon.- *Journal of the Royal Asiatic Society of Ceylon* (Colombo).

46 Hussein, Asif (a.i.) on www.bigfootencounters.com/articles/nittevo.htm www.lankalibrary.com/cul/nittevo.htm www.lanka.net/ExploreSL/98feb/Nittevo.html

47 Frederick Lewis (1914): Notes on an exploration in Eastern Uva and Southern Panama Pattu.- *Journal of the Royal Asiatic Society of Ceylon*

48 »*Lenama*« (N06°10': E080°27') lies 140 km in a direct line WSW from the Mahalenama (N06°39': E081°42').

49 <www.nima.mil/geonames> (16.11.2003) lists not only the trigonometric survey station Mahalenama (N06°39': E081°42') but also the forest Mahalenama Eliya (N06°38': E081°42').

50 Buddhanagehela	unidentified
Dambulla	modified natural rock shelter
Galgiriya	unidentified
Handagala	unidentified
Mihintale	modified natural rock shelters
Paramakanda	unidentified
Pidurutulagala	unidentified
Ritigala	unidentified
Sasseruwa	unidentified
Sigiriya	modified natural rock shelter

7. MAXIMAL CAVES OF SRI LANKA

Bibliographical references: Ceylon Traveller 1974, 1983; Courbon, Paul & Chabert, Claude 1986, 1989; Deraniyagala, Paulus Edward Pieries 1955; Deraniyagala, Siran Upendra 1992, 2002; Forbes, Jonathan 1840, 1841; Kukla, Jiri 1958; Leiter, N 1948; Liska, Milan 1980; Mitter, Pavol 1979a, 1979b; Sasvári, Tibor 1978; Sasvári, Tibor & Terek, Jozef 1984; Siffre, Michel 1975; Strinati, Pierre & Aellen, Villy 1981; Wilson, Jane M 1988.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04: The speleology of Sri Lanka.

Out of the more than 220 "caves" (including true caves and so-called "caves" or rock shelters, etc.), which have been reported from Sri Lanka, I am aware of only seven or eight caves and rock shelters that have been "surveyed" to a degree resulting a ground plan, sections, etc. (51).

At such a poor state of speleometrical knowledge, it is not possible to provide anything else than a compilation of vague statements.

In case anybody subscribes to a point of view, according to which »size matters« (King Kong), here are a few

7.1 BIGGEST

Batatota Lena or the »mysterious Stripura Cave in Battatota mountain near Adamspeak« (KUKLA 1958: 169) is »... more than 55 m deep « and »most probably the biggest one« of the »pseudokarst abris used as Buddhist sanctuaries.«

Lunugala Lena or »Nitire Cave ... is the biggest and the best known ...« (LEITER 1948: 65)

7.2 MOST INTERESTING

»Maturata cave« (Matrata Nitire Cave, Pedyapellela) »is the most interesting one« (KUKLA 1958).

7.3 DEEPEST

Hituwa Lena (CEYLON TRAVELLER 1974: 245; 1983: 247) »... slopes steeply downwards and is (perpendicularly) one of the deepest in the island.«

Tidal Well (Puttur) has been dived 47 or 48 m to a depth of either 52 m (MITTER 1979a: 155-156; LISKA 1980: 64) or 53 m (SASVÁRI & TEREK 1984: 111, 114, 115) beneath the surrounding land surface (the water table is at a depth of -5 m) and is estimated to reach depths of 60 m (KUKLA 1958: 169) or 65 m (SASVÁRI 1978: 52) if not more than 65 m (LISKA 1980: 64, 71).

7.4 LARGEST

Beli Lena, Kitulgala is not only »probably the largest habitable cave in the wet-zone of Sri Lanka« (CEYLON TRAVELLER 1983: 383) but also »... perhaps one of the five largest caves in Sri Lanka« (DERANIYAGALA 2002: 29).

Dambulla Galge is not only »the largest cave monastery in Sri Lanka« (CEYLON TRAVELLER 1983: 387) but also contains »perhaps the largest area of painted surface in any Buddhist shrine in the world« (CEYLON TRAVELLER 1983: 387). FORBES (1840, 1: 370) agrees that »Maha-raja wihare« (one of the »fanés of Dambool« or →Dambulla) »... is by far the largest and the most imposing in Ceylon ...«

Ho-o Maniya blowhole (CEYLON TRAVELLER 1984: 66-67) it is the only one in Ceylon and »the second of the six largest known in the world« (no rivals mentioned).

Istripura Cave, Mulhalkele (CEYLON TRAVELLER 1974: 241; 1983: 243) is an »... extensive cavern ... The subterranean monster, which contains, among other things, a large lake, is 400 feet or so [122 m] in length –certainly one of the largest in the country« (52).

Lunugala Lena or »Nitire Cave« (LEITER 1948: 61): »... is one of the largest limestone caves of Ceylon.«

Viharagala (CEYLON TRAVELLER 1983: 172) is the »second largest cave in Sri Lanka.«

7.5 LONGEST

Boys fond of talking about who's got the longest will be happy to learn that the so-called "cave" at Hulanuge is the »longest cave in Asia« (53) or, slightly less extravagant, »the longest cave (720 ft) in south Asia« (54). Actually, however, it is an undercut, which is very shallow and entirely daylight-lit but »720 feet« (220 m) wide.

Pahiyan Lena or »Fa Hien Cave« (Brooks 1995 Mss no. 3): »Fa Hien Cave« is »a large cave or shelter once described as "the longest cave in the country exceeding even Kitulgala in size« (55).

Istripura Cave, Pannala (SIFFRE 1975: 29-30; COURBON & CHABERT 1986: 81; 1989: 138) is said (erroneously?) to be a second, allegedly 600 m long cave) while

Istripura Cave, Welimada (CEYLON TRAVELLER 1983: 145) is »... a series of caverns ... said to provide the longest underground galleries in the island.«

STRINATI & AELLEN (1981: 459) believed that »Istri-gal-lena (Welimada)« (an other name for →Istripura Cave, Welimada) is also »600 m « long (56).

51 So far, I have seen ground plans or sections of the seven or eight »caves« and rock shelters called

- 1 Keerimalai Snake Cave (MITTER 1978: 147),
- 2a Mihintale »Höhle 1« (KUSCH 1973: 175),
- 2b Mihintale »Höhle 2« (KUSCH 1973: 175),
- 3 Lunugala Lena or »Nitire Cave« (PEET 1946),
- 4 Periya Mandapam or »Kerudavil Cave« (SASVÁRI 1978: 50; SASVÁRI & TEREK 1984),
- 5 Sigiriya "Cave" (KUSCH 1973b: 139),
- 6 Tidal Well, Puttur (KUKLA 1958: 168; SASVÁRI 1978: 51; SASVÁRI & TEREK 1984: 112),
- 7 [cave on] Waul Kande (KELLER 1982: 23).

52 The statement is too unclear to decide if it is only the lake or the entire cave which is »400 feet or so in length« (CEYLON TRAVELLER 1974: 241; 1983: 243).

53 <www.panoramio.com/photo/24818932> (2009.09.17)

54 <researchandmedia.ning.com/profile/NuwanLiyange . . .> accessed 2009.09.17.

55 »Kitulgala« (Brooks 1995 Mss) is neither »long« nor a cave but the name of the village of Kitulagala (N06°59'40": E080°24'41" WGS84) which is the village that lies nearest to the "large" (voluminous) cave known as →Beli Lena (Kitulgala).

56 WILSON (1988: 22) had learned not only that the »Istripura Caverns ... a few miles north of Welimada ... are said to be the longest and most complex on the island« but that she »did not get a chance to visit this cave« and therefore found it easy to suspect that »its size has been exaggerated.«

CAVE REGISTRY

- 310 entries and 324 cross-references relating to
- 72 caves (57)
- 33 rock shelters (58)
 - 2 man-made rock temples (59)
 - 5 man-made plumbago / graphite mines (60)
- 181 unconfirmed cavish objects (61)
 - 4 surface features (62)
 - 11 fabulous cavish objects (63)
 - 4 suspicious place names (64)

Some of the so-called "caves" and "rock shelters" are actually groups / clusters of several caves or rock shelters (65).

Earlier cave registries date back to

- 1819 DAVY (1821) mentioned temple caves and listed the names of 22 distinct »nitre-caves« (see: Nitre Cave ...)
- 1943 MORGAN (1943: 13 after BASSETT 1929) had learned of three caves (66)
- 1973 KUSCH (1973c) compiled 19 items (67)
- 1974 CEYLON TRAVELLER (1974): 123 items
- 1986 COURBON & CHABERT (1986): four items (68)
- 1986 MIDDLETON & WALTHAM (1986): two items (69)
- 1995 Brooks (1995 "The speleology of Sri Lanka" Mss): lists 41 entries for 39 distinct caves or rock shelters

57 A cave is a perennially lightless (aphotic) »natural hole in the ground, large enough for human entry. This covers the enormous variety of caves that do occur but eliminates the many artificial tunnels and rock temples incorrectly called caves. The size criterion is arbitrary and subjective, but practical, as it eliminates narrow openings irrelevant to explorers but very significant hydrologically, that may be better referred to as proto-caves, sub-conduits or fissures. A cave may be a single, short length of accessible passage, or an extensive and complex network of tunnels ...« (LOWE & WALTHAM 1995: 8).

58 Rock shelter: Any natural rock alcove, overhang, undercut, coping rock or very short cave, where the horizontal extension from the drip line (entrance) to the furthest interior point (back wall) is smaller than the entrance width or height. A rock shelter is protected from vertically falling rain but lit by daylight.

Archaeologists, however, tend to consider inhabitable caves as rock shelters (e.g. when humans took shelter there) and regard shallow rock shelters as caves as well.

59 The two known man-made rock chambers are the Gal Vihara (Polonnaruwa) and Isurumuniya rock temple.

60 The five mines are Ereporuwa, Kolonne 1, Kolonne 2, Tennehena, and Wijeriya

61 "UCO" (unidentified cavishi objects) or, if you prefer, unconfirmed caving objects, are those of which the "cave" description gives no clue that would allow concluding if it is a cave, a rock shelter, or something else.

62 The karst surface features are Keerimalai spring, Manipay subsidence, the tufa-depositing stream →Matti aru, and the "potholes" (whirlpools?) at →Saint Martin's estate.

63 The fabulous ones are AA Cave (Lübke 1953), Deiya Guhawa, the dolmen Guharamaya, cave of the Imprisoned Sea-Serpent, the Jaffna Caves (Middleton & Waltham 1986) and Jaffna Shafts (Middleton & Waltham 1986), Kuveni Lena (Jaffna), the Ritigala "tunnel", Ravana Ella Cave (Agrawal 2007), and Saega Lenna.

64 The suspicious place names are Alu Galge (Gal Oya), Alu Galge (Siyambalanduwa), Alu Lena (Okkampitiya), and Gal Vihara (Yala) -- "alu" means ash, "gal" is a rock and "galge" a rock home, while "lena" is a cave.

65 Karambagala: »... 90 caves or more.«

Mihintale: »Sixty-eight rock-temples, with thirty-two priests' chambers« (FORBES 1840, 1841. ii: 277) were interpreted as 86 modified natural rock shelters (KUSCH 1973b: 173-176; 1973c: 22) and as »around 70 different sites for contemplation« (LONELY PLANET 2003: 251).

Ritigala: More than »70 known caves« (McALPINE & ROBSON 1983: 361), »32 caves« (CEYLON TRAVELLER 1974: 249; 1983: 251) or »cave dwellings« contribute to this »rock and cave complex« (CEYLON TRAVELLER 1974: 250; 1983: 252).

Sasseruwa: »Many of the caves, there are over 100 of them ...« (CEYLON TRAVELLER 1983: 116, 251).

66 »Adam's Peak Cave« (unidentified), »Ella Cave« (Ravana Ella cave), and a cave at the »Kurugala Cliff« (Hituwa Lena).

67 KUSCH (1973c) had not only heard of three caves (one at Keerimalai, another cave at Kerudavil, and the »Nire Cave, Kaikawala« = Lunugala Lena) but also compiled the names of 16 rock shelter sites: Aluvihare "cave temple" (sic! qua: temple cave), Ambalantota (nameless caves in the jungle), Dambulla, Dimbulagala, Kadurupoluna, Henanegala, Hindagala, Madagala, Mahalenama, Matara (unidentified "caves" near the town of), Mihintale, a nameless rock shelter (Piduragala galge) north of Sigiriya, Pulligoda Galge, unidentified "caves" on the way to Ramboda Pass, Sigiriya, and Tantirimalai.

68 COURBON & CHABERT (1986: 81) mention the rock art site Sigiriya in addition to the caves »Istripura« (Istripura Cave, Pannala), »Istri-gal-lena« (Istripura Cave, Welimada), and one »puits noyé près de Jaffna« (Tidal Well, Puttur).

69 MIDDLETON & WALTHAM (1986: 181-182) were aware of one »Istripura Cave« (either Istripura Cave, Welimada, or Istripura Cave, Pannala) and a so-called »Waupane River Cave« (cave near Wavulpane)

AA CAVE (BAKER 1855)

or: Cavern worthy of Robin Hood

Unexplored and unmapped natural cave or rock shelter in gravitationally dislocated gneiss boulders.

LOCATION: Central province: Nuwara Eliya district: Hakgala Strict Natural Reserve area: Perawella (Peréwellé) village.

POSITION: If at the village of »Peréwellé« or Perawella itself, WGS84 N06°56': E080°51' / N06.933334°: E080.85° (WGS84).

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Baker, Samuel White 1855.

A »cavern worthy of Robin Hood« describes BAKER (1855, chapter vii) in the course of narrating a hunter's tale: »This had been formed by a couple of large rocks the size of a moderate house, which had been detached from the overhanging cliff above, and had fallen together. There was a smaller cavern within, which made a capital kennel ...«

Compare the likewise anonymous cave at →Hakgala.

SITUATION: Apparently within the Hakgala Strict Natural Reserve (70), and above one village of »Peréwellé« (71) and above a large waterfall (no name mentioned) in the gorge (no name mentioned) of a one obsolete »Fort M'Donald River« (72) where »the whole country forms a gorge, like a gigantic letter V.

At the bottom roars the dreaded torrent, Fort M'Donald river, in a succession of foaming cataracts, all of which, however grand individually, are completely eclipsed by its last great plunge of three hundred feet perpendicular depth into a dark and narrow chasm of wall-bound cliffs. The bed of the river is the most frightful place that can be conceived, being choked by enormous fragments of rock, amidst which the irresistible torrent howls with a fury that it is impossible to describe.

The river is confined on either side by rugged cliffs of gneiss rock, from which these fragments have from time to time become detached, and have accordingly fallen into the torrent, choking the bed and throwing the obstructed waters into frightful commotion. Here they lie piled one upon the other, like so many inverted cottages; here and there forming dripping caverns; now forming walls of slippery rock, over which the water falls in thundering volumes into pools black from their mysterious depth, and from which there is no visible means of exit. These dark and dangerous pools are walled in by hoary-looking rocks, beneath which the pent-up water dives and boils in subterranean caverns, until it at length escapes through secret channels, and reappears on the opposite side of its prison-walls; lashing itself into foam in its mad frenzy, it forms rapids of giddy velocity through the rocky bounds; now flying through a narrowed gorge, and leaping, striving and wrestling with unnumbered obstructions, it at length meets with the mighty fall, like death in a madman's course. One plunge! without a single shelf to break the fall, and down, down it sheets; at first like glass, then like the broken avalanche of snow, and lastly! - we cannot see more - the mist boils from the ruin of shattered waters and conceals the bottom of the fall. The roar vibrates like thunder in the rocky mountain, and forces the grandeur of the scene through every nerve.«

CAVE POTENTIAL: Also found in the vicinity of AA Cave (Baker) is Istripura Cave (Welimada), the cave at Hakgala, Luckyland Estate cave, the cave at Padanwela (near Wilson's Bungalow), and the →Sita Kund (Hakgala).

EXPLORATION HISTORY: 1852 or 1853 May 30th: Samuel White BAKER (1855, chapter vii) enjoyed camping in the cave accompanied by his brother (no name mentioned) and one Captain Pelly of the 37th Regiment, who then ranked »Commandant of Newera Ellia« (Nuwara Eliya).

70 »A large tract of jungle-covered hill stretches away from the Moon Plains at Newera Ellia [sic! for: Nuwara Eliya] toward the east, forming a hog's back of about three and a half miles in length. Upon the north side this shelves into a deep gorge, at the bottom of which flows, or rather tumbles, Fort M'Donald river on its way to the low country, through forest-covered hills and perpendicular cliffs, until it reaches the precipitous patina mountains, when, in a succession of large cataracts, it reaches the paddy-fields in the first village of Peréwellé [Perawella N06°56': E080°51']. Thus the river in the gorge below runs parallel to the long hog's back of mountain. This is bordered on the other side by another ravine and smaller torrent, to which the Badulla road runs parallel until it reaches the mountain of Hackgalla [Hakgala Peak N06°54'36": E080°47'22" WGS84], at which place the ravine deepens into the misty gorge already described.«

71 »Peréwellé« (BAKER 1855) appears to correspond to the village of Perawella N06°56': E080°51' (WGS84) and thus at the very same spot where <www.nima.mil/geonames> (accessed 16.11.2003) positions also the five villages of Galgewela, Karametiya, Medagodagama or Medagodegama, Perawella and Telhawadigama or Thelhawadigama.

72 CEYLON TRAVELLER (1974, 1983: 145) says »the ruins of Fort MacDonald of Uva Rebellion fame« lies near the Istripura Cave (N06°57'57": E080°54'00" unspecified map datum, STRINATI & AELLEN 1981: 459) in the north of the town of Welimada (N06°54'04": E080°55'22" WGS84).

Fort MacDonald is indicated near N06°57'15": E080°53'20" (Everest 1830) on the Survey of Sri Lanka One-Inch sheet "Nuwara Eliya" 1972.

FORBES (1840, 1841.ii: 126) narrates how »Fort M'Donald, the military post at the village of Parnagamma, was named after Major M'Donald of the 19th Regiment, who performed arduous services in this part of the country during the rebellion of 1817 and 1818« at the village of Paranagama (N06°57': E080°53').

AA CAVES (Belihul Oya)

Unexplored and unmapped natural caves or rock shelters.
 LOCATION: Central province: Ratnapura district: Balangoda - Haldamulla road: Belihul Oya area.
 POSITION: (If north-west of Belihul Oya), WGS84 (estimated EPE ±25 km) N06°45': E080°45' / N06.75°: E080.75° (or so).
 MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»There are believed to be some small caves« (CEYLON TRAVELLER 1974, 1983: 244) of which »little is known« (read: nothing at all).

SITUATION: »Among the masses of rock at the south-eastern edge of the Horton Plains massif [73], high above the main road between Balangoda and Haldamulla ... and access is virtually impossible.«

At about halfway on the »main road« (highway A4) between Balangoda (N06°38'57": E080°40'20" WGS84) and Haldamulla (N06°46': E080°53') lies the small town or village of Belihul Oya (N06°43': E080°46').

AA CAVE (BELL 1901) no. 1

A modified natural troglodyte rock shelter.
 LOCATION: Northern Central province: Anuradhapura district: Anuradhapura ruins: Tissa Wewa reservoir.
 POSITION: WGS84 (assumed EPE ±2.5 km) N08°21': E080°23' / N08.35°: E080.3833° <www.nima.mil/geonames> accessed 16.11.2003.
 MAP: Survey of Ceylon / Sri Lanka: "Anuradhapura" (One-Inch).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Bell, H C P 1901.

An overhanging rock, adapted as a shelter, lies close to the →Sakvala Cave (Anuradhapura).

AA CAVE (BELL 1901) no. 2

see: Sakvala Cave (Anuradhapura)
 Bell, H C P 1901.

AA CAVE (CHOPARD 1916)

or: Cave near Minneriya, Minneri, Minneriya, etc.
 Biospeleologically investigated but speleologically unexplored and unmapped natural or modified natural cave or rock shelter.
 LOCATION: Northern Central province: Polonnaruwa district: Minneriya or »Minneryia« (Minneri, Minneriya).
 POSITION: Representative WGS84 or Everest 1830 (assumed EPE ±5 km) N08°02'30": E080°52'30" / N08.041667°: E080.875° (or so).
 MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Chopard, Louis 1916.

An unspecified site, perhaps a cave (possibly not), yielded one male specimen of an immature cricket (CHOPARD 1916: 114-115; AELLEN, SKET & STRINATI, 2001: 1978).

SITUATION: At an unspecified location somewhere at a so-called »Minneryia, Ceylan« (CHOPARD 1916: 114) which seems to be a corrupted Minneriya (74).

CAVE LIFE: CHOPARD (1916: 114-115) gives a taxonomical description of the new sub-species *Diestrammena gravelyi ceylonica* (Orthoptera: Stenopelmatidae) collected from an unspecified site (75) at Minneriya.

EXPLORATION HISTORY: 1916: B.H. Buxton (Indian Museum) had collected on an unidentified date one immature male specimen of a cricket (CHOPARD 1916: 114).

AA CAVE (ECKRICH 1984)

or: Dumbara Estate "Tunnel"

Chiropterologically investigated but speleologically unexplored and unmapped natural or man-made cave or mine.
 LOCATION: Unidentified (Western or Central) province: Unidentified (Kalutara or Ratnapura) district: Kalu Ganga basin area: Dumbara estate.
 POSITION: WGS84 (assumed EPE ±5 km) N06°43': E080°13' / N06.716667°: E080.216667° <www.nima.mil/geonames> accessed 16.11.2003.
 MAP: Survey of Ceylon / Sri Lanka sheet "Horana" (One-Inch series).
 SPELEOMETRY: Length: Estimated 200 m.
 COMMUNICATOR: Eckrich M 1984, personal communication.

What Michael Eckrich (München, Zoologisches Institut) described as an at least 200 m long "tunnel" may consist of a natural cave passage or a plumbago (graphite) mine.

SITUATION (Eckrich 1984, personal communication): Behind the house of Mr. W. D. Shandrasena in the rubber estate of Dumbara (N06°43': E080°13'), which lies about 20 km in a direct line north-west of Ratnapura (N06°40'58": E080°23'57" WGS84).

73 LONELY PLANET, Sri Lanka (2003: 200): »The Horton plains form an undulating plateau more than 2000 m high, about 20 km south of Nuwara Eliya [N06°58'11": E080°46'12" WGS84] and 20 km west of Haputale [N06°46': E080°58' (WGS84)]. They consist mainly of grasslands interspersed with patches of forest ... Sri Lanka's second- and third-highest mountains — Kirigalpotta (2395 m) and Totapola (2359 m) — rear up from the edges of the plateau ...«

FORBES (1840, 1841.ii: 145): »... the most elevated table-land in Ceylon, viz. the open plains extending between the Totapela range and the mountains which overhang Saffragam. This elevated region had received the name of Horton Plains, in honour of Sir R. Wilmot Horton the Governor, from Mr. Watson, 58th regiment, and Mr. Fisher, 78th regiment, who were the first Europeans that visited this tract of country.«

74 <www.nima.mil/geonames> (accessed 16.11.2003) lists WGS84

N08°05': E080°55' Minneriya (proposed forest reserve)
 N08°03': E080°53' Minneri, Minneriya, Minneriya Railway Halt
 N08°02': E080°54' Minneriya, Minneriya Bathgampattuwa, Minneriya (village)
 N08°00': E080°50' Minneriya (mountain)
 N08°00': E080°53' Minneriya Giritale (sanctuary).

75 AELLEN, SKET & STRINATI (2001: 1978): »Orthoptera, Raphidophoridae: *Diestrammena gravelyi ceylonica* Chopard 1916, from a cave in Ceylon (Minneriya).«

APPROACH: The site is reached by travelling along the highway A8 via Kiriella (N06°45': E080°16') to Ellawala (76), and take a ferry (1984) to get to the estate.

CAVE LIFE: Eckrich (1984, 1984, personal communication) had surveyed bats here.

AA CAVE (FORBES 1840)

or: Diving Accident Cave

Unexplored and unmapped natural cave.

LOCATION: Unidentified province: Unidentified district.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841.

A small cave entrance submerged in the water of a stream is the site of an early (before 1840) and fatal cave diving accident.

FORBES (1840, 1841.ii: 91-92): *»From the stream along which our way had hitherto lain, and which in this part of its course changes its name with that of the villages through which it runs, I have often been supplied with mullet of a large size, caught by the Mohammedan inhabitants who reside in its vicinity. They are always the most successful and keenest of native sportsmen; and about this time one of them lost his life in the eager pursuit of a mullet, which he had driven into a small cavern in the rocky bank of the river. In his exertions to secure the fish, his head and shoulders became wedged in the narrow entrance, with his mouth under water ; and thus he was suffocated in the presence of his companions, who were pursuing their sport, unaware, until too late, of the fatal accident.«*

AA CAVE (HAAFNER 1810)

Unexplored and unmapped natural cave or rock shelter.

LOCATION: North Western province: Kurunegala district: *»Seven Korles«* or Rajwanny: Panduwas Nuwara / Panduvas Nuwara / Panduvasnuwara area.

POSITION: (if at Panduwas Nuwara / Panduvas Nuwara / Panduvasnuwara itself), WGS84 N07°22'30": E080°07' / N07.375°: E080.116667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Gampaha" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Haafner, Jacob Godfried 1810, 1811, 1821a, 1821b, 1826a, 1852, 1926-1927, 1992-1997, 1995, 2004.

In the course of a journey from Chilaw (77) generally east to *»Bocaul«* (78), Jacob Godfried Haafner had spent in 1783 one night in a rock shelter, which he had found somewhere in the wilderness of the dry lowland zone of Western Sri Lanka on

his way back across the *»Seven Korles«* (79) to Puttalam (N08°02': E079°49').

SITUATION 1 (Kohl, Thomas in: HAAFNER 2004: 250 footnote 1): Somewhere in the vicinity of the ruins of *»Panduwas Nuwara«* (Panduvas Nuwara, Panduvasnuwara N07°36': E080°07').

SITUATION 2 (Kohl, Thomas in: HAAFNER 2004: 277 footnote 1): At a (linear?) distance of circa 15 km (or 15 miles = 25 km?) in an unspecified direction from Kurunegala (N07°29'12": E080°21'53" WGS84), which itself lies some 27 km in a direct line ESE of the ruins of *»Panduwas Nuwara.«*

CAVE DESCRIPTION (HAAFNER 1810, 1811, 1821a, 1821b, 1826a, 1852, 1926-1927, 1992-1997, 1995, edited and translated from Dutch 1826 edition into German by KOHL, Thomas 2004, chapter 16: 273-275): *»Bei Anbruch der Nacht sah ich mich nach einem geeigneten Platz um, an dem ich unterkommen und vor dem Regen und allem anderen geschützt war; was die wilden Tiere anging, so glaubte ich, sie nicht fürchten zu müssen, da sie zwischen den kahlen Felsen unmöglich auch nur die kleinste Beute finden konnten. Ich setzte mich schließlich an den Fuß eines Felsens, der durch sein vorspringendes Oberteil eine Art Gewölbe oder Grotte bildete ... Es war gegen Mitternacht, als ich einmal durch ein Geräusch wie das Blaffen von Hunden aus meinen traurigen Gedanken gerissen wurde; es mischte sich von Zeit zu Zeit mit tauben, hohlen Tönen, die aus dem Berg hervorzukommen schienen, der sich auf der gegenüberliegenden Seite des Kanals [80] befand. ... beklemmende Ruhe ...*

76 The village of Ellawala (N06°48': E080°16') is comprised of Ellawala Ihalagama (N06°48': E080°16') and Ellawala Pahalagama (N06°47': E080°16').

77 Chilaw, also: Chilam [hence: Ceylon?], Chilow, Chillow N07°34'33": E079°47'43" <www.nima.mil/geonames> accessed 16.11.2003.

78 *»Bocaul«* (HAAFNER 1810, 1826; TIRION, Isaac 1750 map: Nieuwe Kaart van t Eiland Ceilon; Amsterdam) or *»Hill Bocawl«* (KNOX book 4, chapter 9) are the hills and the village of Bokkawala (N07°23': E080°33') about 5 or 10 km west of the road (Kohl, Thomas in: HAAFNER 2004: 180 footnote 2) from Kandy (N07°17'47": E080°38'06" WGS84) northwards to Matale (N07°28'18": E080°37'28").

79 The obsolete administrative subdivision *»Seven Korles«* (HAAFNER 1810) is shown on the *»Map of the Island of Ceylon«* (DAVY 1821) to cover more or less the area of the Kurunegala district as it is indicated on the "Road Map of Sri Lanka" (Survey Department 1977) between circa N07°15': E079°50' and N08°20': E080°35'.

80 Kohl, Thomas in: HAAFNER (2004: 250 footnote 1): *»Haafner spricht hier an mehreren Stellen von einem Kanal (ndl. kanaal), was auf einen ehemaligen Bewässerungskanal hindeutet; in der Nähe befinden sich die Ruinen von Panduwas Nuwara [also: Panduvas Nuwara, Panduvasnuwara N07°36': E080°07'], der ehemaligen singhalesischen Königsstadt Parakramabahas I. aus dem 12. Jh. Vor den Zerstörungen des 13 Jhds., beginnend mit Magha aus Kalinga, stand die Stadt mitten in einer Kulturlandschaft; nach dem Wegzug der Bevölkerung aus der eisnt blühenden Landschaft Rajrata im Norden und nach dem Verfall der Bewässerungsanlagen bildete sich eine "verwüstete Ruine aus verlassenen Ortschaften, überwachsenem Dschungel und vertrockneten Wasserteichen" (Encyclopaedia Britannica 2003 s.v. Sri Lanka - History - Drift to the Southwest - Economic changes - Collapse of the Dry Zone cultivation).«*

Auf einmal hörte ich deutlich hinter dem Felsen, an dem ich mich befand, einen unheimlichen, hallenden Schrei. Das Blut stockte mir in den Adern ... [81]

Ich bewaffnete mich mit einem großen Stein und stürzte halb wahnsinnig aus der Höhle, die meine Unterkunft bildete. Im selben Augenblick kam hinter einem keine zehn Schritt entfernten Felsen eine derartige Mischung fremdartiger Töne hervor, so falsch, durchdringend, grässlich und ungeheuerlich [82], dass ich vor Furcht und Schrecken die Finger in die Ohren steckte und in tödlichem Entsetzen vor diesem höllischen Getöse mit solcher Hast in meine Grotte zurückrannte, dass ich mir an einem Felsüberhang in der Übereilung beinahe den Kopf in Stücke schlug. Blut strömte mir über das Gesicht, als ich mich wie ein Blatt zitternd in den hintersten Winkel verzog.«

81 KNOX (1681, IV.iii) describes the horrible, barking and not locateable noise ascribed by the Singhalese to the devil.

HAECKEL (1881/1882, 6th edition 1922): »*Im übrigen wurde meine Nachtruhe durch die mannigfaltigen Bestien von Belligemma [Beligama, at N07°44': E080°33' WGS84] nur wenig gestört, abgesehen von dem Geheul des Schakals und dem unheimlichen Ruf des Teufelsvogels (einer Eule, Syrnum Indrani).*«

WIESE (1923: 32): »*Da drang ein klagender Ton durch die Luft, nicht zu laut, aber so qualerfüllt, als läge in ihm alles Leid zusammengefasst, das in diesem Augenblick auf der weiten Erde ... bestand.*«

82 TENNENT (1861, VI.i) expands on »*Owls.-- Of the nocturnal accipitres the most remarkable is the brown owl, which, from its hideous yell, has acquired the name of the "Devil-Bird" (Symium Indranee Sykes). The Singhalese regard it literally with horror, and its scream by night in the vicinity of a village is bewailed as the harbinger of impending calamity.*

The horror of this nocturnal scream was equally prevalent in the West as in the East. Ovid introduces it in his Fasti (L. vi. l. 139) and Tibullus in his Elegies (L. i. El. 5). Statius says: Nocturnaeque gemunt striges, et feralla bubo

Damna canens (Theb. iii. l. 511). But Pliny, l. xi. c. 93, doubts as to what bird produced the sound and the details of Ovid's description do not apply to an owl.

Mr. Mitford, of the Ceylon Civil Service, to whom I am indebted for many valuable notes relative to the birds of the island, regards the identification of the Singhalese Devil-Bird as open to similar doubt. He says: "The Devil-Bird is not an owl. I never heard it until I came to Kornegalle [Kurunegala N07°29'12": E080°21'53" WGS84], where it haunts the rocky hill at the back of Government-house. Its ordinary note is a magnificent clear shout like that of a human being, and which can be heard at a great distance, and has a fine effect in the silence of the closing night. It has another cry like that of a hen just caught, but the sounds which have earned for it its bad name, and which I have heard but once to perfection, are indescribable, the most appalling that can be imagined, and scarcely to be heard without shuddering; I can only compare it to a boy in torture, whose screams are being stopped by being strangled. I have offered rewards for a specimen, but without success. The only European who had seen and fired at one agreed with the natives that it is of the size of a pigeon, with a long tail. I believe it is a Podargus or Night Hawk." In a subsequent note he further says: "I have since seen two birds by moonlight, one of the size and shape of a cuckoo, the other a large black bird, which I imagine to be the one which gives these calls."

AA CAVE (LÜBKE 1953)

or: Hundert Erdspalten, Hundred Chasms

A group of fabulous chasm caves in gravitationally or tectonically dislocated gneiss or granite.

LOCATION: Northern Central province: Anuradhapura district: Mihintale area: Field of the 100 Chasms.

POSITION: N08°21': E080°30' / N08.35°: E080.5° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lübke, Anton 1953, 1955, 1958a, 1958b, 1961.

LÜBKE (1953) created a cavers' tale about »*fissure caverns*« at one »*Field of a Hundred Fissures near Mihintale in Ceylon*« of which the »*majority are completely unexplored*« and hence known to be almost 800 m deep (LÜBKE 1953: 134) or »*nearly three thousand feet [914 m] deep*« (LÜBKE 1958a, 1958b: 162) and up to 20 m wide (LÜBKE 1953: 134) or »*seventy feet [21 m] across*« (LÜBKE 1958a, 1958b: 162). Needless to say that the chasms are said, according to bogus chroniclers, to have come into existence on occasion of an eleven day long earthquake in the year 1645 AD. Most of the fissures have only a small opening but with increasing depth they open into gaping chambers. The untrodden fissures are entered only every now and then, when skillful Singhalese climbers descent on swaying rope ladders into the abysses to release undomesticated animals, which had fallen down during their nightly expeditions, with a shot from their agony. **SITUATION:** Exactly »*near*« Mihintale (N08°21': E080°30').

CAVE DESCRIPTION: The German tale (83) by LÜBKE (1953: 134) has been translated into FRENCH (LÜBKE 1955), Spanish (LÜBKE 1961) and English (LÜBKE 1958a, 1958b: 162-163): The »... *caves of the Field of a Hundred Fissures near Mihintale in Ceylon ... constitute a striking example of the formation of fissure-caverns in historical times. The caves of this region came into being during a tremendous earthquake that afflicted the island of Ceylon in 1645. For eleven days on end, so the chroniclers relate, subterranean forces shook the northern part of the island, while clouds of smoke and dust rose more than three thousand feet high above the land, and sulphur-yellow flames poured out of the sundered earth, burning and blackening everything for miles around.*

83 LÜBKE (1953: 134): »*Nur von wenigen Höhlen weiß man mit Sicherheit, wann und wie sie entstanden, um von ihnen auf die Entstehung anderer Höhlen schließen zu können. Zu diesen gehören die des "Feldes der 100 Erdspalten" in der Nähe des Ortes Mihintale auf Ceylon, die hier als markantes Beispiel für die Entstehung von Spaltenhöhlen in geschichtlicher Zeit zuerst genannt werden sollen. Dieses Höhlengebiet entstand während eines gewaltigen Erdbebens, das 1645 die Insel Ceylon heimsuchte. Elf Tage lang, so berichten Chronisten, erschütterten die unterirdischen Kräfte Nordceylon ... Heute ist dieses Gebiet von zahlreichen 20 m breiten und bis zu 800 m tiefen Erdspalten durchsetzt. Die meisten Erdspalten haben nur eine geringe Öffnung, verbreitern sich aber nach unten zu weitklaffenden Felskammern, die noch vollkommen unerforscht sind. Nur dann und wann wagen gewandte singhalesische Kletterer sich auf schwankenden Strickleitern in die tiefen Schlünde, um wilde Tiere, die während ihrer nächtlichen Streifzüge hinabstürzen, von ihrer Todesqual durch einen Schuß zu erlösen.*«

Today this district is riddled with fissures, many of them seventy feet across and nearly three thousand feet deep. Most of these chasms have only a narrow opening at the top, but widen out lower down into yawning [sic! qua: gaping] chambers in the rock. The majority are completely unexplored. Only occasionally do practised Singhalese climbers venture into the abysses down shaky rope ladders, in order to finish off the wild animals which have fallen into them during nocturnal prowls.«

AA CAVE (SENGUPTA 1979)

Biospeleologically investigated but speleologically unexplored and unmapped »cave« (or not).

LOCATION: Unidentified province: Unidentified district.

POSITION: Unidentified.

MAP: Survey of Ceylon one-inch sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCE: Sengupta, Tapan 1979.

SENGUPTA (1979) introduces Derolathiniinae, a new subfamily of Merophysidae (Clavicornia: Coleoptera) for the genera Darolathrus Sharp and Gomya Dajoz with the species Gomya troglodonta and Gomya ceylonica collected from Fiji and Sri Lanka. The specimens from Sri Lanka have been collected from an unidentified »cave« (no name mentioned) at an ignored location without position.

AA CAVE (SIFFRE 1975: 12)

see: Batatota Lena, »Grotte près d'Adam's Peak«

Siffre, Michel 1975: 12.

SIFFRE (1975: 12) gives a photograph titled »Grotte près d'Adam's Peak avec habitations troglodytiques« (A cave near Adam's Peak (84) with troglodyte dwellings) showing the view out of a triangular shaped entrance which appears to be about 15 m wide and 10 m high (85).

AA CAVE (SIFFRE 1975: 21)

or: Grotte près de Kuruwita

Biospeleologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Sabaragamuwa province: Ratnapura district: Kuruwita korale: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: Not known.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Siffre, Michel 1975: 21.

A good / attractive / inspiring cave entrance, which is said (SIFFRE 1975: 21) to be an estimated 20 m high and 10 m wide, leads to an estimated more than 30 m long cave passage in crystalline limestone (86).

84 Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" (WGS84) culminating at »7360 feet« (Survey Department 1977: Road map of Sri Lanka) or 2243 m asl (LONELY PLANET 2003: 187).

85 This item is possibly →Batatota Lena, which has been referred to as »Mysterious Stripura Cave in Battatota mountain near Adamspeak ...« and is said to be one of the »pseudokarst abris used as Buddhist sanctuaries« (KUKLA 1958: 169 apparently after GUNASEKERA 1957.02.27).

86 SIFFRE (1975: 21): »Un beau porche de grotte, haut de vingt mètres, large de dix ... plus de trente mètres de longueur mais enfin pour la première fois je trouve une zone de calcaires cristalline ...«

IDENTITY: No locally known name has been identified for a so-called »grotte près de Kuruwita« (SIFFRE 1975: 21), which possibly is identical with →Batadomba Lena (87).

SITUATION: SIFFRE (1975: 21) places the anonymous cave without specified spatial relation »près du petit village de Kuruwita« (near the small village of Kuruwita N06°46'30": E080°22'07" WGS84) and at an unspecified location, which is reached by a lengthy walk without orientation uphill a well-deforested hill (88).

The cave entrance itself lies »tout près à la base d'une falaise contre laquelle sont adossées des cabanes« (close to the base of a cliff against which huts are built).

AA CAVE (SIFFRE 1975: 34) no. 1

Biospeleologically investigated but speleologically unexplored and unmapped natural cave in »limestone« (SIFFRE 1975: 34) or Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: Not known.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Estimated 50 m. Vertical range: Not known.

BIBLIOGRAPHY: Siffre, Michel 1975.

An overgrown entrance on the "left side" (without orientation) of a small cliff gives access to a "rapid" (sic) descend across soil down into an estimated 50 m long, walking sized rift cave passage, which penetrates the flank of a hill (no name mentioned) and leads to a second entrance (89).

SITUATION: At a difficult to reconstruct location. According to SIFFRE (1975: 34), this »grotte inexploree« (unexplored cave) lies in the flank of a jungle-clad but unidentified limestone mountain (90) or hill (91) and at the base of cliff rising at an unspecified walking distance without orientation above an unidentified village (92), which lies at an unspecified travelling distance from Kandy (N07°17'47": E080°38'06" WGS84) towards Ratnapura (N06°40'58": E080°23'57" WGS84).

87 Batadomba Lena: An about 12 m wide and 8.5 m high cave entrance gives access to a solitary cave chamber (15 m wide, 12 m high, 24 m long) »in gneiss« and »dark in the end« (Brooks 1995.04 Mss no 5).

88 SIFFRE (1975: 21): »... après une montée exténuante dans une forêt bien déboisée par les hommes.«

89 SIFFRE (1975: 34): »Lorsque le passage fut dégagé des plus grosses lianes, je me fauilai sur un sol d'humus qui plogeait rapidement. Je descendis en opposition et me retrouvai bientôt au bas d'un sorte de diaclase, haute et étroite, dans laquelle je fis prélèvements pour les examiner plus tard. Puis, après un cinquantaine de mètres d'une progression facile, je débouchai à l'air libre.«

90 SIFFRE (1975: 34): »... montagne indiquée comme calcaire par M. Deranyagala ...«

91 SIFFRE (1975: 34): »Cette cavité ne faisait que traverser le flanc d'une colline.«

92 SIFFRE (1975: 34): »Dans un village, un guide local accepta de nous conduire plus haut, là où se trouvaient une grotte-temple et une grotte inexploree. La montée ne fut pas très longue et bientôt apparut sur le flanc gauche d'une petit falaise une ouverture dont la base était barrée par un entrelacs de lianes.«

EXPLORATION HISTORY: 1961 February or March: Michel SIFFRE (1975: 34) and one »*Caldera*« (tourist guide) followed a hint of »*M. Deranyagala*« (Mister Paulus Edward Pieries Deraniyagala) and reconnoitered a limestone mountain where an unacknowledged local guide (no name mentioned) indicated one of the two cave entrances.

AA CAVE (SIFFRE 1975: 34) no. 2

Biospeleologically investigated but speleologically unexplored and unmapped natural cave in »*limestone*« (SIFFRE 1975: 34) or Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: Not known.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Estimated 50 m. Vertical range: Not known.

BIBLIOGRAPHY: Siffre, Michel 1975.

A "large" or wide cave entrance without specified size or shape faces a direction and gives access to a limestone cave without specified character, peculiarities, or dimensions (SIFFRE 1975: 34).

SITUATION: Apparently in one way or another adjacent to →AA Cave (Siffre 1975: 34) no. 1.

CAVE DESCRIPTION: SIFFRE (1975: 34) »... *rejoignis le grand porche de grotte ...*«

CULTURAL HISTORY - human use: In February or March 1961, a Buddhist monk, clad in a golden yellow coloured robe, used this cave as a troglodyte hermitage retreat: »... *se tenait, immobile et majestueux, un moine bouddhiste drapé dans son manteau jaune d'or.*«

SIFFRE (1975: 13) gives a photograph titled »*Grotte utilisée comme habitation par un moine bouddhiste*« (cave used for "dwelling" by a buddhist monk) but actually shows the opposite: a view looking out of a wide, vaulted cave entrance onto the tops of trees apparently growing on a steep slope in front of and below the entrance.

EXPLORATION HISTORY: 1961 February or March: Michel SIFFRE (1975: 34) and one »*Caldera*« (tourist guide) followed a hint of »*M. Deranyagala*« (Mister Paulus Edward Pieries) and reconnoitered a limestone mountain where an unacknowledged local guide (no name mentioned) indicated one of the two cave entrances.

AA CAVE (SIFFRE 1975: 35)

or, perhaps: Batatota Dahayya Lena

or, perhaps: Grotte de Batatota (Siffre 1975)

Biospeleologically investigated but speleologically unexplored and unmapped natural cave in »*crystalline limestone*« (SIFFRE 1975: 35) or Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: (If between Batatota and Kekule), WGS84 (assumed EPE ±5 km) N06°44': E080°22' / N06.73333°: E080.36667° (or so).

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Siffre, Michel 1975: 35-36.

A tight but penetrable cave entrance, which is obstructed by boulders, gives access to an inspiring cave in crystalline

limestone (93).

IDENTITY: On page 35, SIFFRE (1975) narrates how he grabbed handfuls of garnets from the floor of this unidentified »*grotte réputée très profonde*« (reputedly very large cave). On the following page 36, SIFFRE (1975) explains to have been the happiest man on earth when amassing handfuls of garnets in a so-called »*grotte de Batatota*« (94).

Little doubt remains that »*Batatota*« (SIFFRE 1975: 36) corresponds to the village of Batatota (N06°50': E080°22' WGS84) from where not only →Batadomba Lena but also →Batatota Lena has been reported.

SITUATION: SIFFRE (1975: 35) locates the entrance to this cave at the base of a crystalline limestone cliff (95) on one of the sides of an unidentified »*montagne*« (mountain) or »*colline*« (hill), which rises above an unidentified village.

CAVE DESCRIPTION: None. mentions recesses or niches and an air temperature inducing sweat (96) before referring to »*une paroi creusée de cupules*« (a cave wall marked with "scallop" or shallow cavities) and narrating how he grabbed from the cave floor handfuls of »*corindon*« (corundum) crystals, which later were identified as altered garnet.

SIFFRE (1975: 36) gives a photograph titled »*Une paroi de gemmes mis en évidence par la dissolution de la roche encaissante calcaire*« (A cave wall of semi-precious stones proofs dissolution of rock containing calcium carbonate) and shows glittering highlights on a dark background.

EXPLORATION HISTORY: 1961 February or March: Michel SIFFRE (1975: 35) narrates how »*Caldera*« (a tourist guide) had learned from unacknowledged and unidentified resident people (no names mentioned) about a reputedly extensive cave: »... *Caldera n'avait pas perdu son temps. En palabrant avec les indigènes, il avait appris l'existence et l'emplacement d'une grotte réputée très profonde.*«

AA CAVES (TENNENT 1859)

LOCATION: Unidentified province: Unidentified district.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860.

»*Cheiroptera* [Chiroptera] ... *The multitude of bats is one of the features of the evening landscape; they abound in every cave and subterranean passage, in the tunnels on the highways, in the galleries of the fortifications, in the roofs of the bungalows, and the ruins of every temple and building*« (TENNENT 1859, 1860.i: 135).

93 SIFFRE (1975: 35): »... *dague à la ceinture et machette en main, je m'enfonçai dans l'orifice assez étroit encombré de gros blocs.*«

94 SIFFRE (1975: 36) »... *grotte de Batatota lorsque je ramassai à poignées les grenats de la grotte de Batatota, j'étais l'homme plus heureux du monde.*«

95 SIFFRE (1975: 35): » ... *située au pied d'une belle falaise de calcaire cristallin ...*«

96 SIFFRE (1975: 35): »*La grotte #était passionante et je l'explorai dans toutes les recoins, peinant et suant tellement la chaleur était forte.*«

AA FELSENTEMPEL (HESSE 1913)

see: Degaldoruwa "caves"

Hesse, Hermann 1913, 1926 edited 1968, 3: 838-839.

AA FELSENTEMPEL, Kandi

see: Degaldoruwa "caves"

Hesse, Hermann 1913, 1926 edited 1968, 3: 838-839.

ADAM'S PEAK CAVES

Several frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters. LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

BIBLIOGRAPHY: Bassett, Ralph Henry 1929; [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri 1355 for 1325-1354; Beckingham, Charles F 1994; Ceylon Traveller 1974, 1983; Defrémery, C & Sanguinetti, B R 1874-1879; Deraniyagala, Siran Upendra 1980; Duncan, Jonathan 1799; Forbes, Jonathan 1840, 1841; Gibb, Hamilton A R 1929, 1988; Hausig, Hans Wilhelm 1984; Kerr, Robert 1811; Lee, Samuel 1829; Leicht, Hans 1999; Morgan, Robert 1943; Pridham, Charles 1849; Renaudot, Eusebius 1718, 1733; Skeen, William 1870, 1997.

Adam's Peak Cave (Basset 1929)

Adam's Peak Cave (Verthema 1503)

Cave of Baba Khuzi

Cave of Baba Tahir

Bagava Lena

Cave of the Bitter Orange

Deiya Guhawa

Cave of Al-Isfahani

Cave of Khidr

Menik Lena

Nissangala Lena

Ravan Tank Cavity

Cave of Al-Sabik

Serendip Mountain Caverns

Seven Caves

Cave of Shaim

Cave of the Sultan

ADAM'S PEAK CAVE (VERTHEMA 1503)

A modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

BIBLIOGRAPHY: Verthema, Ludovico 1503 edited by Kerr, Robert 1811-1812 reprinted 1824 edited 2004.

Ludovico VERTHEMA (1503) had heard of a sacred "cave or den" on Adam's Peak (N06°48'30": E080°29'53": 2242.3 m asl):

»A Mahometan merchant assured my companion, that on the top of a high mountain in the centre of this island, there is a certain cave or den where the inhabitants resort for devotion, in memory of our first parents, who, as they allege, lived in that place in continual penitence, after breaking the covenant with God, which is confirmed by the print of Adam's feet being still to be seen there above two spans in length« (VERTHEMA 1503 edited by KERR 1811-1812, 2nd edition 1824, vol. 7, part II, book III, section IX, chapter V).

IDENTITY: Writing in the first half of the 15th century, MA HUAN (transl. by PHILLIPS 1886: 213) recorded that *»This mountain [Adam's Peak] abounds with rubies of all kinds and other precious stones. These gems are being continually washed out of the ground by heavy rains, and are sought for and found in the sand carried down the hill by the torrents. It*

is currently reported among the people, that these precious stones are the congealed tears of Buddha« (97).

AGALAWATTE NITRE CAVE

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Central province: Matale district: Agalawatta or »Agalawatte« (DAVY 1821) village.

POSITION: WGS84 (assumed EPE ±5 km) N07°29': E080°36' / N07.48333333°: E080.6° (<www.nima.mil/> accessed 16.11.2003).

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

From the district of Matale, DAVY (1821: 31 footnote) lists the *»nitre-caves ... 11. Agalawatte; 12. Kaloodawella; 13. Oonaweroowa; and 14. Nalandi.«*

ETYMOLOGY: *»These names, it may be clearly remarked, are not those of the caves themselves, which are generally nameless, but of the nearest inhabited places, which are in many instances several miles remote, most of the caves being situated in the wildest and most deserted parts of the country.«*

SITUATION: At an unspecified location in Matale district (ca. N07°25': E080°30' to N08°00': E081°00') and somewhere in the vicinity of an inhabited place called »Agalawatte« (DAVY 1821) or Agalawatta (98).

AL-SABIK, cave of

see: Sabik, cave of Al-

Ibn Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929, 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Lee, Samuel 1829).

ALEXANDER RIDGE, cave on the

see: Cave of the →Sultan

BIBLIOGRAPHY: Lee, Samuel 1829 edition of Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 189.

97 Henri Cordier in YULE (1903: Marco Polo), vol. 2, chapter XIV: *»Mr. G. [also: »Geo.« as Geoffrey] Phillips, in the Jour. China B.R.A. Soc., XX. 1885, pp. 209-226; XXI. 1886, pp. 30-42, has given, under the title of "The Seaports of India and Ceylon", a translation of some parts of the Ying-yai-sheng-lan, a work of a Chinese Mahomedan, Ma-Huan, who was attached to the suite of Ch'ing-Ho, an envoy of the Emperor Yong-Lo (A.D. 1403-1425) to foreign countries. ... Ma-Huan arrived at Ceylon at Peh-lo-li, on the 6th of the 11th moon (seventh year, S₃an Tlh, end of 1432). Cf. Sylvain LÉvi, Ceylan et la Chine, J. As., Mai-juin, 1900, p. 411 seqq.«*

98 »Agalawatte« (DAVY 1821) appears to mean either the village of Agalawatta (N07°29': E080°36') or to the estate Agalawatta (N07°30': E080°42').

ALIGALA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Central province: Matale district: Sigiriya rock.

POSITION: WGS84 (estimated EPE ± 2.5 km) N07°57': E080°45' / N07.95°: E080.75° <www.nima.mil/geonames> (16.11.2003).

MAP: Polonnaruwa (Survey of Ceylon / Sri Lanka, One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1992, 1998, 2001b, 2002; Karunaratne, P & Adikari, G 1994; Mogren, M 1994.

An unspecified »shelter« (perhaps a daylight lit rock shelter or, possibly, a true cave once used as a shelter by man) which yielded the only Early Iron Age settlement in Sri Lanka.

ETYMOLOGY: Aligala Galge (in short Aligala) or »Aligala shelter« (DERANIYAGALA 1992: 734; 1996).

SITUATION: At the base of Sigiriya rock (99).

CULTURAL HISTORY - Archaeology (100): DERANIYAGALA (1998, 2001b): »The protohistoric Early Iron Age appears to have established itself in South India by at least as early as 1'200 BC, if not earlier (Possehl 1990; Deraniyagala 1992: 734). The earliest manifestation of this in Sri Lanka is radiocarbon dated to ca. 1000-800 BC at Anuradhapura and Aligala shelter in Sigiriya [101] (Deraniyagala 1992: 709- 729; Karunaratne and Adikari 1994: 58; Mogren 1994: 39 ... So far no other settlements of the Early Iron Age have been located in Sri Lanka —with the exception of the very small-scale deposit within the rock-shelter at Aligala.«

ALLINGTON ESTATE CAVE

Biospeleologically investigated but speleologically unexplored and unmapped natural cave in »conglomerate« (SIFFRE 1975: 17) or Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sri Lanka: Sabaragamuwa province: Ratnapura district: Bulutota Pass - Rakwana town area: Allington Estate.

POSITION: WGS84 N06°27': E080°34' / N06.45°: E080.5.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Rakwana" (One-Inch series).

SPELEOMETRY: Length: Estimated to be more than 30 m. Vertical range: Not known.

BIBLIOGRAPHY: Siffre, Michel 1975.

A funnel-shaped »entonnoire« (SIFFRE 1975: 20) or doline-like closed depression in Khondalite Granulite gives access to a cave passage, which is several tens of metres long and not only the home of bats and spiders but also descends to water flowing in a gravelly stream bed arriving from a duck beyond which the passage appears to continue (SIFFRE 1975: 14-20, photographs on pages 12, 16).

SITUATION: At an unspecified location somewhere in the Allington Estate (N06°27': E080°34'), a tea plantation about 8 km along the road WSW of the town of Rakwana (102).

99 Sigiriya Rock N07°57': E080°45' (± 2.5 km).

100 Not seen: DERANIYAGALA, Siran Upendra (1992: 709-729), KARUNARATNE & ADIKARI (1994: 55-64), and MOGREN (1994: 39).

101 Two rock shelters at Sigiriya in the lowland Dry Zone have been dated on charcoal: Aligala at the base of Sigiriya rock, 5,500 - 4,100, and →Potana ... (DERANIYAGALA 2002: 5).

102 Allington Estate (N06°27': E080°34') lies about 5 km in a direct line approximately WSW from Rakwana (N06°28'18": E080°36'42" WGS84).

SIFFRE (1975: 14), however, prefers to relate this cave to a town which is only 31 km "near" away and locates »cavité située dans l'Allington Estate ... près de Ratnapura« (103).

CAVE DESCRIPTION: SIFFRE (1975: 12) gives a photograph titled: »A l'entrée de ma première grotte tropicale ... Allington Estate Cave« (At the entrance of my first tropical cave ...) and showing a well dressed French Caver standing centrally positioned in a tea plantation.

SIFFRE (1975: 14-15) mentions lush vegetation surrounding a black orifice where mosses and ferns blanket the walls and floor. The cave is formed in a conglomerate, apparently of the Khondalite series, and consisting of large blocks and well-rounded pebbles of various nature, cemented in a sandy matrix with plenty of quartz pebbles (104).

At one point into the cave, the gallery splits into two and a small climb down leads to running water in a non-muddy stream bed where the cave soil consists of gravels (without obvious precious stones) and accumulations of black sands. These heavy minerals, with a specific weight surpassing 2.7 (heavier than quartz or limestone) form ripple-marks. Several tenth of metres upstream a duck occupies the whole width of the gallery. A shore is visible beyond and the passage appears to continue (105).

CAVE LIFE: SIFFRE (1975) mentions bats (Chiroptera) and spiders (Aranea), and turns sensational (106).

103 Allington Estate (N06°27': E080°34') lies about 31 km in a direct line approximately SSE from Ratnapura (N06°40'58": E080°23'57" WGS84).

104 SIFFRE (1975: 17): »La grotte se développe dans un conglomérat formé de grands blocs de roches appartenant à la série des kondhalites et de nombreux galets de nature divers, bien roulés, réunis par un ciment sableux assez complexe. Il y a de nombreux galets de quartz.«

105 SIFFRE (1975: 17) »... au bout de plusieurs dizaines de mètres, je suis arrêté par l'obstacle classique des spéléologues: la voute mouillante. Devant moi, en effet, l'eau remplit tout la galerie, il faudrait plonger our pouvoir passer de l'autre côté. Tel n'est pas mon but ...«

106 SIFFRE (1975: 14-15) draws attention not only to imagined and generally absent, but also deadly poisonous, venomous, and lethal vipers, cobras, crocodiles and the likely presence of the fungus *Histoplasma capsulatum*.

Inhalation of the spores of *Histoplasma capsulatum*, the imperfect state of a fungus of the Ascomycotina (*), may result in a group of diseases commonly called Histoplasmosis. The fungus occurs in soil, including that with a high nitrogen content such as from the guano of bats and birds. It has been recorded from over 50 countries around the world ... It has been associated with caves, particularly in the New World and Africa. It has been recorded rarely in Europe and the Middle East (records from Romania, Cyprus, and Israel), Asia (records only from Malaysia), and Australia. It is found principally in dusty bat caves. It may frequently give rise to mild respiratory disorders and is rarely fatal. A simple precaution is the use of a respirator or mask that can remove particles as small as two microns in diameter.

* SCHWARZ, J (1981): Histoplasmosis.- *Praeger Special Studies* (New York: Praeger Publishers).

SACKS, J J, AJELLO, L & CROCKETT, L K (1986): An outbreak and review of cave-associated Histoplasmosis capsulati.- *Journal of Medical and Veterinary Mycology*, 24, 313-327.

ALOO WIHARA

see: Aluvihara

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860 vol. 1: 376.

»... *Scriptures ... were compiled by a company of priests in a cave to the north of Matele [Matale], known as the Aloo-wihara*« (TENNENT 1859, 1860.i: 376).

ALOOLENNE

see: Aluvihara

BIBLIOGRAPHY: Forbes, Jonathan 1840; 2: 281-282; Forbes, "Major" 1841, 2: 281-282.

»*Walagambahoo 1st ... brought together five hundred of the principal and most learned priests, at a cave in Matale called Alooenne, and, for the first time had the tenets of Buddhism reduced to writing, which occurred in the 217th year, 10th month, and 10th day, after they were promulgated orally by Mihindoo ...*« (FORBES 1840, 1841. ii: 281-282, rock inscription 21).

ALU GALGE , Gal Oya

Unexplored and unmapped suspicious place name possibly hinting at a cave.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park area: Alugalge (Alu Galge) village.

POSITION: WGS84 N07°10': E081°27' / N07.1.6667°: E081.45° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Nilgala" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

There is a suspiciously named village of »*Alugalge*« (ash shelter) located in the Gal Oya National Park.

ALU GALGE, Minipe

or: Alugalgekande Caves

Unexplored and unmapped natural caves in.

LOCATION: Uva province: Badulla district: Mahaveli river basin area: Alugalge Kande (Alugalgekande).

POSITION: WGS84 (estimated EPE ±2.5 km) N07°12'30": E081°01'30" / N07.20833333°: E081.025° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

More than one cave (no names mentioned) »*of which little is known*« (CEYLON TRAVELLER 1974: 241; 1983: 243).

ETYMOLOGY: The Sinhala "alu galge" translates into »*ash shelter*« (DERANIYAGALA 1955: 295).

SITUATION (CEYLON TRAVELLER 1974: 241; 1983: 243): East of Minipe (**107**) beyond the Mahaveli, but accessible at present only via the »*Bibile - Mahiyangana road*« (**108**), is a semi-circular chain of rock rising to approximately 2,500 feet [762 m] above sea level and about a thousand feet [305 m] above the surrounding countryside.

POSITION: Apparently in the vicinity of N07°12'30": E081°01'30" (or so).

CAVE POTENTIAL (CEYLON TRAVELLER 1974: 241; 1983: 243): »*The chain, named Alugalgekande [109], contains more than one cave of which little is known.*«

ALU GALGE, Siyambanduwa

Unexplored and unmapped suspicious place name possibly hinting at a cave.

LOCATION: Uva province: Monaragala district: Siyambanduwa: Alugalge (Alu Galge) village.

POSITION: WGS84 N06°57': E081°30' / N06.95°: E081.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Passara" (One Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

There is a suspiciously named village of »*Alugalge*« (N06°57': E081°30') or "ash rock shelter" located where the 18 km long road from Dambagalla (**110**) meets the road from Siyambanduwa (**111**) north-west to Baduluwela (**112**) about 7 or 8 km in a direct line approximately south-west of the hill called »*Westminster Abbey*« (N07°02': E081°32').

107 Minipe N07°13': E080°59' <www.nima.mil/geonames> (accessed 16.11.2003) on sheet NB44-02.

108 The »*Bibile - Mahiyangana road*« (CEYLON TRAVELLER 1974: 241; 1983: 243) runs about 25 miles (40 km) from Bibile (N07°10': E081°13') approximately north-west to Mahiyangana (N07°19'00": E080°58'58" WGS84).

109 »*Alugalgekande*« (CEYLON TRAVELLER 1974: 241; 1983: 243), the hill of Alugalge, is not identified and <www.nima.mil/geonames> accessed 16.11.2003 lists only the villages of Alugalge N07°10': E081°27' (about 90 km too far NNE) and Alugalge N06°57': E081°30' (about 60 km to far ESE).

110 Dambagalla N06°57': E081°22' sheet Passara.

111 Siyambanduwa N06°54': E081°33' <www.nima.mil/> on SoC / SoSL sheet Pottuvil.

112 Baduluwela N07°05': E081°26' sheet Passara.

ALU GALGE, Telulla

or, perhaps: Kalu Galge

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelter and perennial spring.

LOCATION: Uva province: Monaragala district: Kirindi Oya basin - Telulla (Telulla, Tellulla) area: Damba kota aré.

POSITION: WGS84 N06°38': E081°05' / N06.63333°: E081.08333° (or so): 215 m asl (or »about 700 feet« CEYLON TRAVELLER 1974: 247; 1983: 249).

MAP: Survey of Ceylon / Sri Lankaone: Haputale (One-Inch series). SPELEOMETRY: Length: Allegedly 9 m. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1955, 1965; Sarasin, Fritz & Sarasin, Paul 1908.

A south-facing, about 15 m wide entrance leads up to 9 m into an archaeologically significant »prehistoric cave« (CEYLON TRAVELLER 1974: 247, 1983: 249), which is not only »more a rock shelter than a cave« but also a »structure« (CEYLON TRAVELLER 1974: 247-248; 1983: 249-250) with »a drip of water down the rock ... rich in calcium ...« or calcium carbonate forming »encrustations Even today it is a popular resort of poachers owing to its seclusion and abundance of game« (DERANIYAGALA 1955: 295).

ETYMOLOGY: The Sinhala "alu galge" translates into »ash shelter« (DERANIYAGALA 1955: 295). So far, I saw this rock shelter (SARASIN & SARASIN 1908; DERANIYAGALA 1955, 1965) called, transcribed (romanised), spelled, or edited as

Alu Galge (Telulla) DERANIYAGALA (1955: 295-300)

Alu-galge, off Telulla CEYLON TRAVELLER (1974: 247, 1983: 249)

Kalu Galge SARASIN & SARASIN (1908)

Telulla alu galgé DERANIYAGALA (1965: 144)

POSITION: DERANIYAGALA (1955: 295) supposes with locating »Alu Galgé (Telulla)« at the corrupted position »at about 6° 8" North latitude, 81° 5" east longitude« (113) but either lost about 30 minutes north or confused the village of Telulla (114) with the village of Telulla (115) as this Alu Galge is reached »by travelling up the Damba kota aré], a tributary of the Kirindi oya (river)« (116).

DERANIYAGALA (1955: 295): »Between the 500 and 100 feet contour lines« (222.5 m ±72.5 m) or at »700 feet« = 215 m asl (CEYLON TRAVELLER 1974: 247; 1983: 249).

113 »° 8" North latitude, 81° 5" east longitude« (DERANIYAGALA 1955: 295) could mean N06°00'08": E081°00'05" but probably is only N06°08': E081°05' misprinted.

114 Telulla (N06°36': E081°08') lies 54 km in a direct line due north of Hambantota (N06°07': E081°07') and thus, as DERANIYAGALA (1955: 295) directs us, in the vicinity of the »47th mile« (kilometre 75.6) on the road from Hambantota (N06°07': E081°07') north to »Wellawaya« (Wellawaya N06°44': E081°06').

115 Telulla (N06°12': E081°17') lies 19 km in a direct line ENE from Hambantota (N06°07': E081°07').

116 »Damba Kota aré« (DERANIYAGALA 1955: 295) is the »Dambakota ara« (CEYLON TRAVELLER 1974: 247; 1983: 249) which joins (N06°39': E081°07') the Kirindi Oya.

SITUATION 1: SARASIN & SARASIN (1980): West of Telulla.

SITUATION 2: (DERANIYAGALA 1955: 295): Near Telulla (N06°36': E081°08') »in the forest« and »about seven miles« (11.3 km, probably along the road) west of the 47th mile on the road from Hambantota (N06°07': E081°07') north to Wellawaya (N06°44': E081°06'). The site is reached on foot by travelling upstream the »Damba kota aré«, a tributary to the Kirindi Oya river: »The rock shelter is part of an outlier that rises 200 ft [60 m] above the surrounding land, and the rock itself is weathered in various places to form deep pockets of decomposition that retain water far into the dry season.«

SITUATION 3 (DERANIYAGALA 1965: 144 figure 21): The not exactly precise »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galge)« (without coordinates, drawn by J.B. Delair) shows »Telulla alu galgé« in Uva Province at a location about 8 km in a direct line approximately south of »Galaboda Kandé galgé« (N06°45': E081°05').

SITUATION 4 (CEYLON TRAVELLER 1974: 247; 1983: 249): Off Telulla (N06°36': E081°08') on »the road« (Highway A4) from Wellawaya (N06°44': E081°06') south towards Wirawila (N06°17': E081°13') for »seven miles« (11.25 km) west: »The cave is accessible only on foot along the bank of the Dambakota ara [N06°39': E081°07'], a tributary of the Kirindi oya.«

CAVE DESCRIPTION 1 (DERANIYAGALA 1955: 295): »The floor space of the shelter is about 15 yards [13.8 m] wide at the entrance by about 10 yards [9.25 m] long and at its western end to the left of anyone visiting the cave there is a drip of water down the rock.«

CAVE DESCRIPTION 2 (CEYLON TRAVELLER 1974: 247; 1983: 249): »The cave is about 15 yards [13.8 m] wide at the entrance and about ten yards [9.25 m] long. At the left of the cave (at its western end) water drips continuously down the rock. There is evidence to indicate that this drip has continued uninterrupted for many thousand years. ... The drip of water at the western end of the rock [sic!] is rich in calcium [sic! qua: calcium carbonate]. Deposition of this substance over centuries had formed encrustations upon a part of the human skeleton and on the animal bones which were excavated here.«

CULTURAL HISTORY - archaeology (DERANIYAGALA 1955: 295): Partial excavation to a depth of 60 cm allowed recovering a human skeleton »... covered with stones each about 18 cm by 10 cm. The skeleton was found to be badly preserved, much of it having disintegrated. It was in a flexed position and lay upon its left side facing the east. Between the tibia and the femur was a spherical pebble and near the foot were shells of the tree snail *Acaeus superbus*, the land snails *Cyclophorus*, and *Aulopoma*, two species of the water snail *Paludomus*, numerous fragments of quartz and a few of chert, bones of various animals, and bone tools.«

EXPLORATION HISTORY: Paulus Edward Pieries DERANIYAGALA (1955: 296) narrates how »... the site was first noticed by a Colombo Museum party that had camped there and excavated a hole from which they brought back a small collection of bones. Among these were the left supraorbital bone, the left zygomatic bone, and a part of the left half of a manibular body of a human skeleton. The site was revisited in July 1954 and after squaring off the floor it was partially excavated to a depth of 60 cm.«

1954 July: Paulus Edward Pieries DERANIYAGALA (1955: 296) excavated.

ALU LENA, Attanagoda

Archaeologically investigated but speleologically unexplored and unmapped rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Attanagoda village.

POSITION: WGS84 N07°14': E080°24' / N07.23333°: E080.4° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kandy" (One-Inch).

SPELEOMETRY: Length: Estimated 7.5 m. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1987, 1992, 1998, 2001b, 2002.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 2.

A large »cave« or rock shelter with an entrance some 15 m across and extending for 7 or 8 m into the hillside would appear to have been formed by mind-boggling »solutional erosion« of a mineral filled cavity / pocket in the gneiss (Brooks 1995 Mss: no. 2).

ETYMOLOGY: The Sinhala »alu lena« means »ash cave« and has been called »Alulena, near Kegalla« (CEYLON TRAVELLER 1974: 254; 1983: 256) and »Alu-lena at Attanagoda near Kegalle« (DERANIYAGALA 1998, 2001b).

SITUATION: By a stream in the »lowland wet zone« (DERANIYAGALA 1990, 1992) at the village of Attanagoda (117) near Kegalla (118).

CULTURAL HISTORY - archaeology: Investigated by W.H. Wijayapala for archaeological remains (Brooks 1995 Mss: no. 2). DERANIYAGALA (1987: 101) notes a radiocarbon date of 9700 BP (uncalibrated?) and DERANIYAGALA (1998, 2001b; 2002: 5) a mesolithic radiocarbon date on charcoal of 10,500 BP calibrated by Beta Analytic Inc. using data base of *INTCAL 98* calibrations.

ALU LENA (BROOKS 1995 Mss: 40a)

see: Alugallena (Mimure)

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 40a: Alu Lena.

ALU LENA, Okkampitiya

Unexplored and unmapped suspicious place name possibly hinting at a cave in.

LOCATION: Uva province: Monaragala district: Kumbukkan Oya basin: Okkampitiya (Okkampitiya Ihalagama) area: Maligavila (Maligawela, Maligawila) ruins: Alulena (Alu Lena) village.

POSITION: WGS84 N06°44': E081°23' / N06.73333°: E081.3833333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Butala (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

The suspiciously named village of »Alulena« (alu = ash; lena = cave) lies in the upper reaches of the Kumbukkan Oya.

SITUATION: According to the position N06°44': E081°23' (www.nima.mil/geonames accessed 16.11.2003), the village of Alulena lies at linear distances of about 10 km approximately east of Okkampitiya (119), and 4 km east-northeast of the Maligavila ruins (120).

ALU WIHARA

see: Aluvihara

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860 vol. 1: 489.

»... in Ceylon, the earliest rock temples were merely hollows beneath overhanging rocks, like those still existing at Dambool, and the Alu-wihara at Matelle, in both of which advantage has been taken of the accidental shelter of rounded boulders, and an entrance constructed by applying a façade of masonry, devoid of all pretensions to ornament« (TENNENT 1859, 1860.i: 489).

ALU WIHARE

see: Aluvihara

BIBLIOGRAPHY: Kusch, Heinrich 1973c: 22.

ALUGALA LENA

see: Alugallena (Mimure)

ALUGALLENA, Mimure

or: Alu Lena, Alugala Lena, Ash Cave

Unexplored and unmapped natural cave or rock shelter.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »Doombera district« (Davy 1821), »Dombera« (FORBES 1840, 1841, 2: 240), »Nitre Cave district« (LEITER 1948: 61) or in »Uda« (KUSCH 1973c) area: Corbett's Gap / Corbets Gap (Attala-mettuwa): Loolwatta (Looloowatte, Loolwatte) via »Kaikiwala« (URAGODA 1973) or »Kaikawala« (KUSCH 1973c) to Mimure (Meemoorra, Meemora, Meemure, Memora, Mimura).

POSITION: Everest 1830 (assumed EPE ±5 km) N07°25'00": E080°52'30" / N07.416667°: E080.875° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Rangala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 40a: Alugalle.

»Little is known about this cave except that it contains a significant amount of ash deposit and therefore may be an important archaeological site« (Brooks 1995 Mss no 40a "Alu Lena" after one »S.A. [sic! probable qua: Siran Upendra] Deraniyagala 1995 April« personal communication).

ETYMOLOGY: Little doubt remains that »Alugallena« (Internet) is a contraction of "Alugala Lena" (Ash-Rock Cave), which can be reduced to an even less distinguished »Ash Cave« (121).

SITUATION 1: In »the Knuckles forest range« (Internet).

SITUATION 2: Brooks (1995 Mss no 40a: Alu Lena) locates »Alu Lena« in one way or another »near« (sic) but on the other hand »approximately one mile [one or two kilometres without orientation] from ... the Nitre Caves« (122).

117 Attanagoda N07°14': E080°24'

118 Kegalla N07°15'11": E080°21'02" (WGS84).

119 Okkampitiya / Okkampitiya Ihalagama N06°45': E081°17'

120 Maligawela Ruins or Maligawila Ruins N06°43': E081°21' <www.nima.mil/geonames> (accessed 16.11.2003) are indicated »Maligavila« on my issue of the "Road Map of Sri Lanka (Survey Department 1977).

121 www.srilankatrekking.com (accessed 2009.08.17): »Mini world's end trails in the west and east, Pitawala pathena trail, Ash cave trail, Nitre cave trail, Knuckles summit trail are very exciting.«

122 The so-called »Nitre Caves« (Brooks (1995 Mss no 40a) are not several "caves" but the one and only »Nitre Cave« (Mimure) known as →Lunugala Lena.

CULTURAL HISTORY - human use: At least one Internet website advertises the book titled »*Trekking in the Knuckles Forest: A guide to Alugallena, Dekinda and Nitre cave nature trails*« for trekkers »... using Alugallena, Dekinda and nitre cave nature trails« (123).

ALUVIHARA

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves) in gravitationally dislocated gneiss boulders.

LOCATION: Central province: Matale district: Aluvihara (Aloo Wihara, Alu Wihara, Aluvihare, Aluwihara, Aluwihare, Maha Viharé).

POSITION: WGS84 N07°30'50": E080°37'17" / N07.5138889°: E080.6213889° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Cave, Henry W 1900, 1901, 1904, 1907, 1908, 1912, 1921; Kusch, Heinrich 1973c; Leclercq, Jules 1898a, 1898b; Lonely Planet, Sri Lanka 2003; Forbes, Jonathan 1840, 1841; Ratnajinendra, M R 1965; Tennent, James Emerson 1859, 1860, 1861.

A Buddhist »*rock monastery*« (LONELY PLANET, Sri Lanka 2003: 222) centred on several »*caves*« or »*cave shelters*« consisting of only little modified natural rock shelters between and beneath gneiss boulders, which have disintegrated in situ but nobody can object that it is much more imaginative to interpret them as »*fallen from the mountains high above the valley*.«

ETYMOLOGY: The Sinhala "alu" means »*ash*« and "vihara" is a »*monastery*« (or temple). Legend has it that a giant used three of the boulders as a base for his cooking pot and the ashes of this fire gave rise to the name "alu vihara" (124).

SITUATION: At a travelling distance of 3 km generally north of Matale (N07°28'18": E080°37'28" WGS84) and at »*an extremely picturesque setting*« (LONELY PLANET, Sri Lanka 2003: 222) beside the highway A9 from Kandy (N07°17'47": E080°38'06" WGS84) generally north and past Dambulla (N07°51'36": E080°39'06" WGS84) to Jaffna (N09°40': E080°00').

CAVE DESCRIPTIONS: TENNENT (1859, 4th revised edition 1860, I.IV.vii: 489): »... in Ceylon the earliest rock temples were merely hollows beneath overhanging rocks, like those still existing at Dambool, and the Aluwihara at Matelle, in both of which advantage has been taken of the accidental shelter of rounded boulders, and an entrance constructed by applying a façade of masonry, devoid of all pretensions to ornament.«

LEQUERQ (1998b): »*Au sud de Dambulla un autre temple*

123 www.iucn.org/about/union/secretariat/offices/asia/ (accessed 2009.08.17): »*The guide includes an introduction to the Knuckles forest range, useful tips and advice to trekkers and maps of the trails mentioned with lists of identified fauna and flora found along the trails.*«

124 So far, I found the name transcribed (romanised), called, spelled or edited as

- Aloo Wihara TENNENT (1859, 1860 vol. 1: 376),
- Aoolenne FORBES (1840, 2: 282; 1841, 2: 282),
- Alu Vihare KUSCH (1973c: 22),
- Alu-wihara TENNENT (1859, 1860 vol. 1: 489),
- Aluvihara www.lankalibrary.com/ (17.11.2003),
- LONELY PLANET (2003: 222)
- Aluvihare <www.nima.mil/geonames> (16.11.2003)
- Aluwihara LECLERCQ (1898)
- Aluwihare <www.nima.mil/geonames> (16.11.2003)
- Aluwihari CAVE (1901, 1902).

southern, celui d'Aluwihara (dans un pays de nombreuses cavernes) est plutôt une série de crevasses, avec de naïves peintures, dans escaliers dans le roc, et des cellules naturelles pour le prêtres; il n'y a rien non plus d'artificiel.« LONELY PLANET, Sri Lanka (2003: 222): »*Ancient drip ledges [125] line the rocks above the frescoed caves, while bats rustle in sheltered corners of the rocks.*«

<www.lankalibrary.com/> (accessed 17.11.2003): A »*mass of rock boulders harbouring cave shelters ...*« There is a »*first cave about 25 feet long and 10 feet high ... On its apex is written in bold Sinhala letters ... The rock cave shelter harbours an Image House [126]. Its entrance doorway, overhead is surmounted with the typical Makara Thoranay motif flanked by janitors. There are also seated standing and recumbent Buddha statues of terra-cotta, while the murals are adorned with paintings of Jataka stories. The cave ceilings are studded with fascinating paintings of lotus flowers in full bloom - all dating back to the Kandyan period of time. Next comes a spiral stone staircase that terminates on its summit where the sacred Bodhiya stands cloistering an image house in this rock cave shelter. The third cave is met amidst a conclave of rock boulders where is sheltered another rock cave where the Tripitakayas were written on ola leaves by the ancient Buddhist monks.*«

CULTURAL HISTORY - rock art: LECLERCQ (1898) recorded cave paintings and engravings: »... celui d'Aluwihara (dans un pays de nombreuses cavernes) est plutôt une série de crevasses, avec de naïves peintures, des escaliers dans le roc, et des cellules naturelles pour les prêtres; il n'y a rien non plus d'artificiel.«

FORBES (1840, 1841.ii: 281-282) translates rock inscription 21 into »*Walagambahoo 1st ... discovered many caves and situations eligible for the formation of rock- temples, where he afterwards built wihares. He brought together five hundred of the principal and most learned priests, at a cave in Matale called Aoolenne, and, for the first time had the tenets of Budhism reduced to writing, which occurred in the 217th year, 10th month, and 10th day, after they were promulgated orally by Mihindoo. He succeeded at length in raising an army in the Maayaa division of the island, and vanquished the usurpers of his throne. He restored the former religious edifices, and built Abhaayagiri daagoba, one hundred and eighty cubits high, at Anooradhapoorra [Anuradhapura]. To commemorate the recovery of his Queen from captivity, he erected a daagoba one hundred and forty cubits high, and called it after her, Soowana-raamaya daagoba; the Damboolla [->Dambulla] wihare, and other wihares.*«

KUSCH (1973c: 22-23) considers the »*Alu Vihare*« temple cave to be a »*Höhlentempel*« (cave temple) and mentions not very good restored frescoes on the walls but also a large statue of Buddha and several small, in cases new statues.

CULTURAL HISTORY - human use: The rock shelters have been used by Buddhist monks as troglodyte hermitage

125 Drip ledge, »... a deep cut, termed a katdra, ... made along the rock, above the front of the cave ... in order to prevent the rain-water that trickled down the front of the upper part of the rock from entering the room« (PARKER 1909: 418-419).

126 FORBES (1840, 2: 387 footnote; 1841, 2: 337 footnote): »*Bogey [bo ge]; a house built at the foot of a bo or pippal-tree, for the purpose of receiving offerings; when furnished with images of Budha, the daagey and bogey are also called Pilemegey, or image house, and Budugey*« (buddhu ge).

retreats or mediation cells (127) and serve, in parts, as profitable temple caves (128), which exploit cheap fears (129) and establish a sacred corporate identity that invokes ancient (130) and up to date celebrities, including such as His Royal Highness Crown Prince Sihanouk of Cambodia and the late Premier Srimavo Dias Bandaranaike.

EXPLORATION HISTORY: -89: Buddhist doctrines were first transcribed (romanised) from oral and Sinhalese sources into Pali text by a council of monks (131).

1848: British troops destroyed the library.

1860: One Mister A. Nicholl has a woodcut depicting »*The Alu Wihara near Matelle*« published in TENNENT (1860,1: 375).

1896: Henry W. CAVE (1900, 4th edition 1907, edited 1921) took photographs.

127 »One cave is dedicated to Buddhagosa, the Pali scholar who is supposed to have spent several years here« (LONELY PLANET 2003: 222).

128 »It's money well spent if you're considering straying from the straight and narrow« (LONELY PLANET 2003: 222).

129 »One of the monastic caves contain a horror chamber (admission Rs 20) ... the gaudy statues of devils and sinners show the inventive range of punishment meted out in the afterlife. One scene shows a sexual sinner with his skull cut open and his brains being ladled out by two demons. Another exhibit shows prostitutes being impaled. Some of the demons seem to be taking real pleasure in their work« (LONELY PLANET 2003: 223).

130 Shown off are »priceless Buddha statues ... together with other archaeological artifacts pertaining to old Lanka, as well« (www.lankalibrary.com accessed 17.11.2003).

131 <www.lankalibrary.com/> (accessed 17.11.2003) confirms that »the epic reign of king Valagamba / Vattagamani (104-77 B.C.) would go into the annals of the Buddhist literary history as the Tripitakas (Buddhist scriptures) were written down on ola leaves in Pali by a conclave of Buddhist monks of the Aluvihara Temple, lying close to Matale.«

TENNENT (1859 revised 4th edition 1860, 1.III.viii: 375): »... the achievement by which most of all he entitled himself to the gratitude of the Sinhalese annalists, was the reduction to writing of the doctrines and discourses of Buddha, which had been orally delivered by Mahindo, and previously preserved by tradition alone. These sacred volumes, which may be termed the Buddhist B.C. 89. Scriptures, contain the Pittakataya, and its commentaries the Atthakatha, and were compiled by a company of priests in a cave to the north of Matelle, known as the Aloo-wihara. This, and other caverns in which the king had sought concealment during his adversity, he caused to be converted into rock temples after his restoration to power.«

ANIYAKANDA "CAVE"

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala kanda: Ritigala range.

POSITION: WGS84 N08°06': E080°39' / N08.1°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets "Elahera" or Nalanda" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Bell, HC. 1892; McAlpine, W.R. & Robson, David 1983; Paronavitana, S. 1970.

Among the »more than 70 known caves« discovered by H.C. Bell on →Ritigala, there are some »on the Andiyakanda ridge to the east« of Ritigala Kanda itself (132).

McALPINE & ROBSON (1983: 361), probably after PARANAVITANA (1970): One inscription (rock art: epigraphy) in a so-called »Andiyakanda Cave« reads: »The gift of elder Tissa to the Sangha of the four quarters, present and absent« (133).

ASGIRIYA "CAVE DWELLING"

Speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters.

LOCATION: Western province: Colombo district: Asgiriya village.

POSITION: WGS84 N07°06': E079°59' / N07.1°: E079.983334° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Colombo" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings are scattered throughout Sri Lanka« and there is a »cave dwelling« or one of the »caves worth visiting« (CEYLON TRAVELLER 1974: 249; 1983: 251) at Asgiriya in Colombo district.

SITUATION: Asgiriya (N07°06': E079°59' WGS84) in Colombo district (134) lies about 23.5 km in a direct line approximately north-east from Colombo (Fort Railroad Station N06°56'01": E079°51'01" WGS84) and west of Gampaha (135).

132 McALPINE & ROBSON (1983: 361): The »largest complexes« of caves (or of inscriptions?) on →Ritigala is »to be found on the Na-maluwa or Na-ulpota ridge to the west, the Kudda-armbedda ridge to the south-west, the Marakkala-ulpota on the south termination of the range, and the Andiyakanda ridge to the east.«

133 McALPINE & ROBSON (1983: 361): »The caves in almost all cases were granted by the donors to the Sangha (order of the monks) irrespective of sect or school and the phrase 'to the Sangha of the four quarters, present and absent', which ends many votive inscriptions, expresses the universality of the gift.«

134 Asgiriya (N07°06': E079°59' WGS84) in Colombo district is not (or is) to be confused with Asgiriya (N07°18': E080°38') in Kandy district, which lies near Kandy (N07°17'47": E080°38'06") and about 94 km in a direct line approximately east-northeast from Colombo.

135 <www.nima.mil/geonames> (accessed 16.11.2003) lists not only Gampaha (N07°05'30": E079°59'39" WGS84) but also Gampaha Alutgama (N07°06': E080°01' WGS84), Gampaha Ihalagama (N07°06': E080°00' WGS84), Gampaha Medagama (N07°05': E079°59' WGS84) and Gampaha Pahalagama (N07°05': E079°59').

ASH CAVE, Mimure

see: Alugallena, Mimure

<www.srilankatrekking.com> accessed 2009.08.17.

ATTANAGALLA VIHARA CAVE DWELLING

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Western province: Colombo district: Attanagalla village.

POSITION: WGS84 N07°06'43": E080°07'58" / N07.11194444°: E080.13277778° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet "Avisawella" or "Colombo" (one-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings ... are scattered throughout Sri Lanka ... A series of such caves extends—to mention only those on or near main roads—as far as Attanagalla vihara« (CEYLON TRAVELLER 1974: 249; 1983: 251).

SITUATION: Somewhere in the vicinity of Attanagalla (N07°06'43": E080°07'58" WGS84), a village marked as a »place of archaeological and tourist interest« on Survey Department (1977: Road Map) about 25 km in a direct line approximately north-east from Colombo city (136).

AUKANA 'CAVES'

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Anuradhapura district: Kala Wewa (Kalawewa) Reservoir area: Aukana (Avukana, Awukane) Vihare.

POSITION: WGS84 N08°01': E080°31' / N08.016667°: E080.516667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Anuradhapura" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A a group of unspecified »caves« of unidentified nature bear inscriptions dated to the 1st century A.D. (CEYLON TRAVELLER 1974: 249; 1983: 251).

SITUATION: Somewhere »near« the ancient shrine of Aukana, Avukana, Awukane, Awukane Vihare (N08°01': E080°31'), and about 4 km from the »bund« (dam) of the Kalawewa »tank« or artificial water reservoir.

APPROACH: CEYLON TRAVELLER (1983: 116): »To reach Aukana bear left [north-west] at Kekirawa [137] on the Dambulla - Anuradhapura road, and left [south-west] again 3.5 miles [5.6 km] beyond. A little past Vijithapura [138], once an ancient capital, you drive on the 3.5 mile long, wind-swept bund of the Kalawewa [N08°01': E080°33']. ... Turn right at the spill and the colossus of Aukana is just two miles [3.2 km] away.«

136 Colombo city: Fort Railroad Station N06°56'01": E079°51'01" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

137 Kekirawa, Kekirawa Bazaar (N08°02': E080°36') and Kekirawa railway station (N08°03': E080°35' <www.nima.mil/geonames> accessed 16.11.2003).

138 The crossroad village of »Vijithapura« (CEYLON TRAVELLER 1983: 116) is neither indicated on the "Road map of Sri Lanka (Survey Department 1977) nor listed on <www.nima.mil/geonames> accessed 16.11.2003).

BABA CHUZI, Höhle des

see: Khuzi, cave of Baba

BIBLIOGRAPHY: Leicht, Hans (1999: 200) edition of [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354.

BABA KHUZI, cave of

see: Khuzi, cave of Baba

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C. & Sanguinetti, B.R. 1874-1879; edited by Gibb, Hamilton AR. 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

BABA TAHIR, cave of

see: Tahir, cave of Baba

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C. & Sanguinetti, B.R. 1874-1879; edited by Gibb, Hamilton AR. 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Lee, Samuel 1829); Skeen, William 1870, 1997.

BADUNGALA CAVE

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Southern province: Galle district: Yakkalamulla PS area: Badungala.

POSITION: (If at Yakkalamulla itself), N06°06': E080°21' / N06.1°: E080.35° (or so).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

A »cave with rare ancient inscriptions« (139) dating back to the »Endera yugaya or the era when animals were domesticated. They say similar cave inscriptions had been so far discovered in Alauwa, Ambilikanda and Mawanella. This is the first time that such a find has been reported from the South.«

SITUATION: At »Badungala« (unidentified) in one »PS division« of Yakkalamulla (N06°06': E080°21') in Galle district.

BAGAVA LENA, Adam's Peak

or: Bhagawa Lenna

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Sri Pada summit.

POSITION: (If close to the summit of Adam's Peak), WGS84 N06°48'30": E080°29'53" / N06.80833333°: E080.49805556° (<www.nima.mil/geonames> accessed 16.11.2003): 2030 m asl (±100 m).

MAPS: Survey of Ceylon / Sri Lanka sheet Hatton or Ratnapura.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980; Pridham, Charles 1849.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 38.

An entrance measuring 5 by 2.4 m opens to a single chamber 5 m long (Brooks 1995 Mss, no. 38). This item is possibly identical with the →Adam's Peak Cave (MORGAN 1943 after BASSET 1929).

139 <www.stonepages.com/news/archives/002730.html> dated 16 March 2008 (accessed 2009.08.02) after *The Sunday Times Online* (9 March 2008).

ETYMOLOGY: Among Hindus, "bhagavan, bhagawan, etc." means something along the lines of master, lord, god.

Concerning the Bagava Lena on Adam's Peak, I came across the spelling, transcription, or editing versions »*Bagava-Lena Shelter*« (Brooks, S J 1995 Mss no 38) and »*Bhagawa-Lenna*« (PRIDHAM 1849, ii: 616).

SITUATION: On »*the eastern side of the Peak*« (PRIDHAM 1849) or close to the summit (Brooks 1995 Mss) of Adam's Peak (WGS84 N06°48'30": E080°29'53": 2134 m asl).

CAVE DESCRIPTION (PRIDHAM 1849, ii: 616-617): »... *the Bhagawa-Lenna, a jutting rock, under which all the four Buddhas are said to have rested ...*« (140).

CULTURAL HISTORY: Archaeological excavation yielded stone tools (DERANIYAGALA 1980: 177).

The cave attracts many pious pilgrims (PRIDHAM 1849) and may be considered as sort of a religious show cave.

BAGAVA LENA, Galagedera

or: Bagava Lena, Bagavalena, Bagawalena

Speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: North Western province: Kurunegala district: Galagedera village.

POSITION: WGS84 N07°32': E080°08' / N07.53333°: E080.13333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet "Dandagamuwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter called »*Bagavalena*« (CEYLON TRAVELLER 1974: 254; 1983: 256) or, perhaps, Bagava Lena, Bagavalena, Bagawalena. Compare →Bagava Lena (Adam's Peak).

SITUATION: Somewhere in the vicinity of the village of Galagedera (N07°32': E080°08') in Kurunegala district.

BAGURE GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural painted cave or rock shelter.

LOCATION: Eastern province: Amparai district: Wila Oya basin: Bagure area.

POSITION: WGS84 (assumed EPE ±10 km) N06°37'30": E081°42'30" / N06.625°: E081.7083333° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Panama.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala Paulus Edward Pieries 1953.

A »*rock shelter*« (or cave?) containing rock art (polychrome markings) depicting animals inserted, and with numerous symbols.

SITUATION (DERANIYAGALA 1953: 125): Somewhere in the Eastern Province and in the vicinity of Bagure (141).

BAKINIGAHA ULPOTA KANDA, cave on the

Archaeologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Unidentified (Central, Uva, or Western) province: unspecified (Colombo, Badulla, Kegalle or Monaragala) district: Balaharuva: Bakinigaha Ulpota Kanda.

POSITION: Representative WGS84 coordinates (assumed EPE ±20 km) N06°55': E081°15' / N06.916667°: E081.25° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified (Gampaha, Haputale, Passara, or Timbolketiya).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1953.

A cave entrance without specified shape or dimensions, which faces an unknown direction, gives access to a cave without specified nature or character.

ETYMOLOGY: No locally known name has been identified for an allegedly anonymous »*Cave with stone implements at Bakini Ulpota Kanda near Balaharuva*« (DERANIYAGALA 1953 plate 11).

SITUATION: DERANIYAGALA (1953 plate 11) locates this cave not only in one way or another »*near*« one or the other »*Balaharuva*« (142) or »*near Balaharuva*« (143) but also »*at*« (somewhere) an unidentified hill called »*Bakinigaha Ulpota Kanda*« (144).

141 <www.nima.mil/geonames> (accessed 16.11.2003) lists six distinct trigonometrical stations called "Bagure" in the area between N06°35': E081°40' to N06°39': E081°46' (centred on N06°37'30": E081°42'30" WGS84) and thus in the basin of the Wila oya (mouth near N06°46': E081°48' WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

142 Balaharuva (N07°11': E080°13'), either in Colombo or in Kegalle district, falling on the SoC / SoSL sheet Gampaha, lies in the lowlands about 50 km (or so) approximately north-east of Colombo.

143 Balaharuva (N06°34': E081°03') in Monaragala district, in the Kirindi Oya basin, falling on the SoC / SoSL sheets Haputale or Timbolketiya (One-Inch series), lies south-west of that village of Telulla (N06°36': E081°08') which lies on the road from Wellawaya (N06°44': E081°06') south towards Wirawila (N06°17': E081°13') and Hambantota (N06°07': E081°07').

144 »*Bakini Ulpota*« (DERANIYAGALA 1953 plate 11) is not identified unless it corresponds—but this is mere guesswork—a "lateral" (ulpota) village near the village of Bakinigahawela or Bakinigahawela Vidiya (N07°00': E081°17'), falling on SoC / SoSL sheet Passara, and in the area N06°50': E81°10' to N07°00': E081°20' corned by the village of Lunugala (N07°02': E081°12') in the north-west and the town of Monaragala (N06°52': E081°21') in the south-east.

140 PRIDHAM (1849, 2: 616-617): »*The native annals record ... the visits of the four Buddhas of the present era... the first of these, Kakusanda, is supposed to have visited the Peak, then called Deiwakuta (Peak of the god), about 3000 years before Christ ... The second Buddha, Konagamma, appeared about 2099 BC and the Peak had even then obtained the name Samanakuta (Peak of Saman —brother and companion in arms of Rama... in 2386 BC) ... The third Buddha, Káasiyapa, followed at an interval of 1100 years, about 1014 BC. The fourth, Gautama ... rested in Bhagawa-Lenna in 577 BC.*«

BALANGODA CAVE

see: Udupiyan Galge

BIBLIOGRAPHY: Deraniyagala Paulus Edward Pieries 1940; Stone Age Man in Ceylon 1941.

»The name *Balangoda* is proposed for this culture after the cave from which the implements are best known« (STONE AGE MAN ... 1941: 392).

BALLAWAHA-BOKA CAVE

see: Ballawalaboka Galge

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 12: Ballawaaha Boka Cave.

BALLAWALABOKA GALGE

Archaeologically investigated but speleologically unexplored and unmapped troglodyte rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Danigala Range area: Nilgala village: Ballawalaboka (Ballawaaha Boka).

POSITION: (If at the village of Nilgala itself), WGS84 N07°10': E081°22' / N07.1.6667°: E081.3.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Deraniyagala, Siran Upendra 1980; Sarasin, Fritz & Sarasin Paul 1908.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 12.

A rock shelter of unidentified nature, shape and dimensions.

ETYMOLOGY: »*Ballawalaboka Galge*« (SARASIN & SARASIN 1908) translates literally into Ballawalaboka Rock Shelter (gala = rock, ge = home, house).

Brooks (1995 Mss no 12) introduced the different spelling »*Ballawala-Boka Cave (spelling differs)*«.

SITUATION: SARASIN & SARASIN (1908) locate »*Ballawalaboka Galge*« at an unspecified distance north of the village of »*Nilgala*« (145).

CEYLON TRAVELLER (1974, 1983: 175) locates the Danigala Range (146) within the Gal Oya National Park and place Danigala itself »*on the crest of a hill four miles*« (6.5 km) along a steep, winding jungle path without identified direction from Ratugala (147).

Brooks (1995 Mss, item no. 12) had learnt the »*Ballawaha Cave*« lies at the southern end of the »*Danigala chain of hills*«.

APPROACH (CEYLON TRAVELLER 1974, 1983: 176): At a travelling distance of »*twelve miles*« (19.3 km

145 Nilgala (N07°11': E081°22') on toposheet sheet Nilgala.

146 »*Danigala Range*« (CEYLON TRAVELLER 1983: 175) or »*Danigala chain of hills*« (Brooks 1995 Mss, item no. 12 after DERANIYAGALA 1980: 155) is named after the village of Danigala N07°15': E081°23' <www.nima.mil/geonames> accessed 16.11.2003.

According to CEYLON TRAVELLER (1983: 175), »*The most fascinating feature of the [Gal Oya National ...] Park are the rugged ranges of hills that reach high above the rolling plains. The Danigala Range is the finest of all, its peaks rising over 2000 feet [610 m]. The veddahs of old chose this range for their home and lived in the caves atop it.*«

147 »*Ratugala*« (CEYLON TRAVELLER 1984: 175) lies »*twenty miles*« (32 km without orientation) from »*Inginiyagala*« or *Inginiyalgala* (N07°13': E081°32') and »*six miles*« (10 km without orientation) from *Mullegama* (N07°20': E081°27' <www.nima.mil/geonames> accessed 16.11.2003).

approximately north-west) towards *Bulupitiya* (N07°15': E081°20'), a jeep track to the »*right*« (without direction) runs »*six miles*« (9.6 km) »*through talawa country* [talawa, rolling park land] *to Nilgala on the banks of the Gal oya*« (148).

CULTURAL HISTORY - archaeology: Excavation yielded historical findings (SARASIN & SARASIN 1908; DERANIYAGALA 1980: 155).

BALUTOTA CAVES

see: Bulutota Caves

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

BAMBARABOTUWA CAVE

see: Beli Galge (Bambarabotuwa)

BIBLIOGRAPHY: Ceylon Traveller 1974: 244, 1983: 246.

BAMBARAGALA SHELTER

Archaeologically investigated but speleologically unexplored and unmapped rock shelter in unspecified Khondalite series of rock (DERANIYAGALA 1943: 101).

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Tanjama village: Bambaragala (Bambara Gala) rock.

POSITION: Everest 1830 coordinates N06°38'30": E080°50'30" / N06.6416667°: E080.8416667° (DERANIYAGALA 1943: 101).

MAP: Survey of Ceylon / Sri Lanka one-inch sheet: Haputale.

SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Deraniyagala Paulus Edward Pieries 1943; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 19 Bambaragala Shelter.

A 750 metre wide gash at the base of a 40 m high cliff contains shallow rock shelter on the Balangoda - Ukgal Kaltota / Uggalkaltota escarpment (149).

ETYMOLOGY: The Sinhala "bambara" are cliff bees, Zoologically: *Apis dorsata* (DERANIYAGALA 1943: 101).

Another explanation interprets outstanding rocks as mythical Bamba metamorphosed into solitary boulders (150).

148 According to CEYLON TRAVELLER (1974, 1983: 176), »*an old circuit bungalow still stands*« at the village of Nilgala (N07°11': E081°22') »*but is now occupied by officials of the Department of Wild Life Conservation.*

The waters of the Gal Oya surging through the boulder-strewn river bed a a dramatic sight with the twin peaks of Nilgala and Bulupitiya hela as a backdrop. This is a delightful place for a river bath and is also excellent for mahseer fishing. Elephants in small groups are often seen in and around Nilgala which is the home of the Painted Partridge. Nilgala is an excellent area for camping.«

149 Other sites on the Balangoda - Ukgal Kaltota / Uggalkaltota escarpment are →Budugala Caves, →Diyavinna Cave, →Kurugala Cave, →Lunu Galge and →Udupiyan Galge.

150 »*Bambas are described as not very different from angels: not omnipotent, yet possessing supernatural powers; pure as compared to mortals, yet not perfect, being liable to err. The Cingalese [Sinhalese] believe that the small detached rocks which are to be found scattered on the surface of many of the rocky mountains are Bambas, who in former eras were thus transformed*« (FORBES 1840, 1841. ii: 251 footnote).

SITUATION: DERANIYAGALA (1943: 101): »Bambara Gala« or »Bambaragala« is »... a large rock about 1.5 km long, 500 m high, and located at about N06°38'30": E080°50'30" [151].

It is about one kilometre to the west of Tanjama village which is about one kilometre to the south-west of the village of Tanjan Tanna [Tenna] lying north of the escarpment on the Balangoda and Ukgal Kaltota [Uggalkaltota] road. The ascent is steep, and from a distance the only space available for prehistoric man up on the rock shows as a gash running parallel with its base and extending along the median third of its length. The approach to this gash is narrow and precipitous, and on arrival there the overhang above the visitor is at a height of about 40 m. On this roof are numerous combs of the 'Bambara' bee, *Apis dorsata*, from which the rock derives its name.

It is necessary to travel for about three quarters of a kilometre along the 'gash' in the rock which is littered with heavy, angular, desquamated blocks and large 'bambara' combs fallen off the roof before a site capable of accommodating man is reached. At its extreme end, the gash narrows down and gives place to a series of narrow, terrace-like, rocky ledges which retain small pockets of dust and decomposing rock, disintegrated into a sand-like consistency. This is the only section providing adequate shelter for man from sun and rain, but the accommodation is scanty. A suitable terrace ledge about 1.5 m wide and 8 m long was selected for excavation.«

CULTURAL HISTORY - archaeology: Excavation yielded potsherds, quartz artifacts, rubbing worn pieces of graphite and mica, ashes, animal remains and a few stone tools.

BAMBARAGASTALAWA " CAVES "

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelters.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Kiripokuna: Bambaragastalawa.

POSITION: WGS84 N06°38': E081°43' / N06.63333°: E081.716667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Drip-ledged caves« (152), which probably consist of modified natural rock shelters) »where monks meditated ages ago« (CEYLON TRAVELLER 1974, 1983: 171-172) include »one large cave, the main pilimage, with a damaged, recumbent image of the Buddha, 18 feet [5.6 m] in length. Scattered around are 21 caves with inscriptions. Be wary of hornets ...« (potentially lethal *Apis dorsata*).

SITUATION (CEYLON TRAVELLER 1974, 1983: 171-172): »Two miles« (3 km) north of Kiripokuna (153), »... a jeep track terminates at Bambaragastalawa ... The main rock capped by an unscalable peak is 368 feet [112.3 m] high. Spread out in all directions into the surrounding jungles from its base are numerous boulders of immense size beneath most of which are drip-ledged caves ...«

BATADOMBA LENA

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte cave in gneiss (BROOKS 1995b).

LOCATION: Sabaragamuwa province: Ratnapura district: Kuruwiti korale: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: Everest 1830 (estimated EPE ±1 km) N06°47'30": E080°23'50" / N06.7916667°: E080.39722222° (M. Eckrich 1984 pers. comm.): 300 m asl (STRINATI & AELLEN 1981).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Allegedly 24 m. Vertical range: ±12 m (+12m / -0m).

BIBLIOGRAPHY: Brooks, Simon J 1995; Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1943, 1953, 1965; Deraniyagala, Siran Upendra 1987, 1992, 1998, 2001b, 2002; Hawkey D T 1998, 2003; Kennedy, Kenneth A R et alii 1986; Kennedy Kenneth A R, Deraniyagala Siran Upendra, Roertjen W J, Chiment J & Disotell T 1987; Possehl G L 1988; Siffre, Michel 1975.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 5.

COMMUNICATOR: Eckrich M 1984, personal communication.

At the side of an about 60 or 90 m long rock shelter above a ledge, an about 12 m wide and 8.5 m high cave entrance leads to a single cave chamber (15 m wide, 12 m high, 24 m long) »in gneiss« (Brooks 1995.04 Mss no 5) and dark in the end

ETYMOLOGY: So far, I saw Batadomba Lena called, spelled, transcribed (romanised) or edited as

Adam's Peak, grotte SIFFRE (1975: 12) photograph: »Grotte près d'Adam's Peak avec habitations troglodytiques«

Bata domba lena DERANIYAGALA, P E P (1943: 129)

Batadomba cave DERANIYAGALA, P E P (1965: 144 fig. 21); DERANIYAGALA, S U (1987: 100, 102); POSSEHL (1988: 172)

Batadomba lena DERANIYAGALA, P E P (1943: 130, 131); KENNEDY et al. (1987, 1988)

Batadomba-Lena DERANIYAGALA, S U (1998)

Batadomba-Lena Cave BROOKS (1995: 22)

Batadomba-Lena Cave / Caves Brooks (1995.04 Mss no 5)

Batadombalena CEYLON TRAVEL... (1974, 1983: 154)

Eratna / Batatota cave CEYLON TRA... (1974: 241; 1983: 243)

Kuruwita, grotte près de SIFFRE (1975: 21)

SITUATION 1943 (DERANIYAGALA 1943: 102-103): »The cave is reached by ascending to about 1,000 metres from

151 <www.nima.mil/geonames> (accessed 16.11.2003) positions the "RK" (rock?) Bambaragala at N06°27': E081°01' (WGS84) and the "TRIG" (trigonometric station) Bambaragala at N06°32': E080°59' (WGS84).

152 Drip ledges incised on the brow of the entrance to modified natural rock shelters (and the inhabitable entrance area of true caves) prevent rain from running down the face of the rock into the troglodyte dwelling area.

153 The lotus-covered pond Kiripokuna (N06°37': E081°43') on the approach to →Kiripokunahela (N06°37': E081°44') is reached from Okanda (N06°39': E081°46') at the entrance to the Yala National Park by taking the road south-east towards the village of »Kumanu« (CEYLON TRAVELLER 1974, 1983: 171) or Kumana (N06°31': E081°42'). At one point, one has to follow a »jeep track to the right« (probably north-west) for »two miles« (about 3 km) to »... come to an open glade dominated by a lotus-covered pond, Kiripokuna« (CEYLON TRAVELLER 1974, 1983: 171).

the village of Valanduré« or Walandure (154) along the stream bed of the »Vitané Kandé Āla« (unidentified), a tributary to the Kuru Ganga (155):

»The cave opening looms suddenly out of the mountain face above the trees on the left bank of the stream (plate VI, fig. 1). A kilometre north-east is the peak Sudagala Kanda. The cave opening looms suddenly out of the mountain face above the trees on the left bank of the stream (plate VI, fig. 1). A kilometre to its north east is the peak of Sudagala Kanda.

The approach is steep and water drips from the overhanging ledge of rock into the valley, generally without falling upon the ledge itself, which widens after a distance of about 60 m, to form the platform at the cave entrance.«

SITUATION 1953 (DERANIYAGALA 1953: 129) locates Batadomba Lena not only in the vicinity of Kuruwita (156) and in the mountains of the »Sri Padhe« (Adam's Peak) massif (157) but also, and erroneously, near N06° 46':

E080°23' and this is the position of Batatota on the way to →Batatota Lena.

SITUATION 1961: Compare »grotte près de« →Kuruwita (SIFFRE 1975).

SITUATION 1974: CEYLON TRAVELLER (1974: 241; 1983: 243): »Batadombalena lies at the foot of a large rock of the same name.« The cave is reached by travelling from Kuruwita (T-junction near N06°46'30": E080°21'50" Everest 1830) for 2.2 km generally NNE along the road towards Eratne (158) up to the T-junction of Ekneligoda Walauwa (159), »where a motorable road turns off to the right [east to south-east]. This road ends [160] after about a mile; beyond is a footpath [161].

154 »Valanduré« (DERANIYAGALA, P E P 1953: 129) appears to correspond to the village of Walandure N06°46': E080°23' (www.nima.mil/geonames accessed 16.11.2003) which is indicated as Walandure N06°46'10": E080°23'05" (Everest 1830) on my partial photocopy of the Survey of Sri Lanka (One Inch Series) map "Ratnapura".

155 Kuru Ganga N06°54'01": E080°17'37" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

156 Kuruwita N06°46'45": E080°22'07" <www.nima.mil/> accessed 16.11.2003.

157 »Sri Padhe« (DERANIYAGALA, P E P 1953: 129) and »Sreepud, or The Divine Foot« (DUNCAN 1799), Siri Pada, or Sri Pada and Adamova stītu (KUKLA 1958: 168), or Adamspeak (KUKLA 1958: 169), is Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" (WGS84 <www.nima.mil/geonames> 16.11.2003) culminating at »7360 feet« (Survey Department 1977: Road map of Sri Lanka) corresponding to 2243 m asl (LONELY PLANET 2003: 187).

158 Eratne probably lies near N06°50': E080°25' (±5' Everest 1830) and falls on the Survey of Sri Lanka sheet "Hatton" (not seen).

159 Ekneligoda Walauwa (N06°47'00": E080°22'25" Everest 1830) is the T-junction but Ekneligoda itself in indicated near N06°47'10": E080°22'50" (Everest 1830, Survey of Sri Lanka sheet Ratnapura, One Inch series).

160 The road head is indicated near N06°47'10": E080°23'20" on the Survey of Sri Lanka sheet "Ratnapura" (One Inch series).

161 This »footpath« (CEYLON TRAVELLER 1974: 241; 1983: 243) is an euphemism for a network or footpaths leading north, north-east, and east.

The cave is situated at the crest of a rocky overhang about three miles [some 5 km without direction] along the footpath.«

SITUATION 1984: Michael Eckrich (München: Zoologisches Institut, 1984 personal communication) indicated the approximate location of Batadombalena in an area (N06°47'15": E080°23'15" and N06°47'45": E080°24'15" Everest 1830) where the Survey of Sri Lanka sheet "Ratnapura" (One Inch Series, a.i. before 1984) shows »Sudagala« (N06°47'25": E080°23'40") and the "kanda" (hill) »Gulunewattakanda« (N06°47'25": E080°24'10").

SITUATION 1995: BROOKS (1995: 22) has »Batadomba [sic!] Lena« at »a very impressive location on the mountainside above Kuruvita« (Kuruwita).

Brooks (1995 Mss, item no. 5) explains that the entrance lies »at an imposing position at the base of a large cliff on the south flanks of Adam's Peak and some 5 km [without direction] from Batatota Lena.« The entrance to this cave is said to lie about 5 km without direction from Kuruwita and near the small village of »Batadomba« (162), from where a footpath is followed up the through the forest to an open glade. Here, the cave entrance lies at the base of a large cliff, some 20 walking minutes from »Batadomba«

CAVE DESCRIPTION 1943 (DERANIYAGALA 1943: 103): At the far end of a 60 m long ledge, the »... entrance is about 12 m wide and faces south while the cave itself runs northward under the rock for a distance of about 20 m. Both ledge and platform are exposed to sunlight during part of the day, but are more or less free from the influence of water. As is to be expected however the termination of the cave is comparatively dark (plate VI figure 2).

Fine dust produced mainly from bat guano covers the ledge and cave floor and in it are shells of snails, bones and artifacts; below the dust is a nitre layer laying above a further thickness of dust and brown earth covering the large fragments of angular rock that have broken off the sides and roof. A considerable part of the floor had been disturbed by many generations of villagers who used the quantities of bones that once lay in the guano dust and nitre, for manuring their fields. Sufficient however was left intact to ascertain the sequence of the beds which is as follows:

[20.3 cm] 8 inches fine guano dust with animal remains, pottery and artifacts,

[5 - 7 cm] 2 to 3 inches dirty white crust of crystalline nitre containing bones and artifacts [artefacts],

[121 cm] 4 feet fine guano dust, brown sand with bones and artifacts,

thereafter close-set, heavy, angular blocks of rocks derived from the sides and roof.«

CAVE DESCRIPTION 1953: DERANIYAGALA (1953: 129): A spacious cave with a long overhang to the left / west of its entrance forming a shelter about 100 yards (90 m) long.

CAVE DESCRIPTION 1961 (SIFFRE 1975): See »grotte près de« →Kuruwita.

CAVE DESCRIPTION 1974: One of the two »highly impressive caves« (CEYLON TRAVELLER 1983: 154) in the vicinity of the Ratnapura R.H. (rest house) is the one »at Eratna / Batatota« (the other is →Kosgalla cave).

162 »Batadomba« (Brooks 1995 Mss, item no. 5) is a fairly self-made name for the village of Ekneligoda (N06°47'10": E080°22'50" Everest 1830) or, to be precise, of »Ekneligoda Walauwa« (CEYLON TRAVELLER 1974: 241; 1983: 243), the Walauwa part of Ekneligoda at the road head near N06°47'10": E080°23'30" (Everest 1830, Survey of Sri Lanka sheet Ratnapura, One Inch series).

CAVE DESCRIPTION 1995: BROOKS (1995: 22): »... an important Archaeological cave called Batadomba-Lena cave ... consisting of one large entrance chamber some 15 m wide by 24 m long and 12 m high ... is very interesting as it is formed in Gneiss ...« (163).

Brooks (1995.04 Mss no 5): The »Batadomba-Lena Cave / Caves« (164) is a »... large cave / rock shelter that occupies an imposing position at the base of a large cliff on the south flanks of Sri Pada. The impressive entrance measuring 12 m by 8.5 m opens into a chamber that runs into the hill for 24 m. The cave would appear to be formed by solutional erosion of a mineral filled cavity / pocket in the Gneiss ... A 7 m by 7 m archaeological test pit is to be found in the floor of the chamber.«

CULTURAL HISTORY - human use, troglodyte dwelling: The only structural features found in prehistoric context in Sri Lanka are the rubble footing of a wall at →Beli Lena (Kitulgala), dated to circa 16,000 BP, and a rubble terrace wall at Batadomba Lena in an undated horizon which might correlate with Stratum 7b dated to circa 26,000 BP. The latter, situated at the rear end of one of the subsidiary shelters attached to the main cave, and it appears to have been a retaining wall (of at least two courses) which served to support an earth terrace abutting against the back of the cave for levelling off an occupation floor: »The terrace at Batadomba-lena has a direct parallel in the manner in which the present floor of the main cave has been levelled by a Buddhist monk who was resident at the site until 1968« (DERANIYAGALA 2002: 28-29).

ARCHAEOLOGY (165): Batadomba Lena is of the important archaeological sites in Sri Lanka. DERANIYAGALA, P E P (1943: 102-110) reports early archaeological excavation.

DERANIYAGALA, P E P (1953) and the CEYLON TRAVELLER (1974: 241, 1983: 245-246) note human skeletons of the prehistoric Udupiyan tribe (*Homo Sapiens Balangodensis*), pitted stones, bones, bone implements and remains of extinct animals.

DERANIYAGALA, S U (1987) reports »geometric

microliths definitely older than 12,000 years [166]. This was corroborated ... in Batadomba cave at Kuruvita [which yielded] excellent and numerous microliths –lunates, triangles and trapezoidals– from well defined stratigraphic contexts which have provided a very consistent series of radiocarbon dates on charcoal ... ranging from 28,500 to 11,500 BP.«

DERANIYAGALA, S U (1987: 105) notes the human remains [167] excavated from Batadomba were too fragmented for proper analysis. POSSEHL (1988: 172) lists five uncalibrated radiocarbon datings 27,700 ±2090 BP, 15,390 ±610 BP, 12,770 ±470 BP, 11,200 ±330 BP, 12,500 to 10,500 BP. KAJALE (1989) undertook an archaeobotanical study of mesolithic plant exploitation.

DERANIYAGALA, S U (1998; 2001b) notes the early evidence of anatomically modern man in →Fa Hien-lena (ca. 37,000 BP) is followed by →Batadomba-lena 31,000 and 18,000, →Beli-lena 16,000, Fa Hien-lena 6'900, the open-air site Bellan-bandi Palassa 6,500 and Fa Hien-lena again 4,800 BP.

EXPLORATION HISTORY: 1961: Michel SIFFRE (1975: 21) visited »près du petit village de Kuruvita« (near the small village of Kuruvita) an anonymous »beau porche de grotte, haut de vingt mètres, large de dix ... plus de trente mètres de longueur« (a good, 20 m high and 10 m wide entrance leading to a more than 30 m long cave).

1978 - 1984: »Between 1978 and 1983 hominid skeletal remains were collected from the cave sites of Batadomba lena and Beli lena Kitulgala in Sri Lanka. These are the most ancient specimens of anatomically modern *Homo sapiens* found thus far in South Asia, radiocarbon dates placing them in the Upper Pleistocene« (KENNEDY et al. 1987 on <www.ncbi.nlm.nih.gov/pubmed/3111269> accessed 2009.09.01).

1995 April: Simon J BROOKS (1995: 22), who had been guided by unidentified »local people« and looked after by unacknowledged »Siran's servants« (no names mentioned), »photographed and surveyed over 60 m« to a degree yielding a "survey" (a total of lengthwise measured distances) but no

166 DERANIYAGALA S U (2001b) »Such geometric microliths have traditionally been considered the hallmark of the Mesolithic period as first defined in Europe. The earliest dates for the geometric microlithic tradition in Europe are around 12,000 BP. Hence it came as a surprise when such tools were found as early as 31,000 BP at Batadomba-lena, 28,000 BP at two coastal sites in Bundala and over 30,000 BP at Beli-lena. Sri Lanka has yielded evidence of this sophisticated technological phase over 19,000 years earlier than in Europe. However this apparent anomaly has been resolved by the discovery of geometric microliths in various parts of Africa, such as Zaire and southern Africa, from contexts in excess of 27,000 BP, thereby suggesting that Europe was late in manifesting this techno-tradition due to as yet undefined reasons.«

DERANIYAGALA, S U (2002: 4): »A series of 10 radiocarbon dates [on charcoal] from Batadomba-lena... range from 31'000 to 13'000 cal BP.«

167 DERANIYAGALA, S U (2002: 54) draws attention to over 33 individuals (ca. 31,000 to 18,000 BP) from Batadomba Lena, over 12 individuals (ca. 16,000 BP) from →Beli Lena (Kitulgala), and over 9 individuals (ca. 37,000, 37,000, 36,000, 28,000, 7,900, 7,700, 5,400 BP) from →Fa Hien Lena. According to HAWKEY (1998, 2003), »the skeletal remains belong to both sexes, frequently of the 23 to 25 year age group, although infants and juveniles do occur« --Good old times.

163 BROOKS (1995: 22) surprises with a theory according to which gneisses are a group of rock »that does not normally develop cave passage.« Currently (2009.10.04) I am aware of 115 caves in gneisses on the Indian Subcontinent alone. Concerning the island of Sri Lanka itself, it had been already DAVY (1821: 419 footnote) who had come across »gneiss containing so large a proportion of carbonat [sic!] of lime, that it effervesces with an acid.« In a broad sense, calcite-rich gneisses are marbles and it will be difficult to deny that marbles contain high quality caves.

164 The Sinhala "lena" is a »cave«, the cave name »Batadomba-Lena Cave / Caves« (Brooks 1995.04 Mss no 5; later: »Batadomba-Lena Cave« BROOKS 1995: 22) means »Batadomba Cave Cave / Caves«

165 KENNEDY et al. (1986, on biological anthropology of upper pleistocene hominids from Batadomba Lena and Beli Lena) needs to be checked.

survey (cave plan).

BATATOTA DAHAYYA LENA

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: WGS84 N06°50': E080°22' / N06.8334°: E080.3667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 2002.

A certain »Batatota Dahayya-lena, Kuruwita« (168), which lies in the »lowland wet zone« and somewhere near the village, which is called after the ford Batatota (N06°50': E080°22') and lies near Kuruwita (N06°46'45": E080°22'07" WGS84), yielded the mesolithic radiocarbon date (on charcoal): »ca. 7680 - 4835 cal BP« (DERANIYAGALA 2002: 5).

IDENTITY: This Batatota Dahayya Lena (169) is possibly identical with

->AA Cave (Siffre 1975: 34) no. 1,

->AA Cave (Siffre 1975: 34) no. 2,

->AA Cave (Siffre 1975: 35),

->Batatota Lena 2 (Ceylon Traveller 1974: 244, 1983: 246).

BATATOTA LENA

Explored and allegedly "surveyed" (measured lengthwise) but unmapped natural cave and fabulous tunnel in gravitationally dislocated gneiss boulders.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruwita: Batatota mountain.

POSITION: Unspecified map datum probably Everest 1830 (assumed EPE ±500 m) N06°49'20": E080°22'20" / N06.8222°: E080.3722° (Eckrich, M. 1984 personal communication): 287.5 m asl (barometric, STRINATI & AELLEN 1981: 459).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Approximately 55 m. Vertical range: Not known.

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Brignoli, Paolo Marcello 1972; Brooks, Simon J 1995; Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967; Deraniyagala, Paulus Edward Pieries 1965; Deraniyagala Siran Upendra 1980, 2002; Kukla, Jiri 1958; Pages, Jean 1977; Siffre, Michel 1975; Silhavy, Vladimir 1974a, 1974b; Strinati, Pierre & Aellen, Villy 1981; Szymczakowski, Waclaw 1972; Villiers, A 1970.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" item no 20.

A narrow cave entrance (STRINATI & AELLEN 1981: 459) or »gash at the base of a cliff« (BROOKS 1995) gives access to a horizontal succession of cave passages between dislocated boulders (STRINATI & AELLEN 1981: 459), which contain two chambers (BROOKS 1995; Brooks 1995 Mss, item 20), a thick guano deposit, and bats (Michael Eckrich 1984, personal communication).

ETYMOLOGY: The Sinhala "tota" is a »ford« (COOK 1931: 347). The cave itself is probably locally known as "Stripura" or "Istripura" cave.

To distinguish it from the other →Istripura caves, it is more often than not called after the village of Batatota below the mountain on which it is found (170).

SITUATION 1958: KUKLA (1958: 167-168, 169), possibly after GUNASEKERA (1957.02.27) positions the »mysterious Stripura cave in Battatota mountain near Adamspeak« where »Batattota« (sic) is the village of Batatota (N06°50': E080°22') and »Adamspeak« (sic) is the mountain Adam's Peak (171).

SITUATION 1965: DERANIYAGALA, P E P (1965: 143) places »Batatota-lena« near »Sri Pàdhé« (Adam's Peak) and under a large rock of this name on the road from »Kuruwita« or Kuruwita (172) to Eratne (173).

SITUATION 1970: STRINATI & AELLEN (1981: 459) locate Batatota Lena in one way or another »near Kuruwita« or so.

170 So far, I saw Batatota Lena called, spelled, transcribed (romanised), edited, or printed as

Batatota cave	DERANIYAGALA (1965: 144)
Batatota, grotte de	SIFFRE (1975: 36)
Batatota-lena	DERANIYAGALA (1965: 143); KUKLA (1958); SIFFRE (1975: 36)
Batatotalena	CEYLON TRAVELLER (1974: 243; 1983: 245)
Batatotalena cave	CEYLON TRAVELLER (1974: 244; 1983: 246)
Batatota Subterranean Cavern	BROOKS (1995: 22); Brooks (1995 Mss, no. 20)
Stripura	STRINATI & AELLEN (1981: 460)
Stripura cave	AELLEN et al. (2001: 1977)
caverne Stripura	SZYMCZAKOWSKI (1972: 170)
grotta di Stripura	BRIGNOLI (1972: 908, 917, 927)
grotte de Stripura	PAGES (1977: 687); SILHAVY (1973: 803; 1974: 25, 26)
grotte de Stripura, Batatoa	SILHAVY (1974b: 26)
grotte de Stripura, Kuruwita	SILHAVY (1974a: 805)
Stripura Cave, Batatoa	SILHAVY (1974b: 28)
Stripura Cave, Battatota	KUKLA (1958: 169)
Stripura Cave, Kuruwita	STRINATI & AELLEN (1981: 459)
jeskyne Stripury	KUKLA (1958: 168).

171 Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) or Adamova stítu (KUKLA 1958: 168), Adamspeak (KUKLA 1958: 169), Sri Padhe (DERANIYAGALA 1953: 129), and »Sreepud, or The Divine Foot« (DUNCAN 1799) is Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" (WGS84) culminating at »7360 feet« (Survey Department 1977: Road map of Sri Lanka) corresponding to 2243 m asl (LONELY PLANET 2003: 187).

172 »Kuruwita« (DERANIYAGALA 1965) is indicated as »Kuruwita« on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) near N06°46'45": E080°22'07" (WGS84).

173 »Eratne« (DERANIYAGALA 1965: 143; CEYLON TRAVELLER 1974: 243; 1983: 245) or »Eratna« (CEYLON TRAVELLER 1983: 154) must lie further north than N06°49' and further east than E08°22' on the Survey of Sri Lanka (a.i.) sheet Hatton (One Inch series).

168 Compare →Batatota Lena.

169 »Dahayya« (DERANIYAGALA 2002) is not identified.

SITUATION 1974: CEYLON TRAVELLER (1983: 154): One of the two »highly impressive caves« (the other is →Kosgalla Cave) near Ratnapura lies in the vicinity of »Eratna« (Eratne), near »Batatota« (174), and »12 miles« (19 km north along the road) from the R.H. (Rest House) at the »Gem Capital« Ratnapura (N06°40'58": E080°23'57" WGS84).

CEYLON TRAVELLER (1974: 244) recommends to »... proceed on the Kuruvita-Eratne road for about 6.5 kilometres until a rubber estate is reached. Turn right into a track through the estate. The cave lies about a mile along the track. The final stages involve a slight climb.«

SITUATION 1984: Michael Eckrich (München: Zoologisches Institut, 1984: personal communication) marked the position of »Batatotalena« near N06°49'20": E080°22'20" (Everest 1830, Survey of Sri Lanka sheet Hatton, One Inch series), north-west above road from Kuruwita north-east towards Eratne, and at a linear distance of about a kilometer approximately north of Batatota (N06°48'50": E080°22'20" Everest 1830).

SITUATION 1995: BROOKS (1995: 22): »Some 5 km away« from the »Batatombalena« (sic!) which is known as →Batadomba Lena.

Brook (1995 Mss no. 20) places the cave at the foothills of Sri Pada / Adam's Peak. It is found by taking the fair weather road from Kuruwita village up through the forest for 5 km towards Batatota village. From this point a footpath is followed steeply up through the forest, passing some houses, beyond which the path becomes very vague. The cave entrance lies at the base of a large and high cliff. Assistance from local people is useful in finding this cave.

POSITION: STRINATI & AELLEN (1981: 459) estimate a position somewhere between the coordinates N06°46'30": E080°21' and N06°50'00": E080°23' (unspecified map datum, probably Everest 1830) but hasten to explain that this position is probably not very accurate as the relevant toposheet had not been available during the excursion to this cave on 22nd January 1970.

CAVE DESCRIPTION 1958: KUKLA (1958: 167-168), apparently interpreting GUNASEKERA (1957.02.27): »Z mnoha neoverených zpráv je nejzajímavější popis jeskyne Stripury v hore Battatota v divocine Adamova stitu. Je to údajne 55 m dlouhá, 15 m široká a 3.5 m vysoká prostora s ústím jen 90 cm vysokým a 180 cm širokým« or, if you prefer KUKLA (1958: 169): The »mysterious Stripura Cave in Battatota mountain near Adamspeak, more than 55 m deep is most probably the biggest one« of the »pseudokarst abris used as Buddhist sanctuaries.«

CAVE DESCRIPTION 1961: Compare »grotte près de« →Kuruwita (SIFFRE 1975).

CAVE DESCRIPTION 1970: STRINATI & AELLEN (1981: 459) report from »Stripura Cave« a narrow entrance at the base of a cliff to some 50 m of horizontal passages between (gravitationally?) dislocated boulders: »Entrée étroite au pied d'une paroi de rocher. Grotte horizontale formée par une succession des passages parmi des blocs éboulés.«

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974: 244; 1983: 246): »Typical of the caverns in the mountain country, this cave contains a fairly large subterranean lake of cold, clear water. There is believed to be a siphon [sump, diving spot] under a rocky overhang which is submerged in this lake. This passage is believed to lead [via a fabulous tunnel] to another stretch of water beyond the main

lake and thence to another [unspecified] cave mouth opening from the further side of the ridge.«

CAVE DESCRIPTION 1995: BROOKS (1995: 22): The cave is said to be »... known a Batatota Subterranean Cavern« and consists of »over 60 metres of large passage with two large chambers ... formed in Gneiss, a rock that does not normally develop cave passage.«

According to Brooks (1995 Mss, no. 20), the entrance to this »large« cave consists of a gash at the base of a large cliff. From the entrance the floor drops steeply downwards to enter a larger chamber some 15 m in diameter and 5 m high. On the far side of which a 10 m by 3 m triangular passage can be followed for 20 m to where a slippery descent over guano covered boulders enters a second chamber some 12 m across and 5 m high, beyond which a smaller triangular breakdown passage can be followed for 21 m to reach the end of the cave. A rift / sloping bedding along the right hand wall of this final passage drops to water.

SPELEOMETRY: KUKLA (1958: 167-168) recorded one cave dimension of 55 m: »Je to údajne 55 m dlouhá, 15 m široká a 3.5 m vysoká prostora s ústím jen 90 cm vysokým a 180 cm širokým.«

STRINATI & AELLEN (1981: 459) estimated on 22nd January 1970 an approximate length of 50 m.

BROOKS (1995: 22) bettered the size to »over 60 m of large passage« into »nearly 70 m of passage« (Brooks 1995 Mss, no. 20).

CAVE POTENTIAL: BROOKS (1995b) and Brooks (1995 Mss, no. 20) decide »... there are no prospects for further extension« in the face of having seen how a »... final passage drops to water (sump) where passage can be seen to continue underwater.«

CULTURAL HISTORY - Archaeology: In 1940 the cave was archaeologically excavated (DERANIYAGALA 1980: 172).

CAVE CLIMATE: Temperature 24°C (22.01.1970, STRINATI & AELLEN 1981: 459).

CAVE LIFE: Michael Eckrich (1984, personal communication) told me there are many bats (Chiroptera) and a thick guano deposit in this cave. Brooks (1995 Mss) noted a small colony of bats.

AELLEN, SKET & STRINATI (2001: 1978) list Arachnida: Opiliones: Biantidae: Biantes aelleni Silhavy 1974; Arachnida: Aranaea: Nesticidae: Nesticus aelleni Brignoli 1972; Arachnida: Aranaea: Ochyroceratidae: Merizocera sp.; Insecta: Diplura: Japygidae: Parindjapyx aelleni Pages 1977; Insecta: Hemiptera: Reduviidae: Emesinae: Bagauda strinatii Villiers 1970; Insecta: Coleoptera: Cholevidae: Ptomaphagus longitarsis Portevin Szymczakowski 1972.

BRIGNOLI (1972) deals with spiders (Arachnida: Aranaea) collected from »Grotta di Stripura« by Pierre Strinati & Aellen Villy. Page 909 mentions an immature specimen of Merizocera spp. (Ochyroceratidae). Pages 917-919 give a taxonomical description of Nesticus aelleni n.sp. and page 925 mentions a mutilated male specimen (lacking palpi) of Heteropoda spp. (Eusparassidae).

SIFFRE (1975: 38) surprises with reporting to have found in February or March 1961 in Batatota-Lena quills of porcupine (Hystrix) and a species of spider's nest (or a species of net's nest) formed by a kind of »mondmilch« of which one half was black coloured and the other white (175).

SILHAVY (1974a: 805-807): Taxonomical description of

174 Batatota N06°48'50": E080°22'20" (Everest 1830, Survey of Sri Lanka sheet Ratnapura).

175 SIFFRE (1975: 38): »Dans Batatota-Lena, je trouvai aussi des épines de porc-épic et une espèce de nid d'araignée formé par une sorte de mondmilch, moitié noir, moitié blanc.«

Biantes aelleni (Arachnidae: Opiliones: Biantidae) collected by V. Aellen and P. Strinati (1970.01.22) from »grotte de *Stripura près de Kuruvita*« (sic).

SILHAVY (1974b: 25) identifies a male specimen of *Biantes aelleni* Silhavy (Arachnidae: Opiliones: Biantidae) collected by V. Aellen and P. Strinati (1970.01.22) from »grotte de *Stripura près de Kuruvita*« (sic).

SILHAVY (1974b: 26) identifies four male specimens of *Strandia strinatii* (Arachnidae: Opiliones: Leiobundinae: Garellinae) collected by V. Aellen and P. Strinati (1970.01.22) from »devant grotte de *Stripura, sur tronc d'arbre*.«

SILHAVY (1974b: 26-28, line drawings) gives a taxonomical description of *Strandia strinatii* n.sp. (Arachnidae: Opiliones: Leiobundinae: Garellinae), collected by V. Aellen and P. Strinati (1970.01.22) from »*Batatoa* [sic] in front of *Stripura cave, on the trunk of a tree*.«

STRINATI & AELLEN (1981) confirm to have collected bats (Chiroptera: *Hipposideros* sp., *Rhinolophus* sp.), Chilopoda, spiders, Opiliones, Acaria, Collembola, Diplura, Orthoptera, Hemiptera, and Coleoptera.

SZYMACZKOWSKI (1972: 170-172, fig. 5-12): Identifies and re-describes *Ptomaphagus longitarsis* Portevin (Coleoptera, Cholevidae);

PAGES (1977): Taxonomical descriptions of *Parindjapy aelleni* (Insecta: Diplura: Japygidae);

VILLIERS (1970): *Bagauda strinatii* (Reduviidae, Emesinae, Hemiptera: Heteroptera).

EXPLORATION HISTORY: 1940: Paulus Edward Pieries Deraniyagala undertook an archaeological investigation (DERANIYAGALA, Siran Upendra 1980: 172).

1961 February or March: Michel SIFFRE (1975) found porcupine quills in »*Batatota-Lena*.«

1970.01.22: Pierre Strinati and Villy Aellen visited »*Stripura Cave near Kuruvita*« and collected specimens of cave fauna (BRIGNOLI 1972: 917; SILHAVY 1974: 25; STRINATI & AELLEN 1981: 459).

1995 April: BROOKS, S J (1995: 22), who had been guided by unidentified »*local people*« and looked after by unacknowledged »*Siran's servants*« (no names mentioned), »*photographed and surveyed*« (sports caver standards) »*over 60 m*.«

BATATOTA LENA 2

Unexplored and unmapped fabulous or natural cave and fabulous tunnel, possibly in gravitationally dislocated gneiss boulders.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Kuruvita: Batatota mountain.

POSITION: Unspecified map datum probably Everest 1830 (assumed EPE ±5 km) N06°48'15": E080°22'00" / N06.80416667°: E080.3.6667° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet Hatton or Ratnapura.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

It needs a bit of ridge walking to identify the second entrance to →Batatota Lena where a »... *siphon* [sump, diving spot] under a rocky overhang which is submerged in ... a fairly large subterranean lake of cold, clear water. This passage is believed to lead [via a fabulous tunnel] to another stretch of water beyond the main lake and thence to another [unspecified] cave mouth opening from the further side of the ridge« (CEYLON TRAVELLER 1974: 244; 1983: 246).

SITUATION: Somewhere on the »*further side of the ridge*« (CEYLON TRAVELLER 1974: 244; 1983: 246).

BATATOTA (SIFFRE 1975), grotte de

see: AA Cave (Siffre 1975: 35)

BIBLIOGRAPHY: Siffre, Michel 1975: 36.

BELI GALGE, Balangoda

see: Beli Galge, Bambarabotuwa

BIBLIOGRAPHY: Hartley, C. 1911.

BELI GALGE, Bambarabotuwa

or: Bambarabotuwa Cave, Beli galgé, Beligal-ge,

Beli-Galge Cave

Archaeologically investigated but speleologically unexplored and unmapped natural cave in gneiss.

LOCATION: Sri Lanka: Sabaragamuwa province: Ratnapura district: Pelmadulla: Bambarabotuwa Forest Reserve: Bambarabotuwa village: Dikmukalana Tea Estate: »*Badullé Aïe*« (P.E.P. Deraniyagala 1943).

POSITION: (assumed) WGS84 N06°40': E080°35' / N06.6667°: E080.5833°: »*457 m asl*« corresponding exactly to 1500 feet (P.E.P. Deraniyagala 1943: 110).

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Estimated 30 m. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1943, 1965; Deraniyagala, Siran Upendra 1980, 1987; Hartley, C. 1911; Kennedy, Kenneth A R et alii 1986.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 15 Beli-Galge Cave.

A west facing, 16 m wide cave entrance (176), about 10 m above a stream, gives access to a first, about 21 or 24 m long and 6 m high cave chamber (177), which extends, getting lower and past a bend, into a second chamber which ends in a rift too narrow to enter.

ETYMOLOGY: The Sinhala "beli galge" means »*Snail Shelter*« (but is a true cave) and is literally translated into "Snail Rock House" (beli = snail; gala = rock, stone; ge = house, home). It also had been spelled, transcribed (romanised), or edited as

Bambarabotuwa cave CEYLON TRAVELLER (1974, 1983: 246)

Beli Gal-Ge HARTLEY (1911)

Beli galgé DERANIYAGALA, P E P (1965: 144)

Beli-galge DERANIYAGALA, S U (1987: 105)

Beli-Galge Cave Brooks (1995 Mss no 15)

Beli galgé rock cave DERANIYAGALA, P E P (1943: 111)

According to HARTLEY (1911: 197), it has »... *been the custom among the neighbouring peasants to dig in the soil for the water-snail shells, from which the cave takes its name, and which they burn for chunam [burned lime] to accompany their betel*.«

SITUATION 1911 (HARTLEY 1911: 197): At a travelling distance of »*12 miles* [19 km] north of *Balangoda* [N06°38'57": E080°40'20" WGS84] and close to the tea estate of *Dikmukalana*« (178).

176 The 16 m wide entrance (DERANIYAGALA 1943: 110) is said to be 10 by 3 m large (Brooks 1995 Mss).

177 The first chamber »*plunges almost at right angles 79 feet* [24 m] into the rock« (HARTLEY 1911) or is 21 m long with its »*roof about 6 m above the floor*« (DERANIYAGALA 1943: 110).

178 Dikmukalana (estate) N06°42': E080°35' <www.nima.mil/> accessed 16.11.2003

SITUATION 1943 (DERANIYAGALA 1943: 110) places »Beli galgé« not only at »Bambarabotuwa in the Ratnapura district, and at an elevation of about 457 metres« (obviously calculated from about 1500 feet) but also close to a stream called »Badullé Àle« (179).

SITUATION 1974 (CEYLON TRAVELLER 1974: 244; 1983: 246) places the »Bambarabotuwa cave« at the foothills of Adam's Peak / Sri Pada, and in the Bambarabotuwa Forest Reserve (180) in the »north« (north-west) of Pelmadulla (N06°37'28": E080°33'07" WGS84) but access is easier north of the main road from Ratnapura initially south and later west to Pelmadulla along a route through the villages of Wewelwatta / Wewelwatte, Batewala / Batewela and Gerandiella.

SITUATION 1984: The motorable roads prescribe a circuitous route from the town of Ratnapura (N06°40'58": E080°23'57" WGS84) initially west via Welawaya (181) to Wewelwatta / Wewelwatte (182), then south past Batewala (183), and eventually back east to Gerandiella (184) from where one has to proceed on foot by ascending south or south-west close to the top of the ridge separating Ratnapura from Pelmadulla (N06°37'28": E080°33'07" WGS84).

The cave entrance itself lies some 500 m in a direct line approximately west (towards Kuttapitiyakanda 3179) from the summit of Kabaragalkanda and at the head of the stream rising below the "FO" of »Bambarabotuwa Forest Reserve« indicated on my partial photocopy of sheet Ratnapura (Survey of Ceylon 1972, One-Inch series).

SITUATION 1995 (Brooks 1995 Mss, item no. 15): »On Dikmukalana tea estate near Bambarabotuwa located on a minor road some 25 km east of Ratnapura.«

CAVE DESCRIPTION 1911: HARTLEY (1911: 197) found the cave placed in a most advantageous position for inhabitation: »... scooped out of a solid and almost perpendicular cliff of gneiss and some 30 feet above a small rivulet, to which there slopes steeply a bank or talus of earth overgrown with trees. The front of the caves faces nearly due west; and at its southern extremity it plunges almost at right angles 79 feet into the rock. From this point it it shallows rapidly, until after a considerable inward bend, forming a second recess in the rock, it grows even narrower, and finally tapers into nothing. The rock roof is lofty in the deeper parts, and the floor of dust strewn with boulders slopes gently downward to the northern end.

Although no drip ledges has been cut [185], the cave seems absolutely dry within; a small wall of rough stones and earth

has been built from the southern end some little distance northward; and the drip from the cliff face falls entirely clear of the interior. In fact no more comfortable cave for inhabitation can well be imagined.«

CAVE DESCRIPTION 1943 (DERANIYAGALA, P E P 1943: 110): »The cave mouth, which is 16 m wide, opens westward and the cave extends eastward for a distance of 21 m, the roof is about 6 m above the floor and continues northward from the cave mouth as an overhanging ledge. The villagers affirm that Dr. Ananda Coomaraswamy excavated the floor about 40 years ago, and a man who assisted him stated that the earth was then about 4 metres deep at the cave mouth. Ten years ago a planter, who considered the earth useful as manure, also removed quantities.«

CAVE DESCRIPTION 1995: Brooks (1995.04 Mss: no 15): »Beli-Galge Cave [is] a cave / rock shelter located near to a stream [186] with an entrance measuring 10 m by 3 m and penetrating the hill for some 5/6 m. The cave is formed in gneiss [sic?].«

CULTURAL HISTORY - human use: According to HARTLEY (1911: 197), it has »... been the custom among the neighbouring peasants to dig in the soil for the water-snail shells, from which ... they burn for chunam [burned lime] to accompany their betel.«

ARCHAEOLOGY: Excavation yielded stone age tools (HARTLEY 1911: 197-200) and »... the late Mr. Parsons carried out a small excavation near the southern end, in the course of which he found some human bones and other remains now in the [Colombo?] Museum« (187).

DERANIYAGALA, P E P (1943: 110) found the original bedding too badly disturbed to ascertain the sequence but recovered numerous flakes of quartz (stone age tools) and shells of Acavus: »Sifting the earth brought to light flakes of quartz and chert, lumps of graphite, a few bone points, quantities of bones of small animals, and shells of aquatic snails of the genus Tanalia. The most important discovery was the eighteen macroliths obtained superficially ...«

DERANIYAGALA, S U (1987: 105): Beli Galge yielded human skeletal remains which were too fragmented for proper analysis.

EXPLORATION HISTORY: 1900, circa: »... the late Mr. Parsons carried out a small excavation near the southern end« (HARTLEY (1911).

1910.08.11-13: HARTLEY (1911: 197-200) reports to have engaged six men to undertake a partial »exploration« (archaeological excavation).

According to DERANIYAGALA (1943: 110), »the villagers affirm that Dr. Ananda Coomaraswamy excavated the floor about 40 years ago, and a man who assisted him stated that the earth was then about 4 m deep at the cave mouth.«

1933 (circa) or »ten years ago« (DERANIYAGALA, P E P 1943: 110), »... a planter, who considered the earth useful as manure ... removed quantities« of the soil accumulated inside the cave.

1940, circa: Paulus Edward Pieries DERANIYAGALA (1943: 110) investigated archaeologically.

179 »Badullé Àle« (DERANIYAGALA 1943) is not identified unless it is the same as one of the streams called Badal Ela (N06°02': E080°14'), Badulla Oya (N06°00'25": E080°32'42" WGS84), Battulu Oya (N06°50': E080°33') or Botale Ela (N06°43': E080°10').

180 Bambarabotuwa Forest Reserve N06°39'17": E080°33'28" <www.nima.mil/geonames> (16.11.2003).

181 Welawaya N06°42': E080°36'

182 Wewelwatte N06°42': E080°33'

183 Batewala N06°41': E080°33' (not the other Batewala / Batewela N06°34': E080°38')

184 Gerandiella N06°40': E080°35' (not the other Gerandiella N06°44': E080°40')

185 Drip ledge, »... a deep cut, termed a katdra, ... made along the rock, above the front of the cave ... in order to prevent the rain-water that trickled down the front of the upper part of the rock from entering the room« (PARKER 1909: 418-419).

186 Rider Haggard would be excited to learn that the entrance to Beli Galge (Bambarabotuwa) is »located near to a stream« (Brooks 1995.04 Mss: no 15) but actually it is located near a stream bed --and this is dry for most of the year.

187 HARTLEY (1911: 197) reports Dr. Pearson identified the faunal remains of Madras langur (*Semnopithecus priamus*) and mouse deer, *Tragulus meminna*.

BELI LENA (Athula)

or: Maniyangama Cave, Snail Cave

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Western province: Colombo district: Avissawella: Maniyangama: »Athula« (Deraniyagala) or, perhaps: Atulugama.

POSITION: (at Atulugama) N06°56': E080°14' / N06.9334°: E080.2333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Avissawella" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1987, 1992, 2002; Kennedy, Kenneth A R et alii 1986; Possehl, G L 1988.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 1.

An allegedly »small« (without identified dimensions) cave or rock shelter of great archaeological importance.

ETYMOLOGY: The Beli Lena (literally: Snail Cave) at Athula near Maniyangama has also been called, spelled, or edited as

Beli Lena Athu POSSEHL (1988: 173)

Beli-lena Athula DERANIYAGALA (2002: 5)

Beli-lena Maniyangama cave DERANIYAGALA (1987).

SITUATION (DERANIYAGALA, S U 2002: 5): Somewhere in the vicinity of »Athula« or, perhaps, the village of Atulugama (188) near Maniyangama (N06°56': E080°14').

CULTURAL HISTORY: Archaeological excavation (189) of this site yielded radiocarbon dated (190) mesolithic deposits (DERANIYAGALA 1980) and upper Pleistocene hominid remains (191) but these were too fragmented for proper analysis (DERANIYAGALA 1987: 105).

BELI LENA CAVE (KAJALE 1989)

see: Beli Lena (Kitulgala)

Kajale, Mukund D 1989: 270.

BELI LENA, Kitulgala

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sri Lanka: Sabaragamuwa province: Kegalle (Kegalla) district: Kitulgala village: »Ing Oya« (Ingoya) estate.

POSITION: WGS84 N07°00': E080°26' / N7°: E080.43333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Hatton, Kandy.

SPELEOMETRY: Length: Approximately 15 m. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1983; Deraniyagala, Siran Upendra 1985, 1987, 1992, 1996 published 1998, 2001b, 2002; Hawkey D T 1998, 2003; Kajale, Mukund D 1989; Kennedy, K A R et alii 1986; Kennedy Kenneth A R, Deraniyagala Siran Upendra, Roertjen W J, Chiment J & Disotell T 1987; Possehl G L 1988.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 3 Fa Hien Cave, no 4 Kitulgala Beli-lena Cave.

188 »Athula« (DERANIYAGALA) is not identified unless it has something to do with the village of Atulugama N06°59': E080°16' (www.nima.mil/geonames accessed 16.11.2003).

189 Brooks (1995 Mss no 1): Beli Lena has been archaeologically excavated in 1971 by one »Gunaratne« (unidentified).

190 The reported radiocarbon dates range between 6420 - 5240 cal BC (POSSEHL 1988: 173 no. TF-1094), 7400, uncalibrated BP (DERANIYAGALA 1987: 101) 8230 cal BP (DERANIYAGALA, S U 2002: 5).

191 I have not seen KENNEDY et al. (1986) on the biological anthropology of upper Pleistocene hominids from Batadomba Lena and Beli Lena.

A rock shelter, which is at the entrance about »100 feet« or 30.6 m (CEYLON TRAVELLER 1983: 383) wide gives access to a cave which is not only about »50 ft.« or 15.3 m »deep« (CEYLON TRAVELLER 1983: 383) and extends for some 12 m into the hill (Brooks 1995.04 Mss), but also contains two spacious chambers forming a »very extensive cave« (192) which is »probably the largest habitable cave in the wet-zone of Sri Lanka« (CEYLON TRAVELLER 1983: 383) and »perhaps one of the five largest caves in Sri Lanka« (DERANIYAGALA, S U 2002: 29).

ETYMOLOGY: The Sinhala "beli lena" translates into »Snail Cave«. So far, I saw the name of this cave called, spelled, transcribed (romanised), or edited as

Beli-hena CEYLON TRAVELLER (1983: 383)

Beli Lena POSSEHL (1988: 172, 173)

Beli-lena DERANIYAGALA (1998; 2001b)

Beli-lena, Kitulgala CEYLON TRAVELLER (1983: 383); DERANIYAGALA (1998, 2001b, 2002: 4); KAJALE (1989); KENNEDY et al. (1986, 1987, 1988)

Kitulgala Brooks (1995.04 Mss no 3 Fa Hien Cave)

Kitulgala Beli-lena Brooks (1995.04 Mss no 4 Kitulgala Beli-lena Cave)

Kitulgala Belilena DERANIYAGALA (1987: 100)

Kitulgala cave DERANIYAGALA (1987: 102)

SITUATION: At a travelling distance of 38 km east of Colombo (KAJALE 1989: 269) and somewhere within one »Ing Oya« estate (193) near the village of Kitulgala (194).

ARCHAEOLOGY: Archaeologically excavated by W.H. Wijayapala (1983) over several seasons.

CEYLON TRAVELLER (1983: 383): »Excavations were conducted ... within Beli-lena at Kitulgala. ... Hundreds of thousands of stone artifacts were recovered, made of quartz and chert and their distinctive forms denote a date not older than circa 10,000 B.C. which equates it with the Balangoda Culture which preceded the proto-historic phase of around 500 B.C. Small bone points and certain notched pieces of bone, which had not been discovered previously in Sri Lanka, were also found. Remains which could be assigned to Lanka's mesolithic man also were found. A find of considerable significance is a type of lagoon shell which commonly occurs in sacks of salt today. The obvious conclusion is that the stone age inhabitants of Belihena [sic!] traded with the coast, probably the Puttalam or Hambantota straits, for salt.«

DERANIYAGALA, S U (1987: 100) reports numerous geometric microliths (lunates, triangles, trapezoidals) were excavated from »Kitulgala Belilena cave.«

POSSEHL (1988: 172, 173) lists from an unspecified »Beli Lena« three mesolithic and late Upper Palaeolithic radiocarbon dates: FRA-93, PRL-861, and FRA-91.

KAJALE (1989) undertook an archaeobotanical study of mesolithic plant exploitation.

192 KAJALE (1989 figure 15.2) gives a photograph (perhaps taken in 1983) showing a widespread excavation sites in a spacious sheltered space.

193 Ingoya N07°00': E080°26' <www.nima.mil/geonames> (accessed 16.11.2003)

194 <www.nima.mil/geonames> accessed 16.11.2003 lists three suitable "Kitulgala" entries (WGS84): N07°05'00": E080°29'00" Kitulgala (estate) N07°00'00": E080°24'00" Kitulgala (estate); N06°59'40": E080°24'41" Kitulgala (populated place).

DERANIYAGALA (1998; 2001b) notes the early evidence of anatomically modern man (195) in Sri Lanka is earliest in Fa Hien-lena (ca. 37,000 BP), followed by Batadomba-lena 31,000 and 18,000, Beli-lena 16,000 (196), Fa Hien-lena 6,900, the open-air site Bellan-bandi Palassa 6,500, and Fa Hien-lena again 4,800 BP. The dating is based primarily on radiocarbon assays on charcoal, checked independently against thermoluminescence dating in the case of Beli-lena.

DERANIYAGALA, S U (1998, 2001b, 2002: 4-5): *»Such geometric microliths have traditionally been considered the hallmark of the Mesolithic period as first defined in Europe. The earliest dates for the geometric microlithic tradition in Europe are around 12'000 BP. Hence it came as a surprise when such tools were found as early as... over 30'000 BP at Beli-lena. Sri Lanka has yielded evidence of this sophisticated technological phase over 19'000 years earlier than in Europe. However this apparent anomaly has been resolved by the discovery of geometric microliths in various parts of Africa, such as Zaire and southern Africa, from contexts in excess of 27'000 BP, thereby suggesting that Europe was late in manifesting this techno-tradition due to as yet undefined reasons.«*

CAVE LIFE: DERANIYAGALA, S U (1987: 102) interprets the presence of the tree snail *Acavus roseolabiatus* at "Kitulgala cave" from circa 12,500 to 10,500 BP to indicate that the climate since the last Würm periglacial (circa 15,000) in the Wet Zone, more precisely in the lowland Wet Zone of Sri Lanka, was similar to that of today.

EXPLORATION HISTORY: 1970: *»A pre-historic exploration was done in August 1970 ... within Beli-lena at Kitulgala«* (CEYLON TRAVELLER 1983: 382-383).

1978 - 1984: *»Between 1978 and 1983 hominid skeletal remains were collected from the cave sites of Batadomba lena and Beli lena Kitulgala in Sri Lanka«* (197).

W.H. Wijayapala (1983) is said to have conducted archaeological excavations over several seasons (DERANIYAGALA 1987: 100).

BELI LENA MANIYANGAMA CAVE

see: Beli Lena (Athula)

Deraniyagala, Siran Upendra 1987: 101, 105.

BELI-LENA CAVE

see: Beli Lena (Kitulgala)

Kajale, Mukund D 1989: 270.

BELIHENA

see: Beli Lena (Kitulgala)

Ceylon Traveller 1983: 383.

195 KENNEDY (1986) is said to relate to aspects of biological anthropology of upper Pleistocene hominids from Batadomba Lena and Beli Lena.

196 DERANIYAGALA, S U (2002: 54) draws attention to over 12 individuals (ca. 16,000 BP) from Beli Lena at Kitulgala, over 33 individuals (ca. 31,000 to 18,000 BP) from Batadomba Lena, and over 9 individuals (ca. 37,000, 37,000, 36,000, 28,000, 7,900, 7,700, 5,400 BP) from Fa Hien Lena. According to HAWKEY (1998, 2003), *»the skeletal remains belong to both sexes, frequently of the 23 to 25 year age group, although infants and juveniles do occur«* --Good old times.

197 KENNEDY (1987) <www.ncbi.nlm.nih.gov/pubmed/3111269> accessed 2009.09.01.

BELLAN BENDI PELESSA

or: Bellan Bändi Pälässa, Bellan-bandi Palassa, Bellan Bendi Pelessa, Bellanbändi Pälässe

An archaeological site in the open air.

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Kiulle Are basin: Diyainna (Diyawinna) village.

POSITION: Unspecified map datum probably Everest 1830 (without recorded EPE) N06°31': E080°48'30" / N06.516667° : E080.80833° (DERANIYAGALA 1956: 119).

MAP: Survey of Ceylon / Sri Lanka: Timbolketiya (One-Inch).

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1965; Deraniyagala, Siran Upendra 1998, 2001b.

»There is no cave here but the plain is littered with rocks and excavations« (CEYLON TRAVELLER 1974: 245; 1983: 247) and the location represents *»one of the richest paleontological sites discovered in the country«* of Sri Lanka.

ETYMOLOGY:

Bellan Bändi Pälässa DERANIYAGALA, P E P (1956: 119)

Bellan-bandi Palassa DERANIYAGALA, S U (1998; 2001b, 2000)

Bellan Bendi Pelessa CEYLON TRAVELLER (1974: 245; 1983: 247)

Bellanbändi Pälässe DERANIYAGALA, P E P (1956: 119).

SITUATION: DERANIYAGALA (1956: 119) locates the site *»at latitude 80°-48' North, longitude 80°-48.5' East, about two miles [3.2 km] from the stream Kiulle Are [198].*

The deposit occurs towards the bottom of a ridge of earth about 3 feet [1.2 m] high, 30 feet [9.14 m] wide and 120 feet [36.6 m] long lying on a slab of limestone. In one place a small stream has cut through this ridge forming a gap 60 feet [18.3 m] wide. Exposed in this gap at about six inches [15 cm] above the rock is an ossiferous and implementiferous layer which is overlain by a thickness of about two and a half feet [75 cm] of the earth of the ridge. Exposed in this gap at about six inches [15 cm] above the rock is an ossiferous and implementiferous layer which is overlain by a thickness of about two and a half feet of the earth of the ridge« (199).

CEYLON TRAVELLER (1974: 245; 1983: 247): *»From Balangoda [200], the road to Uggal Kaltota [201] descends [south-east] rapidly for twenty miles [32 km] along a ridge of hills that falls away sharply into the plains beyond the Welawe river. In the lower reaches of this ridge are three sets of caves: Those at Budugala, Kuragala and Diyainna.*

198 Kiulle Ara N06°29': E080°50'

199 DERANIYAGALA (1956: 119): *»An excavation brought to light six more or less complete skeletons lying either upon or beneath the fragments of about another ten individuals while masses of bone breccia yielded fragments of human jaws, pelvis, etc., along with the bones of other animals. This fact coupled with the relative abundance of broken human bones, numerous mandibles and the absence of calvaria suggests that this was a cannibal tribe which interred at least some of their dead in their kitchen midden ... The race interred their dead together with hammer stones, and a bag of sling stones. They manufactured bone and antler spoon-like scoops, large pointed digging implements of bone and antler and pitted stone artefacts [artefacts] ... The absence of potsherds and abundance of microliths, many of which were crescentic, suggests a Mesolithic Age.«*

200 Balangoda N06°38'57": E080°40'20" WGS84

201 Uggalkaltota N06°39'13": E080°52'32" WGS84

At an elevation of 600 feet [183 m asl] or so on the southern slope of the ridge and below two picturesque waterfalls lies the village of Diyainna [202]. ... Farther west, along a track that continues from Budugala along the bottom of the ridge, lies the village of Handagiriya [203] on the banks of the Katupal oya. In close proximity is the site known as Bellan Bendi Pelessa ... It is about eight miles [13 km] from Budugala.»

APPROACH (CEYLON TRAVELLER 1974: 245; 1983: 247): *»Handagiriya may also be reached by a three-mile [5 km] jeep track from Weligepola [204], which is connected with Balangoda by a good road.«*

BENDIYA GALGE 1

or: Henebedda / Henebadda / Henebedde Cave

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte cave or rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Danigala Range area: Henebedda (Henebadda, Henebedde) village: Bendiya.

POSITION: WGS84 N07°16': E081°26' / N07.2.6667°: E081.43333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 16.

An entrance without known shape and dimensions faces an unspecified direction and leads to the lower one of two rock shelters (Brooks 1995 Mss no 16) or a *»cave«* (CEYLON TRAVELLER (1974, 1983: 175).

ETYMOLOGY: So far, I saw this important, inhabitable *»cave«* (used as a shelter) or *»rock shelter«* (considered a cave) called, spelled or edited as

Bendiya Galge DERANIYAGALA, S U (1980: 157),

Henebedda cave CEYLON TRAVELLER (1983: 175),

Henebadda cave CEYLON TRAVELLER (1983: 176).

SITUATION: Somewhere in the vicinity of the village called *»Henebedda«* or *»Henebadda«* and Henebedde (205).

CEYLON TRAVELLER (1974: ?; 1983: 176) locates the *»Henebadda caves«* at an unspecified distance of *»two miles«* (about 3 km probably along a route or, perhaps, in a direct line) to the west of the village of *»Potuliyadde«* or Potuliyadda (N07°16': E081°27').

According to CEYLON TRAVELLER (1983: 175), the *→Danigala and »Henebedda caves«* are *»in the same range«* of hills, which are among the *»... most fascinating feature of the [Gal Oya National ...] Park are the rugged ranges of hills that reach high above the rolling plains. The Danigala*

Range [206] is the finest of all, its peaks rising over 2000 feet [610 m]. The veddahs of old chose this range for their home and lived in the caves atop it« (CEYLON TRAVELLER 1983: 175).

CULTURAL HISTORY - According to CEYLON TRAVELLER (1983: 175), the *»Henebedda [sic] caves were the homes of the Sitala Wanniya clan of veddahs«* while, a page later, it were *»the Henebadda [sic] caves, where the veddahs once lived«* (CEYLON TRAVELLER (1983: 175).

DERANIYAGALA (1980: 157) Confirms that both the upper and the lower Bendiya Galge were occupied till 1911 by Veddah people. Archaeological excavation yielded historical findings in addition to prehistoric stone tools.

BENDIYA GALGE 2

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte cave or rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Danigala Range area: Henebedda (Henebadda, Henebedde) village: Bendiya.

POSITION: Estimated WGS84 coordinates N07°16': E081°26' / N07.2.6667°: E081.43333° (or so).

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 16.

The upper one of two rock shelters (Brooks 1995 Mss).

SITUATION: Somewhere near the village of *»Henebedda«* (DERANIYAGALA 1980: 157), *»Henebadda«* (CEYLON TRAVELLER 1983: 176), or Henebedde (N07°16': E081°26').

CULTURAL HISTORY - According to DERANIYAGALA (1980: 157), both the upper and the lower Bendiya Galge were occupied till 1911 by Veddah people. Archaeological excavation yielded historical findings in addition to prehistoric stone tools.

202 Diyainna, Diyawinna N06°35': E080°50'

203 Handagiriya N06°31': E080°48'

204 Weligepola N06°34': E080°42'

205 *»Henebedda«* (CEYLON TRAVELLER 1983: 175; DERANIYAGALA 1980: 157), *»Henebadda«* (CEYLON TRAVELLER (1983: 176) is positioned as Henebadda and as Henebedde N07°16': E081°26' on <www.nima.mil/geonames> accessed 16.11.2003.

206 According to CEYLON TRAVELLER (1983: 175), the *→Danigala and »Henebedda caves«* are *»in the same range«* of hills, which are among the *»The most fascinating feature of the [Gal Oya National ...] Park are the rugged ranges of hills that reach high above the rolling plains. The Danigala Range [*] is the finest of all, its peaks rising over 2000 feet [610 m]. The veddahs of old chose this range for their home and lived in the caves atop it«* (CEYLON TRAVELLER 1983: 175).

* *»Danigala Range«* (CEYLON TRAVELLER 1983: 175) or *»Danigala chain of hills«* (Brooks 1995 Mss, item no. 12) is named after the village of Danigala (N07°15': E081°23') north of the village of Nilgala (N07°11': E081°22').

CEYLON TRAVELLER (1984: 175) locates *»Danigala«* at a travelling distance of *»four miles«* (6.5 km) *»along a steep, winding jungle path«* from Ratugala (unidentified), which itself is said to lie *»twenty miles«* (32 km without orientation) from *»Inginiyagala«* or Inginiyalgala (N07°13': E081°32') and *»six miles«* (10 km without orientation) from Mullegama (N07°20': E081°27' <www.nima.mil/geonames> accessed 16.11.2003).

BERUWELA, cave at

Unexplored and unmapped natural cave in laterite.

LOCATION: Western province: Kalutara district: »Beruwela« (COORAY 1967) or Baruwala Bay.

POSITION: (If at the village of Baruwala itself), Estimated WGS84 coordinates N06°28'26": E079°59'03" / N06.47388889°: E079.98416667° (or so): 0 m asl (±5 m).

MAP: Survey of Ceylon / Sri Lanka sheet: Alutgama (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Cooray, P Gerald 1967.

What seems to be a wave-cut sea-cave in laterite is said to be visible in a photograph (207) showing: »A headland and small bay in laterite, Beruwela. Note the intensive erosion and the small cave in soft laterite at the foot of the cliff« (COORAY 1967, plate 10, figure B, opposite page 73).

SITUATION: »Beruwela« (COORAY 1967) appears to be the Beruwala Bay (208) named after the village of Beruwala (209), and about 35 km along the A2 south of Colombo.

BEZODNEJ STUDNE pri Puttur

see: Tidal Well (Puttur)

Mitter, Pavol (1979a: 155).

BEZODNEJ STUDNE pri Putur

see: Tidal Well (Puttur)

Mitter, Pavol (1979b: 178).

BHAGAWA LENNA

see: Bagava Lena (Adam's Peak)

Pridham, Charles (1849, 2: 616-617).

BITTER ORANGE, cave of the

or: Orangengrotte

Unexplored, lost and unmapped modified natural troglodyte rock shelter.

LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C. & Sanguinetti, B.R. 1874-1879; edited by Gibb, Hamilton AR. 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

One or several unspecified »grottoes« (210) are said to be situated on the way to the »Mountain of Sarandip« (Adam's Peak N06°48'30": E080°29'53": 2242.3 m asl) and somewhere near the »Grotto of al Isfahani« beyond the »Pass of Iskandar« on a route from a place called »Kunakar« (see: Cave of →Ustad Mahmud the Lur) via the »Lake of

Monkeys« and across a certain »Pass of Iskandar« (211).

BOTTOMLESS WELL, Puttur

see: Tidal Well (Puttur)

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983: 131; Cook, Elsie K 1931: 137; Cooray, P Gerald 1967: 71, 264.

COOK (1931: 137): »Near Puttur ... we hear of a bottomless well, whose depth has never been fathomed; there is also a tidal well.«

COORAY (1967: 71): »There is no surface drainage in the Jaffna Peninsula, all the water which falls on the surface passing downwards along fissures formed by solution of the limestone and flowing in underground channels [cave passages, conduits]. The 'bottomless well' at Puttur and the fresh-water spring at Keerimalai are both parts of this subterranean drainage system.«

COORAY (1967: 264): »The 'bottomless' well at Puttur is the mouth of a very large underground cavern in the limestone, with a total depth of 145 feet« (44.2 m).

CEYLON TRAVELLER (1974, 1983: 131): »There are tidal wells in Jaffna whose water level rises and falls twice a day, the water being sweet at the surface but salty at the bottom. The so-called bottomless well at Puttur is some 145 feet [44.2 m] deep ...«

BOVATTAGALA CAVE

Unexplored and unmapped natural or modified natural cave, probably in Miocene limestone.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Bovattagala (Bowata).

POSITION: WGS84 N06°33': E081°41' / N06.55°: E081.68333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

One of the →Bovattagala Caves (see below) is a »cave with entrances at both ends« (CEYLON TRAVELLER 1974, 1983: 172) and appears to be a true tunnel cave in a »large, flat-topped rock« which possibly represents a relic hill built up of Miocene limestone.

SITUATION (CEYLON TRAVELLER 1974, 1983: 172): At »Bovattagala« or Bowattagala (212), a large, flat-topped hill »three miles« (about 5 km along a road) west of Kumana or Kumana (213). PARKER (1909: 453) places »Bowata« simply »in the extreme south-east of Ceylon.«

207 With the photocopy of COORAY (1967) which I got, no »small cave in soft laterite at the foot of the cliff« is discernible.

208 Beruwala Bay N06°28'55": E079°58'33" <www.nima.mil/geonames> accessed 16.11.2003.

209 Beruwala (village) N06°28'26": E079°59'03" (WGS84) on sheet NB44-06, not the other village of Beruwala N07°17': E080°18' (www.nima.mil/geonames accessed 16.11.2003) on sheet NB44-02.

210 Ibn BATTUTA (edited by GIBB 1929, 1998: 258) has »A number of grottoes.«

211 Ibn BATTUTA (edited by GIBB & BECKINGHAM 1994: 853): »At the same place [as the Grotto of al- (→) Isfahani] is the Cave of the Bitter Orange and the Cave of the Sultan and close by is the darwaza [a Persian word: threshold, entrance] of the mountain, that is the place of access to it.«

Ibn BATTUTA (edited by LEICHT 1999: 200): »... oberhalb des Teiches "Taufplatz der Heiligen" liegt ... auch die Orangengrotte und die Sultansgrotte, die den Zugang zum Berg darstellt.«

212 »Bowata« (PARKER 1909: 453), »Bovattagala« (CEYLON TRAVELLER 1974, 1983) or Bowattagala near N06°33': E081°41' (www.nima.mil/geonames accessed 16.11.2003).

213 »Kumana« (CEYLON TRAVELLER 1983: 172) or »Kumanu« (CEYLON TRAVELLER 1983: 171) is the village of Kumana (N06°31': E081°42') near the marsh →Kumana Villu N06°31': E081°42' (www.nima.mil/geonames accessed 16.11.2003).

BOVATTAGALA "CAVES"

or: Bowattagala Caves

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelters, probably in Miocene limestone.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Bovattagala (Bowata).

POSITION: WGS84 N06°33': E081°41' / N06.55°: E081.68333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Parker, H 1909.

An unspecified »number of caves« (CEYLON TRAVELLER 1983: 172) or, perhaps, modified natural rock shelters used for troglodyte religious purposes, contain »inscriptions and 4 others on flat rock [surfaces?]. Inside one cave is a rock water pool.«

SITUATION: See →Bovattagala Cave (above).

CULTURAL HISTORY - rock art (epigraphy): PARKER 1909: 453 reproduces and translated inscriptions »found by Mr. [Hugh] Nevill, and published without facsimiles in the *Taprobanian*« (vol. 1, pages 52 ff).

PARKER (1909: 453 inscription 81): »This cave of the Great Beautiful / is made by Maha - Tissa the Noble, son (of) the samana ...«

PARKER (1909: 454 inscription 82): »(The cave of) Abhi Anuradhiya, daughter of the Noble Abhaya, son (of) King Uttiya, (son of) the samana (monk) Tedapana - Tissa.«

BOWATA CAVES

see: Bovattagala Caves

BIBLIOGRAPHY: Parker, H 1909: 453.

BUDDAMAHELA "ROCK CAVE"

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Uva province: Monaragala district: Westminster Abbey ridge area: Siyambalanduwa: Buddama village: Buddamahela.

POSITION: WGS84 N07°02': E081°29' / N07.033333°: E081.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Passara (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

At Buddamahela is a »rock cave« (CEYLON TRAVELLER 1974: 252; 1983: 254).

SITUATION: The village of Buddama (N07°02': E081°29' WGS84) lies north of Siyambalanduwa (N06°54': E081°33') in the Sellaka Oya Sanctuary and some 20 km west of Westminster Abbey (N07°02': E081°32') on the road to Baduluwela (N07°05': E081°26').

BUDDHANAGEHELA 'CAVES'

A group of unexplored and unmapped modified natural sacred troglodyte rock shelters (temple caves).

LOCATION: Northern Central province: Anuradhapura district: Padaviya Tank.

POSITION: WGS84 (approximate EPE ±2.5 km) N08°53': E080°46' / N08.883334°: E080.7.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Padawiya (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Five »cave dwellings« (214) or »rock temples« (CEYLON TRAVELLER 1974: 249; 1983: 251), which generally consist of modified natural rock shelters, are used for troglodyte religious purposes.

SITUATION (CEYLON TRAVELLER 1974: 249; 1983: 251): At Buddhanagehela (N08°53': E080°46'), an outcrop of rock that lies a little over 8 km north of the embankment of the Padaviya tank (N08°48': E080°45').

CULTURAL HISTORY: »The Buddhanagehela caves consist of a complex of five caverns ... One of the caves contains a statue of the sedent Buddha, protected by a seven-hooded cobra. Another cave in the group contains Hindu religious statuary. Some interesting inscriptions were discovered here, on a pillar nine inches [23 cm] square by six feet four inches [1.93 m] in height« (CEYLON TRAVELLER 1974: 249; 1983: 251).

BUDU GALLENA

or, perhaps: Budu Gala Lena, Budugala Lena

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Budu.

POSITION: If at the town of Ratnapura itself: WGS84 N06°40'58": E080°23'57" / N06.68277778°: E080.39916667° WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Horana, Hutton, Rakwana, or Ratnapura.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 33.

An allegedly »small« (so what?) cave or rock shelter without specified size, nature, character, and the rest (Brooks, S J 1995 Mss, item no. 33).

SITUATION: At an unspecified location called »Ratnapura« (215).

CULTURAL HISTORY - archaeology: Excavation yielded stone tools (DERANIYAGALA, S U 1980: 177].

214 CEYLON TRAVELLER (1974: 249; 1983: 251): »Cave dwellings are scattered throughout Sri Lanka ...« where »... these caves include those at Paramakanda in the Puttalam district, Mihintale, Sasseruwa and Hindagala in the Anuradhapura district, Buddhanagehela near Padaviya, also in the Anuradhapura district, the Ritigala caves ... Galgiriya caves near Galgamuwa in the Kurunegala district and the caves at Dambulla, Sigiriya and Piduragala in the Matale district.«

215 The town of Ratnapura (N06°40'58": E080°23'57" WGS84) is the headquarters of a district covering only a few hundred searchable square kilometres between circa N06°15': E080°15' and N06°55': E080°55'.

BUDUGALA CAVES

or: Budugala »cave temple«

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelters (temple caves), probably in granite.

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Kaltota: Budugala village.

POSITION: WGS84 N06°40': E080°55' / N06.6667°: E080.916667° (or so).

MAP: Survey of Ceylon / Sri Lanka one-inch sheet: Haputale.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Wilson, Jane M 1988.

The so-called »Budugala caves including the Budugala Cave Temple« (CEYLON TRAVELLER 1983: 154, 247) or temple cave (216) are »small decorated rock shelters« (WILSON 1988: 23) with unspecified »decorations« (certificates?, medals? speleothems? rock art? cave paintings?), which were used in the 2nd century by Buddhists as troglodyte monastic dwellings and meditation retreats. Nowadays they are »only a monument to the past« (CEYLON TRAVELLER 1974: 245, 1983: 154, 247).

Nearby are >Hituwa Lena and →Kurugala Cave.

SITUATION 1 (CEYLON TRAVELLER 1974, 1983: 154): In the vicinity of the Circuit Bungalow at »Uggal Kaltota« (217), both »Budugala cave temple« and »Kurugala cavern« lie at a walking distance of »two miles« (about 3 km) from »MP 14« (mile post 14, kilometre 22.5) on the road from Balangoda (218) initially ESE and later NE to Uggal Kaltota.

SITUATION 2 (CEYLON TRAVELLER 1974: 245; 1983: 247): »From Balangoda, the road [south-east] to Uggal Kaltota descends rapidly for twenty miles [32 km] along a ridge of hills that falls away sharply into the plains beyond the Welawe river. In the lower reaches of this ridge are three sets of caves: Those at Budugala, Kurugala and Diyainna.

The Budugala caves ... lie at the very bottom of the escarpment about two miles [3 km] from Kaltota, which is where this part of the road from Balangoda ends [or, perhaps, ended in the 1970s].

216 »Cave temple« is a temple built as a cave (a man-made, rock-cut chamber) but the »Budugala cave temple« (CEYLON TRAVELLER 1983: 154) is probably meant to refer to a religious site characterised by modified natural rock shelters (or true caves): A temple cave.

217 Uggal Kaltota (CEYLON TRAVELLER 1983: 154) or Ukgal Kaltota (WILSON 1988: 23) and Uggalkaltota N06°39'13": E080°52'32" <www.nima.mil/geonames> accessed 16.11.2003 is indicated as »Uggalkaltota« on the "Sri Lanka Road Map" (Survey Department 1977).

CEYLON TRAVELLER (1983: 154) places the circuit bungalow at »Uggal Kaltota« on a lovely stretch of the Walawe River (A) and at the foot of the Tanjantenna escarpment (B).

A: Walawe Ganga or Walawe Oya (N06°06': E081°01'), not the other Walawe Ganga (N06°19': E080°54').

B: The »Tanjantenna escarpment« (CEYLON TRAVELLER 1983: 154) is called after village of Tanjantenna or Tanlantenna (N06°38'10": E080°51'13" WGS84).

218 There is not only the town of Balangoda N06°38'57": E080°40'20" (WGS84) on the main road A4 (Survey Department 1977: Road Map of Sri Lanka) but also an Upper Balangoda N06°39': E080°41' (WGS84 <www.nima.mil/> accessed 16.11.2003).

Budugala is reached via a track (motorable in dry weather) along an irrigation channel. Clearly visible from this track is the massive Kurugala rock [219] on the mountainside above.«

CAVE POTENTIAL: Cavers and spelunkers fond of pot-holing will be excited to learn that »both Budugala and Kurugala [the village near the cave →Hituwa Lena] are accessible by car along a reasonable metalled road with numerous pot-holes« (WILSON 1988: 23).

BUDUGALGE "CAVES"

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelter (temple cave).

LOCATION: Uva province: Monaragala district: Kumbukkan Oya basin: Okkampitiya (Okkampitiya Ihalagama) area: Budugalge.

POSITION: WGS84 N06°48': E081°20' / N06.8°: E081.33333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The »ruins of a cave vihara« at Budugalge (N06°48': E081°20') are among »several caves and cave temples« (CEYLON TRAVELLER 1974: 253; 1983: 255) in the area south of the road from Beragala (N07°14': E080°20') generally eastwards via Wellawaya (N06°44': E081°06') and Buttala (N06°45': E081°14') to Monaragala (N06°52': E081°21').

Compare the →Okkampitiya Cave (Brooks 1995 Mss).

SITUATION: At Budugalge (N06°48': E081°20'), not indicated on "Sri Lanka Road Map" (Survey Department 1977).

APPROACH (CEYLON TRAVELLER 1974: 253; 1983: 255): Budugalge (N06°48': E081°20') is reached by turning south (220) at Kumbukanna (N06°48': E081°18'), which lies about half way between Wellawaya (N06°44': E081°06') and Monaragala / Monaragala / Monaragalla (N06°52': E081°21'), and by proceeding for about »five miles« (8 km) to the end (1974) of the road. The temple cave lies about »a mile« (one or two kilometres) beyond the end of the road.

BULAWATTA CAVE

or: Bulawatte Cave

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Pelmadulla town: Bulatwatta (Bulawatte) village.

POSITION: WGS84 N06°40': E080°31' / N06.6667°: E080.516667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 25.

An unspecified cave or rock shelter, which is easier »suspected small« (Brooks 1995 Mss, no. 25) than identified, traced and investigated.

219 Kurugala N06°49': E080°04' (WGS84 <www.nima.mil/> accessed 16.11.2003) at an elevation of »1,200 feet« = 366 m asl (CEYLON TRAVELLER 1974: 245; 1983: 247) or »150 m« (above the plain? WILSON 1988).

220 Judging from the coordinates on <www.nima.mil/geonames> (accessed 16.11.2003), Budugalge (N06°48': E081°20') lies not south but 3.4 km in a direct line due east of Kumbukanna (N06°48': E081°18') and 7.5 km north-east of Okkampitiya (Okkampitiya Ihalagama N06°45': E081°17' WGS84).

SITUATION: Somewhere in the vicinity of the village of Bulatwatta (N06°40': E080°31') or »*Bulawatte*« (Brooks 1995 Mss) and without identified spatial relation »*near*« (sic!) the town of Pelmadulla (N06°37'28": E080°33'07" WGS84).

CULTURAL HISTORY - archaeology (DERANIYAGALA 1980: 174): Excavation yielded stone tools (stone celt, adze).

BULUTOTA "CAVES"

or: Balutota Caves

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Bulutota (Balutota) village.

POSITION: (If at the village of Bulutota), WGS84 N06°26': E080°39' / N06.433333°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

One, two or more unspecified »*caves / rock shelters*« without identified nature, character or dimensions are said to be situated »*in the hillside*« somewhere in the vicinity of »*Balutota*« (Brooks 1995 Mss) or Bulutota (221).

ETYMOLOGY: The Sinhala "tota" is a »*ford*« (COOK 1931: 347).

CULTURAL HISTORY: Archaeological excavation yielded stone tools made from chert and quartz (Brooks 1995 Mss, item no. 35, 36, 37 after DERANIYAGALA 1980: 177).

BUTKANDA "CAVE" 1

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Rakwana range (Rakwana - Bulutota range) area: Butkanda (Buthkanda) village.

POSITION: WGS84 N06°23': E080°41' / N06.38333333°: E080.68333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

The first of three unspecified caves or rock shelters (Brooks 1995 Mss no. 35, 36, 37 after DERANIYAGALA 1980: 177).

SITUATION: Somewhere in the hillside near the village of Butkanda / Buthkanda (222).

CULTURAL HISTORY - archaeology: Excavation yielded stone tools made from chert and quartz (DERANIYAGALA 1980: 177).

BUTKANDA "CAVE" 2

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Rakwana range (Rakwana - Bulutota range) area: Butkanda (Buthkanda) village.

POSITION: WGS84 N06°23': E080°41' / N06.38333333°: E080.68333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

Another unspecified cave or rock shelter somewhere »*in the hillside*« (Brooks 1995 Mss no. 35, 36, 37) near Butkanda / Buthkanda (N06°23': E080°41') also yielded stone tools made from chert and quartz (DERANIYAGALA 1980: 177).

BUTKANDA "CAVE" 3

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Rakwana range (Rakwana - Bulutota range) area: Butkanda (Buthkanda) village.

POSITION: WGS84 N06°23': E080°41' / N06.38333333°: E080.68333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

A third unspecified cave or rock shelter somewhere »*in the hillside*« (Brooks 1995 Mss no. 35, 36, 37) near Butkanda / Buthkanda (N06°23': E080°41') also yielded stone tools made from chert and quartz (DERANIYAGALA 1980: 177).

BUTTALA CAVE

see: Katugaha Galge

see: Meminnahela Galge

see: Cave of →Yudaganawa

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980: 155; Sarasin, Fritz 1931: 46.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 8.

221 »*Balutota*« (Brooks 1995 Mss) appears to attempt referring either to the village of Bulutota (N06°26': E080°39' WGS84) or to the Bulutota Pass N06°28': E080°38' (www.nima.mil/geonames accessed 16.11.2003).

222 Buthkanda, Butkanda N06°23': E080°41'.

CALTURA CAVES

or: Caves inland from Kalutara

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860, 1861.

Unidentified »inland caves« (no name or names mentioned, perhaps →Hindagalla Cave and →Ravana Ella Cave) noted for »Esculent Swifts« producing edible bird's nests reported TENNENT (1859, 1860 vol. 1: 167-168) and TENNENT (1861: 248) from an unidentified location (223) which lies »35 miles« (about 50 or 60 km) in an unspecified direction from »Caltura« (224), the coastal town of Kalutara (N06°34'34": E079°57'57" WGS84):

»Passeres. Swallows: Within thirty-five miles of Caltura, on the western coast, are inland caves, the resort of the Esculent Swift (225), which there builds the "edible bird's nest," so highly prized in China. Near the spot a few Chinese immigrants have established themselves, who rent the royalty from the government, and make an annual export of their produce. But the Swifts are not confined to this district, and caves containing them have been found far in the interior, a fact which complicates the still unexplained mystery of the composition of their nest; and notwithstanding the power of wing possessed by these birds, adds something to the difficulty of believing that it consists of glutinous algæ [226]. In the nests brought to me there was no trace of organisation; and whatever may be the original material, it is so elaborated by the swallow as to present somewhat the appearance and consistency of strings of isinglass. The quantity of these nests exported from Ceylon is trifling.«

CAVE LIFE: Esculent or edible nest building swiftlets (227) on the island of Sri Lanka have been reported from a cave at →Hindagalla (N06°52': E081°06') and →Ravana Ella Cave (N06°51'19": E081°03'23" probably Everest 1830).

223 At a linear distance of 50 or 60 km inland from Kalutara on the coast lies the town of Ratnapura (N06°40'58": E080°23'57" WGS84) at the foot of the Central Plateau, from where the edible bird's nests were probably brought (possibly by inland navigation on the Kalu Ganga).

224 »Caltura. — A small town and fort in the island of Ceylon, twenty-six miles south from Colombo; lat. 6°34' N., lon. 79°53' E. Here, as at every village on the west coast of Ceylon, arrack is distilled from the juice of the palmira and cocoa-nut trees, and is an article of considerable traffic. The travelling distance from Colombo is twenty-eight miles, by an inland navigation consisting of rivers connected by canals. (Cordiner, & c.)« (HAMILTON 1828, 1: 328).

225 TENNENT (1860,1: 167 footnote 1; 1861: 248 footnote 1): »Collocalia brevirostris, McClell.; C. nidifica, Gray.«

226 TENNENT (1860,1: 167 footnote 2; 1861: 248 footnote 2): »An epitome of what has been written on this subject will be found in Dr. Horsfield's Catalogue of the Birds in the E.I. Comp. Museum, vol. i. p. 101, etc.«

227 MAA (1980: A preliminary revision of the genus Myophtiria Rondani (Dipera: Hippoboscidae.- Revue Suisse Zoologie, Geneve, vol. 87, no. 3, page 836): »Swifts and swiftlets (Apodidae) of the genera Collocalia Gray 1840 (Chaeturinae) of the Old World, and Aeronautes Hartert 1802 (Apodinae) of the New World ... are gregarious, generally non-migratory, and built durable nests in extensive, compact colonies at high, sheltered, hardly accessible places. They are among the fastest flying birds in the world.«

CAWANY, cave of

see: Kuveni Lena

BIBLIOGRAPHY: Laidlay, J W 1848 edited 2000: 371 footnote † after »M« (Monsieur) C. Landresse in Abel Remusat J P 1836 referring to »Upham s.a.: Sac. and Hist. Books of Ceylon, Vol. I, p. 69, and Vol. II, p. 171 et seq.«

CHIDR GROTTTE

see: Khidr, cave of

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354, edited by Leicht, 1999: 201.

CHULA & KASABA, cave of

see: Udupiyan Galge

BIBLIOGRAPHY: Deraniyagala Paulus Edward Pieries 1943: 99. MANUSCRIPT REFERENCE: Chula & Kasaba, circa 250 ±50 BC, undated inscription.

COBRA HOOD CAVE

or: Cave of Naguli

Frequently visited but speleologically unexplored and unmapped modified natural, painted rock shelter in granite.

LOCATION: Central province: Matale district: Sigiriya rock.

POSITION: WGS84 (estimated EPE ±2.5 km) N07°57': E080°45' / N07.95°: E080.75° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lee, Yu Kit 1994; Lonely Planet, Sri Lanka 2003.

A modified natural rock shelter containing rock art (paintings, inscription).

ETYMOLOGY: LONELY PLANET (2003: 229): »This rocky projection earned its name because the overhang resembles a fully opened cobra's head.«

SITUATION: LONELY PLANET (2003: 228 "Sigiriya" location map) indicates »7« (Cobra Hood Cave) about 200 m in a direct line south-west of the →Sigiriya Rock (228).

LONELY PLANET (2003: 229): »Generally you will pass by this cave after descending the rock on your way to the south gate and the car park.«

CULTURAL HISTORY - rock art: »Below the drip ledge is a 2nd-century BC inscription that indicates it belonged to Chief Naguli, who would have donated it to a monk. The plastered interior of the cave was once embellished with floral and animal paintings« (LONELY PLANET 2003: 229).

CULUTTHA, cave of

Frequently visited but speleologically unexplored and unmapped modified natural sacred rock shelter (temple cave).

LOCATION: North Western province: Kurunegala district: Dedura Oya (Daeduru-oya): Parana Nuwara: Peddawa.

POSITION: WGS84 N07°49': E080°19' / N07.816667°: E080.316667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909.

A »cave-shelter under a rock« (PARKER 1909: 251-252), which »is well known in the district around it, but elsewhere even its modern name is not recognised.«

228 Sigiriya rock, a »200 m high rock (377 m above sea level)« (LONELY PLANET 2003: 228) is roughly positioned (±2.5 km) at N07°57': E080°45' <www.nima.mil/geonames> accessed 16.11.2003.

SITUATION (PARKER 1909: 251): At a travelling distance of »six miles« (10 km) from the village of Peddawa (229) and at »Parana Nuwara, the Old City ... on the bank of the Daeduru-oya [230], and about a mile [one or two kilometres] from an ancient reservoir at Batalagoda [231], near Kurunaegala« (Kurunegala N07°29'12": E080°21'53" WGS84).
CULTURAL HISTORY: »Even in the third century A.D. it had lost its first name, and was already 'the Ancient City'. An inscription of this period (see Fig. 153 for facsimile) cut over the entrance to a cave-shelter under a rock at Peddawa, a village six miles away, is as follows: Siddham, Pubaga nakaraka wasike bhojike CulM-taha lene. { Hail! The cave of Culuttha, a headman dwelling at the Ancient City). Incidentally, we may infer from this inscription that there was already in existence another town termed 'the New City' that is Alut-Nuwara, at Mahiyangana« (PARKER 1909: 252).

DAFTUR JAILANI

see: Hituwa Lena

Wilson, Jane M 1988: 23.

DAGABA GALGE

or: Galge Caves, Gallegay / Galgay Caverns

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelter in gneiss (DAVY 1821: 419).

LOCATION: Uva province: Monaragala district: Yala National Park area: Kataragama - Buttala road: Galge (Gallegay, Galgay) village: Kimegala (Kimègalle).

POSITION: WGS84 (without recorded EPE) N06°36': E081°23' / N06.6°: E081.38333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Davy, John 1821; Parker, H 1909; Pridham, Charles 1849; Sarasin, Fritz 1931; Sarasin, Fritz & Sarasin, Paul 1908; Sarasin, Fritz 1939.

MANUSCRIPT REFERENCE: Brooks, Simon, J. 1995 no. 7.

A north-west facing, about 15 m wide rock shelter with two recesses (both about 5 m wide, 2.5 m high, 4 m long) at both ends (SARASIN 1939), represents one of the →Galge Caves (Kimegala) in karstified gneiss (232).

ETYMOLOGY: Compare →Galge Caves (Kimegala).

Dagaba Caves <www.nima.mil/geonames> 16.11.2003

Gallegay Caverns DAVY (1821: 419);

Gallegé Caverns PRIDHAM (1849, 2: 578);

Galge Survey Department (1977: Road Map of Sri Lanka);

Höhle von Katagaram SARASIN & SARASIN (1908: 1-15), SARASIN (1939: 157-158);

Kimègalle DAVY (1821: 419); PRIDHAM (1849, 2: 578).

229 Peddawa, the village (N07°34': E080°24') or the mountain (N07°34': E080°25')

230 Dedura Oya N07°36'09": E079°47'25" WGS84 <www.nima.mil/geonames> 16.11.2003.

231 Batalagoda Tank N07°32'03": E080°27'17" WGS84 <www.nima.mil/geonames> 16.11.2003, according to PARKER 1909: 252) »restored by me in the last decade (see Fig. 134).«

232 DAVY (1821: 419) came across »gneiss containing mica and so large a proportion of carbonat [sic] of lime that it effervesces with an acid.«

SITUATION: SARASIN (1931: 43) places Dagaba Galge three hours north of »Kataragam« and SARASIN (1939: 157-158) about 15 km north of »Kataragam.«

CAVE DESCRIPTION 1821: DAVY (1821: 419) observed, pilfered by PRIDHAM (1849, 2: 578), »several capacious caverns« in the side of an immense mass of rock, which, by some, is called »Gallegay« (map: »Gallegé« = rock house) »from several capacious caverns which afford good shelter to the traveller«, and by others Kimègalle (water rock) from two deep cavities in its summit. These are »natural reservoirs that are never without water, an element that is often extremely scarce in this desert, and hardly anywhere else to be found.«

CAVE DESCRIPTION 1896 ±4: SARASIN (1939: 157-158): »Der gesuchte Höhlenfels war ein 30 bis 40 m hoher, aus Gneiss bestehender, länglicher, isolierter Rücken, auf dessen Oberfläche durch Verwitterung mehrere beckenförmige Vertiefungen entstanden waren, gefüllt mit Regenwasser, willkommene Reservoirs für Durchreisende und belebt von vielem Kleingetier ... An der Nordwestseite des Felsrückens fand sich ein zirka 15 m langer Abri, vermutlich durch Auswitterung weicher Schichtenteile entstanden. An beiden Enden bildete er bis zirka 4 m tiefe, 5 m breite und 2 1/2 m hohe Rezesse, verbunden durch ein weit weniger weit überhangendes Mittelstück.«

CAVE DESCRIPTION 1980: Brooks (1995 Mss: no. 7: Galge Caves) after DERANIYAGALA (1980: 155): A group of small caves or rock shelters.

CULTURAL HISTORY - archaeology: The site was excavated by the Sarasin brothers in the late 19th century. SARASIN & SARASIN (1908: 1-15) have dug a trial ditch in »Kataragam shelter.« SARASIN (1931: 43) reports archaeological findings in three, up to 1.5 m deep trial trenches. According to DERANIYAGALA (1980: 155), this to be the second site archaeologically excavated in Sri Lanka.

DALADAGAMA CAVE TEMPLE

see: Maliga Vihara cave temple

Ceylon Traveller (1974, 1983: 37).

DEMALIYA GALGE

see: Demeliya Galge

Ceylon Traveller 1974: 253; 1983: 255.

DAMBOOL CAVE TEMPLES

see: Dambulla Galge

Tennent, James Emerson (1859, 1860, 1861).

TENNENT (1859, 1: 376): »... Dambool... is the most remarkable of the cave temples of Ceylon from its vastness, its elaborate ornaments, and the romantic beauty of its situation and the scenery surrounding it.«

DAMBOOL FANES

see: Dambulla Galge

Forbes, "Major" (1840, 1: 867-868).

»The rock of Dambool, in which are the celebrated Buddhist cave temples ... The only easy ascent to these is from the eastern side; and the steep path first passes over a bare shelving rocks then lies through a narrow patch of jungle, from which you again issue upon the bare rock near the miserable gateway which forms the entrance to the platform in front of the ancient fanes of Dambool« (FORBES 1840, 1: 867-868).

DAMBOOL ROCK TEMPLE

see: Dambulla Galge

Hartwig, George (1871c: 183).

DAMBULLA CAVE TEMPLE

see: Dambulla Galge

Parker, H (1909: 98-99).

DAMBULLA GALGE

A group of modified natural, sacred and painted, troglodyte rock shelter (temple cave) in Cambrian or Precambrian gneiss.

LOCATION: Central province: Matale district: Dambulla (Dambul) village: Dambullugala.

POSITION: WGS84 N07°51'36": E080°39'06" / N07.86°: E080.6516667° (<www.nima.mil/geonames> accessed 16.11.2003): 107 m asl (ILANGASINGHA 1997).

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Beylié, L de 1907; Cave, Henry W 1900, 1901, 1904, 1907, 1908, 1912, 1921; Ceylon Traveller 1974, 1983; Davy, John 1821, 1822; Dhanapala, D B 1957a, 1957b, 1964a, 1964a; Forbes, Jonathan 1840, 1841; Gerhards, Hannelore & Schreiber, Bernhard 1984; Glennie, Edward Aubrey 1947a; Goldberg, E S & Katz, N 1986; Hamilton, Walter 1828; Hartwig, George 1871a, 1871b, 1871c, 1885, 1888; Ilangasinha, Mangala 1997; Knighton, William 1847; Kukla, Jiri 1958; Kusch, Heinrich 1973c; Leclercq, Jules 1898a, 1898b; Parker, H 1909; Philips, Derek 1990; Reichenbach, Kurt & Kiedrowski, Rainer 1995; Reynolds, C 1981; Rhys Davids, T W 1872; Pinto, Jerry 2004; Tennent, James Emerson 1859, 1860, 1861; Trimmel, Hubert 1968, 1998; Turnour, George 1837; Wilson, Jane M 1988.

MANUSCRIPT REFERENCE: Glennie, Edward Aubrey 1946.07.03.

The most famous temple cave (233) of Sri Lanka (234) consists of a row of five or six, up to 50 m wide and up to about 6 m high rock shelters beneath the undercut »Dambulugala« (CEYLON TRAVELLER 1983: 351) or »Dambulla Galge«, a rounded rock of red gneiss, carved with a drip ledge to keep the interiors dry, and segmented by partition walls into five (LECLERCQ 1898) or »four major and two smaller« (CEYLON TRAVELLER 1983: 352) compartments.

The rock shelter is known to have been used as a cult spot sacred to Buddhists since at least 22 centuries. Till today, the inhabitable shelter is exploited as a religious show cave (listed as a UNESCO world heritage site) complete with souvenir shops and a variety of rock art in the shape of cave

paintings (235), inscriptions (236), and sculptures.

According to CEYLON TRAVELLER (1983: 387), »Dambulla is the largest cave monastery in Sri Lanka« and its history goes back to the 2nd century B.C. on the evidence obtainable from the inscription under the drip ledge of the main cave recording the dedication of the cave to Buddhist monks. The paintings on the walls and roofs inside the cave date back to the 3rd century B.C. to the 18th century A.D.: »The cave contains perhaps the largest area of painted surface in any Buddhist shrine in the world.«

SITUATION (CEYLON TRAVELLER 1983: 351): The village of Dambulla (N07°51'36": E080°39'06" WGS84) at the foot of »Dambulugala« (sic), the rock, lies »45 miles« (72.5 km north along highway A9) from Kandy (N07°17'47": E080°38'06" WGS84) and »not far« (about 5 km south) from where the »the Kurunegala road meets the Kandy road. You cannot miss this huge, dark, whale-hump of rock and there are Archaeological Department signboards to guide you.«

APPROACH 1840 (FORBES 1840, vol. 1: 867-868): »The rock of Dambool, in which are the celebrated Buddhist cave temples, appears to rise about five hundred feet above the surrounding forests ... The only easy ascent to these is from the eastern side; and the steep path first passes over a bare shelving rocks then lies through a narrow patch of jungle, from which you again issue upon the bare rock near the miserable gateway which forms the entrance to the platform in front of the ancient fanes of Dambool.«

APPROACH 1974 (CEYLON TRAVELLER 1983: 351): »To reach this store house of Sinhala Buddhist art you can either take the the road from Colombo via Kurunegala to Habarana or the road from Kandy to Habarana.«

CAVE DESCRIPTION: Flights of steps, arched colonnades and gabled entrances are attached to the rock shelter (according to PINTO 2004 between 6 and 50 m deep) but the architecture of the rock shelter itself has been modified only to a certain extend (237).

The decorated interior is partitioned into a series of about five distinct temple caves.

»Before entering the caves is a pleasant "midula" or yard and ranged along the length of it is the cavern, extending about 175 feet [53.5 m]. The breadth [probably of the rock shelter] is about 75 feet [23 m] and the height about 20 feet [6 m] in front, receding at the back till it meets the ground. There are four major caves and two smaller ones, the most important

235 The cave paintings cover an area of 2100 square metres (PINTO 2004: 64).

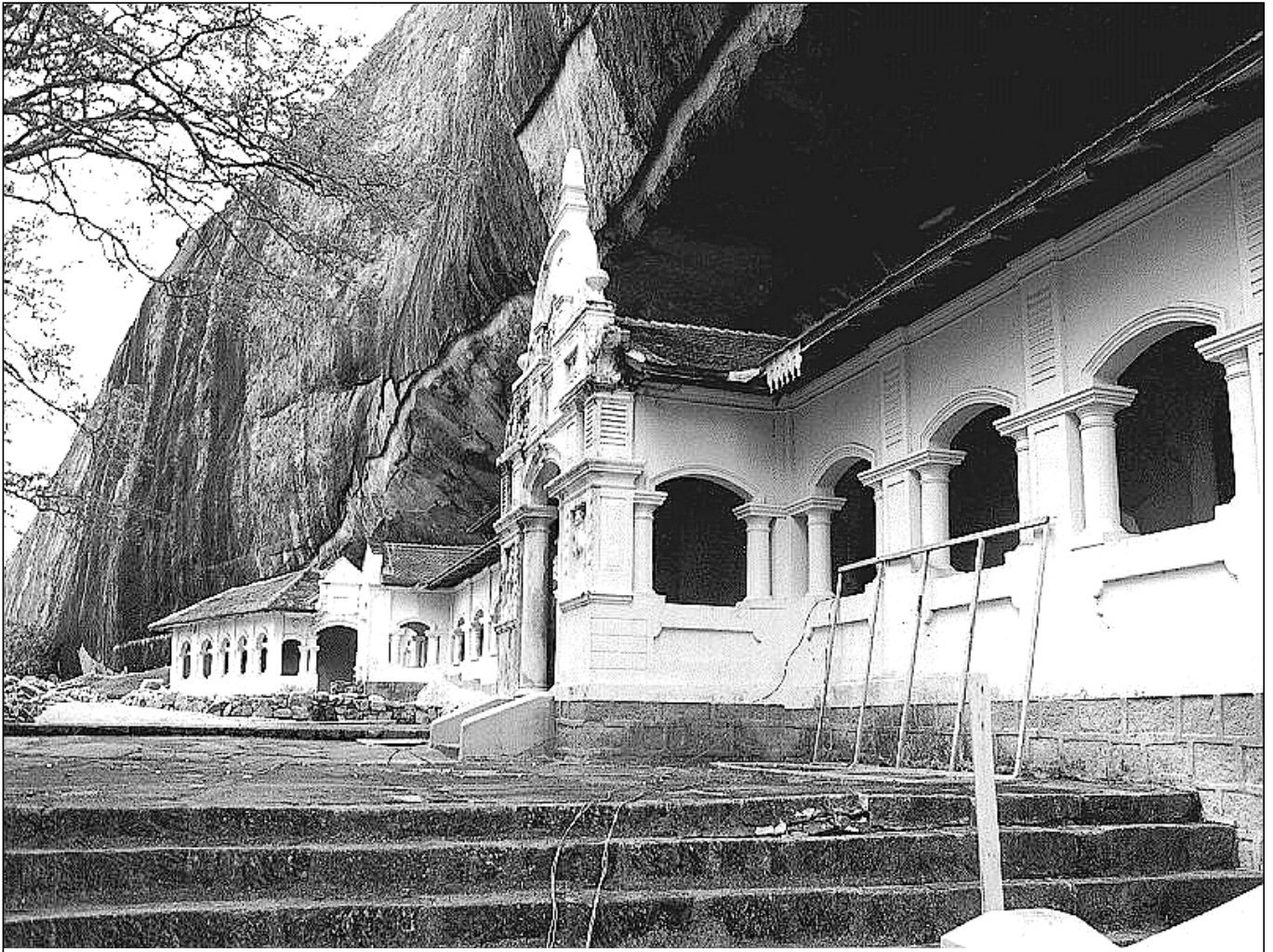
236 TURNOUR (a.i.: Epitome, appendix, page 95) gives the translation of a Pali inscription by ARMOUR. FORBES (1840, 1841.ii: 350-353): A long rock inscription (1200 AD) »on the Dambulla rock« (Dambulla gala) mentions »The sovereign lord of Lanka, Praakramabahoo Chakkrawarti, of the dynasty of Kaalinga ... caused ... dwellings for priests to be formed upon the hill Rankohokaloohenne, wherein is situate the cave of Dambulu Lena ...«

RHYS DAVIDS (1872: 139-141, plate VII) reviews earlier descriptions and translates a 1st century BC Pali inscription under a katâra (cave / ledge caused to deviate rain) half way up a precipice 200 feet (60 m) high. ILANGASINGHA (1997) ascribes the earliest man-made modifications to the 1st century BC King Vittagami Abaya.

237 LECLERCQ (1898): Just as in Burma (Myanmar), where many temples are called "koo" (cave), are natural caves of Sri Lanka regarded by Buddhists as prototypes of temples.

233 To consider the modified natural rock shelters at Dambulla as a »cave temple« (WILSON 1988: 22) or as a »cave temple complex« (PINTO 2004: 64) adds nothing but confusion because they are caves used as temples (temple caves), not temples built as if they were caves (cave temples).

234 Dambulla Galge is in the Unesco World Heritage List (TRIMMEL 1998: 78).



DAMBULLA façade in front of the modified natural rock shelter used as a temple cave

being known as the *Raja Maha viharaya*»(CEYLON TRAVELLER (1983: 352).

CAVE 1, Deva Raja viharaya (Devarajalena, Cave of the Divine King): An account of the founding of the monastery is recorded in a first-century Brahmi inscription over the entrance. Devarajalena is dominated by a statue of the reclining (recumbent) Buddha, 14 m long. At his feet is Ananda, Buddha's favorite pupil, and at his head (upon approaching on the left-hand side) is a statue of the Hindu god Vishnu (said to have used his divine powers to create the caves) identified by others as Upulvan, the patron deity of the Sinhalese.

The interior has been repainted countless times in the course of its history, and probably received its last coat of paint in the 20th century. CEYLON TRAVELLER (1983: 352) confirms that »... there is little doubt that the paintings of the caves of Dambulla have been touched and retouched by succeeding monarchs and patrons and it is not too fanciful to imagine that underneath it all might lie the first artistic efforts of Lankan cave man.«

CAVE 2, Maha Raja viharaya (Maharajalena, Cave of the Great King), is the largest, measuring about 52 m from east to west, 7 m tall at its highest point, and 23 m from the entrance to the back.

FORBES (1840, 1: 370-371): »The next temple into which I entered is by far the largest and the most imposing in Ceylon;

it is all painted in brilliant colours, and every part is in good repair. I believe its name of *Maha-rajā wihāre*, (temple of the great King) arises from its founder King Walagam Bahoo, having personally assisted in its formation; it is one hundred and seventy-two feet in length [52.4 m], seventy-five [22.9 m] in breadth, and twenty-one feet [6.4 m] in height near the front wall. The height from this place gradually decreases in the arc of a circle towards the floor on the interior side; not the bad effect of this formation is much diminished by a judicious distribution of the statues, and the drapery hung up to protect them from dust, or the gaze of the vulgar.«

Put up are 16 standing and 40 seated statues (carved out of the living rock or made of wood and stucco) of Buddha, the gods Saman and Vishnu, which pilgrims often decorate with garlands, and finally statues of King Vattagamani, who honored the monastery in the first century B.C., and King Nissanka Malla, a farmer king of Polonnaruwa in the 12th century responsible for the gilding of 50 statues, as indicated by a stone inscription near the monastery entrance. The Buddha statue hewn out of the rock on the left side of the room is escorted by wooden figures of the Bodhisattvas Maitreya (left) and Avalokiteshvara or Natha (right). Valuable tempera paintings (rock art) on the cave ceiling date from the 18th century and depict scenes from Buddha's life, from the dream of Mahamaya to temptation by the demon Mara. There is also a *dagoba* and a spring which drips its

Dambool	FORBES (1840, 1841); KNIGHTON (1847); HARTWIG (1871c: 184); TENNENT (1859, 1860)
Dambool cave temples	KNIGHTON (1847 plate VII)
Dambool, fanes of Dambool rock temple	FORBES (1840, 1: 868) KNIGHTON (1847), TENNENT (1859, 1: 489)
Damboolla-galla	KNIGHTON (1847)
Damboolla wihare	FORBES (1840, 1841.ii: 282)
Dambooloo	HAMILTON (1828)
Dambulla, cave of	FORBES (1840, 1841.ii: 347)
Dambulla Cave	KUKLA (1958: 169); TRIMMEL (1968: 266)
Dambulla cave monastery	CEYLON TRAVELLER (1984 p. 387)
Dambulla cave temple	WILSON (1998: 23)
Dambulla caves	CEYLON TRAVELLER (1974 p. 249; 1983: 251)
Dambulla Höhlen	KUSCH (1973c: 21)
Dambulla, temple at	FORBES (1840, 1841.ii: 324)
Dambulla wihare	FORBES (1840, 1841.ii: 307)
Dambulle jeskyne	KUKLA (1958: 167)
Dambulu Lena	FORBES (1840, 1841.ii: 352)
Dambulugala cavern	CEYLON TRAVELLER (1984 p. 351)
Dambulugala caves	CEYLON TRAVELLER (1984 p. 351-353)
Dambulla, souterrain à	LECLERQ (1898)
Swarna Giriguhaaya	FORBES (1840, 1841.ii: 353).

water, said to have healing powers, out of a crack in the ceiling.

CEYLON TRAVELLER (1983: 352): »From a crevice in the ceiling a drop of water falls with unerring regularity ... This comes from a pool at the summit of the rock, a pool which never dried up even in the severest draughts. In the cave, the dripping water is caught in a vessel and regarded as sacred.«
CAVE 3, Maha Alut Vihara (Great New Monastery), acquired ceiling and wall paintings in the typical Kandy style during the reign of King Kirti Sri Rajasinha (1747-1782), the famous Buddhist revivalist. In addition to the 50 Buddha statues, there is also a statue of the king.

CAVE 4: Pacchima Vihara (western monastery) is said to translate into the German »Westliche Höhle« (Western Cave) and contains a seated Buddha as the central statue and a small dagoba, which is supposed to contain the crown jewels of an ancient queen (REICHENBACH et al. 1995: 71).

CAVE 5: Davana Alut Vihara (second new monastery) is said to translate into the German »Zweiter Neuer Tempel« (Second New Temple) was developed in 1915 and contains 11 Buddha statues constructed from bricks and plaster (REICHENBACH et al. 1995: 71).

CAVE DESCRIPTION 1840 (FORBES 1840, 1: 367-376; 1840, 2 frontispiece) »... The first of the excavated chambers which we entered is generally called the Maha-deiyo-dewale, or temple of the great god. ... This chamber is long, narrow,

and dark. ... The fronts of all the temples at Dambool are formed by a wall raised under the beetling rock, and these sacred caverns are partly natural and partly excavated.

The next temple into which I entered is by far the largest and the most imposing in Ceylon; it is all painted in brilliant colours, and every part is in good repair ... it is one hundred and seventy-two feet in length, seventy-five in breadth, and twenty-one feet in height near the front wall. The height from this place gradually decreases in the arc of a circle towards the floor on the interior side ... In this temple are fifty figures of Buddha ... and in a small square compartment, railed in and sunk two feet below the level of the floor, a vessel is placed to receive water, which constantly drops from a fissure in the rock, and is exclusively kept for sacred purposes. ... The Passpilame (western), and two alut (new) wihares are formed on the same plan, but are inferior in size and ornament to the Maharaja wihare ...«

CAVE DESCRIPTION 1847 (KNIGHTON 1847: 340-350, plate VII) »... A rough tiled building, built principally of wood, affords a passage to the more immediate precincts of the caves, and on entering this the visitor finds himself standing on a ledge of rock covered with a slight coating of mould ... To the right rises the perpendicular mass of the rock, which to a height of about thirty feet [9.15 m] has been excavated, partly by human labour and partly by nature, a wall being built up in front of the caves, which reaches to the overhanging mass of rock above. To the left the hill descends very steeply ... The ledge of the rock, covered with a slight mould on its eastern side, on which I am now supposing the visitor to be standing, runs in front of the caves, a distance of about five hundred feet [152.5 m], varying much in breadth, but gradually becoming narrower towards the western side, where are situated the two aluth or new caves. In front of all the temples a narrow verandah extends, which projects from their front wall, and above which may be seen the marks of wedges used in excavating them ...

The caves themselves are five in number, the first three stretching from east to west, are the older, and more laboured structures, the remaining two, forming an obtuse angle with the others, being much more recent and comparatively insignificant. The excavations are separated from each other partly by remaining portions of the rock, and partly by artificial walls, and they stretch into the mountain to various distances from fifteen to one hundred and thirty feet [4.6 m to 39.7 m]. In height they vary from ten to thirty feet [3 m to 9.15 m] being generally more lofty at the entrance, and gradually decreasing in height as they advance into the rock. The cave usually called the first... is also the most easterly ... is called the Maha-Deva-Devale ... Leaving the Maha-Deva-Devale, and proceeding to the westward, the visitor ascends a few steps, and finds himself in front of the Maha Wihare or Great Temple, by far the largest of the five ... a spacious apartment, the floor of which ... is quite level, whilst the roof gradually descends from the entrance to the further side, being twenty-one feet [6.4 m] high near the front wall and only four [1.2 m] at the opposite quarter ... The Maha Wihare is upwards of one hundred and seventy feet [52 m] broad, and contains within its spacious dimensions forty-six images ... In one corner of the Maha Wihare there is a depression in the floor of the cave, about two feet deep, into which water is continually dropping from the rock above ... One cane hardly walk through the spacious cavity of the Maha Wihare without feeling involuntary awe at his situation ...

On leaving Maha Wihare the visitor finds little in the three remaining caves to excite his wonder or admiration. They are so inferior in size ...«.

CAVE DESCRIPTION 1857 (TENNENT 1859, 4th revised edition 1860, I.IV.vii: 489): »... in Ceylon the earliest rock temples were merely hollows beneath overhanging rocks, like those still existing at Dambulla, and the Aluwihara at Matelle, in both of which advantage has been taken of the accidental shelter of rounded boulders, and an entrance constructed by applying a façade of masonry, devoid of all pretensions to ornament.«

CAVE DESCRIPTION 1872 (RHYS DAVIDS 1872: 139) has a »wonderful hill of stone "underneath which the temple has been hollowed out, which from its antiquity, its magnitude, and the richness of its decorations, is by far the most renowned in Ceylon.«

CAVE DESCRIPTION 1898 (LECLERQ 1898b): »Le plus céèbre temples souterraines de Ceylan sont à Dambulla, et au nombre de cinq, dans un roc de gneiss rouge : dans le premier est taillé à même roc un Bouddha couché, long de quinze metres; le souterrain a été peu transformé; on n'y a taillé ni colonne, ni façade comme dans les temples souterraines de l'Inde (GOBLET D'ALVIELLA, *Inde et Himalaya*, p. 64, Paris, 1877). ... Le plus grand et le plus beau de ces temples est le Maha-Viharé, avec un cinquantaine des grandes statues de Bouddha et de curieuses fresques restaurées à différentes époques. Les trois autres cavernes sont moins intéressantes.«

CAVE DESCRIPTION 1907 (BEYLIÉ, L. de 1907: 375) needs to be checked.

CAVE DESCRIPTION 1947 (GLENNIE (1947a: 42) entertains with a (wild?) narrative of a »passage said to lead on for 10 miles or more« which, upon exploration, turned out to be »a natural passage about 5 ft. wide and 15 ft. long, which, turning at right angles, continued for about 5 ft in a narrow joint. So ended the passage. Covering the floor in rows and heaps were dozens of beer bottles, some full and some empty. I had intruded upon some strange secret cult.«

CAVE DESCRIPTION 1958: KUKLA (1958: 167): »Nejznamejsze vseh jsou cejlonské pseudokrasové jeskyne. Jsou to vetsinou hluboká abri, která vznikla vyvetraním méne vzdorných partií ruly obvykle na upati nejakého skalnatého vrcholu. Snad největší jsou jeskyne v Dambulle, umelerozsírené v buddhisticky chram. Abri je kryto zdí, takže vnitrek sesochami Buddy, vytsanými z ruly, je temny. Jen nekolikr'st v roce, za nábozenských slavností, se dze rozzechnou pochodne. Podobne mensí abri je v Mihintale.«

KUKLA (1958: 169): »Well known are the pseudokarst abris in Ceylon, such as Dambulla Cace and Mihintale Cave used as the buddhist sanctuaries.«

CAVE DESCRIPTION 1968 (TRIMMEL 1968 after KUKLA 1958): »Natürliche Felsdächer in Gneis, wie die Dambulla Cave, sind zu buddhistischen Höhltempeln umgestaltet.«

CAVE DESCRIPTION 1988: WILSON (1988: 22) confused cave temples with temple caves before drawing attention to »Sigiria (see Kutsch 1973)« (238), Mulkirigala, and Dambulla, complete with »spectacular frescoes« and »reclining golden statues of the Buddha as much as 15 m long.«

CAVE LIFE: Dusk brings hundreds of swooping swallows to the cave entrance.

TEMPLE CAVE HISTORY: »From time immemorial the people of Sri Lanka have taken to rocks and caves with as much alacrity as ducks to water ... It is, then, hardly possible that Dambulla's enormous rock and cavern would have been

given a miss« (CEYLON TRAVELLER 1983: 351).

-0050 (circa): »Legend has it that Dambulla's first shrine was built by King Valagamba in the 1st century B.C. in gratitude for giving him a refuge when he was fleeing the invading Cholas. But it is more than possible that these caves were occupied many centuries before that event. Succeeding kings, right up to the Kandyan dynasties, added (and perhaps subtracted also) to the many statues and paintings contained therein« (CEYLON TRAVELLER 1983: 351).

1896: Henry W. CAVE (1900, 4th edition 1907, edited 1921, reproduced 1999) took photographs.

1938: Arched colonnades and gabled entrances were constructed.

DAMBULLU LENA

see: Dambulla Galge

Forbes, Jonathan 1840, 2: 352; 1841, 2: 352.

One rock inscription (1200 AD) at →Dambulla galge is said to translate into: »The sovereign lord of Lanka, Parakramabahoo Chakkrawarti, of the dynasty of Kaalinga ... caused ... dwellings for priests to be formed upon the hill Rankohokaloohenne, wherein is situate the cave of Dambulu Lena« (FORBES 1840, 2: 350-353; 1841, 2: 350-353).

DANIGALA CAVE

see: Ballawaha Boka Cave, Metigaha Aregalge

Ceylon Traveller 1983: 175.

From Ratugala (239) »four miles« (6.5 km) »along a steep, winding jungle path, Danigala is on the crest of a hill. The caves here were the last abode of the true cave veddahs.«

Some of the so-called »caves« or inhabitable rock shelters, which had been reported from the vicinity of the village of Danigala in the »Danigala Range« (CEYLON TRAVELLER 1974, 1983: 175) or the »Danigala chain of hills« (Brooks 1995 Mss, item no. 12), are

→Ballawalaboka galge (Ballawaha Boka Cave),

→Bendiya Galge 1,

→Bendiya Galge 2,

→Gangodedeniya galge (Gangodedeniya galge) and

→Metigaha Aregalge (Matighara Cave).

SITUATION: »Four miles« (6.5 km) without orientation from Ratugala (240) »along a steep, winding jungle path Danigala is on the crest of a hill. The caves here were the last abode of the true cave veddahs.«

According to CEYLON TRAVELLER (1983: 175), the →Danigala and »Henebedda caves« are »in the same range« of hills, which are among the »The most fascinating feature of the [Gal Oya National ...] Park are the rugged ranges of hills that reach high above the rolling plains. The Danigala

238 »Sigiria (see Kutsch 1973)« (WILSON 1988: 22) is an attempt to refer to →Sigiriya as described by KUSCH (1973a).

239 »Ratugala« (CEYLON TRAVELLER 1984: 175) lies »twenty miles« (32 km without orientation) from »Inginiyagala« or Inginiyalgala (N07°13': E081°32') and »six miles« (10 km without orientation) from Mullegama (N07°20': E081°27').

240 »Ratugala« (CEYLON TRAVELLER 1984: 175) lies »twenty miles« (32 km without orientation) from »Inginiyagala« or Inginiyalgala (N07°13': E081°32') and »six miles« (10 km without orientation) from Mullegama (N07°20': E081°27').

Range [241] is the finest of all, its peaks rising over 2000 feet [610 m]. The veddahs of old chose this range for their home and lived in the caves atop it« (CEYLON TRAVELLER 1983: 175).

DAVANA ALUT VIHARA

see: Dambulla Galge Cave 5 or: 2nd New Temple
Reichenbach, Kurt & Kiedrowski, Rainer 1995.

DEGALDORUWA 'CAVES'

or: Dagaldoruwa

Frequently visited but speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave).

LOCATION: Central province: Kandy district: Degaldoruwa (Dagaldoruwa).

POSITION: Representative WGS84 coordinates N07°20': E080°40' / N07.33333°: E080.6667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Kandy" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1973, 1983; Dhanapala, D B 1957, 1964; Hesse, Hermann 1913, 1926; Trimmel, Hubert 1998.

A »cave temple« (CEYLON TRAVELLER 1973, 1983: 35) and UNESCO World Heritage Site (TRIMMEL 1998: 78) called »buddhistischer Felsentempel, Kandi« by HESSE (1913, 1926 edited 1968, 3: 838-839).

SITUATION: »Degaldoruwa« (CEYLON TRAVELLER 1973, 1983: 35; TRIMMEL 1998: 78) or »Dagaldoruwa« (DHANAPALA 1957, 1964) lies from Kandy (N07°17'47": E080°38'06" WGS84) about 1.5 miles (2.5 km) northeast of the Lewella ferry (N07°18': E080°39') across the Mahaveli Ganga.

CULTURAL HISTORY: CEYLON TRAVELLER (1973, 1983: 35): »This cave temple was instituted by King Kirtisiri Rajasinha (1747-1780 A.D.) of Kandy. In the cave are a large recumbent and sedent Buddha statues. On the inside and front walls of the cave are paintings of the Jataka (birth) stories.

These paintings were done by Silvatenne Unnanse, a famous painter of the time, and recently restored.«

EXPLORATION HISTORY: 1760 (±10): King Kirtisiri Rajasinha (1747-1780 A.D.) of Kandy "instituted" the temple cave painted by Silvatenne Unnanse (CEYLON TRAVELLER 1973, 1983: 35).

1911: Hermann HESSE (1913; 1926 edited 1968, 3: 838-839), the writer, and Hans Sturzenegger (painter) visited one »buddhistischer Felsentempel« (Buddhist rock temple, no

name mentioned) near »Kandi« (242).

1998: UNESCO World heritage site (TRIMMEL 1998: 78).

DEIYA GUHAWA

or: Diva Guhava

Frequently visited but speleologically unexplored and unmapped fabulous cave or rock shelter (temple cave).

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Samana.

POSITION: Estimated WGS84 coordinates (unspecified EPE) N06°50': E080°28' / N06.833334°: E080.4.6667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841; Hausig, Hans Wilhelm 1984; Pridham Charles 1849.

Though "deiya guhawa" translates into »God Cave« it seems to be rather the opposite of a cave: »A peak, on one side overhanging its base ...« (FORBES 1840, 1: 178).

ETYMOLOGY: »Deiya Guhawa (cave of the god)« (FORBES 1840, 1: 177; PRIDHAM 1849, ii: 616) adopted HAUSIG (1984) as »Diva Guhava (Himmliche Höhle)« —the Heavenly Cave (243).

241 The »Danigala Range« (CEYLON TRAVELLER 1983: 175) or »Danigala chain of hills« (Brooks 1995 Mss, item no. 12 after DERANIYAGALA 1980: 155) is named after the village of Danigala (N07°15': E081°23') north of the village of Nilgala (N07°11': E081°22').

CEYLON TRAVELLER (1984: 175) locates »Danigala« at a travelling distance of »four miles« (6.5 km) »along a steep, winding jungle path« from Ratugala (unidentified), which itself is said to lie »twenty miles« (32 km without orientation) from »Inginiyagala« or Inginiyalgala (N07°13': E081°32') and »six miles« (10 km without orientation) from Mullegama (N07°20': E081°27').

242 HESSE (1913: Aus Indian, 1926 edited 1968 [Gesammelte Schriften.- Volume 3: Bilderbuch: Spaziergang in Kandi]: 838-839) crossed the Mahaveli Ganga by ferry: »Zwei Meilen weiter oben sollte ein buddhistischer Felsentempel stehen, der älteste von Ceylon, und bald sah ich das Klösterchen und den kleinen Hausgarten der Priester über mir am steilen Bergabhang kleben. Nun kam der Tempel, davor der ausgehöhlte Felsenboden voll Regenwasser stehend, eine schätzbare Vorhalle mit nackten Mauerbögen aus neuerer Zeit, alles verlassen, dunkel und grämlich. ... da und dort ein Stück uralter Malerei ... In alten primitiven Konturen, schwach gelb und rot gefärbt, kamen unzählige schöne, liebliche, auch lustige Darstellungen aus der Buddhalegende zum Vorschein:... Aber nun schloß der alte Mann die innerste Tür auf. Hier war es völlig finster, im Hintergrunde schloß sich die Felsenhöhle. Dort war etwas Ungeheuerliches zu ahnen, und da wir mit den Kerzen näher kamen, entstand aus Glanzlichtern und Schatten schwankend eine riesige Form, größer als der Kreis unserer schlechten Lichter, und allmählich erkannte ich mit einem Schauder das liegende Haupt eines kolossalen Buddha ... zweiundvierzig Fuß lang, er füllt die Höhlenwand mit seinem Riesenleib, auf seiner linken Schulter ruht der Fels, und wenn er aufstünde, fiel der Berg über uns zusammen.«

243 Manfred Moser (Regensburg, 2006.09.10 personal correspondence) pointed out HAUSIG (1984), 5: 638-639 (or pages 648-649) but I have not identified or seen this literary source.

SITUATION: FORBES (1840, 1: 177) places the peak »at a short distance to the south of Samanala« where it »appears but little inferior to it in height« (244).

PRIDHAM (1849, 2: 616) places the peak »at a short distance to the south of Samanala« where it »appears but little inferior to it in height.«

CULTURAL HISTORY - religious folklore: FORBES (1840, 1: 177): »... by natives its summit is believed as yet to remain unpolluted by human footsteps. A priest, confident in his sacred character, is said to have ascended so far, that the light was observed which he had kindled at night beneath the overhanging summit of this haunted mountain; next day he returned a confirmed maniac, and unable to give any account of what he had seen. There is nothing incredible in this story, for the dreaded mountain is apparently easier of ascent than Samanala; and we need not be surprised at the melancholy fate of the priest ...« (245).

PRIDHAM (1849, 2: 616): »... by natives its summit is believed as yet to remain unpolluted by human footsteps ...«

DELFT

An area of limestone and karst.

LOCATION: Northern province: Jaffna district.

POSITION: N09°30': E079°42' (WGS84).

MAPS: Survey of Ceylon / Sri Lanka sheets: Delft, Jaffna.

BIBLIOGRAPHY: Arumugan, S 1970; Cook, Elsie Kathleen 1931; Kubassek, Janós 1981; Liska, Milan 1980; Pridham, Charles 1849..

Coral limestone and karst reports LISKA (1980) from the island of Delft (246) and the smaller islandswest of Jaffna.

COOK (1931: 137) explains that the »... Jaffna Peninsula is ... very flat and low-lying, and the limestone bed is evidently fairly level; as it extends under the sea, salt water enters the holes [in the sense of conduits] and is drawn into the underground circulation. It is not surprising, therefore, that the wells of this region exhibit great peculiarities. ... [e.g. →Bottomless Well, Puttur] The conditions are accentuated in some of the limestone islands like Delft, where there is so little fresh water that cultivation is difficult and the inhabitants always have to drink either coconut water or toddy.«

KUBASSEK (1981: 39) takes a Hungarian approach to »Jaffna-félsziget, Delft szigete« (Jaffna peninsula, Delft island), refers not only to BALASZ (1978) but also to

SASVÁRI (1978), and mentions not only the three Tamil islands names Punkudutivu, »Naynativu« (Nainativu, the »Nedoentivoe« as mentioned by PRIDHAM (1849.ii: 519), and Analaitivu but also the names of the three water reservoirs »Vedduk kulam« (247), »Arichandrapiddi kulam« and »Kamanvilappu kulam«

KARST DESCRIPTION: According to the CEYLON TRAVELLER (1983: 135-136), »Delft is an island about 20 miles south-west of the Jaffna Peninsula. Of the chain of islands there, Delft is the outermost inhabited place. ... The shore of this island is unique in that coral rock stands out on the beach and out at sea above water, having peculiar and fantastic formations. ... The landscape is full of a bleak and bitter beauty such as you will find nowhere else in Sri Lanka.«

PRIDHAM (1849.ii: 519-520): »Nedoentivoe (Delft), is about eight miles long by three broad, and is entirely surrounded by a large coral reef. In the old charts it was called Ilha das Vaccas (Cows Island). The north and west sides are inhabited, and the remainder is Government property. There was formerly a great scarcity of water, and the Dutch had about 400 wells dug through a body of solid rock at the south side to obtain a good supply. ... Hemp flourishes here, and it is said wheat.«

CAVE POTENTIAL: Little is known of the Delft island karst but even cavers from islands of western Europe can spend there a time of exploration and investigation as one »... can buy in Delft the best palmyrah toddy in Sri Lanka« (CEYLON TRAVELLER 1983: 136).

CAVE LIFE: On the island of Delft are »... amphibians, of which a species of frog hibernates underground by the lagoon shore during the dry months« (CEYLON TRAVELLER 1983: 136).

DEMALIYA GALGE

See: Demeliya Galge

Ceylon Traveller 1974: 253; 1983: 255.

244 »Samanala« is another name for Adam's Peak (N06°48'30": E080°29'53": 2242.3 m asl, also called Samanta kuta parvata / pabbata or, pars pro toto: Sri Pada, the Hamanelle Siripade or Samadhela Sripada), probably in honour of Samana, the brother and companion in arms of Rama, the protagonist of the Ramayana epic. According to CEYLON TRAVELLER (1983: 45), the name of Adam's Peak (7,362 feet, 2244 m asl) is »Samana Kanda, and Saman was a pre-Buddhist god, one of the four Guardian Deities of the island.«

245 No wonder, HAUSSIG (1984, 5: 638-639 or 648-649) counts »Himmliche Höhle« (heavily cave) among the sixteen sacred Buddhist places of »Ceylon.«

246 HAMILTON (1828, 2: 18): »Jafnapatam ... Dependent on the Jafna province, and at a small distance off shore, are several islands, which the Dutch have named after their native cities Delft, Leyden, Haarlem, and Amsterdam. On these, horses and cattle are bred, the pasture being excellent.«

247 »Vedduk kulam« (KUBASSEK 1981: 39), the water reservoir Vettuk Kulam (N09°35': E079°51').

DEMELIYA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter in gneiss.

LOCATION: Uva province: Monaragala district: Telulla - Kirindi Oya area: Tanamalwila (Tanamalvila) - Wellawaya road: Huratgamuwa: Radagama Wewa (Radgamawewa lake): Demeliya (Damaliya).

POSITION: WGS84 (estimated EPE ±5 km) N06°33': E081°11' / N06.55°: E081.18333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Kataragama.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1965; Deraniyagala, Siran Upendra 1980; Sarasin, Fritz & Sarasin, Paul 1908; Sarasin, Fritz 1939.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 6: Telulla Cave / Telulla Lena Cave.

A modified natural rock shelter, which contained man-made walls, and where archaeological excavation (SARASIN & SARASIN 1908, 1939) unveiled fluvially rounded stones buried in accumulated loam covering the cave floor (248).

Brooks (1995 Mss: no 6) was led to believe »Telulla Cave / Telulla Lena Cave« is an allegedly »small« (so what?) but undecided »cave / rock shelter believed to be the first cave to be excavated (1908) on Sri Lanka« island (249).

ETYMOLOGY: No locally known name has been identified for a rock shelter which appears to have been named after the village of Demeliya (SARASIN & SARASIN 1908; SARASIN 1939), which probably lies in one way or another "near" (or so) the rock shelter. So far, I saw this item called, spelled, transcribed (romanised), or edited as

Demaliya Galge CEYLON TRAVELLER (1974: 253; 1983: 255)

Demeliya Galge SARASIN & SARASIN (1908); SARASIN (1939)

Telulla alu galgé DERANIYAGALA (1965: 144 figure 21)

Telulla Cave Brooks (1995 Mss: no 6)

Tellula Lena Cave Brooks (1995 Mss: no 6)

SITUATION 1: SARASIN & SARASIN (1908: 1-15, 1939: 151) reached »Demeliya Galge« (sic!) by marching from Wellawaya (N06°39'43": E081°06'03" WGS84) via Telulla (N06°31'23": E081°06'20" WGS84) and across the Kirindi Oya to an outcrop of gneiss, probably the »Demaliyagala« (N06°33': E081°11'), and behind one lake Radgama Wewa / Radgamaeewa.

SITUATION 2: CEYLON TRAVELLER (1974: 253; 1983: 255): »Demaliya Galge« (sic!) is »unmarked in most maps [and lies] due east of Huratgamuwa [N06°33': E081°08'] on the main road between Tanamalvila [N06°25': E081°10'] and Wellawaya [N06°39'43': E081°06'03" WGS84]. The Demaliya Galge and the Ulwala Galge may be reached along a gravel road that takes off to the right of the main road at Huratgamuwa, and beyond along a track.«

248 SARASIN & SARASIN (1908: 1-15, 1939: 151): Es ging »... endlich zu einer wildverworfenen Gneisskuppe, auf die an steilen Stellen hingelegte Steine eine Art Treppe bildeten. Oben fanden wir zwei Höhlen, die sich durch Mauerwerk als frühere singhalesische Behausungen erwiesen. Eine mühsame Grabung ergab nur in Lehm eingeschlossene Bachsteine.«

249 Fritz and Paul Sarasin commenced archaeological excavation cave deposits in the 1890s. In 1908 they published their first full report SARASIN & SARASIN (1908).

DEVANAMPIYA TISSA

or: Rajagiri Lena, Rajagiri-lena, Rajagirilena

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelter (temple cave) in granite (KUSCH 1973: 173).

LOCATION: Northern Central province: Anuradhapura district: Mihintale area: Indikatu Seya Complex: Rajagiri.

POSITION: WGS84 (estimated EPE ±2.5 km) N08°21': E080°30' / N08.35°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003.

One of the »caves« of →Rajagirilena, which contain Brahmī inscriptions (rock art: epigraphy), »bears the name of Devanampiya Tissa« (LONELY PLANET 2003: 253: Indikatu Seya Complex).

DEVARAJA LENA

see: Dambulla Galge Cave 1

Reichenbach, Kurt & Kiedrowski, Rainer 1995: 71.

DIGGAL LENA

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelter.

LOCATION: Unidentified province: Unidentified district: Ratnapura area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 34

An unspecified, allegedly »small« (no size mentioned) cave or rock shelter (Brooks 1995 Mss no. 34).

ETYMOLOGY: The recorded cave name »Dig Gallena« (Brooks 1995 Mss no. 34) is obviously a corrupted version of a Diggala Lena named after a rock (gala) of Dig (250).

SITUATION: At an unknown location in an unspecified »Ratnapura area« (Brooks 1995 Mss no. 34).

CULTURAL HISTORY - archaeology: Excavation yielded Stone Age tools (DERANIYAGALA 1980: 177).

250 We have the choice of

Diggalamulla N08°03': E080°52' estate

Diggala N07°47': E080°02' grassland

Diggala N07°45': E080°02' grassland

Diggala N07°34': E080°38' village

Diggalahela N06°57': E081°34' trigonometrical station

Diggala N06°21': E080°10' (NB44-06) village.

DIMBOOLDENE, cave at

or: Dimbuldene Shelter

Unexplored and unmapped natural rock shelter.

LOCATION: Central province: Nuwara Eliya district: Park (Concordia, Park Kenmare, Park Totam) area: Dimbooldene (Dimbuldene).

POSITION: N07°00': E080°49' / N7°: E080.816667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Baker, Samuel White 1854, 1871, 1875, 1898.

A spacious rock shelter situated at »a portion of the Park country [251] known as Dimbooldene.

In this part there is a cave formed by a large overhanging rock, which is a much cooler residence than the tent. Here we accordingly bivouacked, the cave being sufficiently large to contain the horses in addition to ourselves and servants. After a delightfully cool night, free from mosquitoes, we made a day of it ...» (BAKER 1854 reprinted 1871, 1875, 1898: chapter IX).

EXPLORATION HISTORY: 1848, July: "Sir" Samuel White BAKER (1854, 1871, 1875, 1898, chapter ix) and his brother Lieutenant Valentine Baker, accompanied not only by the three greyhounds Killbuck, Bran and Lena, but also by one gun bearer called Wallace, a couple of unacknowledged servants and coolies, destroyed »twenty-two elephants during a trip of three weeks, in addition to deer, hogs, buffalo, and small game, which had afforded excellent sport.« Once they bivouacked in the rock shelter at »Dimbooldene«.

DIMBULAGALA " CAVES "

or: Caves on Gunner's Quoin

Frequently visited but speleologically unexplored and unmapped modified natural, sacred and painted, troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Polonnaruwa district: Dimbulagala (Gunner's Quoin).

POSITION: WGS84 N07°51': E081°08' / N07.85°: E081.1333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Dhanapala, D B 1957, 1964; Kusch, Heinrich 1973c; Lonely Planet, Sri Lanka 2003.

A »complex of cave temples« with »hundreds of caves cut out of the rock in a Buddhist hermitage« (LONELY PLANET 2003: 236) include at least four or five »caves« (252) or modified natural rock shelters with paintings.

KUSCH (1973c: 22) confirms that there are »Höhlen« (caves) near Dimbulagala south-east of Polonnaruwa.

SITUATION 2003 (LONELY PLANET 2003: 237): About 8 km along the road south of Mannampitiya (253) on the highway A11 from Polonnaruwa (N07°56': E081°00') east to Batticaloa (N07°43': E081°42'), the rock called Dimbulagala, Gunner's Quoin or Gunners Quoin (254) »... stands out 545 m above the surrounding scrub« (255).

SITUATION 1974: CEYLON TRAVELLER (1974, 1983: 111): Dimbulagala / Gunner's Quoin is »a range of hills ten miles [16 km] south-east of Polonnaruwa and about seven miles [11 km] from Manampitiya. It is better known as Gunner's Quoin. The ascent is trying and sometimes dangerous, but it is a truly picturesque spot to visit. Ruins of various periods from 300 B.C. to 1,200 A.D. are scattered on the hillside.«

CEYLON TRAVELLER (1974, 1983: 235): »Dimbulgala or Gunner's Quoin, as it is popularly known, is a huge rock outcrop. Nearly three miles [4.8 km] long it rises dramatically 1,753 feet [534 m] high above the vast plains just south of Manampitiya. Quite naturally the veddahs made their homes in the caves of this rock ...«

CULTURAL HISTORY - Human use: LONELY PLANET (2003: 237): »There are hundreds of caves cut out of the rock in a Buddhist hermitage that has been occupied almost continuously since the 3rd century BC. The temple at the base of the rock is the first of 15 cave temples in the complex that adventurous visitors can explore on their way to the top of the rock.«

251 The Park (also: Concordia, Park Kenmare, Park Totam) N07°00': E080°49'

BAKER (1854, 1871, 1875, 1898: chapter IX): »I cannot describe the country better than by comparing it to a rich English park, well watered by numerous streams and large rivers, but ornamented by many beautiful rocky mountains, which are seldom to be met with in England. If this part of the country had the advantage of the Newera Ellia climate, it would be a Paradise, but the intense heat destroys much of the pleasure in both shooting and coursing, especially in the latter sport, as the greyhounds must be home by 8 A. M., or they would soon die from the effects of the sun.«

252 Including →Maravidiya, →Puduli Galge, and →Pulligoda Galge.

253 Mannampitiya N07°54': E081°07' (WGS84), the village near the railway station Mannampitiya N07°55': E081°06' <www.nima.mil/geonames> accessed 16.11.2003.

254 Both »Gunners Quoin 1753« (metres above sea level) and »Dimbulagala« (place of archaeological and tourist interest) are indicated on the "Sri Lanka Road Map" (Survey Department 1977). <www.nima.mil/geonames> (accessed 16.11.2003): N07°52': E081°07' Dimbulagala "RKS" (rocks: conspicuous, isolated rocky masses)

N07°51': E081°08' Dimbulagala Archaeological Reserve "ANS" (ancient site: a place where archeological remains, old structures, or cultural artifacts are located).

255 Scrubland: »An area of low trees, bushes, and shrubs stunted by some environmental limitation« <ftp.nga.mil/pub/gns_data/> accessed 28.05.2004.

CEYLON TRAVELLER (1974, 1983: 112): Brahmi inscriptions over drip-ledges of several caves prove the antiquity of the place. One inscription shows that the caves were prepared by Queen Sundari, wife of Vikramabahu, son of Vijayabahi I of Polonnaruwa. Dimbulagala was a forest hermitage in medieval times and a centre of learning. There is still a hermitage and a shrine there. The site is also important as it was the residence of Dimbulagala Kasyapa Thera, mentioned in the *Katikavatu* of Polonnaruwa.

CULTURAL HISTORY - rock art: CEYLON TRAVELLER (1974, 1983: 112) reports several caves with drip-ledges (256) and Brahmi inscriptions, which prove the antiquity of the place. One inscription shows that the caves were prepared by Queen Sundari, wife of Vikramabahu, the son of Vijayabahi I of Polonnaruwa

Near the very summit are a series of caves with white plastered walls known as →Maravidiya. Two of the caves are better preserved and contain paintings which once covered the whole plastered surface. On the summit and within the caves are two pools of clear water. In two other caves the paintings are in a bad state, but the bold outlines are clear.

KUSCH (1973c: 22) had learned about fragments of paintings dating to the first half of the 12th century. These, however, are said to have been destroyed by a "fanatic" or fundamentalist.

DIULANAGODA "CAVE" 1

or: Diulanegoda "cave" 1

Speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave), possibly in Miocene limestones.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Kumbakkan Oya basin: »Diulanagoda« (CEYLON TRAVELLER 1974, 1983) or Diulanegoda hill.

POSITION: WGS84 N06°37': E081°33' / N06.616667°: E081.55° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

One of the two »drip-ledged caves« (257) on the gently rising, rocky hill Diulanagoda contains »a white limestone image of the Buddha, eight feet [2.54 m], the crown of which touching the cave's roof« (CEYLON TRAVELLER 1974, 1983: 172).

SITUATION (CEYLON TRAVELLER 1974, 1983: 172): From Kumana (258) »twenty miles« (32 km) along a jeep

track up the Kumbukkan oya (259), where Miocene limestone occurs (260), »... and then half a mile to the North, the gently rising, rocky«, the *Diulanagoda*« (CEYLON TRAVELLER 1983: 172) or Diulanegoda (261) »is surmounted by the crumbling remains of a dagaba. The hill appears to be terraced [sea-level?] and has two long flights of steps cut into the rock, leading from two directions to the summit.«

CAVE POTENTIAL: Other speleologically relevant items in the river basin of the Kumbukkan Oya (N06°30': E081°42') are the →Habessa "rock cave" (N06°42': E081°19') and the →Viharegala "caves" (N06°39': E081°39').

DIULANAGODA "CAVE" 2

or: Diulanegoda "cave" 2

Speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave), possibly in Miocene limestones.

LOCATION: Sri Lanka: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Kumbakkan Oya basin: »Diulanagoda« (CEYLON TRAVELLER 1974, 1983) or Diulanegoda hill.

POSITION: WGS84 N06°37': E081°33' / N06.616667°: E081.55° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The other of the two »drip-ledged caves« on the gently rising, rocky hill »*Diulanagoda*« (CEYLON TRAVELLER 1983: 172) or trigonometric station Diulanegoda (N06°37': E081°33').

DIVA GUHAVA

see: Deiya Guhava

Hausig, Hans Wilhelm (1984).

256 Drip ledges incised on the brow of the entrance to modified natural rock shelters (and the inhabitable entrance area of true caves) prevent rain from running down the face of the rock into the troglodyte dwelling area and »... also gave the inscription some protection from water erosion« (McALPINE & ROBSON 1983: 361).

257 Drip ledges incised on the brow of the entrance to modified natural rock shelters (and the inhabitable entrance area of true caves) prevent rain from running down the face of the rock into the troglodyte dwelling area.

258 »Kumana« (CEYLON TRAVELLER 1983: 172) or »Kumanu« (CEYLON TRAVELLER 1983: 171) is the village of Kumana (N06°31': E081°42') near the marsh →Kumana Villu N06°31': E081°42'.

259 The lower reaches of the Kumbukkan Oya / Kumbukkan Aru N06°30': E081°42' are shown on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) to flow along the border of the districts of Hambantota and Amparai which appears to coincide with the border of the Yala National Park and the »Yala East Intermediate Zone« at N06°33': E081°42' and at N06°36': E081°39'.

260 »Habitable, drip-ledged caves, some with rock inscriptions of the pre-Christian era« (CEYLON TRAVELLER 1974: ?; 1983: 168) are ensconced in what appears to be a karst area in Miocene limestones where »... large rock-outcrops of fantastic shape rise from the flat terrain« above the »gently flowing waters of the Kumbukkan oya that ... contrasts with the surf of the sea coast that flanks Kumana to the east« (see the →Kumanu villu caves).

261 The hill »*Diulanagoda*« (CEYLON TRAVELLER 1983: 172) or the trigonometric station Diulanegoda N06°37': E081°33' (www.nima.mil/geonames accessed 16.11.2003).

DIYAINNA CAVE

or: Diyawinna Cave

Archaeologically investigated but speleologically unexplored and unmapped natural caves or rock shelters.

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Diyainna (Diyawinna) village.

POSITION: WGS84 N06°35': E080°50' / N06.5833°: E080.833334° (<www.nima.mil/geonames> accessed 16.11.2003): 185 m asl (CEYLON TRAVELLER 1983: 247).

MAP: Survey of Ceylon / Sri Lanka sheet: Haputale.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A cave or rock shelter which bears indications of habitation by the Udupiyan variation of *Homo Sapiens Balangodensis* (CEYLON TRAVELLER 1974: 245; 1983: 247).

SITUATION: »From Balangoda [262], the road [south-east] to Uggal Kaltota [263] descends rapidly for twenty miles [32 km] along a ridge of hills that falls away sharply into the plains beyond the Welawe river. In the lower reaches of this ridge are three sets of caves: Those at Budugala, Kuragala and Diyainna.

At an elevation of 600 feet [183 m asl] or so on the southern slope of the ridge and below two picturesque waterfalls lies the village of Diyainna [264]. Close by is the Diyainna cave ... Farther west, along a track that continues from Budugala along the bottom of the ridge, lies the village of →Handagiriya on the banks of the Katupal oya. In close proximity is the site known as →Bellan Bendi Pelessa, one of the richest palaeontological sites discovered in this country ...« (CEYLON TRAVELLER 1974: 245; 1983: 247).

CAVE POTENTIAL: Other »caves« or shelters on the Balangoda - Uggalkaltota (Ukgal Kaltota) escarpment / ridge are →Bambaragala Shelter, →Budugala Caves, →Kurugala Cave, →Lunu Galge and →Udupiyan Galge.

DOOMBERA, cave near

see: Lunugala Lena

Pridham, Charles (1849, 2: 709).

»Sulphate of magnesia ... is found ... [in] the cave near Doombera.« (PRIDHAM 1849, ii: 663).

DOOMBERA, cave in

see: Lunugala Lena

Davy, John (1821: 31 footnote, 32).

»... the nitre-cave near Memoora in Doombera ...« (DAVY 1821: 32).

DOOMBERA, "tunnel" at

see: AA cave (Eckrich 1984)

Eckrich, Michael 1984, personal communication.

DOONOOGAMA NITRE CAVE

see: Dunugama Nitre Cave

Davy, John (1821: 31 footnote).

DORAVAK LENA

or: Cave at Dorawaka Kanda, Doravak-lena shelter

Archaeologically investigated but speleologically unexplored and unmapped natural painted rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Dorawaka (Doravak) village.

POSITION: (If at the village of Dorawaka), WGS84 (approximate EPE ±5 km) N07°11': E080°13' / N07.18333333°: E080.216667° (<www.nima.mil/geonames> accessed 16.11.2003).

MAP: Survey of Ceylon / Sri Lanka sheet "Avissawella" or "Gampaha" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1998, 2001b, 2002; Wiyayapala W H 2000 in Deraniyagala Siran Upendra 2000a.

A »rock shelter« (DERANIYAGALA 2001b, 2002) or »cave« (DERANIYAGALA 2001b; 2002), which contained over 3 m of prehistoric deposits, is perhaps the only obvious pre-historic rock art site in Sri Lanka

ETYMOLOGY: So far, I saw this site called, spelled, transcribed (romanised) or edited as

Cave at Dorawaka Kanda DERANIYAGALA (1998)

Doravak-lena shelter DERANIYAGALA (2001b; 2002: 53, 63, 76 note 5) and

Doravak-lena DERANIYAGALA (2002: 46, 72, notes 5, 44).

SITUATION 1 (DERANIYAGALA 1998): In an unidentified spatial relation »near« the town of Kegalle (N07°15'11": E080°21'02" WGS84) and on a hill called, spelled, or edited as »Dorawaka Kanda« (265).

SITUATION 2 (DERANIYAGALA 2001b; 2002): In the »low land wet zone« (DERANIYAGALA 2002 footnote) and in the vicinity of something (perhaps a village) spelled »Doravak« (sic).

CAVE DESCRIPTION: None.

CULTURAL HISTORY - rock art: According to WIJAYAPALA (2000 in: DERANIYAGALA 2002: 53), »symbols and representations of animals pecked into the walls« (266).

DERANIYAGALA (2001b): »Then there is Doravak-lena shelter which is said to have yielded a geometric microlithic industry in association with what appears to be a cereal and a crude red pottery by 5300 BC and Black and Red Ware (BRW) by 3100 BC (Wiyayapala in Deraniyagala, in press: 34, final report pends).«

265 The hill »Dorawaka Kanda« (DERANIYAGALA 1998) or (the village? of) »Doravak« (DERANIYAGALA 2001b; 2002) is not identified unless it is the same as the village of Dorawaka (N07°11': E080°13') which appears to lie in the area close to the border where the districts of Kegalle (Kegalla) and Colombo meet.

266 DERANIYAGALA (1998): »The transition from the Mesolithic Balangoda Culture to the protohistoric Early Iron Age has been inadequately documented in Sri Lanka. Almost invariably, the relevant transitional deposits have been disturbed due to the extraction of fertiliser from prehistoric cave habitations. Recent excavations in the cave of Dorawaka-kanda near Kegalle could somehow have resolved this impasse. According to the excavator, W.H. Wijayapala, there are indications at this site of pottery (together with stone stools) being used as early as 6300 C14 BP, and possibly the cultivation of a cereal in these contexts (ibid.: 734; W.H. Wijayapala 1992 in id. ip). The final analyses and the site report pend.«

262 Balangoda (N06°38'57": E080°40'20" WGS84)

263 Uggalkaltota (N06°39'13": E080°52'32" WGS84)

264 Diyainna, Diyawinna (N06°35': E080°50')

DERANIYAGALA (2002): »Nothing has survived in Sri Lanka which may be referred to as indubitable prehistoric art (Deraniyagala 1992, chap. 5.3.11). The cave drawings encountered in the lowland Dry Zone are ascribable to the Vaddas in historical times, as indeed has been attested by the Seligmans (1911) who watched Vadda women execute these semi-symbolic compositions simply to while away their leisure. The one possible exception comprises the symbols and representations of animals pecked into the walls of Doravak-lena shelter (with over 3m of prehistoric deposit in it; W.H. Wijayapala in Deraniyagala 2000a). These could be prehistoric or of the Protohistoric Iron Age. Although the radiocarbon dates for the sealing strata indicate an Early Historic age, it would be a terminus ante quem for the engravings. [...] It is possible that pottery (Doravak-lena, Beli-lena Kitulgala) and copper-working technology (Mantai) occur in the Upper Mesolithic. But this has yet to be established unequivocally.«

DOWA ROCK TEMPLE

or: Dowa Cave Temple, Dowa Felsentempel

Unexplored and unmapped modified natural sacred cave or rock shelter (temple cave) with fabulous tunnel.

LOCATION: Uva province: Badulla district: Bandarawela - Ella road area: Dowa village.

POSITION: N06°51': E080°59'30" / N06.85°: E080.99167° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet: Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Reichenbach, Kurt & Kiedrowski, Rainer 1995.

An unspecified sacred cave or rock shelter (temple cave) with Kandyan era paintings in addition to a half-finished statue of Aukana (Avukana) Buddha, which is not only »sculptured from a rock« and ranges from »36 feet« (11 m) in height to »38 feet« (11.7 m) in size, but also appears to stand in the open air, as one finds, at least virtually, »alongside the statue a giant sapu tree on a granite slab base which is slowly getting weakened by the roots of the tree« (Internet).

SITUATION: »Nestled amidst the hills« (Internet) at about halfway (about 6 or 7 km) from Bandarawela (N06°50'13": E080°59'08" WGS84) along the »Badulla - Bandarawella highway« (A16) approximately north-east to the town of Ella (N06°52': E081°03').

CULTURAL HISTORY - fabulous tunnel: At least one Internet website (267) narrates how King Walagamba was hiding and fled from the place before the temple could be fully finished. Supporting this myth is the unfinished stone statue of Buddha. The villagers want the king to have left the temple via a secret tunnel. Nowadays, this secret tunnel, which is guarded by a statue of cobra, is projected beyond a »cemented« or plaster covered surface. Needless to say, the entrance to the fabulous tunnel had been visibly secreted behind an obvious rock surface not only »to prevent the treasure hunters from secretly entering« but also, and much more convincing, »to save tourists from facing any accident since there are often landslides here.«

DOWEVIHARAYA ROCK TEMPLE

Frequently visited but speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave).

LOCATION: Uva province: Badulla district: Kirindi oya - Ella Gap area: Ella town: Dowe Vihara, Dowe Viharaya, Doweviharaya, Doweviharaya.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet: Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Dulling, L A 1926.

An unidentified »rock temple« called Dowe Vihara (268) or »Doweviharaya« (269), which L.A. DULLING (1926) associated with »Ella caves« (compare: →Ravana Ella Cave), may consist of modified natural caves in limestone (270).

SITUATION: CEYLON TRAVELLER (1974: 241-242; 1983: 243-244) describes the approach to →Ravana Ella Cave »... at the northern extremity of the Ella Rock, a great slab of primeval stone that dominates the valley of the Kirindi oya [271] as it flows down the Ella Gap [272] ... The cave is approached via a path to a rock temple [i.e. Doweviharaya] fifty to sixty feet [some 15 or 18 m] below [Ravana Ella Cave] on the mountainside.«

POSITION: Doweviharaya appears to be indicated (without name) as a temple near N06°51'57": E081°02'53" (±250 m, Everest 1830, SoC / SoSL sheet "Nuwara Eliya" One-Inch series) on the approach to →Ravana Ella cave.

DUMBERA ESTATE, "tunnel" at

see: AA cave (Eckrich 1984)

Eckrich, Michael 1984, personal communication.

268 Vihara, viharaya is a Buddhist complex, including a shrine containing a statue of the Buddha, a congregation hall, and a monk's house.

269 I was not able to identify or trace down this reference, which Manfred Moser (1998, personal correspondence) pointed out to me: DULLING, L.A. (1926): The Ella caves and Doweviharaya rock temple.- *L.A.D.C.Ob.Chr.N.*, (December 1926): 27-31. Four illustrations.

270 According to COORAY (1967: 96), »crystalline limestones occur in all parts of the Highlands [of the island of Ceylon / Sri Lanka], some of the best known occurrences being near Matale, Nalanda, Habarana, Kandy, Badulla and Welimada.«

271 Kirindi Oya N06°12': E081°18'.

272 Ella Gap (N06°51'30": E081°51'30" Everest 1830) is the pass south-east of Ella town where the Kirindi Oya cuts a valley east of the Ella Rock.

LONELY PLANET, Sri Lanka (2003: 208): »... the sleepy village [of Ella] is nestled in a valley peering straight through Ella Gap to the coastal plain nearly 1000 m below, and over to the coast where, on a clear night, you can see the Kirinda lighthouse.«

267 <www.travel.mapsofworld.com/sri-lanka/sri-lanka-pilgrimage-tours/dowa-cave-temple.html> (accessed 2009.08.02).

DUNUGAMA NITRE CAVE

or: Doonoogama Nitre Cave

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: »district of the four Korles« (Davy 1821) area: »Doonoogama« (Davy 1821) = Dunugama village.

POSITION: Representative WGS84 coordinates (assumed EPE ±5 km) N07°16': E080°27' / N07.2.6667°: E080.45° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kandy" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

DAVY (1821: 31 footnote) lists the »nitre-cave ... 20. Doonoogama« from the »district of the four Korles« (273)

ETYMOLOGY: »These names, it may be clearly remarked, are not those of the caves themselves, which are generally nameless, but of the nearest inhabited places ...« (DAVY 1821: 31 footnote).

SITUATION: At an unspecified location somewhere in the vicinity of an »inhabited place« (274) called »Doonoogama« (DAVY 1821) or Dunugama (275).

EKIYIRIAN " CAVE "

or: Höhle von Kaloday 1

Archaeologically investigated but speleologically unexplored and unmapped rock shelter.

LOCATION: Uva province: Unidentified (Badulla or Monaragala) district: Bibile - Kaloday road: »Ekiriyan rest house« (Sarasin & Sarasin 1908) area: Ekiriyankumbura (Ekiriyankumbura) village.

POSITION: (If at Ekiriyankumbura itself), Representative WGS84 coordinates (assumed EPE) N07°18': E081°13' / N07.3°: E081.216667° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet "Maha Oya" or "Nilgala"

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Sarasin, Fritz 1931; Sarasin, Fritz & Sarasin, Paul 1908.

An unspecified »cave« or rock shelter (SARASIN & SARASIN 1908: 1-15; SARASIN 1931: 54) is situated at an unidentified spot which is said to lie »1.5 miles« (2.4 km, most likely on foot, unspecified direction) from the rest house at a place called »Ekiryirian« (276) between »Kaloday« (277) and Bibile (N07°10': E081°13').

IDENTITY: Compare →Gongine Cave, and Höhle von →Kaloday.

ELLA CAVE (BASSET 1929)

see: Ravana Ella Cave

BIBLIOGRAPHY: Basset, Ralph Henry 1929; Ceylon Traveller 1974, 1983: 145, 214; Dulling, L A 1926; Lonely Planet, Sri Lanka 2003; Morgan, Robert 1943.

273 The »district of the four Korles« (DAVY 1821) corresponds more or less to Kegalla district (circa N06°45': E080°10' to N07°20': E080°30').

274 DAVY (1821: 31 footnote): »... the nearest inhabited places ... are in many instances several miles remote, most of the caves being situated in the wildest and most deserted parts of the country.«

275 »Doonoogama« (DAVY 1821) appears to correspond either to Dunugama N07°16': E080°26' or, about 3 or 4 km in a direct line further east, to Dunugama N07°16': E080°28' (www.nima.mil/geonames accessed 16.11.2003).

276 »Ekiryirian« (SARASIN) is not identified unless it is the same as the village of »Ekiriyankumbura« (Survey Department 1977: Sri Lanka road map) or Ekeriyankumbura, Ekriyankumbura (N07°18': E081°13' <www.nima.mil/geonames> accessed 16.11.2003), which lies in an area where the districts of Nilgala, Maha Oya, and Batticaloa meet (Survey of Ceylon / Sri Lanka sheet Nilgala or Maha Oya; on sheet NB44-03) about 10 or 15 km along the road approximately north from Bibile (N07°10': E081°13').

Another village of Ekiriya (N07°05': E081°07') lies in Badulla district (SoC / SoSL sheet Passara) and some 5 or 10 km along the road approximately south of Bibile.

A third, most unlikely village of Ekiriya (N07°09': E080°45') is in Nuwara Eliya district (Survey of Ceylon / Sri Lanka sheets Hatton, Hanguranketa) and lies too far west to be anywhere "near" Bibile (N07°10': E081°13').

277 »Kaloday« (SARASIN) is not identified unless it is the same as the village of Kalladi, Kallady, and Kallady Uppodai (N07°43': E081°42') in Batticaloa district (Survey of Ceylon / Sri Lanka sheet Vakaneri) and very very far north-east from Bibile (N07°10': E081°13').

ELLA CAVES (DULLING 1926)

Probably a modified natural sacred cave or rock shelter (temple cave).

LOCATION: Uva province: Badulla district: Kirindi oya - Ella Gap area: Ella town: Dowe Viharaya, Doweihara, Doweiharya.

MAPS: Survey of Ceylon / Sri Lanka sheet: Nuwara Eliya.

BIBLIOGRAPHY: Dulling, L.A 1926.

DULLING (1926) is said to associate so-called »*Ella caves*« with »*Doweiharaya rock temple*« (278).

The speleologically most famous cave in the limestone near the town of Ella (N06°52': E081°03') is →Ravana Ella Cave but the sacred and probably most popular cave is →Doweiharaya (temple cave).

EREPORUWA

or: Nilmini, mine near

Chiropterologically investigated but speleologically unexplored and unmapped man-made mine excavated for plumbago / graphite.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area: Nilmini village.

POSITION: Approximate WGS84 (assumed EPE ±10 km) N06°28': E080°40' / N06.47°: E080.67° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

A plumbago (graphite) mine in the area (compare: Tenehena, Wijiriya mine) north of Kolonne (N06°24': E080°41') is called »*Ereporuwa*« (Eckrich 1984, pers. comm.), apparently only a few metres long, and lies behind the colourful house, which is owned by Mr. K. Piyadasa in the scattered village of »*Nilmini*« (unidentified) or so.

CAVE LIFE: Eckrich, Michael (1984, personal communication) had surveyed bats here (Chiroptera).

ESTEREPURE CAVE

see: Istripura Cave (Welimada)

Ceylon Traveller 1974: 240, 1983: 242; Eckrich, Michael 1984: Bat cave distribution map.

FA HEIN CAVE

see: Fa Hien Lena

Dr. V.W. Jagath Vasanthatilaka on <www.panoramio.com/photo/6781472> accessed 2009.08.03.

FA HIEN CAVE

see: Fa Hien Lena

BIBLIOGRAPHY: Kennedy, Kenneth A R & Zahorsky, J. 1995: 839-853.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 3 Fa Hien Cave.

FA HIEN LENA

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte cave or rock shelter (temple cave) with fabulous tunnel.

LOCATION: Western province: Kalutara district: Bulatsinhala: Yatagampitiya village.

POSITION: Unspecified map datum possibly Everest 1830: N06°38'55": E080°12'55" / N06.6486°: E080.2153° (Brooks 1995.04 Mss): 120 m asl (or »400 feet« on <www.angelfire.com> accessed 1009.08.02).

MAP: Survey of Ceylon / Sri Lanka sheet "Horana" (One-Inch series).

SPELEOMETRY: Length: Estimated 20 m. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1992, 1998, 2001b, 2002; Hawkey, D T 1998, 2003; Kennedy, Kenneth A R 2006; Kennedy, Kenneth A R & Zahorsky, J 1995.

NOT SEEN: AA 1996.06.30: The legendary rock cave.- *Sunday Times*, 30th June 1996; AA 2002.11.27: Pahiyangala - a valuable archaeological discovery.- *Sunday Times*, 27nd November 2002; AA 2007.05.13: A wonderful creation of mother nature.- *Sunday Observer*, 13 May 2007.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 3 Fa Hien Cave.

An impressive cave entrance (estimated 19 to 30 m wide and up to 15 or 16 m high) leads to a single chamber »*penetrating the hillside*« (Brooks 1995 Mss, item no. 3) for an estimated 20 or 25 m and covering a floor space wide enough to pack 3000 people (Internet, accessed 2008.09.02).

ETYMOLOGY: The "lena" (cave), which is said to be found on the "gala" (rock) called "Pahiyana" (Internet) has been associated with the Chinese Buddhist pilgrim and explorer, whose moral or religious name (279) has been transcribed (romanised) (chronologically sorted) into

Fa Hian ABEL REMUSAT (1836); LAIDLEY (1848)

Fa Hien WADE-GILES (280)

Fa-Hien LEGGE (1886); DERANIYAGALA (1998)

Fa-hien BEAL (1887)

Fa-hsien GILES (1923)

Faxian LI YUNG HSI (1957)

279 »*Shy fa hian; that is, "Manifestation of the Law of Shy" (Sakya); a name adopted in compliance with the practise of Chinese Buddhists, who, upon entering a religious career, lay aside their family name, and, in token of a renewed life, adopted another of moral or religious significance. "Fa hian" is the abridged form of his name generally employed by our pilgrim, who in the course of his narrative invariably speaks of himself in the third person*« ("R." in LAIDLEY 1848: 2 footnote 1).

280 Wade-Giles, sometimes abbreviated Wade, is a Romanization system for the Mandarin language used in Beijing. It developed from a system produced by Thomas Wade during the mid-19th century, and was given completed form with Herbert Giles' Chinese-English dictionary of 1892.

Wade-Giles was the main system of transcription in the English-speaking world for most of the 20th century, used in several standard reference books and in all books about China published before 1979. It replaced the Nanjing-based romanization systems that had been common until late in the 19th century. It has mostly been replaced by the pinyin system (developed by the Chinese government and approved during 1958) nowadays, but parts of it, especially the names of individuals and certain cities remain in use in the Republic of China (Taiwan).

278 Manfred Moser, Regensburg (1998, personal correspondence) drew attention to a bibliographical reference which I was not able to identify or trace: DULLING, L.A. (1926): The Ella caves and Doweiharaya rock temple.- L.A.D.C.Ob.Chr.N., (December 1926): 27-31. Four illustrations.



FAHIENGALA LENA (Fa Hien-Lena, Fahien Cave, Pahiyangala cave)

The cave named in honour of Faxian (281) has been called, transcribed (romanised), or edited as

281 To identify, study and collect original versions Buddhist scriptures, the explorer Faxian had left northern China in the year 399 AD. Travelling via Kozhan, Afghanistan, and across northern Pakistan and India (Benares / Varanasi, Maghada) to the mouths of the river Hooghly (Calcutta), he sailed in 411 AD to Sri Lanka. Having spent two years of research on the island (FAXIAN ca. 420 chapter XL), he returned via Java and reached China in 414 AD.

I have not seen the translations of FAXIAN (circa 420: "Foe Koue Ki" or: Record of the Buddhist countries) by ABEL REMUSAT (1836), BEAL (1887), GILES (1923), and LI YUNG HSI (1957), only those by LAIDLEY (1848) and LEGGE (1886) which both do not mention any cave in which Faxian took retreat, only the troglodyte hermitage retreat of Dharmagupta (a Sinhala fore-runner of Francis of Assisi) on Abhayagiriya (N08°21': E080°24'):

LAIDLEY (1848: 367): »... *Tha mo kiu ti* ... [who] *hath dwelt in a stone house* [literally translated from the Sinhala gala = rock + ge = house: a rock shelter] *near forty years ... domesticating in the same house serpents and rats, without either doing injury to the other*« at a location »to the east of the Chapel without Fear [Abhayagiri] on a hill on which is a chapel named *Po thi* ...«

LEGGE (1886 Etext 2005): »... *Dharma-gupta* ... [who] *has lived for more than forty years in an apartment of stone, constantly showing such gentleness of heart, that he has brought snakes and rats to stop together in the same room, without doing one another any harm*« on a hill allegedly called »*Chaitya* ... *with a vihara on it*« and »*forty le* [11 km, 22 km, or 29.3 km] *to the east of the Abhayagiri-vihara.*«

Fa Hein cave
Fa Hien Cave

Vasanthathilaka V W Jagath (282)
KENNEDY & ZAHORSKY (1995: 839-853);
Brooks (1995 Mss), KENNEDY (2006)

Fa Hien-lena
Fa-Hiengala Caves Internet (accessed 2009.08.02)
pahiyagala cave Internet (accessed 2009.08.02)
Pahiyangala cave Internet (accessed 2009.08.02)

SITUATION: About 45 km in a direct line south-west of Colombo (Fort Railroad Station N06°56'01": E079°51'01" WGS84), and somewhere in the vicinity of the village of Yatagampitiya (N06°39': E080°13'), which lies 5 km along the road east of Bulatsinhala (N06°40': E080°10'). A motorable road leads to a flight of steps ascending to the cave entrance.

POSITION 1: N06°38'55": E080°12'55" (unspecified map datum probably Everest 1830, Brooks 1995.04 Mss).

POSITION 2: N06°40'5.17": E080°10'4.21" (unidentified format, unspecified map datum, Dr. V. W. Jagath Vasanthathilaka on <www.panoramio.com/photo/6781472> accessed 2009.08.03).

CAVE DESCRIPTION 1995: Brooks (1995 Mss): »*Fa Hien Cave*« is »*a large cave or shelter once described as "the longest cave in the country exceeding even Kitulgala [283] in size" [and] actually a single chamber with an entrance measuring [sic!] some 30 m by 15 m [unspecified orientation] with the cave penetrating the hill for 20 or 25 m.*«

CAVE DISCRIPTION 2008, circa (284): »*At its entrance, the cave is 175 feet [53 m or, if 53 feet, 16 m] high and over*

282 <www.panoramio.com/photo/6781472> (accessed 2009.08.03) gives access to snaps and wordings uploaded in honour of Vasanthathilaka V W Jagath.

283 »*Kitulgala*« (Brooks 1995 Mss) is neither a cave nor long but a village (N06°59'40": E080°24'41" WGS84) near a »*Snail Cave*« (→Beli Lena).

284 <www.angelfire.com/in4/visitsl/prehistoric/pahiyagala/> accessed 2009.08.02

200 feet long [61 m or 61 feet = 18.7 m wide]. It is believed that 3000 people can be easily accommodated in this cave. The natural [sic! qua: imaginary] tunnels running inside the caves are now blocked and is not accessible. The cave has been divided into four sections of which the left side cave is the largest and is the centre of it. There is a deep pit dug out by the Archaeological Department for an excavation ...«

ARCHAEOLOGY (DERANIYAGALA 1996, 2001b, 2002): »Fa Hien-lena« is important for the Late Pleistocene human skeletal remains discovered there in the 1960s and 1980s. The main finds consisted of microliths, the remains of ancient fire places, and the remains of plants and human beings.

Radiocarbon dating indicated that the cave had been occupied from about 33,000 to 4,750 years ago — from the Late Pleistocene to the Middle Holocene (285).

The human remains from the different levels were taken to the Human Biology Laboratory at Cornell University, where they were studied by Dr Kenneth A. R. Kennedy and one of his graduate students, Joanne L. Zahorsky (286).

The oldest fragments of human bone came from a young child, two older children, a juvenile, and two adults, and showed evidence of being secondary burials: that is, after death, the bodies were exposed, and after decomposition and the predations of scavengers, the bones were placed in graves. The later remains included those of a young child, about 6,850 years old, and a young woman (nicknamed Kalu-Menika by the archaeologists), about 5,400 years old. Both were also secondary burials.

285 According to DERANIYAGALA (1998, 2001b, 2002: 4), »Fa Hien-lena« yielded seven dates on charcoal, ranging between ca. BP 37,000 and 5,400.

DERANIYAGALA (1998, 2001b, 2002: 54) lists over nine human individuals (ca. 37,000, 36,000, 28,000, 7,900, 7,700, 5,400 BP) excavated »from within undifferentiated habitation deposits ...«

DERANIYAGALA (1998, 2001b): »... there is little evidence of manifestations of ritual. There are, however, clear indications that the norm was for Balangoda Man to inter his dead irrespective of age or sex as secondary burials within his camp floors, having selected certain bones for this purpose. At Ravanalla cave and Fa Hien-lena red ochre had been ceremonially smeared on the bones. Both these practices have been matched by the mortuary customs of the Andaman Islanders, but not by those of the Vaddas. It is possible that the latter, through a process of cultural retrogression, ceased to practise the more elaborate mortuary customs of their ancestors (Deraniyagala 1992: 465-467, 696).«

286 »Fa Hien Lena« has yielded the earliest evidence (at ca. 37,000 BP) of anatomically modern man in South Asia, followed by →Batadomba-lena at 31,000 and 18,000, →Beli-lena at 16,000, Fa Hien-lena at 6900, the open-air site Bellan-bandi Palassa at 6500 and Fa Hien-lena again at 4800 BP.

At ca. 40,000 14C BP Niah Cave in Borneo has produced the (somewhat insecure) earliest date for Asia. Sri Lankan evidence has been used to support the view that anatomically modern humans originated in South & Southeast Asia and not in Africa (Hawkey, D.T. 1998, 2003).

The discoveries were important to archaeologists and palaeontologists because the earliest of the people buried in Fa Hien Cave lived at the same time as European Cro-Magnon man and other hominids of the Late Pleistocene around the world. Studies of the teeth found in the cave indicate that the population of Sri Lanka ground nuts, seeds, and grains in stone querns in the preparation of food, and that they continued to live as hunter-gatherers until about the 8th century BCE. Sri Lanka has yielded the earliest known microliths, which didn't appear in Europe until the Early Holocene (287).

CULTURAL HISTORY - cave legends: According to <www.angelfire.com/> (accessed 2009.08.02), there are fabulous tunnels leading directly to far away, famous places. Needless to say that »the natural tunnels running inside the caves are now blocked and not accessible.«

In the same style, and ascribed »... to some Chinese people, in the 1940s, a Chinese monk named Thiashu Sangaraju who visited Sri Lanka had stayed in the cave.

Later this cave has been converted to a Buddhist temple by a priest called Porogama. Ven. Porogama thera had used a 6 ft. Yakula [trident] which was similar to an iron crowbar. This iron crowbar is so heavy that even six people find it difficult to carry it. He used this to push the debris and soil that obstructed the entrance to the cave. He was also able to level the ground. The Yakula is now tied to the feet of the reclining Buddha statue which is 40 ft long. Ven. Porogama thera also made two colossal door frames for the Vihara which can be seen at the entrance.«

EXPLORATION HISTORY: 412 (circa): Faxian, the Chinese Buddhist pilgrim is said to may have stayed in this cave during his journey across the island, to which he sailed from the mouths of the river Hooghli (Calcutta) in the year 411 AD.

1968: Dr. Siran U. Deraniyagala (Department of Archaeology, Government of Sri Lanka) uncovered the first human burials in Fa Hien Cave (DERANIYAGALA 1992).

1988: Dr. Siran U. DERANIYAGALA (1992) and W.H. Wijayapala continued archaeological excavation.

FA-HIENGALA CAVES

see: Fa Hien Lena

<www.angelfire.com/in4/visitsl/prehistoric/pahiyagala/pahiyangala.htm> created 2008.08.09, updated 2007.06.24, accessed 2009.08.02.

FLOODED PIT, near Jaffna

see: Tidal Well, Puttur

Courbon, Paul & Chabert, Claude 1989, edited and translated by Bosted, Peter & Lindsley, Karen: 138: »Czech divers reached -65 m in 1977 in a flooded pit near Jaffna (Karszt ès Barlang, 1978, I-II, profile).«

287 Other important Sri Lankan prehistoric sites at which human remains have been found include two other caves, viz. →Batadombalena (about 28,500 years old) and →Belilena Kitulgala (about 12,000 years old), and an open-air site, Bellanbandi Palassa (about 6,000 years old).

GAETYAGAMMA ROCK TEMPLE

Unexplored and unmapped modified natural or man-made sacred cave, rock shelter (temple cave) or rock-cut chamber ('cave' temple).
 LOCATION: Northern Central Province: Polonnaruwa district: Amban Ganga (Ambang Ganga, Ambanganga) river basin: Wasgomuwa Natural Reserve area: Gaetyagama.
 POSITION: Representative WGS84 coordinates N07°48': E080°51' / N07.8°: E080.85° (or so).
 MAP: Survey of Ceylon / Sri Lanka sheet "Elaheera" or "Polonnaruwa" (One-Inch series).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841.

Along with a dagoba, there is a »*dilapidated rock temple*« of unspecified nature and character said to have been mentioned in a »... *description of ruins ... furnished to me by the native whom I sent to copy inscriptions; and his account was afterwards confirmed by inhabitants from that district*« (FORBES 1840, 1841. ii: 97).

SITUATION: Unidentified. Possibly within the Wasgomuwa Natural Reserve.

FORBES (1840, 1841.ii: 96-97): »*Farther down*« from the junction of the »*Heerattee-oya*« (288) with the »*Ambanganga*« or Amban Ganga and Ambang Ganga (289), »... *the river, for a distance of three miles [about 5 km], winds so as nearly to surround extensive ruins, now known by the name of Maluwaya [290].*

This place is overgrown with jungle, and the principal remains are described as three buildings situated at some distance from each other. One of these, founded on a rock in which there is an excavated chamber, is called the →Patrippooa; at each of the others there is a stone trough, one of them formed in the rock, the other having been removed to its present situation. A long inscription, in an old form of Cingalese, was discovered in the vicinity of these buildings.

The river, previously to being joined by a considerable stream, the Kaluganga [291], rushes through a narrow chasm called Namalkumara-ella [292], and forms a large and very deep basin beneath the fall.«

GAL OYA ROCKSHELTER

see: Hamangala Rock Caves, Kuttemalai Shelter, Malayadi cave

Archaeologically investigated but speleologically unexplored and natural painted rock shelter.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Kuttemalai Estate (Kotmale Colony) or Malalyadi Mandam (Malayadi temple).

MAPS: Survey of Ceylon / Sri Lanka sheet: Nilgala, Passara, Pottuvil, or Tirukkivil (One-Inch series).

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983: 177; Deraniyagala Paulus Edward Pieries 1965: 146.

One (or several) rock shelter(s) in the river valley of the Gal Oya contains »*stone age paintings*« (rock art).

SITUATION: At an unidentified location somewhere in the valley of the Gal Oya (293) in the Eastern Province (DERANIYAGALA 1965: 146).

IDENTITY: Compare →Hamangala rock caves, →Kuttemalai Shelter 1 (Kotmale Caves, Gonagolla) and, perhaps, the →Malayadi cave.

CULTURAL HISTORY - rock art (DERANIYAGALA 1965: 146): In some »*caves*« (or rock shelters) on the island of Sri Lanka, »... *the stone age paintings on the bare rock are overlain by three phases of Vādda [Vedda, Veddah, Wedda, etc.] painting, whereas in others there are Sinhala fresco paintings upon plaster together with Brahmic script which has been engraved in the rock. The earliest of the latter [294] appear to be in rock shelters at Kudimbi gala crag and in the Gal Oya valley [295] in the Eastern province.*«

CULTURAL HISTORY - human use (CEYLON TRAVELLER 1983: 174): »*The Gal Oya National Park had its beginnings in 1950 when a massive dam was thrown across the surging waters of the Gal oya creating the vast 35 square miles Senanayake Samudra. Today, this man-made tank is the heart of the 99 square mile Gal Oya National Park. A forest of dead trees are mute evidence of the mighty jungle that had been submerged. This was the jungle the finest of the island's hunters had roamed, the great veddahs.*«

288 »*Heerattee-oya*« (FORBES 1840, 1841. ii: 96) is probably either the stream Heerati Oya (N07°44'17": E080°50'37" WGS84) or the other stream Herati Oya (N07°39': E080°51') <www.nima.mil/geonames> accessed 16.11.2003)

289 »*Ambanganga*« (FORBES 1840, 1841. ii: 96-97) seems to be the Amban Ganga or Ambang Ganga with its mouth near N07°52': E081°03' (www.nima.mil/geonames accessed 16.11.2003).

290 »*Maluwaya*« (FORBES 1840, 1841. ii: 97) is where?

291 »*Kaluganga*« (FORBES 1840, 1841. ii: 98) is probably one Kalu Ganga.

292 The »*narrow chasm Namalkumara-ella*« (FORBES 1840, 1841. ii: 98) are the Namal Kumara Ella Rapids N07°44': E080°50' (www.nima.mil/geonames accessed 16.11.2003).

293 »*Gal Oya*« (DERANIYAGALA 1965: 146) as such is not identified but in the centre of the Gal Oya river valley, the artificial lake Senanayake Samudra (N07°12': E081°28') lies in the heart of the Gal Oya National Park.

294 The circumstances are too unclear to decide if »*the latter*« (DERANIYAGALA 1965: 146) refers to Brahmic script or to fresco paintings together with Brahmic script.

295 The town of Gal Oya (N07°18': E081°46') in Amparai district and is not to be confused with the other places called Gal Oya at

WGS84	in district	on SoC / SoSL sheet
N08°08': E081°09'	Polonnaruwa	Polonnaruwa
N08°07': E080°55'	Polonnaruwa	Dambulla
N08°56': E080°55'	Trincomalee	Kokkilai
N07°19': E080°00'	Colombo	Negombo, Gampaha

GAL VIHARA, Polonnaruwa

or: Gal-wihara (Pollanarrua), Gal Vihare, Toparé Rock Temple

Speleologically unexplored and unmapped partly natural, modified cave and partly man-made rock-cut chamber ('cave' temple) excavated from granite (LONELY PLANET 2003: 235).

LOCATION: Northern Central province: Polonnaruwa district: Polonnaruwa (Pollanarrua, Pollanaruwa, Toparé) ruins.

POSITION: WGS84 N07°56': E081°00' / N07.933334°: E81° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Polonnaruwa.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Baker, Samuel White 1855; Ceylon Traveller 1974, 1983; Tennent, James Emerson 1859, 1860, 1861.

A »partly artificial cave« (CEYLON TRAVELLER 1983: 110) or »partly natural cavern« BAKER (1855, IV), and man-made »excavation« (TENNENT 1859, 1860.i: 489), or »small rock cavity« (LONELY PLANET 2003: 235) appears to represent the only man-made rock chamber on the island of Sri Lanka.

ETYMOLOGY: The Sinhala "gal" is a contraction of "gala" (rock) and "vihara" is Buddhist complex, including a shrine containing a statue of the Buddha, a congregational hall and a monk's house (LONELY PLANET, Sri Lanka 2003: 295).

SITUATION: At Polonnaruwa (N07°56': E081°00') »... just across the road north of the Kiri Vihara« (CEYLON TRAVELLER 1983: 110).

CAVE DESCRIPTION 2003 (LONELY PLANET 2003: 235): »This group of beautiful Buddha images probably marks the high point of Sinhalese rock carving ... The Gal Vihara consists of four separate images, all cut from one long slab of granite ... The one in the small rock cavity is smaller and of inferior quality.«

CAVE DESCRIPTION 1859 (TENNENT 1859, 1860.i: 489): »The utmost effort at excavation [of man-made rock chambers in Ceylon] never appears to have advanced beyond the second stage attained in Bengal; a small cell with a few columns to support a verandah in front; and even of this but very few examples now exist in Ceylon, the most favourable being the Gal-wihara at Pollanarrua [Polonnaruwa], which, according to the Rajavali, was executed by Prakrama I., in the 12th century [Mahawanso, ch. lxxvii].«

CAVE DESCRIPTION 1855 (BAKER 1855, IV): »Toparé, anciently called Pollanaruwa« (Polonnaruwa) where »... the small rock temple, which, being hewn out of the solid stone, is still in complete preservation. This is a small chamber in the face of an abrupt rock, which, doubtless, being partly a natural cavern, has been enlarged to the present size by the chisel; and the entrance, which may have been originally a small hole, has been shaped into an arched doorway. The interior is not more than perhaps twenty-five feet by eighteen, and is simply fitted up with an altar and the three figures of Buddha, in the positions in which he is usually represented - the sitting, the reclining [recumbent] and the standing postures. The exterior of the temple is far more interesting. The narrow archway is flanked on either side by two inclined planes, hewn from the face of the rock, about eighteen feet high by twelve in width. These are completely covered with an inscription in the old Pali language ...«

GAL VIHARA, Yala

Frequently visited but speleologically unexplored and unmapped suspicious place name possibly hinting at a sacred cave (temple cave).

LOCATION: Uva province: Monaragala district: Yala National Park area: Gal Vihara.

POSITION: WGS84 N06°23': E081°27' / N06.38333333°: E081.45° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Yala" or sheet "Panama" (One-inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

The suspicious place name »Gal Vihare« (296) or Gal Vihara (rock monastery) appears to hint to sacred "cave" or modified natural rock shelter (temple cave).

ETYMOLOGY: The Sinhala "gal" is a contraction of "gala" (rock) and "vihara" is Buddhist complex, including a shrine containing a statue of the Buddha, a congregational hall and a monk's house (LONELY PLANET, Sri Lanka 2003: 295).

»Yaal, a score; twenty ammonams' extent of land; or twenty ammonams of grain, or twenty head of cattle« (FORBES 1840, 1841.ii: 337 footnote).

GAL WIHARA

see: Gal Vihara, Polonnaruwa

BIBLIOGRAPHY: Tennent, James Emerson 1859, 4th revised edition 1860, 1.IV.vii: 489.

GALABODA KANDE GALGE

Speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Uva province: Unidentified (Badulla or Monaragala) district: Wellawaya town area: Galaboda Kandé.

POSITION: Representative WGS84 coordinates (assumed EPE ±10 km) N06°45': E081°05' / N06.75°: E081.08333333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965; Sarasin, Fritz 1939.

Without further notice in the text, the approximate location of certain »Galaboda Kandé galgé« is shown on the map accompanying DERANIYAGALA (1965: 144 figure 21). This »galgé« (gala = rock; ge = home) appears to be a rock shelter or, perhaps, a true cave with an inhabitable entrance area.

IDENTITY: This item is possibly identical with the unidentified, blowing cave near →Wellawaya (SARASIN 1939) or the →Wavul Galge (Gampaha), which is called "galge" but a true cave.

SITUATION 1: Probably on a "kande" (hill) named after a place called Galaboda (297).

SITUATION 2: The »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galgé)« (DERANIYAGALA 1965: 144 figure 21) places »Galaboda Kandé galgé« at linear distances of about 6 or

296 Gal Vihare N06°23': E081°27'

297 <www.nima.mil/geonames> (accessed 16.11.2003) lists many place names answering to "G*!*b*d*" (Galabedda, Galabedde, Galaboda, Galabodagama, Galabodawatta, Galbada, Galboda Dagaba, Galbodagama, Galbode, Gallebodde) and even the two hills of Galboda Kanda (N06°24': E080°21') and Galboda Kanda (N06°23'04": E080°00'30"), which, however, lie too far west where »Galaboda Kande« (DERANIYAGALA 1965: 144 figure 21) is indicated.

7 km approximately north of »*Telulla alu galgé*« (298) and about 12 or 13 km approximately south-east of »*Ravan ella cave*« (299) and thus near N06°45': E80°05' (±10 km), in the vicinity of the town of Wellawaya (N06°44': E081°06') and the →Wavul Galge (Gampaha) or the unidentified cave near →Wellawaya (SARASIN 1939).

GALAPITAGALA CAVE, Ritigala

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala kanda: Ritigala range.

POSITION: WGS84 N08°05': E080°40' / N08.08333333°: E080.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet "Elahera" or "Nalanda"
SPELEOMETRY: Length: Not known. Vertical range: Not known.
BIBLIOGRAPHY: McAlpine, W.R. & Robson, David 1983; Paranavitana, S. 1970.

A »*monastic cave*« of unspecified nature, character, and dimensions contains rock art (epigraphy) represented by »*a votive inscription*« (McALPINE & ROBSON 1983: 355).

ETYMOLOGY: The Sinhala "galapitagala" means »*rock-upon-rock*« and »*derives from the large boulders surmounting each other along the Galapitagala tank*« (McALPINE & ROBSON 1983: 355).

SITUATION: On the approach to the →Ritigala »*complex of ruins and caves*« and somewhere in the vicinity of the village of Galapitagala (N08°05': E080°40'), which lies at a travelling distance of »*eight miles*« (about 11 km) along the highway A11 from Habarana (N08°03': E080°46') generally north-west via Maradankadawela (N08°08': E080°34') to Anuradhapura (N08°21': E080°23').

EXPLORATION HISTORY: 1893, circa: »*H.C.P. Bell, a former Archaeological Commissioner, discovered more than 32 caves in the range*« (CEYLON TRAVELLER 1974: 250; 1983: 252), as »... it was left to H.C.P. Bell, the indomitable Archaeological Commissioner, to give the first extensive account of Ritigala in 1893. He explored the ruins and described them in great archaeological detail with supporting plans and drawings. They remain today the only accurate maps of the monastery precincts and cave complexes« (McALPINE & ROBSON 1983: 359).

GALE DEVIYA GALGE, Ranagiriya

= Dagoba Galge, Gale Deviya Galge, Nirammulla Dewala / Dewale

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelter (temple cave) in. LOCATION: North Western province: Kurunegala district: Nirammulla village: Ranagiri (Manikpaya Kanda, Maenikpaya Kanda, Manikpayakanda, Ranagiriya, Devagiriya) hill: Viharegala. POSITION: (If at Nirammulla itself), WGS84 N07°39': E080°29' / N07.65°: E080.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909.

A »*small cave - shelter under an overhanging rock, with the front enclosed by a wall of brick or dried clay*« is sacred to the god Gale Deviya (300).

It is, however, not definitely known which of caves on →Ranagiri is the cave of Gale Deviya (301).

PARKER (1909: 180) suggests Gale Deviya Galge is one of the higher caves.

SITUATION: Somewhere on Ranagiri / Ranagiriya (302), an isolated outcrop of gneissic rock (DAVY 1821: 419), about 40 or 50 m high.

PARKER (1909: 179, 181-182) places Ranagiri not only »*nearly two miles*« (about 3 km) above the village of Nirammulla (303).

CAVE DESCRIPTION: PARKER (1909: 180): »*As at most of the detached metamorphic hills of Ceylon, there are several large natural caves, due to weathering and flaking of the rock, on the sides of Ranagiriya, which retain evidence of their former occupation as residences of Buddhist monks, or temples ; but all are now abandoned to the forest, and to the bears and leopards which sometimes take shelter in them.*«

PARKER (1909: 184, figure 42): A »*small cave - shelter under an overhanging rock, with the front enclosed by a wall of brick or dried clay*«

298 »*Telulla alu galgé*« (DERANIYAGALA 1965: 144 figure 21) is →Demeliya Galge (SARASIN & SARASIN 1908) near N06°33': E081°11' (±5 km, or so).

299 »*Ravan ella cave*« (DERANIYAGALA 1965: 144 figure 21) is →Ravana Ella Cave (N06°51'19": E081°03'23" Everest 1830).

300 PARKER (1909: 180 footnote 1): By some, Gale Deviya is spoken of as the Demala Yaka, the Tamil demon, all South-Indians being collectively called 'Tamils' by the Sinhalese villagers.

PARKER (1909: 183, figure 42 "Rock Temple of the Gale Deviyau"): »*In spite of the Buddhist story of his killing the monks, it is undeniable that the functions generally credited to him by the Kandians are those of a superior beneficent God, and not those of a maleficent evil spirit. This is nearly the position that he occupies among the Vaeddas [Veddas] ... In sickness, too, he is the benevolent deity to whom each Vaedda family turns for assistance and medical aid, and who protects their districts from epidemics and misfortune.*«

301 PARKER (1909: 181-182): »*The dewala [temple] of the Hill God has long ago been transferred to a more convenient site at the village of Nirammulla, nearly two miles from the hill.*«

302 PARKER (1909: 179-180): Ranagiriya or »*Maenikpaya-kanda, Rana-giriya, called also Deva-giriya (the Hill of the God), a steep forest-clad rocky hill near Nirammulla, about fifteen miles north-east of Kurunaegala*« (sic! also: Kurunegala).

303 Nirammulla N07°39': E080°29'

CULTURAL HISTORY: PARKER (1909: 179) discusses the travels of the god Gale Deviya and his friends. At one stage of their journey, they »... were pleased with the general convenience' of a large Buddhist cave-wihara [vihara] or temple which they found established under a rock on the slope of the hill, and wished to take possession of it; but the sixty monks who occupied it refused to hand it over to them, and began to chant 'Pirit' or sacred stanzas, for protection against evil in general and demons in particular, as a spell to keep them out. If they could persevere in this course, and continue the chanting without intermission for seven days and seven nights, demons would have no power over them. In the meantime the Gale Deviya could not harm them while the magical verses were being repeated. So he said to his minister Kurambucja, "Kill these monks for me." But the monks went steadily on with the Pirit, and Kurambucja could not touch them unless he could make them stop. It must have been an interesting spectacle. Six days passed, and the demons had made no progress whatever. At last, on the seventh day, the resourceful Kurumbuda threw down into the midst of the holy men the quarter of a bull, at which all the monks started, and raised their hands higher than their shoulders in astonishment, and said with disgust, "Ish!" It was a little word, or hardly a word, but it was fatal to them. The Pint was stopped for an instant, and in that instant Kurumbuda plucked off their heads, and drank their blood. Gale Deviya then took possession of the cave and the hill, which has ever since been his headquarters in Ceylon, his 'Mula-gala'. He wanted to live at this place because it was in the great Pallekale Forest, nine gawus long and nine gawus broad [304], without a village in it. Here he could live undisturbed by the busy world around. Over this forest he placed his minister Kurumbuda Devata, in charge as Mura-karaya, or Guardian, with his residence at Kurumban Kanda, a hill in the northern part of it.«

GALGE CAVES, Kimegala

or: Galgay / Gallegay / Gallege Caverns, Kimegalle Caverns; including →Dagaba Galge

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelters in gneiss (Davy 1821: 419).

LOCATION: Uva province: Monaragala district: Yala National Park area: Kataragama - Buttala road: Galge (Gallegay, Galgay) village: Kimegala (Kimègalle).

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

BIBLIOGRAPHY: Davy, John 1821; Parker, H 1909; Pridham, Charles 1849; Sarasin, Fritz 1931, 1939; Sarasin, Fritz & Sarasin, Paul 1908.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 7.

»Several capacious caverns« (305) in gneiss (306), which »afford good shelter to the traveller« reports DAVY (1821: 419), pilfered by PRIDHAM 1849, ii: 578), from »Kimègalle« (Kimegala), which is »an immense mass of rock« (DAVY 1821: 419) represented by an isolated, 30 or 40 m high ridge of gneiss (307).

304 PARKER (1909: 180 footnote 2): »Thirty-six miles square« (about 10 by 10 km).

305 Compare the →Dagaba Galge (Kimegala).

306 DAVY (1821: 419 footnote †): »This rock is gneiss, containing much mica, and so large a proportion of carbonat [sic] of lime, that it effervesces with an acid.«

307 SARASIN (1939: 157): »Der gesuchte Höhlenfels war ein 30 bis 40 m hoher, aus Gneiss bestehender, länghlicher, isolierter Rücken ...«

ETYMOLOGY: DAVY (1821: 419): The cavernous gneiss outcrop is »... called Gallegay by some, and Kimègalle by others. It derives its the former name, signifying rock-house, from several capacious caverns in its side, which afford good shelter to the traveller; and the latter name, signifying water-rock, it has obtained from two deep cavities in its summit, -- natural reservoirs that are never without water [308], an element that is often extremely scarce in this desert, and hardly any where else to be found.«

PRIDHAM (1849: 578): »... called Gallegé by some, and Kimègalle by others. It derives its the former name, signifying rock-house, from several capacious caverns in its side, which afford good shelter to the traveller; and the latter name, signifying water-rock, it has obtained from two deep cavities in its summit, --natural reservoirs that are never without water, an element that is often extremely scarce in this desert, and hardly any where else to be found.«

SITUATION 1821 (DAVY 1821: 419): near »Gallegay« (DAVY 1821: 419), »Galgay« (DAVY 1821 map) or the village of Galge (309), which lies »... by the road-side ... ten miles [16 m] from Katragam« (310) on the way to »upper Ouva« (Uva).

SITUATION 1931 (SARASIN 1931: 43): Three hours north of »Katragam« (sic).

SITUATION 1939 (SARASIN 1939: 157-158) about 15 km north of »Kataragam« (sic).

SITUATION 1977: »Galge« is shown on the "Road Map of Sri Lanka" (Survey Department 1977) about one third (circa 15 km) along the motorable road from Kataragama (N06°25': E081°20') north along the western border of the Yala National Park to the town of Buttala (N06°45': E081°14').

CAVE DESCRIPTION 1819 (DAVY 1821: 419; PRIDHAM 1849, ii: 578): »Several capacious caverns« in gneiss »afford good shelter to the traveller« reports).

CAVE DESCRIPTION 1995: Brooks, S J (1995 Mss: no. 7 "Galge Caves" after DERANIYAGALA, S U 1980: 155) mentions a group of small caves or rock shelters.

GALGIRI LENA

or: Galgirilena Caves

Speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Anuradhapura district: Anuradhapura - Kahatagasdigiliya road area.

POSITION: Representative WGS84 coordinates (assumed EPE ±5 km) N08°25': E080°34' / N08.41667°: E080.5667° (guesswork).

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

308 SARASIN (1939: 157): »... auf dessen Oberfläche durch Verwitterung mehre beckenförmige Vertiefungen entstanden waren, gefüllt mit Regenwasser, willkommenen Reservoir für Durchreisende und belebt von vielem Kleingetier ...«

309 »Gallegay« (DAVY 1821: 419) or »Galgay« (DAVY 1821: 419) is the »Galge« (Survey Department 1977: Road Map of Sri Lanka) near Galge N06°32': E081°18' (www.nima.mil/geonames accessed 16.11.2003).

310 »Katragam« (DAVY 1821: 419; SARASIN 1931: 43) and »Kataragam« (SARASIN 1939: 157-158) is the small town of Kataragama (Survey Department 1977: Road Map of Sri Lanka) near N06°25': E081°20' (www.nima.mil/geonames accessed 16.11.2003).

Several modified, »*drip-ledged caves*« contain paintings (rock art) of the Kandy Period while »*a five-foot fragment of a Buddha torso, minus legs, lies by the cave*« (CEYLON TRAVELLER 1974, 1983: 106).

SITUATION (CEYLON TRAVELLER 1974, 1983: 106): From the turn off between »*60th mile and 61st mile*« (311) on the road from Anuradhapura ENE to Kahatagasdigiliya (312), Galgirilena lies »*4 miles*« (about 6 km) along the road without identified direction (north?) to Talakolawewa (313).

GALGIRIYAWA 'CAVE DWELLING'

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelters (temple caves).

LOCATION: North Western province: Kurunegala district: »*Seven Korles district*« (Davy 1821): »*Hatilispahay korle*« (Davy 1821): Maho town: Galgamuwa - Nikawewa road area: »*Galgiriawah*« (Davy 1821) or, perhaps: Galgiriya village: Galgiriya (hill), Galgiriya Kanda, »*Gal-giriya-kanda*« (PARKER 1909: 333).

POSITION: Estimated WGS84 or Everest 1830 (approximate EPE ±5 km) N07°55': E080°15' / N07.9167°: E080.25° (guesswork).

MAP: Survey of Ceylon / Sri Lanka sheet "Nalanda" (One-inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Parker, H 1909.

A group of six or seven »*cave dwellings*« (314) or »*rock temples*« (CEYLON TRAVELLER 1974, 1983: 251), which generally consist of modified natural rock shelters (or caves), are said to be used for troglodyte religious purposes.

SITUATION: (CEYLON TRAVELLER 1974: 249, 250; 1983: 251, 252): At Galgiriya (315), which lies near the 12ths mile (km 19.3) on the road from Galgamuwa (316) south-west to Nikawewa (317).

311 Mile 60 is shown on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) about 20 or 25 km along the Main Trunk Road A12 (Puttalam to Trincomalee) east of Anuradhapura (N08°21': E080°23') and about 8 or 10 km east of Mihintale (N08°21': E080°30'), or some 8 km west-southwest of Kahatagasdigiliya (N08°25': E080°41').

312 Kahatagasdigiliya (N08°25': E080°41') lies about 20 or 25 miles (35 or 40 km) along the road A12 from Anuradhapura (N08°21': E080°23') north-east to Trincomalee (N08°34': E081°14').

313 Talakolawewa N08°27': E080°34'

314 CEYLON TRAVELLER (1974: 249; 1983: 251): »*Cave dwellings are scattered throughout Sri Lanka ...*« where »*... these caves include those at Paramakanda in the Puttalam district, Mihintale, Sasseruwa and Hindagala in the Anuradhapura district, Buddhanagehela near Padaviya, also in the Anuradhapura district, the Ritigala caves ... Galgiriya caves near Galgamuwa in the Kurunegala district and the caves at Dambulla, Sigiriya and Piduragala in the Matale district.*«

315 »*Galgiriya*« (CEYLON TRAVELLER 1974, 1983) or »*Gal-giriya-kanda*« (PARKER 1909: 333) at N07°55': E080°23' <www.nima.mil/geonames> accessed 16.11.2003 is shown as »*Galgiriya*« on the "Road map of Sri Lanka" (Survey Department 1977).

316 Galgamuwa (N08°00'00": E080°16'06") lies on the road from the town of Maho N07°49'22": E080°16'40" WGS84 north to Anuradhapura N08°21': E080°23' (Survey Department 1977: Road Map of Sri Lanka).

317 Nikawewa N07°53': E080°25'

PARKER (1909: 333) shows the "kanda" (hill) called »*Galgiriya-kanda*« close to the »*Nikawae-kanda*« and the latter appears to correspond to the →Nagala Rock, another cave bearing hill.

IDENTITY: The name of the cave dwelling at »*Galgiriya*« (CEYLON TRAVELLER 1974, 1983) is reminiscent of the names of the →Nitre caves at

→Galgiriya (DAVY 1821: 31 footnote, »*nitre-cave*« 6) →Giribahwah (DAVY 1821: 31 footnote, »*nitre-cave*« 4).

GALGIRIYAWA NITRE CAVE

or: Galgiriawah Nitre Cave

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »*Seven Korles district*« (Davy 1821): »*Hatilispahay korle*« (Davy 1821): Maho town: Galgamuwa - Nikawewa road area: »*Galgiriawah*« (Davy 1821) or, perhaps: Galgiriya village: Galgiriya (hill), Galgiriya Kanda, »*Gal-giriya-kanda*« (PARKER 1909: 333).

POSITION: N07°55': E080°23' / N07.9167°: E080.3833° (assumed).

MAP: Survey of Ceylon / Sri Lanka sheet "Dambulla" or sheet "Galagamuwa" (One-inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

The »*nitre-cave 6 Galgiriawah*« (DAVY 1821: 31 footnote) may refer --but this is mere guesswork-- to the →Galgiriya Cave Dwelling (CEYLON TRAVELLER 1974: 249, 250; 1983: 251), which is said to consist of a group of modified natural rock shelters.

IDENTITY: The name of the cave dwelling at »*Galgiriya*« (CEYLON TRAVELLER 1974, 1983) is reminiscent of the names of the →Nitre caves at

→Galgiriya (DAVY 1821: 31 footnote, »*nitre-cave*« 6) →Giribahwah (DAVY 1821: 31 footnote, »*nitre-cave*« 4).

SITUATION: DAVY (1821: 31 footnote) reports »*nitre-cave 6*« from somewhere in the vicinity of an inhabited place called »*Galgiriawah*« or Galgiriya (318) in the obsolete »*Hatilispahay korle*« (319) of the likewise obsolete »*Seven Korles district*« (320).

318 »*Galgiriawah*« (DAVY 1821: 31 footnote) appears to correspond to the village of Galgiriya (N07°55': E080°23') which, however, is not indicated on my "Road Map of Sri Lanka" (Survey Department 1977) close to the prominent hill »*Galgiriya*« or Galgiriya Kanda (»*Gal-giriya-kanda*« PARKER 1909: 333) above the north-east (right-hand) side of the road from Nikawewa (N07°53': E080°25') approximately north-west to that village of Galgamuwa (N08°00': E080°16'06" on the road from the town of Maho N07°49'22": E080°16'40" WGS84 north to Anuradhapura N08°21': E080°23').

319 »*Hatilispahay korle*« (DAVY 1821) is not identified.

320 The »*district of the seven Korles*« (DAVY 1821), as it is shown on the »*Map of the Island of Ceylon*« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

GALLEGAY CAVERNS

see: Dagoba Galge

see: Galge Caves (Kimegala)

Davy, John 1821: 419.

GALLEGE CAVERNS

see: Dagoba Galge

see: Galge Caves (Kimegala)

Pridham, Charles 1849, 2: 578.

GAMPAHA NITRE CAVE

see: Wawul Galge, Wellawaya

Ceylon Traveller 1974: 247; 1983: 249.

GANEGAMA VIHARE "CAVE"

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park area: Wadinagala: Ganegama Vihare.

POSITION: WGS84 N07°10': E081°29' / N07.1.6667°: E081.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A »large, drip-ledged cave with a brick-paved floor« (CEYLON TRAVELLER 1983: 177) appears to represent a modified natural rock shelter or true cave.

SITUATION (CEYLON TRAVELLER 1974, 1983: 177): Ganegama Vihare (321) lies on a hill near Wadinagala (322).

GANGODADENIYA GALGE

see: Gangodedeniya-Galge

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 11: Gangodadeniya-Galge (also called Nilgala Cave).

GANGODEDENIYA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter under a gravitationally dislocated gneiss boulder.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Danigala Range area: Nilgala village: »Patipal« (SARASIN 1939) or Pattipola Ar, Pattipal Ara: Bulupitiahela (Bulupothahela, Bulupotahela).

POSITION: WGS84 N07°11': E081°22' / N07.18333333°: E081.3.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Nilgala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980, 1987, 2002; Rüttimeyer, L 1903; Sarasin, Fritz 1931, 1939; Sarasin, Fritz & Sarasin, Paul 1907a, 1907b, 1907c, 1908.

A huge, gravitationally dislocated gneiss boulder forms a spacious rock shelter, complete with a nearby spring, which lies at the base of the Bulupitiahela, a "rock-hill" (323) adjacent north of the Nilgala, a gneiss dome near the village of Nilgala. It was here that the Sarasin brothers eventually proved the presence of the Stone Age in Sri Lanka.

RÜTIMEYER (1903: 203 Abbildung 2) gives a photograph showing a entrance, titled »Früher bewohnte Weddahöhle in Nilgala (Sarasin, Atlas, Taf XXVI, Abb. 48).«

ETYMOLOGY: So far, I found this rock shelter called, spelled, transcribed (romanised), or edited as

Gangodadeniya Galge Brooks (1995 Mss: no 11)

Gangodedeniya Galgè SARASIN (1939: 164)

Gangodeniya galge SARASIN & SARASIN (1908)

Nilgala Cave DERANIYAGALA, S U (passim)

Weddahöhle in Nilgala RÜTIMEYER (1903: 203 Abb. 2).

SITUATION 0: In the Nilgala range east of Bibile (N07°10': E081°13'), at a walking distance of about an hour approximately south of the village of Nilgala (324), half an hour beyond the stream Patipal, and in a little grove at the foot of the gneiss hill »Bulupitiahela« or Bulupitiya Hela (325).

SITUATION 1903, RÜTIMEYER (1903: 201): »In der prächtigen Fluh des Gneisdomes des Nilgala.«

SITUATION 1907.1, SARASIN & SARASIN (1907a, 1907b: 189): »In the eastern low-country of Ceylon ... near the village Nilgala.«

SITUATION 1907.2, SARASIN & SARASIN (1907c: 255): »In Nilgala, dem Zentrum des Weddalandes.«

SITUATION 1908, SARASIN & SARASIN (1908): At the foot of Bulupitiahela Rock.

323 SARASIN (1939: 164) calls Bulupitiahela »Felsenberg« (literally translated: rock-hill).

324 According to CEYLON TRAVELLER (1974, 1983: 176), »an old circuit bungalow still stands« at the village of Nilgala [N07°11': E081°22'] »but is now occupied by officials of the Department of Wild Life Conservation.

The waters of the Gal Oya surging through the boulder-strewn river bed a dramatic sight with the twin peaks of Nilgala and Bulupitiya hela as a backdrop. This is a delightful place for a river bath and is also excellent for mahseer fishing. Elephants in small groups are often seen in and around Nilgala which is the home of the Painted Partridge. Nilgala is an excellent area for camping.«

325 »Bulupitiahela« (SARASIN 1939: 164) is the "hela" or »rock« (in this case a gneiss dome) named after the village of Bulupitiya N07°15': E081°20' (WGS84 <www.nima.mil/> accessed 16.11.2003).

321 Ganegama Vihare N07°10': E081°29'

322 »Wadinagala« (CEYLON TRAVELLER 1983: 177) is not identified unless it is the same as the villages

Wadinagala (N07°07': E081°32') and Wadinagala (N07°08': E081°34'), or to the trigonometric station Wadinagala (N07°06': E081°31' WGS84 <www.nima.mil/> accessed 16.11.2003) .

SITUATION 1931, SARASIN (1931: 48) locates the »Höhle« or "cave" (no name mentioned) at a walking distance of almost an hour (unidentified direction) from the village (326).

SITUATION 1939, SARASIN (1939: 164) locates the rock shelter called »Gangodedeniya - Galgè« at a walking distance of half an hour beyond the stream »Patipal« (327) in the south of the village (328).

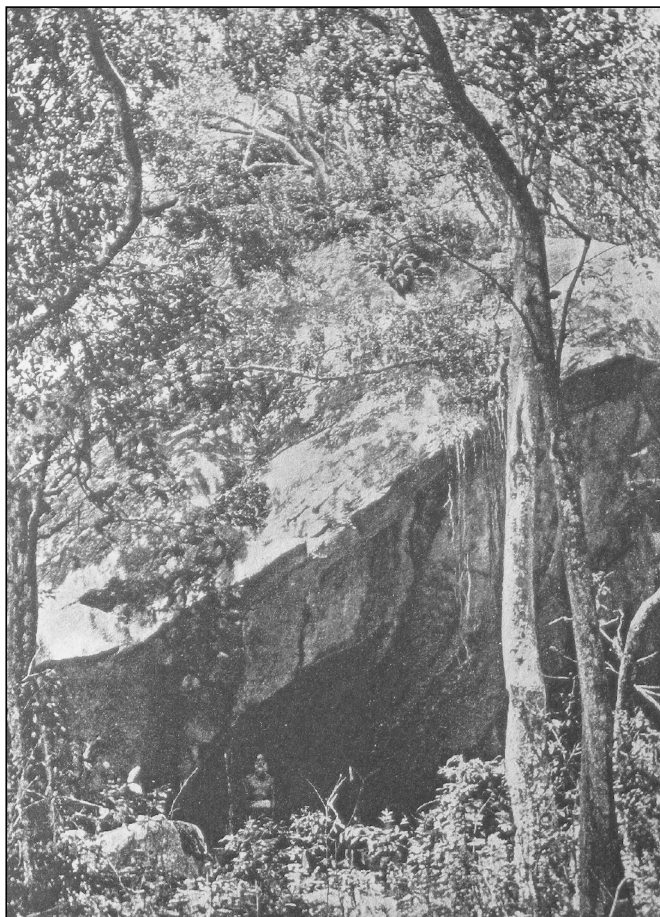
SITUATION 1985, DERANIYAGALA (1985 reprinted 1987: 105): »In the Dry Zone intermediate lowlands.«

SITUATION 1992, DERANIYAGALA (1992 chapter 5.3.5; 2002: 31-32): In ecozone C (intermediate dry lowlands).

SITUATION 1995: Brooks (1995 Mss item 11) places Gangodedeniya-Galge / Nilgala Cave at a distance of »one hour« south of the village of Nilgala, which is said to lie east of a so-called »Bibi« (sic!) which means the town of Bibile (329).

CAVE DESCRIPTION (SARASIN 1939: 164): A huge, fallen boulder forms a spacious »Halbhöhle« or "half-cave" (rock shelter) near a small spring of water and, deducting from the tracks, play ground of numerous animals. Fresh firebrand traces on the walls indicated that the shelter is till today (circa 1900 AD) occasionally used as night quarters (330).

Brooks (1995 Mss item 11 after DERANIYAGALA 1980: 155) had not seen the »Gangodadeniya« (sic!) Galge »also called Nilgala Cave« and decided it is an undecided »cave / rock shelter formed between [one?] boulder to create a single chamber some 5 m by 8 m in size.«



GANGODEDENIYA GALGE
SARASIN (1939 Tafel XX)

326 SARASIN (1931: 48): »Ein alter Bauer zeigte uns eine Höhle, nicht ganz eine Stunde vom Dörfchen entfernt. In einem kleinen Wäldchen der Parkgegend bildete ein mächtiger, von einem hohen Felsberg herabgestürzter Gneißblock eine geräumige Höhle und trockene Halbhöhle.«

327 The stream »Patipal« (SARASIN 1939) is not identified unless it is the same as the Pattipola Ar, Pattipola Ara N07°16': E081°39'.

328 SARASIN (1939: 164): »Ein Bauer erbot sich, uns eine Höhle zu zeigen. Wir überschritten den Patipal- Fluss und wanderten dann eine halbe Stunde lang dem malerischen Gneissberg entlang, der den südlichen Hintergrund des Örtchens Nilgala bildet ... Dann etwas nordwärts an dem Fuss des dem Nilgala- Stock vorgelagerten Felsberges Bulupitayahela. Hier bildete ein gewaltiger, abgestürzter Felsblock eine geräumige Halbhöhle, vom Führer Gangodedeniya - Galgè genannt.«

329 Bibile (N07°10': E081°13') lies at a travelling distance of 120 km along the 180 km long road A5 from Kandy generally north-east to Chenkaladi on the coast.

330 SARASIN (1939: 164): »Hier bildete ein gewaltiger, abgestürzter Felsblock eine geräumige Halbhöhle ... Frische Rauchspuren an den Wänden ... zeigten, dass sie heute noch gelegentlich als Nachtquartier benützt wird.«

CULTURAL HISTORY - archaeology: SARASIN & SARASIN (1907a, 1907b: 189, 1907c: 255) found »... a cave, near the village of Nilgala, till a short time ago still inhabited by Veddas, the soil of which ... contained in great abundance stone implements of a very rough kind.«

SARASIN (1931: 48-49; 1939: 163-166, plates XIX, XX, XXI) recalls the excavation of a dry rock shelter and SARASIN (1931: 48, 1939: 164) interpreted this as the »Stone Age of Ceylon« first discovered.

DERANIYAGALA (1985, 1987: 105): The human remains excavated from the »Nilgala Cave« were too fragmented for proper analysis but »... skeletal remains of a canid bring up the possibility that domestic dogs were used by Mesolithic man ...«

DERANIYAGALA (2002: 31-32): Nilgala cave yielded faunal remains with a preponderance of spotted deer (Cervus axis), »sambhur« (sambar, Cervus unicolor) taking second place, within a mixed assemblage of miscellaneous vertebrates.

EXPLORATION HISTORY: 1907 January (?) or February (?): Fritz SARASIN and Paul SARASIN (1907a dated 1907.03.07; 1907b dated 1907.04.19) found a »cave« (rock shelter) which had been »still a short time ago still inhabited by Veddas« and where excavation of the cave soil yielded »stone implements of a very rough kind« in addition to animal and human bones.

GEMS, cave of the

see: Menik Lena

Ceylon Traveller 1974: 243, 1983: 245.

GIRIBAHWAH NITRE CAVE

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Demoole pattoo« (Davy 1821) area: »Giribahwah« (Davy 1821) village.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified or NC44-14. SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Davy, John 1821.

The Nitre Cave no. 4 (DAVY 1821: 31 footnote) is situated somewhere in the vicinity of an inhabited place called »Giribahwah« (331) in the »Demoole pattoo« (332) of the likewise obsolete »Seven Korles district« (333).

IDENTITY: The name of the nitre cave at Giribahwah (DAVY 1821: 31 footnote, »nitre-cave« 4) is not only reminiscent of the →Nitre Cave at →Galgiriyawah (DAVY 1821: 31 footnote, »nitre-cave« 6) but also of the name of the cave dwelling at »Galgiriyawa« (CEYLON TRAVELLER 1974, 1983).

GODAVAYA VIHARA

or: Godapabata vehera

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelters and caves (temple caves).

LOCATION: Southern province: Hambantota district: Walawe Ganga: Siyambalagoda - Ridiyagama area: »Dehigahalande junction« (CEYLON TRAVELLER 1983): Dehigahalanda village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet: Ambalantota.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Honey-combed into the rock face are caves separated by brick walls to form little wind-blown cells for meditating monks. To the west is a seascape painted in blue and flecked with white foam into which flows the rich brown waters of the Walawe Ganga. To the east, and almost below your feet, is a delightful little bay once, centuries ago, a harbour« (CEYLON TRAVELLER 1983: 69-70).

ETYMOLOGY: »On the precipitous edge of a cliff, an inscription of King Gajabahu I (112-134 A.D.), gives its ancient name as Godapabata vehera« (CEYLON TRAVELLER 1983: 69).

SITUATION: »If you have detoured, return and detour to the right again at the Dehigahalande junction [334], a half mile beyond the 142nd mile [km 228.5] and visit the ancient hermitage and vihara at Godavaya« (CEYLON TRAVELLER 1983: 69).

331 »Giribahwah« (DAVY 1821) is not identified.

332 The obsolete administrative subdivision »Demoole pattoo« (DAVY 1821) is not identified.

333 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

334 »Dehigahalande junction« (CEYLON TRAVELLER 1983: 69) appears to correspond to Dehigahalanda N06°07': E081°03' (www.nima.mil/geonames 16.11.2003), a village west of the town of Ambalantota N06°07': E081°01' (www.nima.mil/geonames 16.11.2003).

GODEGEDARA VIHARA "CAVE"

Speleologically unexplored and unmapped modified natural or man-made, sacred, troglodyte, and painted cave or rock shelter.

LOCATION: Uva province: Badulla district: Godegedara vihara.

POSITION: (If at the village of Godegama itself), WGS84 N06°57': E081°03' / N06.95°: E081.05° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Nuwara Eliya, Passara. SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Ceylon Traveller 1983.

A so-called »cave temple« (CEYLON TRAVELLER 1983: 349), which may consist of a modified natural rock shelter (true cave?) used as a temple cave, contains rock art (drawings, paintings).

SITUATION (CEYLON TRAVELLER 1974, 1983: 349): At the Godegedara vihara, which lies at a travelling distance of »about ten miles« or 16 km from an unspecified starting point (Badulla?) »down the Badulla - Godegama road« (335).

CULTURAL HISTORY - rock art: (CEYLON TRAVELLER 1983: 349): »... three Buddha statues with wooden core and finished in plaster. Drawings of the seven weeks after the attainment of Buddhahood are on the walls inside a cave temple [sic! prob. qua: temple cave]. The ambulatory walls carry paintings of the birthstones of the Buddha.«

GONAGALLA CAVES

see: Kuttemalai Shelter 1

see: Kuttemalai Shelter 2

Ceylon Traveller 1974, 1983: 177.

GONGINE " CAVE "

or: Höhle von Kaloday 2

Archaeologically investigated but speleologically unexplored and unmapped rock shelter.

LOCATION: Uva province: Unidentified (Badulla or Monaragala) district: Bibile - Kaloday road: »Ekiriyan rest house« (Sarasin & Sarasin 1908) area: Ekiriyanakumbura (Ekiriyanakumbura) village.

POSITION: (If at Ekiriyanakumbura itself), WGS84 N07°18': E081°13' / N07.3°: E081.216667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" or "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 14.

An archaeologically barren but otherwise unspecified cave or rock shelter (DERANIYAGALA 1980: 155; Brooks 1995 Mss no. 14).

IDENTITY: Compare →Ekiriyan Cave, and Höhle von →Kaloday.

SITUATION: Near Ekiriyanakumbura (N07°18': E081°13'), a village near the railway station Eravur (N07°46': E081°36') and on the highway A5 from Badulla (N06°59': E081°03') generally north-east towards Chenkaladi (N07°47': E081°36').

335 There is a village of Godegama (N06°57': E081°03') about 4 km in a direct line due south from Badulla (N06°59': E081°03' WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

GOVINDA HELA CAVE

or: Westminster Abbey Cave

Frequently visited but speleologically unexplored and unmapped natural rock shelter.

LOCATION: Uva province: Monaragala district: Govinda Hela / Westminster Abbey ridge area: Siyambalanduwa: Pallewela.

POSITION: WGS84 N07°02': E081°32' / N07.03333°: E081.53333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Tirukkivil" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An enormous »cave« (rock shelter?), allegedly 45 m »in length« (probably width) and more than twice as high, reported the CEYLON TRAVELLER (1974: 252; 1983: 254) from the "Westminster Abbey" ridge (336): »High up the ridge, where the foliage drops away and the rocky core rises almost vertically, is an enormous cave 150 feet in length and more than twice as high.«

SITUATION: From Siyambalanduwa (N06°54': E081°33') about 20 km along the road generally north to Amparai (N07°17': E081°40'), and about 5 km from the village of Pallewela.

CAVE LIFE: CEYLON TRAVELLER (1974: 252; 1983: 254): »High up in the roof are a score or more of large hives built by hornets« or, more likely, cliff bees (*Apis dorsata*).

GOVINDA HELA CAVE 2

or: Westminster Abbey Cave 2

Frequently visited but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Uva province: Monaragala district: Govinda Hela/ Westminster Abbey ridge area: Siyambalanduwa: Pallewela.

POSITION: WGS84 (approximate EPE ±5 km) N07°02': E081°32' / N07.03333°: E081.53333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Tirukkivil" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A second, smaller cave lies at an estimated walking distance of 100 m (unspecified direction) from the first →Govinda Hela Cave (CEYLON TRAVELLER 1974: 252; 1983: 254).

CAVE LIFE: Cliff bees (*Apis dorsata*).

GREAT CAVE, Lower Ouva

see: Wawul Galge, Wellawaya

Pridham, Charles (1849, 2: 709).

GUHARAMAYA

or: Maliyadeva Guharamaya

A man-made structure regarded as a cave.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Rambukkana: Padawigampola (Padavigampola).

POSITION: (If at Padawigampola itself), WGS84 N07°21': E080°22' / N07.35°: E080.3.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Devendra, Don Titus 1937.

The "guha" (Sanskrit: cave) called Guharamaya or, to be precise, Maliyadeva Guharamaya, is not a cave at all but a megalithic dolmen (337).

SITUATION: In the heart of a village called »Padavigampola« (DEVENDRA 1937) or Padawigampola (N07°21': E080°22') about »four miles« (6.4 km) north of Rambukkana (Rambukkana Bazaar N07°18'59": E080°23'26" WGS84).

CULTURAL HISTORY: Local legend associates the »curious structure of stone like the table of some giant of the good old days« (338) with the dwelling of the last great initiate of Buddhism in Sri Lanka.

GUNNER'S QUOIN "CAVES"

see: Dimbulagala "Caves"

Ceylon Traveller 1974, 1983: 111-112.

337 <www.lankalibrary.com/geo/cave.htm> (accessed 15.11.2003): »The dolmen at Padavigampola is the only known example in Ceylon of a structural work by Stone Age man.«

338 DEVENDRA (1937) was possibly the first to describe »Guharamaya: A cave of stone age man.- ... the building, if it can be styled, is known as a dolman, a word probably derived from Cornish and meaning stone hole... The dolmen at Padavigampola has only three sides. The door is nowhere to be seen. Each side is one solid block of gneiss roughly fashioned into rectangular shape. The left wall and the roof, which latter is an enormous slab, have cracked right across on account of a soft vein in the hard rock. The heaviest slab by far is the roof. It is of the same thickness as the walls. This block weighs thrice as much as a wall. It is interesting to speculate how men using stone tools were able to lift into position this mass of granite weighing several tons. The roof inclines about 10 degrees to the right. A slab smaller in dimensions than either wall serves as the back door of the dolmen. It is not long enough to fit right across the two major walls. Consequently, it leaves a space of 2 feet from the back end of the right hand wall. It too seems to have been bigger originally. Probably a crack loosened one portion and this has evidently been removed later, possibly by the recluse inmate who used the opening as an exit. The whole structure seems to have been closed up, almost airtight, with one slab in front and another behind. In this manner it would have been a sealed box and a fit receptacle for the sacred dead. Grooves of over a foot in breadth are cut at either end of each wall so that two slabs could be fitted into position to seal the whole effectively.«

336 Westminster Abbey or Govinda Hela (CEYLON TRAVELLER 1974: 252; 1983: 254) is a ridge rising near N07°02': E081°32' (www.nima.mil/geonames accessed 16.11.2003) to an elevation of 558 m asl (1831 feet). It is forest clad up to a height of about 375 m. Above, the rock rises vertically for over 180 m.

HABESSA "ROCK CAVE"

or: Habassa Vihara

Speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Uva province: Monaragala district: Kumbukkan Oya basin: Okkampitiya (Okkampitiya Ihalagama) area: Habessa (Habassa) ruins.

POSITION: WGS84 N06°42': E081°19' / N06.7°: E081.316667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 9: Okkampitiya.

A so-called »rock cave« (CEYLON TRAVELLER 1974: 253; 1983: 255) of unspecified nature and character possibly represents --but this is mere guesswork-- a modified natural rock shelter (or true cave) used for monastic troglodyte purposes.

IDENTITY: Compare ->Okkampitiya Cave (Brooks 1995 Mss).

SITUATION: At »Habessa« (CEYLON TRAVELLER 1974: 253; 1983: 255) or Habessa (**339**) lies about 8 km south of Okkampitiya (N06°45': E081°17') and some 5 km in a direct line south-east of Maligawila / Maligavila (N06°43': E081°21').

APPROACH 1: About 13 or 15 km along a direct footpath from Buttala (N06°45': E081°14') approximately SSW.

APPROACH 2: Alternatively, it can be reached by driving from Buttala (10 km or so) east to Okkampitiya (**340**), from where Habessa / Habassa can be reached by walking »five miles« (8 km generally south) along a track that skirts the main stream of the Kumbukkan Oya (N06°30': E081°42').

HADIA JASKYNA, Kirimalai

see: Keerimalai Snake Cave

Mitter, Pavol 1979a: 156-157.

HADIU JASKYNU, Kerimalai

see: Keerimalai Snake Cave

Mitter, Pavol 1978: 147.

HAKGALA, cave at

Unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Nuwara Eliya district: Hakgala Strict Natural Reserve area: Hakgala village.

POSITION: WGS84 (approximate EPE) N06°55': E080°49' / N06.916667°: E080.816667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Cooray, P Gerald 1967; Domrös, Manfred 1976.

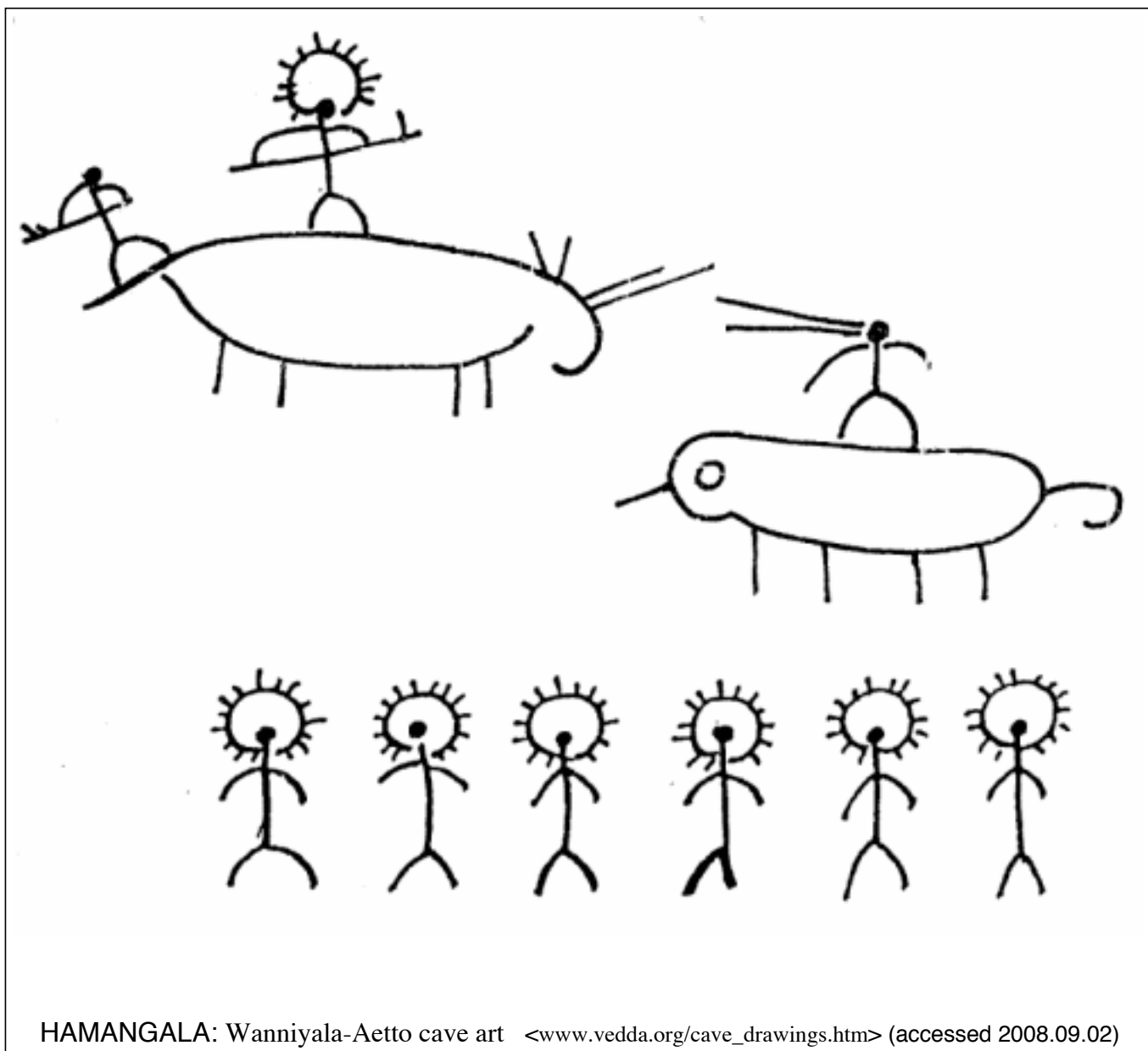
No locally known name has been identified for cave in crystalline limestone (COORAY 1967: 97) somewhere in the vicinity of the village of Hakgala (N06°55': E080°49').

CAVE POTENTIAL: Also found in the vicinity of the cave at Hakgala is AA Cave (Baker), Istripura Cave (Welimada), the Luckyland Estate cave, the cave at ->Padanwela (near Wilson's Bungalow), and ->Sita Kund in the Hakgala Strict Natural Reserve (**341**).

339 »Habessa« (CEYLON TRAVELLER 1974: 253; 1983: 255) is indicated as »Habassa« on the "Road Map of Sri Lanka" (Survey Department 1977) and positioned as »Habessa« and »Habessa Ruins« near N06°42': E081°19' (www.nima.mil/geonames accessed 16.11.2003).

340 Okkampitiya or, to be precise: Okkampitiya Ihalagama N06°45': E081°17' (www.nima.mil/geonames accessed 16.11.2003).

341 Hakgala Strict Natural Reserve N06°54'36": E080°47'22" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.



HAMANGALA "ROCK CAVES"

Speleologically unexplored and unmapped modified natural, painted, and troglodyte caves or rock shelters.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Hamangala (Hemangala).

POSITION: WGS84 N07°25': E081°35' / N07.416667°: E081.58333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Kalmunay, Tirrukkovil.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Harrigan, Patrick 1993.

A »number of rock caves« bear inscriptions and one contains »ancient veddah drawings« (CEYLON TRAVELLER 1974: 251; 1983: 253), ROCK ART or »Wanniyala-Aetto cave art« (www.vedda.org/cave_drawings.htm accessed 2009.08.02).

SITUATION (CEYLON TRAVELLER 1974: 251; 1983: 253): In the »desolation of Bintenne« (342).

342 The Sinhala "bintenne" or »Beentenne« (FORBES 1841, 2: 80) is said to translate literally into »back of beyond« and to connote the »wilderness« but the »greater part of the Uva Province is known as Bintenne« (CEYLON TRAVELLER 1983: 347). .

APPROACH 1 (CEYLON TRAVELLER 1974: 251; 1983: 253): Proceed from Uhana (N07°22': E081°38') 6.5 km generally north-northeast to Kohombana (N07°24': E081°37') and then 4 km (without direction: approximately west) along a cart track. Leave this track, turn »left« (sic) and walk over the plain. The »caves« are situated in the rocky outcrops of the Hamangala (N07°25': E081°35'), which rise for about 60 to 90 m from the surrounding plains.

APPROACH 2 (CEYLON TRAVELLER 1974: 253; 1983: 254): The »Hamangala rock caves« may be reached by the Maha Oya road from Amparai (N07°17': E081°40'). Turn »left« (approximately west) at the Kohombana junction, somewhere between the 8th and 9th mile posts (km 13 to 14.5), onto a gravel road that leads to Bandaraduwa (N07°26': E081°34'), and proceed from there for about 6.5 km along a jungle track to the Hemangala.

CULTURAL HISTORY - rock art: An un number of »caves« bear inscriptions and one »cave« contains rock art: ancient Veddah drawings (CEYLON TRAVELLER 1974: 253; 1983: 254).

HARRIGAN (1993 on
<www.vedda.org/cave_drawings.htm> accessed 2009.08.02:
»Vedda cave drawings such as those found at Hamangala

provide graphic evidence of the sublime spiritual and artistic vision achieved by the ancestors of today's Wanniyala-Aetto people. Most researchers today agree that the artistes most likely were the Wanniyala-Aetto women who spent long hours in these caves waiting for their menfolk's return from the hunt.«

HANDAGALA CAVE

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Handagala village.

POSITION: WGS84 N08°33': E080°39' / N08.55°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet "Horowupotana" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A »cave dwelling« or »rock temple« (343) reports CEYLON TRAVELLER (1974: 249; 1983: 251) from somewhere in the vicinity of Handagala (344) in Anuradhapura district.

HANDAGIRIYA CAVES

Speleologically unexplored and unmapped modified natural troglodyte caves or rock shelters.

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Embilipitiya - Mahapelessa: Weligepola: Handagiriya.

POSITION: WGS84 N06°31': E080°48' / N06.516667°: E080.8° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Unspecified »caves« at Handagiriya (N06°31': E080°48') are located near the remote northern reaches of the Uda Walawe reservoir (N06°27': E080°52').

SITUATION 1 (CEYLON TRAVELLER 1974: 245; 1983: 247): »From Balangoda [345], the road [south-east] to Uggal Kaltota [346] descends rapidly for twenty miles [32 km] along a ridge of hills that falls away sharply into the plains beyond the Welawe river. In the lower reaches of this ridge are three sets of caves: Those at Budugala, Kuragala and Diyainna.

343 CEYLON TRAVELLER (1974: 249; 1983: 251): »Cave dwellings are scattered throughout Sri Lanka ...« and »... include those at Paramakanda in the Puttalam district, Mihintale, Sasseruwa and Hindagala in the Anuradhapura district, Buddhanagehela near Padaviya, also in the Anuradhapura district, the Ritigala caves ... Galgiriya caves near Galgamuwa in the Kurunegala district and the caves at Dambulla, Sigiriya and Piduragala in the Matale district.«

344 There is not only Handagala (N08°33': E080°39'), the »populated place« (a city, town, village, or other agglomeration of buildings where people live and work) in Anuradhapura district but also Handagala (N06°39': E081°09'), a conspicuous, isolated rocky mass in the area where the districts of Badulla and Monaragala meet (SoC / SoSL sheet Buttala) between the town of Haputale (N06°46': E080°58') and Wellawaya (N06°44': E081°06').

345 Balangoda N06°38'57": E080°40'20" (WGS84)

346 Uggalkaltota N06°39'13": E080°52'32" (WGS84)

At an elevation of 600 feet [183 m asl] or so on the southern slope of the ridge and below two picturesque waterfalls lies the village of →Diyainna [347]. ... Farther west, along a track that continues from →Budugala [348] along the bottom of the ridge, lies the village of →Handagiriya on the banks of the Katupal oya. In close proximity is the site known as →Bellan Bendi Pelessa, one of the richest palaeontological sites discovered in this country ...«

SITUATION 2 (CEYLON TRAVELLER 1974: 254; 1983: 256): »North of Mahapelessa and Embilipitiya« (349).

APPROACH 1 (CEYLON TRAVELLER 1974: 245; 1983: 247): »Handagiriya may also be reached by a three-mile [5 km] jeep track from Weligepola [350], which is connected with Balangoda by a good road.«

CEYLON TRAVELLER (1974: 254; 1983: 256) confirms that »the Handagiriya ruins and caves« are approachable by »a very long walk« from via »tracks and footpaths from Weligepola (off Balangoda).

The Weligepola route is via the hamlets of Yatipasgamuwa [351] and Palugahawela [352]. There is a motorable road (and a bus service) from Balangoda to Weligepola, from where the road extends [extended in 1974] for a short distance. From there it is a long walk of about 14 miles« or 23 km.

APPROACH 2: CEYLON TRAVELLER (1974: 254; 1983: 256) points out that »the Handagiriya ruins and caves« are also approachable along »a very long walk« from the Pelmadulla [353] - Embilipitiya road.«

HAPOLA KETAWETTA NITRE CAVE

or: Hapolacadavette Nitre Cave

Unexplored and unmapped natural cave.

LOCATION: Uva province: Unidentified (Badulla or Monaragala) district: »Welassey district« (Davy 1821): Bibile area: Hepola village and Ketawatta village = »Hapolacadavette« (Davy 1821: 31) and »Ahopola Kad...te« (Davy 1821 map).

POSITION: Representative WGS84 coordinates (assumed EPE ±5 km) N07°09': E081°07' / N07.15°: E081.116667° (or so).

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave 22 (DAVY 1821: 31 footnote, »nitre-cave« no. 22) is said to lie in the obsolete »Welassey district« (354) in the vicinity of »Hapolacadavette« or »Ahopola Kad'te« (355), which appears to represent the populated places of Hepola

347 Diyainna, Diyawinna N06°35': E080°50' (WGS84)

348 Budugala N06°37'55": E080°52'25" (WGS84)

349 Embilipitiya N06°20'38": E080°50'56" (WGS84)

350 Weligepola N06°34': E080°42' (WGS84)

351 Yatipasgamuwa N06°33': E080°45' (WGS84)

352 Palugahawela is not identified.

353 Pelmadulla N06°37'28": E080°33'07" (WGS84)

354 »Welassey district« (DAVY 1821) is shown on the »Map of the Island of Ceylon« (DAVY 1821) in the area covered by the districts of Badulla and Monaragala district on the "Road Map of Sri Lanka" (Survey Department 1977).

355 »Hapolacadavette« (DAVY 1821: 31 footnote) is indicated »Ahopola Kad'te« on the »Map of the Island of Ceylon« (DAVY 1821) as a crossroad settlement where the town of Bibile is indicated on the "Road Map of Sri Lanka" (Survey Department 1977) in the area where the districts of Badulla and Monaragala meet.

(356) and Ketawatta (357) near the town of Bibile (N07°10': E081°13').

HAPOLACADAVETTE NITRE CAVE

see: Hapola Ketawetta Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 22.

HELAPITHALENA

Unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Helapitha, Helapitiya.

POSITION: (If within 25 km of Kegalla), Representative WGS84 coordinates (approximate EPE ±25 km) N07°15': E080°20' / N07.25°: E080.33333° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheets Dandagamuwa, Gampaha, Kandy, or Kurunegala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified "lena" (cave) or rock shelter called »*Helapithalena*« locates CEYLON TRAVELLER (1974: 254; 1983: 256) in one way or another »near« Kegalla (N07°15'11": E080°21'02" WGS84).

HENAGAHAPUGALA

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Southern province: Hambantota district: Henagahapugala.

POSITION: WGS84 (approximate EPE ±5 km) N06°05': E080°56' / N06.08333333°: E080.933334° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: Timbolketiya (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Possehl, G L 1988.

An unspecified cave, rock shelter or open air site called Henagahapugala (N06°05': E080°56') yielded microliths associated with a radiocarbon date of 2960 ±160 BP, calibrated to 1405-1020 BC (POSSEHL 1988: 178).

HENANEGALA CAVE

Archaeologically investigated but speleologically unexplored and unmapped natural or modified natural caves or rock shelters.

LOCATION: Eastern province: Amparai district: Maha Oya basin area: Henanegala.

POSITION: WGS84 N07°35': E081°17' / N07.58333333°: E081.28333333° <www.nima.mil/geonames> accessed 16.11.2003. MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Kusch, Heinrich 1973c.

So-called »*rock caves*« (CEYLON TRAVELLER 1974: 251; 1984: 253) or one »*cave*« (358) is named after the rock called Henanegala.

ETYMOLOGY: The Sinhala "galge" is a contraction of "gala" (rock) and "ge" (home, house).

SITUATION 1: CEYLON TRAVELLER (1974: 251; 1984: 253): The »*Henanegala cave*« lies in »*forbidding country*« north-west of the →Mutttagala cave, which itself lies west of the →Maharaksahela rock cave.

SITUATION 2: According to the position N07°35': E081°17' (www.nima.mil/geonames accessed 16.11.2003), Henanegala Cave lies about 9 km in a direct line approximately north-west of the town of Maha Oya (N07°32': E081°21').

SITUATION 3: KUSCH (1973c: 23) locates an »*Henanegala Cave*« (359) not only »in *Unuwaturabubula*« instead of near *Unuwaturabubula* (360) but also in »*Bintenna*« (361) near Maha Oya (N07°32': E081°21').

APPROACH: From the town of Maha Oya (N07°32': E081°21') a gravel road off to the »*left-hand side*« (north-west). The gravel road »*proceeds for about two and a half miles*« (some 4 km) beyond the seven hot springs collectively known as *Unuwaturabubula* (N07°32': E081°21'), Unawatura and also Unwatura (362).

Where the gravel road narrows down to a footpath, leave the track and strike out west for about »*three miles*« (5 km) to reach the »*caves*« at the base of an outcrop of rock between two streams.

356 Hepola (N07°11': E081°09') lies about 7 km in a direct line approximately west of Bibile (N07°10': E081°13').

357 Ketawatta (N07°06': E081°05') lies about 15 km in a direct line approximately WSW of Bibile (N07°10': E081°13').

358 Henanegala Cave N07°35': E081°17' (WGS84) is one of the eight "cave" entries of Sri Lanka listed on the 36,529 positions on the US American military website <www.nima.mil/> (accessed 16.11.2003).

359 KUSCH (1973c: 23): »*Abschliessend wäre noch die Henegala Cave im Gebiet von Unuwaturabubula (Bintenna) bei Maha Oya und die Nitre Cave bei Kaikawala in Uda [i.e. →Lunugala Lena] zu erwähnen.*«

360 »*Unuwaturabubula*« (KUSCH 1973c: 23) or »*Unwaturu Bibile*« (COOK 1931: 135) is the group of seven hot springs collectively called »*Unuwaturabubula*« (CEYLON TRAVELLER 1974: 251; 1984: 253), which "Road Map of Sri Lanka" (Survey Department 1977) indicates as »*Hot Spring*« near N07°33': E081°22'30" (Everest 1830) and about 1 or 2 km north of Maha Oya (N07°32': E081°23'30" Everest 1830).

361 The Sinhala "bintenne" or »*Beentenne*« (FORBES 1841, 2: 80) and »*Bintenna*« (KUSCH 1973c: 23) is said to translate literally into »*back of beyond*« and to connote the »*wilderness*« but the »*greater part of the Uva Province is known as Bintenne*« (CEYLON TRAVELLER 1983: 347). Additionally, there is a peak »*Bintenna 2372*« near N06°32': E080°58': 723 m asl shown on the "Road Map of Sri Lanka" (Survey Department 1977).

362 The Sinhala "watura" is »*water*« (LONELY PLANET, Sri Lanka 2003: 287) and "unwatura" (unawatura, unuwatura) is »*hot water*« (COOK 1931: 135).

HENEBADDA CAVES

see: Bendiya Galge 1 and 2

Ceylon Traveller 1974, 1983: 176.

»Two miles [3 km] ... west of Potuliyadde [Potuliyadda N07°16': E081°27'] are the Henebadda caves, where the veddahs once lived« (CEYLON TRAVELLER 1983: 176).

HENEBEDDA CAVE

see: Bendiya Galge 1 and 2

Ceylon Traveller 1974, 1983: 175; Deraniyagala, S U 1980: 157.

HINDAGALA VIHARA

Frequently visited but speleologically unexplored and unmapped natural sacred painted rock shelter (temple cave) under a single gravitationally dislocated boulder.

LOCATION: Central province: Kandy district: Paradeniya - Galaha road area: Hindagala.

POSITION: WGS84 N07°14': E080°36' / N07.23333°: E080.6° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kandy" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1973, 1983; Dhanapala, D B 1957, 1964; Kusch, Heinrich 1973c.

A modified natural sacred rock shelter or cave (temple cave) »on a crag under a boulder« (CEYLON TRAVELLER 1983: 36) is a Buddhist »vihara« contains rock art and a large reclining (recumbent) statue of Buddha (DHANAPALA 1957 reprinted 1964). At one end of the cave is a dagaba (dagoba, stupa).

SITUATION (CEYLON TRAVELLER 1983: 36): The Hindagala Vihara (363) is near the »6th mile« (10th kilometre) on the Paradeniya (364) - Galaha (365) road:

»Here, on a crag under a boulder, is a cave temple [or, more likely, a temple cave] of the late Kandy period.«

CULTURAL HISTORY - rock art: »On the outside and inside of the wall are paintings of the late Kandy period. On the cave roof below the drip-ledge are paintings for which the base has been prepared by spreading lime plaster on the rock. These may be among the earliest paintings of the island. The older paintings at Hindagala may belong to the Sigiriya period as the colours and the style of drawing are similar« (CEYLON TRAVELLER 1983: 36).

HINDAGALLA CAVE

Speleologically unexplored and unmapped natural cave.

LOCATION: Uva province: Badulla district: Uva Hills area: Namunukula: Hindagalla Estate.

POSITION: Representative WGS84 or Everest 1830 (assumed EPE ±2.5 km) N06°52': E081°06' / N06.8.6667°: E081.1° (Survey of Sri Lanka, One-Inch series: "Nuwara Eliya" sheet, 1972): 1520 m asl (or »5000 feet« Maa, T C 1980: 842).

MAPS: Survey of Ceylon / Sri Lanka sheet: Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Maa, T C 1980.

363 Hindagala (N07°14': E080°36') in Kandy district.

364 Paradeniya (CEYLON TRAVELLER 1983: 36) is probably the Paradeniya (N06°10': E080°57' on sheet Ambalantota) in Hambantota district, not the other Paradeniya (N07°06': E080°16' on sheet Avissawella or Gampaha) in Kurunegala district.

365 Galaha N07°12': E080°40' (WGS84) in Nuwara Eliya district.

An unspecified »Hindagalla Cave, Namunukula« (366) of unknown nature and character is not only good for swiftlets (*Collocalia brevirostris* Jerdon) but also for their parasites

SITUATION (MAA 1980: 842 after W W A Phillips 1954.07.04): In the Hindagalla Estate and at an elevation of »5000 feet« (1520 m asl), in the Uva Hills, near the mountain, village or estate of »Namunukula« (367) and, of course, in one way or another »inland« from →Caltura (TENNENT 1860: 248).

CAVE LIFE: MAA (1980: 842-843, fig. 9) gives taxonomical descriptions louse flies (Diptera: Hippoboscidae: *Myophthiria* Rondani 1878) including *M. zeylanica* sp. nov. (368), of which two male paratypes (described by H. Oldroyd as *M. lygaeoides*) collected W.W.A. Phillips (1954.07.04) from »Hindagalla Cave, 5000 feet (1520 m asl), Uva Hills, Namunukula« (369).

EXPLORATION HISTORY: 1954.07.04: W.W.A. Phillips collected on »4 VII 1954« specimens of louse-flies (Diptera: Hippoboscidae: *Myophthiria*) from unspecified hosts (MAA 1980: 842).

366 The Hindagalla Cave (N06°52': E081°06') in the Uva Hills and around the corner of the town of Ella (N06°52': E081°03'), is not to be confused with the temple cave →Hindagalla vihara (N07°14': E080°36') on the road from Kandy approximately south and south-west via Paradeniya to Galaha (N07°12'00": E080°39'58" WGS84).

367 The Survey of Ceylon (later: Survey of Sri Lanka) sheet "Nuwara Eliya" (One-Inch series, 1972 edition) indicates both the estate Hindagalla and the village of Namunukula at a travelling distance of 10 miles (16 km) along the road from Ella (N06°52': E081°03') generally east towards Passara (N06°56': E081°09').

368 Out of the six specimens of *M. zeylanica* studied by MAA (1980), the male holotype (described by O. Theodor as *M. reduvioides*) had been collected (N. Ueshima 1966.10.27) from an unspecified location (nest of *Collocalia fuciphaga*) at »Hunasgiriya« which appears to correspond either to the village of »Hunnasgiriya« (N07°18': E080°51') or to the estate »New Hunasgiriya« (N07°22': E080°41') on the approach to →Lunugala Galge.

The female holotype had been collected (P. Strinati 1970.01.16 ex *C. brevirostris unicolor*) from Rawanaella Cave, Ella. Two male paratypes of *M. zeylanica* Maa 1980 (described by H. Oldroyd as *M. lygaeoides*) collected W.W.A. Phillips (1954.07.04) from »Hindagalla Cave, 5000 feet (1520 m asl), Uva Hills, Namunukula.«

369 MAA (1980: 842) gives no clue from which host W.W.A. Phillips had collected the specimens but AELLEN, SKET & STRINATI (in JUBERTHIE & DECU 2001: 1978) decided that *M. zeylanica* Maa 1980, had been »collected in nests of *Collocalia fuciphaga* and *Collocalia unicolor*, in Rawanaella and Hindagalle [sic] caves:«

HITUWA LENA

or: Daftur Jailani, Kuragala Cave, Kurugala Cavern

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte cave (temple cave) with fabulous tunnel in gravitationally dislocated granite boulders.

LOCATION: Sri Lanka: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area: Kaltota: Tanjantenna (Tanlantenna) village: Kurugala (Kuragala) rock.

POSITION: Unspecified map datum possibly Everest 1830 (unspecified EPE) N06°37'20": E080°52'05" / N06.62222222°: E080.86805556° (WILSON, J M 1988: 23): 500 m asl (WILSON, J M 1988: 23).

MAP: Survey of Ceylon / Sri Lanka one-inch sheet: Haputale.

SPELEOMETRY: Length: Estimated 42 m. Vertical range: Estimated ±30 m (+0m / -30m).

BIBLIOGRAPHY: Basset, Ralph Henry 1929; Ceylon Traveller 1974, 1983; Hausig, Hans Wilhelm 1984; Morgan, Robert 1943; Sri Lanka 1985; Wilson, Jane M 1988.

WEBSITE: <www.jailani.org/chapt-4b.htm> accessed 2009.09.17.

At least four entrances (WILSON 1988) give access to modified natural temple cave in gravitationally dislocated granite boulders, which once had been a Buddhist sanctuary or had been sacred to the goddess »Kurukulla« (370) but now is exploited as a Muslim shrine associated with Abdul Qadir Jailani / Jailani, an Iraqi *pir* (holy man). No wonder, the religious establishment is endowed with a fabulous underground tunnel which currently runs underground all the way to Mecca.

ETYMOLOGY: So far, I saw the "lena" (cave) of Hituwa called, spelled, transcribed (romanised), or edited as

Daftur Jailani (371)	WILSON (1988: 23)
Hituwalena Cave	WILSON (1988: 23)
Kuragala cave temple	WILSON (1988: 23)
Kurugala cavern	CEYLON TRAVELLER (1983: 154)
Kurugala cliff cave	MORGAN (1943: 13)
Kurukulla cave	ELIOT (1921, 3: 389)

SITUATION: Indicated on tourist maps (372), Hituwalena lies at an attractive forested location where one spectacular entrance looks out across miles of paddy fields over 300 m below (WILSON 1988: 23).

Lying at travelling distances of about »15 miles« (25 km) east-south-east of Balangoda (373), and 10 or 15 km south-south-west of Haputale (374), the site is accessible by car along a reasonable metalled road (in 1988 with numerous potholes).

SITUATION 1929: BASSET (1929: not seen) is said to locate »the entrance ... in the face of a cliff a short climb down from the summit« and »beneath a huge mass that towers fifty feet above on the edge of a 600-foot precipice ...«

SITUATION 1943: MORGAN (1943: 13 after BASSET 1929: not seen) is said to place the »cave in the Kurugala cliff« at a spot which lies in an unspecified spatial relation »near Molamure« (375).

SITUATION 1974: CEYLON TRAVELLER (1974, 1983: 154) places in the vicinity of the Circuit Bungalow at »Uggal Kaltota« (376), both »Budugala cave temple« and »Kurugala cavern« lie at a walking distance of »two miles« (about 3 km) from »MP 14« (mile post 14, kilometre 22.5) on the road from Balangoda (377) initially ESE and later NE to Uggal Kaltota.

SITUATION 1988: WILSON (1988: 23) refers initially to the »Kurugala and Budugala cave temples« and then positions »Hituwalena Cave at Kurugala« on the Survey of Ceylon »Haputale 1" map« (unidentified issue) near the coordinates »6° 37' 20"N 80° 52' 05"E: altitude about 500 m« (unspecified map datum probably Everest 1830) but I cannot figure out if these coordinates are meant indicate the position of the village or that of the cave itself.

SITUATION ????: <www.jailani.org/chapt-4b.htm> (accessed 2009.09.17): »This cave is at the top of the Balangoda Plateau and overlooks the Kaltota Plains about 500 feet below.«

APPROACH: CEYLON TRAVELLER (1974: 245; 1983: 247) recommends to take a footpath along an irrigation channel near Tanjantenna / Tanlantenna, a village near »Kaltota« (unidentified: short for Uggal Kaltota?) on the road from Balangoda to »Uggal Kaltota« or Uggalkaltota.

The Kuragala rock is clearly seen from the way to →Budugala: »The massive Kuragala rock on the mountainside above contains the Kuragala cave and the Jailani Muslim shrine.«

370 HAUSIG (1984, 5: 398) refers to a certain »Höhle des Berges Kurukulla« (cave of the hill Kurukulla), which, according to Manfred Moser (2006.09.10: Personal correspondence), is sacred to the four-armed goddess of love (Kama?). According to ELIOT (1921, 3: 389, 394), however, Kurukulla is »a goddess of riches [welfare, fortune], inhabiting caves« among the goddesses venerated by both Buddhists and Hindus in Tibet and Nepal.

371 The original Arabic "daftar" is from the Greek διφθερα (in Latin: membranum), a »parchment« and thin paper (whence also diptheria) and was applied to loose sheets filed on a string, which formed the record of accounts; hence "daftar" becomes a register, a public record. In Arabic, any account book is a "dafter" and in South India "daftar" means a bundle of connected papers tied up in cloth, the "basta" of Upper India.

YULE & BURNELL (1886, edited by CROOKE 1903: 329): »Dufter ... daftar. Colloquially 'the office,' and interchangeable with cutcherry, except that the latter generally implies an office of the nature of a Court. Daftar-khana is more accurate, but this usually means rather a record-room where documents are stored.«

372 »Kuragala Cave« (APA map, s.a., Sri Lanka 1: 450,000, Nelles), »Hituwalena Höhle« (Sri Lanka 1985, Merian location map).

373 Balangoda N06°38'57": E080°40'20" (WGS84).

374 Haputale, town N06°46': E080°58'

375 Molamure N06°36'40": E080°50'13" <www.nima.mil/>

376 Uggal Kaltota (CEYLON TRAVELLER 1983: 154) or Ukgal Kaltota (WILSON 1988: 23) and Uggalkaltota N06°39'13": E080°52'32" <www.nima.mil/geonames> accessed 16.11.2003 is indicated as »Uggalkaltota« on the "Sri Lanka Road Map" (Survey Department 1977).

CEYLON TRAVELLER (1983: 154): The circuit bungalow at »Uggal Kaltota« lies on a lovely stretch of the Walawe River (A) and at the foot of the Tanjantenna escarpment (B).

B: Walawe Ganga or Walawe Oya (N06°06': E081°01'), not the other Walawe Ganga (N06°19': E080°54').

B: The »Tanjantenna escarpment« (CT 1983: 154) is called after village of »Tanlantenna« (CT 1983: 247) positioned, again both as Tanjantenna and as Tanlantenna near N06°38'10": E080°51'13" (WGS84 <www.nima.mil/> accessed 16.11.2003).

377 There is not only the town of Balangoda (N06°38'57": E080°40'20") on the main road A4 (Survey Department 1977: Road Map of Sri Lanka) but also an Upper Balangoda (N06°39': E080°41' <www.nima.mil/> accessed 16.11.2003).

CAVE DESCRIPTION 1929 (BASSET 1929): »The cave ... is entirely natural, bearing no signs of artificial excavations or of ritual adornment. The entrance is situated in the face of a cliff a short climb down from the summit where on entering there is a large "hall" from which two passages lead off on either hand. The right hand passage is seen to extend for at least 50 yards into the depths of the earth before merging into the general darkness of the shadows. On the opposite side of the entrance hall, a narrow passage leads out on to the meditation "ledge" [note 10], a niche in the sheer side of the cliff, some 6 foot by 4 foot with an overhanging roof of rock. Here seated beneath a huge mass that towers fifty feet above on the edge of a 600-foot precipice, a hermit can find solitude indeed and food for contemplation in the unbroken ocean of trees spread out below him. Entering from a small hole in the rock, at the back an atmosphere of complete detachment pervades the occupant of the tiny ledge. Earthly considerations lose their importance before the uncomplicated immensity of the colossal landscape and the fatality of the sheer abyss.«

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974: 245; 1983: 247): »From the entrance chamber a branch of the cave slopes steeply downwards and is (perpendicularly) one of the deepest in the island.«

CAVE DESCRIPTION 1988: WILSON (1988: 23, with photograph showing one of at least entrances): »The cave is small. Through-drafts [air current, air flow] between at least four entrances keeps the humidity low ... A small tunnel, about 12 m long, which leads off the 2 m high meditation chamber drops into a narrow, almost vertical fault in the granite rock which descends at least 30 m to a low level entrance in the cliff face.«

CAVE DESCRIPTION : <www.jailani.org/chapt-4b.htm> (accessed 2009.09.17): »A cave that can be negotiated for about 200 feet [61 m]. Inside is a light that appears from a crevice - no miracle but the sun light filtering in from below ...«

CAVE POTENTIAL: Pot-holing cavers and spelunkers are told that the two villages of »Budugala and Kurugala are accessible by car along a reasonable metalled road with numerous pot-holes« (WILSON 1988: 23).

CULTURAL HISTORY: CEYLON TRAVELLER (1974: 245; 1983: 247) reports from »... Kurugala cave and the Jailani Muslim shrine ... [an] interesting feature, but of age unknown, is a profusion of palm-prints [rock art: paintings], such as Casteret describes from his Pyrenean discoveries.«

WILSON (1988: 23) refers initially to »Kurugala and Budugala cave temples« but then explains that the »Hituwalena Cave at Kurugala ... was a Buddhist monastery in the second century BC. Now it is a Muslim shrine which attracts many pilgrims; it is also known as Daftur Jailani and is where an Iraqi holy man is said to have spent 12 years in meditation.« Little doubt remains that there is a fabulous tunnel or »passage « (sic!), which »is said to lead from the cave all the way to Mecca.«

HUMAN USE: The cave attracts many pious visitors / pilgrims and can be considered a religious show cave.

SPELEOMETRY:

source	tunnel	chamber	rift	length	depth
BASSET (1929)	46 m	--	--	46 m	--
WILSON (1988)	12 m	--	30 m	42 m	30 m
www.jailani.org	--	--	--	61 m	--

CAVE POTENTIAL: Other caves and / or shelters in the vicinity are →Bambaragala Shelter, →Budugala Caves, →Diyavinna Cave, →Lunu Galge and →Udupiyan Galge.

CAVE LIFE: WILSON (1988: 23) observed "cave

invertebrates" and reports a population of large fruit bats (Chiroptera: Macrochiroptera) using the low level entrance as a habitat.

<www.jailani.org/chapt-4b.htm> (accessed 2009.09.17) narrates a tale according to which »a large python had its abode in this cave for many years and bats too are to be found inside« (378).

HO-O MANIYA BLOW HOLE

A well-known but speleologically unexplored and unmapped natural sea cave and blowhole, geo, gloop or gloup.

LOCATION: Southern province: Hambantota district: Matara - Tangalle (Tangalla) area: Dikwella village.

POSITION: WGS84 ±3 km N06°00': E080°45' / N06.00°: E080.75° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified but probably either "Ambalantota" or "Matura" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Lonely Planet, Sri Lanka 2003.

The noisy and (sometimes) spectacular »Ho-o-maniya blowhole« (LONELY PLANET, Sri Lanka 2003: 152) or »Hoom-mane blow-hole« (CEYLON TRAVELLER 1984: 66-67) gets its onomatopoeic name from the deep rumble one hears just before the water shoots up (379).

According to CEYLON TRAVELLER (1984: 66-67), it is the only one in Ceylon (renamed Sri Lanka) and the second of the six largest known in the world (no rivals mentioned).

SITUATION 1 (CEYLON TRAVELLER 1984: 66-67): About »a mile« or one or two kilometres beyond Mawella Kalapuwa (380) and near the »117th mile« on the road from Matara (N05°56'55": E080°32'34" WGS84) to Hambantota (N06°07': E081°07'), a narrow track to the right leads to the »stentorian hoom-mane.«

SITUATION 2 (LONELY PLANET, Sri Lanka 2003: 152): About 6 km northeast of Dikwella (381), near the 186 km post, a road head off for 1 km to the »Ho-o-maniya« blowhole.

HOLE DESCRIPTION 1 (CEYLON TRAVELLER 1984: 66-67): The orifice is at the top of a fissured cliff about 20 or 25 m above sea level. At the bottom of this deep fissure is a flat rock covering the narrow channel which forms the cave into which the waves roll. The water, trapped by a surging sea, is forced upwards and shoots out through the small hole in the top. 'Hoom-mane' gives its most spectacular displays in June when the south-west monsoon is at its worst. A fountain of water shooting up to perhaps 15 or 18 m, depending on the force of the waves, culminates in a mushroom-like formation which descends in a fine spray to drench you. Villagers say that when the sea is really rough, the spout even reaches up to a height of 'three coconut trees'.

378 The circumstances remain unclear but it is possibly not too extravagant to surmise that the bats are not »to be found inside« the python but inside the cave.

379 Blowhole. »Cliff top entrance to a sea cave, also known as geo, gloop or gloup« (LOWE & WALTHAM 1995: 5).

380 Mawella Kalapuwa, a brackish lagoon near N05°59': E080°44' (WGS84), lies on the right-hand side of the »116th mile« (CEYLON TRAVELLER 1984: 66) or kilometre 187 on the road from Matara (N05°56'55": E080°32'34" WGS84) to Hambantota (N06°07': E081°07' <www.nima.mil/geonames> accessed 16.11.2003).

381 Dikwella N05°58': E080°41'

HOLE DESCRIPTION 2 (LONELY PLANET, Sri Lanka 2003: 152): »During the south-west monsoon (June is the best time) high seas can force water 23 m up through a natural chimney in the rocks and then spout out up to 18 m in the air. At other times the blowhole is disappointing [on the surface but accessible from below].«

CAVE POTENTIAL: »The intrepid, it is said, could walk into this cave during the calm seasons. Good luck to them!« (CEYLON TRAVELLER 1984: 67).

HOOM-MANE BLOW-HOLE

see: Ho-o Maniya Blow Hole

Ceylon Traveller 1974, 1983: 66-67.

HULANUGE CAVE

Unexplored (archaeologically investigated) and unmapped modified natural rock shelter.

LOCATION: Sri Lanka: Uva province: unidentified (Amparai or Monaragala) district: Siyambaladuwa: Hulanuge.

POSITION: WGS84 (without recorded EPE) N06°55': E081°40' / N6,91666667°: E81,66666667° (<www.nima.mil/geonames> accessed 16.11.2003).

MAPS: Survey of Ceylon sheet: Pottuvil; AMS sheet: NB44-03.

SPELEOMETRY: Not known.

A very shallow and entirely daylight-lit but »720 feet« (220 m) wide undercut is used as a picnic spot and praised on immoderate Internet websites as the »longest cave in Asia« (382) or, slightly less extravagant, »the longest cave (720 ft) in south Asia« (383).

SITUATION: Somewhere in the vicinity of a place called Hulanuge (N06°55': E081°40') which lies at linear distances of 12 km east of Siyambaladuwa (N06°54': E081°33'), where there is the →Alu Galge there, and 17 km east of →Kiwuleyaya (N06°55': E081°30') and it's »Rock Cave.«



HULANUGE "CAVE"

»The longest cave in Asia«

www.panoramio.com/photo/24818932

HUNUGALA LENA

or, perhaps: St. Martin's Pothole

Unexplored and unmapped natural cave, possibly in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous

382 <www.panoramio.com/photo/24818932> accessed 2009.09.17.

383 <researchandmedia.ning.com/profile/NuwanLiyange?xg...> accessed 2009.09.17

granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »Doombera district« (Davy 1821), »Dombera« (FORBES 1840, 1841. ii: 240), »Nitre Cave district« (LEITER 1948: 61) or in »Uda« (KUSCH 1973c) area: Corbett's Gap / Corbets Gap (Attala-mettuwa, Corbets Gap): Loolwatta (Loolowatte, Loolwatte) via »Kaikiwala« (URAGODA 1973) or »Kaikawala« (KUSCH 1973c) to Mimure (Meemoorra, Meemora, Meemure, Memora, Mimura).

POSITION: (If at St. Martin's tea estate itself), Representative WGS84 coordinates (assumed EPE ±2.5 km) N07°24': E080°51' / N07.4°: E080.85° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Rangala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Peet, Geoffrey A 1946.

A »small fissure« (PEET 1946: 94) without identified dimensions is possibly identical with one of the →St. Martin's Potholes (whirlpools).

ETYMOLOGY (PEET 1946: 94): "Hunu Gala" means »White Crystal Rock.«

SITUATION: Under a crystalline limestone escarpment and at the side of a small waterfall at Hunu Gala (384) or White Crystal Rock in the vicinity of St. Martin's Tea Estate (385).

CAVE DESCRIPTION (PEET 1946: 94): »I cannot reconcile it with a water worn cavity as in limestone one might reasonably expect to see the stream issuing from the fissure being presumably the lower water level; and not over the edge of an escarpment 20 feet higher. The fissure appears to be an unfilled, exvo ed [sic!] dome where there has been slight anticlinal folding of the upper layers of rock, the lower ones having slipped.«

EXPLORATION HISTORY: 1945 July: Geoffrey A. Peet investigated.

IMPRISONED SEA- SERPENT, cave of the

Unexplored and unmapped fabulous cave.

LOCATION: Southern province: Galle district: Unawatuna: Velle Kovila.

POSITION: WGS84 N06°01': E080°15' / N06.016667°: E080.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Galle" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Lonely Planet, Sri Lanka 2003.

»Unawatuna [386] is not only steeped in legend, is also the suburb where the Dutch commanders and merchants either resided or had their 'Buiten Plaatsen' —country residences. ...[the third,] with its wooden posts, large doors and windows, is situated on the winding road to the 'Velle Kovila.' Many strange tales are told of this Kovil, especially that of the 'Cave of the imprisoned sea-serpent' « (CEYLON TRAVELLER 1983: 61).

384 »Hunu Gala« (PEET 1946: 94) is not identified. From Saint Martins N07°24': E080°51' (tea estate) about 50 km in a direct line approximately SSW is one Hunugala N06°59': E080°42' (tea estate).

385 Saint Martins (tea estate) N07°24': E080°51' (www.nima.mil/geonames accessed 16.11.2003).

386 Unawatuna (N06°01': E080°15') or »Una Vatuna« (Eckrich 1984, pers. comm.) lies about 5 km (LONELY PLANET, Sri Lanka 2003: 141) south-east of Galle (N06°3'13": E080°12'42" WGS84).

ISFAHANI, cave of Al-

or: Grotte des el-Isfahani

Unexplored and unmapped modified natural troglodyte rock shelter.
LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.
BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

One or several unspecified troglodyte »grottoes« (387) are associated with a Muslim saint called »Al- Isfahani.«

SITUATION: At a difficult to reconstruct location (388) somewhere beyond the »Pass of Iskandar« on a route from a place called »Kunakar« (see: Cave of →Ustad Mahmud the Lur) via the »Lake of Monkeys« and across a certain »Pass of Iskandar« on the way to the »Mountain of Sarandip« (Adam's Peak WGS84 N06°48'30": E080°29'53": 2134 m asl).

ISKANDAR CAVE

see: Sultan, cave of the

Gibb, Hamilton A R and Beckingham, Charles F 1994 edition of: Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 853.

ISTA MAHMUD, cave of

see: Usta Mahmud the Lur, cave of

Lee, Samuel 1829 edition of Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 187.

ISTRIGAL-LENA

see: Istripura Cave, Welimada

Aellen, Sket, Strinati 2001: 1977 fig. 1; Strinati, Pierre & Aellen, Villy 1981: 459.

ISTRIGAL-LENA (cave)

see: Istripura Cave, Welimada

Deraniyagala, Paulus Edward Pieries 1965: 144 figure 21.

ISTRIGAL-LENA, Välimada

see: Istripura Cave, Welimada

Deraniyagala Paulus Edward Pieries 1965: 143.

ISTRIGAL-LENA, Welimada

see: Istripura Cave, Welimada

Brignoli, Paolo Marcello 1972: 924, 927; Courbon, Paul & Chabert, Claude 1986: 81; Strinati, Pierre & Aellen, Villy 1981: 459.

ISTRIPURA CAVE, 1st

see: Istripura Cave, Welimada

Ceylon Traveller 1974: 240, 1983: 242.

ISTRIPURA CAVE, 2nd

see: Istripura Cave, Pannala

Ceylon Traveller 1974: 240-241; 1983: 242-243.

ISTRIPURA CAVE, 3rd

see: Istripura Cave, Kosgolla

Ceylon Traveller 1974: 241, 1983: 243.

ISTRIPURA CAVE (AELLEN et al. 2001)

see: Istripura Cave, Welimada

Aellen, Villy, Sket, Boris & Strinati, Pierre 2001: 1977.

ISTRIPURA CAVE (Aruk Vatta)

see: Istripura Cave, Pannala

Deraniyagala Paulus Edward Pieries 1956: 117.

ISTRIPURA CAVE / CAVERN (No 1)

see: Istripura Cave, Welimada

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 27.

ISTRIPURA CAVE / CAVERN (No 2)

see: Istripura Cave, Pannala

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 28.

ISTRIPURA CAVE (COORAY 1967)

see: Istripura Cave, Pannala

Cooray, Gerald P. 1967: 97.

»A large subterranean chamber with good stalagmites and stalactites as well as a large lake, 120 yards long, 50 yards wide, and 20 feet deep is present at Istripura« (COORAY 1967: 97).

IDENTITY: All of the three most famous Istripura caves (Kosgolla, Pannala, Welimada) contain a lake but only the →Istripura Cave (Pannala) features both a »large subterranean chamber covered with stalagmitic deposits« and a »lake about 120 yards [110 m] long and about 50 yards [45 m] wide, which is about 20 feet [5.5 m] deep in places ...« while

→Istripura Cave (Kosgolla) is an »extensive cavern ... festooned with stalagmite« which also »contains, among other things, a lake« and

→Istripura Cave (Welimada) is a »complex of caves« which »contains a lake of very cold water« (389).

ISTRIPURA CAVE (ECKRICH 1984)

see: Istripura Cave, Pannala

Eckrich, Michael 1984: Bat cave distribution map.

387 GIBB (1929 edition of Ibn BATTUTA, edited 1998: 258) has »a number of grottoes« but LEICHT (1999 edition of Ibn BATTUTA) just one »Grotte des el- Isfahani.«

388 GIBB (1929 edition of Ibn BATTUTA, edited 1998: 853): »From the Cave of [->] Baba Khuzi we continued our journey to the [->] seven caves, then to the pass of Iskandar, the grotto of Al-Isfahani and a spring and an uninhabited castle ...«

389 DERANIYAGALA (1956: 118), DERANIYAGALA (1958), CEYLON TRAVELLER (1974: 240-241; 1983: 242-243).

ISTRIPURA CAVE, Hanguranketa

see: Istripura Cave, Pannala

Aellen, Villy, Sket, Boris & Strinati, Pierre 2001: 1977.

»In 1981, the Istripura Cave near Hanguranketa and the area of Jaffna Peninsula has been visited by a group from Ljubljana University (Slovenia) headed by B. Sket« (AELLEN, SKET & STRINATI 2001: 1977).

SITUATION: All three of the known Istripura caves do, of course, lie in one way or another »near« the town of Hanguranketa (N07°10'38": E080°46'43" WGS84) or, to be precise (linear distances),

cave from Hanguranketa toposheet district

I. Kosgolla 25 km ESE Hanguranketa Nuwara Eliya

I. Pannala 11 km East Hanguranketa Nuwara Eliya

I. Welimada 28 km SSE Nuwara Eliya Badulla

IDENTITY: AELLEN et al. (2001 fig. 1: Location map) indicate one »2 = Istripura« near 07°55'N: E080°55' and if »4 = Istripura« is the same as the »Istripura Cave near Hanguranketa« (AELLEN et al. 2001) then it appears to be →Istripura Cave (Pannala).

Likewise, the location map in DERANIYAGALA (1956: 117 fig. 1) indicates the location of →Istripura Cave (Pannala) and shows »a tracing from Survey Map sheet. J. 21. 22. M1, M2. (Hanguranketa)«

CAVE LIFE: AELLEN, SKET & STRINATI (2001) list from »Istripura Cave near Hanguranketa« Myriapoda: Diplopoda: Cambalopsidae: Trachyiulus aelleni (Mauries? 1981?), a milliped with five to seven ocella; Insecta: Hemiptera: Reduviidae Emesinae: Lutevula hortensia Distant; Insecta: Diptera: Milichiidae: Phylomyza zeylanica Papp 1984, with eyes and yellow »halteres« (sic!); Isopoda: Protojaniridae: Anneckella srilankae Sket 1992.

ISTRIPURA CAVE, Kosgolla

or: Istripura galgé (Mulhalkälé), 3rd Istripura Cave (Mulhalkelle), Istripura Caves (Mulhalkele)

Archaeologically investigated but speleologically unexplored and unmapped natural cave, probably in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulate (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Nuwara Eliya district: Mahaveli Ganga: Kurunda Oya valley area: Mulhalkelle (Mulhalkäle, Mulhalkalle, Mulhalkele) - Watamula (Wattamula): Kosgolla (Kosgolla) village.

POSITION: Estimated Everest 1830 (assumed EPE ±1 km) N07°07': E080°53' / N07.11667°: E080.88334° (after Survey of Sri Lanka One-Inch series sheet Hanguranketa): 600 m asl (±30 m, or »just under 2,000 feet«; CEYLON TRAVELLER 1974: 241, 1983: 243).

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Estimated 120 m.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1955.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 29.

An »extensive« or an estimated »400 feet« (122 m) long »cave« displaying »much stalagmite« (DERANIYAGALA 1955) or »cavern festooned with stalagmite« (CEYLON TRAVELLER 1974) contains not only speleothems but also a »large subterranean lake« (DERANIYAGALA 1955).

IDENTITY: The »Istripura galgé near Mulhalkälé« (DERANIYAGALA 1955: 301) is obviously the same as the »third Istripura cave near the village of Kosgolla in the valley overlooking Mulhalkalle (Watumulla)« (CEYLON TRAVELLER 1974: 241; 1983: 243).

This "Kosgolla cave" (Nuwara Eliya), however, is not to be confused with the likewise speleothem-rich →Kosgolla Cave (Ratnapura) or →Kosgala Caves (Ratnapura).

SITUATION: In way or another, the Istripura cave at Kosgolla is »not far« (about 4 km in a direct line south) from the →Istripura Cave (Pannala) and somewhere in the vicinity of the village of Kosgolla (N07°07': E080°53'), which lies about 3 km in a direct line north-east of the villages of Mulhalkelle / Mulhalkele (390) and Watamula / Wattamula / Watamulla (391) on the road from Kandy (N07°17'47": E080°38'06" WGS84) generally south-east and at travelling distances of 37 miles (59.5 km) from Hanguranketa (N07°10'38": E080°46'43" WGS84) and 38 miles (61 km) from Ragala (N07°00'28": E080°51'14" WGS84).

SITUATION 1955: DERANIYAGALA, P E P (1955: 301) places »Istripura galgé near Mulhalkälé.«

SITUATION 1974: CEYLON TRAVELLER (1974: 241; 1983: 243) locates the »third Istripura cave ... near the village of Kosgolla in the valley overlooking Mulhalkalle (Watumulla) on the Kandy - Hanguranketa road. It lies on the right bank of the Kurunda oya [392], which flows into the Mahaveli due north about six miles [10 km] as the crow flies.«

CEYLON TRAVELLER (1983: 154): »Highly impressive caves ... at Kosgolla« (sic) lie at a travelling distance of »5 miles« (about 8 km) from the rest house at Ratnapura.

CAVE DESCRIPTION 1955 (DERANIYAGALA 1955: 301): »This extensive cave displays much stalagmite, and possesses floor deposits containing bones, Podomus shells and lithic artifacts cemented together. It also contains a large subterranean lake.«

CAVE DESCRIPTION 1974 (CEYLON TRAVELLER 1974: 241; 1983: 243): »This extensive cavern [...] is festooned with stalagmite. The subterranean monster, which contains, among other things, a large lake, is 400 feet or so [122 m] in length –certainly one of the largest in the country.«

ISTRIPURA CAVE, Mulhalkälé

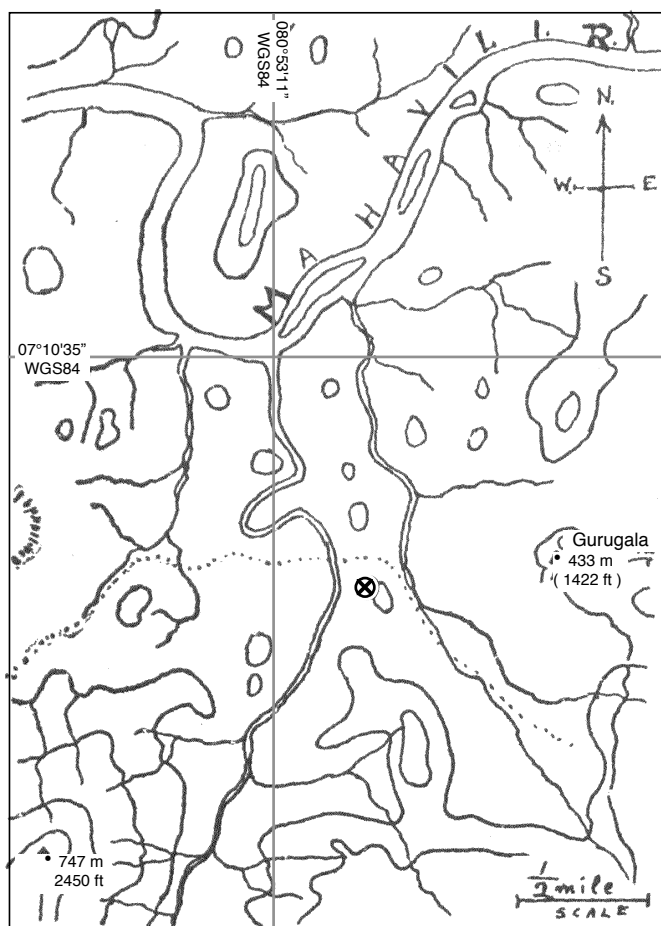
see: Istripura Cave, Kosgolla

Deraniyagala Paulus Edward Pieries 1955: 301.

390 »Mulhalkälé« (DERANIYAGALA 1955: 301), »Mulhalkällé« (DERANIYAGALA 1956: 117) and »Mulhalkalle« (CEYLON TRAVELLER 1974: 241; 1983: 243) is the »Mulhalkelle« on the Survey of Sri Lanka toposheet "Hanguranketa" (One Inch series) shown as »Mulhalkele« on the Road Map of Sri Lanka (Survey Department 1977) and positioned as Mulhalkelle and Mulhalkele N07°05'47": E080°51'34" (WGS84) near the tea estate Mulhalkelle / Mulhalkele N07°06': E080°51' <www.nima.mil/geonames> (accessed 16.11.2003).

391 »Watumulla« (DERANIYAGALA 1955; CEYLON TRAVELLER 1974: 241; 1983: 243) is indicated both as »Watumulla« (village) and »Wattamulla« (estate) on the Survey of Sri Lanka toposheet "Hanguranketa" (One Inch series). It also is Watumulla N07°06': E080°52' <www.nima.mil/geonames> accessed 16.11.2003.

392 Kurunda Oya N07°05': E080°50' <www.nima.mil/geonames> accessed 16.11.2003.



ISTRIPURA CAVE (Pannala)

DERANIYAGALA (1956: 117 Fig. 1):

»The dotted line is a footpath. To it's south, the location of Istripura cave is shown as a circle with a cross. A tracing from Survey Map sheet J. 21. 22. M 1, 2. (Hanguranketa). The entrance [N07°10'30": E080°53'30" Everest 1830] lies about 1.5 miles [2.4 km] south of the bend of the Mahaveli [Mahaveli] River and on the side of a hill between two tributaries of this river, the larger of which is the Kurundu oya«

<www.nima.mil/geonames> (accessed 16.11.2003):
Kurundu Oya N07°10'35": E080°53'11" WGS84

ISTRIPURA CAVE, Mulhalkelle (Watumulla)

see: Istripura Cave, Kosgolla

Ceylon Traveller 1974: 241, 1983: 243.

CEYLON TRAVELLER (1974: 241; 1983: 243) locates the »third Istripura cave« →Istripura Cave (Kosgolla) »near the village of Kosgolla in the valley overlooking Mulhalkelle (Watumulla) on the Kandy - Hanguranketa road.«

ISTRIPURA CAVE, Pamala

see: Istripura Cave, Pannala

Siffre.Michel 1975: 29.

ISTRIPURA CAVE, Pannala

or: Istripura cave (Aruk vatta), Istripura Cave (Hanguranketa), grotte d'Istripura (Pamula)

Biospeleologically investigated but speleologically unexplored and unmapped natural cave in »limestone« (DERANIYAGALA 1956: 118) or Precambrian (COORAY 1967) to Cambrian (DOMRÓS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Nuwara Eliya district: Mahaveli Ganga: Kurundu Oya valley: Victoria Falls - Minipe area: Pannala II village, Aruk vatta (Arukwatta).

POSITION: Unspecified map datum probably Everest 1830 coordinates N07°10'30": E080°53'30" / N07.175°: E080.8916667° (DERANIYAGALA 1956: 117): 260 m asl (DERANIYAGALA 1956: 118) or 240 m asl (STRINATI & AELLEN 1981: 459) or »just under 2000 feet« corresponding to 610 m asl (CEYLON TRAVELLER 1974: 241; 1983: 243).

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Estimated 600 m. Vertical range: Estimated ±31.5 m (+14 m / -18 m).

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Brignoli, Paolo Marcello 1972; Ceylon Traveller 1974, 1983; Cooray, Gerald P 1967; Courbon, Paul & Chabert, Claude 1986, 1989; Deraniyagala Paulus Edward Pieries 1956, 1958, 1965; Middleton, John & Waltham, Anthony "Tony" C 1986, 1989; Villiers, A 1970; Wilson, Jane M 1988; Siffre, Michel 1975; Strinati, Pierre & Aellen, Villy 1981.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 28.

A south-west facing »gash« (DERANIYAGALA 1956: 118) or large opening (SIFFRE 1975: 29) is or, perhaps, had been the "large" entrance (unidentified dimensions) to one of the largest known caves of Sri Lanka.

CAVE POTENTIAL 1974: CEYLON TRAVELLER (1974: 241; 1983: 243) regards the Istripura Cave (Pannala) as one of the largest caves of the island.

CAVE POTENTIAL 1975: SIFFRE (1975: 29) confirms that »Istripura est probablement la plus longue caverne de que j'aie explorée à Ceylan. Autant que je puisse en juger, puisque je n'ai pas levé sa topographie, la grotte est environ six cents mètres de longueur« (... is probably the longest cave which I visited in Sri Lanka).

CAVE POTENTIAL 1981: STRINATI & AELLEN (1981: 459) list »Istripura Cave près de Pannala, Carte Hanguranketa« without mentioning any length but ascribed (erroneously?) a length of about 600 m to the second cave of »Istri-gal-lena« which is the →Istripura Cave (Welimada).

CAVE POTENTIAL 1995: Brooks (1995 Mss item No 28) was lead to declare, and possibly believed this tale, that the »Istripura Cave/cavern (No 2)« is »now« (since 1984) a »completely flooded cave« as if it were submerged in the waters of the Victoria Dam Reservoir (393).

393 CEYLON TRAVELLER (1984: 376-377) places the Victoria Dam in the »mist-laden Dumbara valley« between the »windswept Hunnasgiriya - Knuckles ranges« and the »towering Hantane - Rikilligaskande ranges« and immediately below the confluence of the Huluganga and the main stem of the Mahaveli, just above the Victoria falls: »Work on the Victoria project [double curvature concrete arch dam 122 m high and »nearly a mile long« at the crest, a 4,900 m long power tunnel, and a power station at Hakurutale in Adikarigama]... was inaugurated on March 23, 1980, and is scheduled for completion in 1984.«

ETYMOLOGY: SIFFRE (1975: 18, 29) renders the French »grotte d'Istripura« (Istripura Cave) to mean »grotte de la femme morte« (cave of the dead woman).

According to WILSON (1988: 22), however, Istripura »... translates as City of Women for, according to legend each of the numerous interconnected large chambers was the private home of one of the wives of an ogre [raksha? yakka?] who maintained a vast harem.«

The Istripura cave near the village of Pannala II (394) is occasionally confused with (395) and distinguished from the other Istripura caves by relating it to nearby streams or populated places:

2 = Istripura	AELLEN et al (2001: 1977 fig. 1)
Femme Morte, grotte de la	SIFFRE (1975: 18)
Istripura, Aruk vatta (396)	DERANIYAGALA (1956)
Istripura Cave	COORAY (1967: 97); Eckrich, M. (1984 Mss: Bat cave distribution map); MIDDLETON & WALTHAM (1986: 183)
Istripura cave, 2nd	CEYLON TRAVELLER (1974: 240-241; 1983: 242-243)
Istripura Cave/Cavern (No 2)	Brooks (1995 Mss, no. 28)
Istripura Cave (femme morte, grotte de la)	SIFFRE (1975: 18)
Istripura Cave, Hanguranketa (397)	AELLEN et al. (2001)
Istripura cave, second	CEYLON TRAVELLER (1974: 240-241; 1983: 242-243)
Istripura gal-lena (cave)	DERANIYAGALA (1965: 144)
Istripura-gal-lena	DERANIYAGALA (1965: 143)
Istripura (Pamula), grotte de	SIFFRE (1975: 29)
Istripura (Pannala)	DERANIYAGALA, P E P (1958); COURBON & CHABERT (1986: 81; 1989: 138); STRINATI & AELLEN (1981: 459)

SITUATION 1956: DERANIYAGALA (1956: 117-118; with location map) positions »Istripura cave near Aruk vatta« near N07°10'30": E080°53'30" (unspecified map datum probably Everest 1830) and about »eight miles« (13 km) in a direct line the north-east of »Vāvakälé« or Wewakele (398) near »Kumbulgamuva« or Kumbalgamuwa (399) on the road from Mulhalkele (N07°06': E080°51') to Kandy (N07°17': E080°38'):

- 394 The village of »Pannala« (CEYLON TRAVELLER 1974: 240-241; 1983: 242-243) or »Pamula« (SIFFRE 1975: 29) is Pannala II (N07°08'53": E080°51'28" WGS84) near the first Pannala I (N07°08': E080°51') <www.nima.mil/geonames> (accessed 16.11.2003).
- 395 WILSON (1988: 22) confuses Istripura cave (Pannala) with →Istripura cave (Welimada), the »Istri-gal-lena« of STRINATI & AELLEN (1981).
- 396 »Aruk vatta« (DERANIYAGALA 1956) or Arukwatta N07°09': E080°54' www.nima.mil/geonames 16.11.2003.
- 397 »Istripura Cave, Hanguranketa« (AELLEN et al. 2001: 1977) is not a stunted version of a "Istripura Cave near Hanguranketa" but means "Istripura Cave on the toposheet Hanguranketa" as, in this case, the Istripura cave is not related to the »nearby« town of Hanguranketa (N07°10'38": E080°46'43" WGS84) but specified by the cave's location falling on the Survey of Ceylon (later: Survey of Sri Lanka) toposheet "Hanguranketa" (One Inch series) and on the same toposheet is also →Istripura Cave (Mulhalkele).
- 398 »Vāvakälé« (DERANIYAGALA 1956) or Wewakele N07°07': E080°51'.
- 399 »Kumbulgamuwa« (DERANIYAGALA 1956) or Kumbalgamuwa N07°06'39": E080°51'29"

»The cave itself is about 1.5 miles [2.4 km] south of the bend of the Mahaveli [Mahaveli] river ... and on the side of a hill between two tributaries of this river, the larger of which is the Kurunda oya [400].

The limestone cave occurs about 75 ft. [23 m] above the plain, between the 900 and 800 foot [244 and 274 m] contours on the west side of the hill, as a long gash running north-west and south-east, where the side of the mountain seems to have collapsed into what was originally a subterranean passage.«

SITUATION 1961: SIFFRE (1975: 18) gives a photograph of people wading a small stream (much smaller than the Mahaveli Ganga) but titled »Traversée du Mahaveli Ganga, sur la route d'Istripura Cave, avec mes porteurs indigènes« (traversing with my indigenous porters the Mahaveli Ganga on the way to Istripura Cave).

SIFFRE (1975: 19 top) gives a photograph of which the legend on page 18 explains that it took him more than two hours to cover the »chemin à la machete« (machete foot path). SIFFRE (1975: 19 bottom) gives a photograph of which the legend on page 18 explains that the entrance is difficult to find because of the vegetation.

SIFFRE (1975: 29) located »grotte d'Istripura« in the »centre de Ceylan« near one village of »Pamula« (sic! qua: Pannala) in »Nuwora-Elya« (sic! qua: Nuwara Eliya). The entrance had been reached by walking from the village downhill to paddy fields in a valley where a waist-deep stream was forded and a machete had been used to clear a path (401).

SITUATION 1970: STRINATI & AELLEN (1981: 459): »Près de Pannala. Carte: Hanguranketa.«

SITUATION 1974: CEYLON TRAVELLER (1974: 240-241; 1983: 242-243) places the »second Istripura cave« north of the village Pannala (28 km south-east of Kandy) which lies some 2.5 km south of the deep bend of the river Mahaveli Ganga and about halfway between Victoria Falls (N07°14'11": E080°47'17" WGS84) and Minipe (N07°13': E080°59').

SITUATION 1986: MIDDLETON & WALTHAM (1986: 183) locate »Istripura Cave« in a fairly fabricated »Kandy and Adam's Peak district.«

POSITIONS: Unspecified map datum (probably Everest 1830):

North	East	asl	source
07°10'30":	80°53'30":	260	DERANIYAGALA, P E P (1956: 117, 118)
07°10' :	80°53'30":	610	CEYLON TRAVELLER (1974: 240; 1983: 242)
07°10' :	80°53'30"		SIFFRE (1975: 28)
07°09'56":	80°53'34":	240	STRINATI & AELLEN (1981: 459)

7°10" N 80°53.5" E Brooks (1995 Mss, item No 28)

CAVE DESCRIPTION 1956: DERANIYAGALA (1956: 118, plate 1, figures 1-9), DERANIYAGALA (1958) and CEYLON TRAVELLER (1974: 240-241; 1983: 242-243): »The limestone cave occurs about 75 ft. [23 m] above the plain, between the 900 and 800 foot [244 and 274 m] contours

400 Kurundu Oya, confluence at N07°10'35": E080°53'11" <www.nima.mil/geonames> accessed 16.11.2003.

401 SIFFRE (1975: 29): »Après avoir suivi le fond de la vallée occupé des rizières, traversé la rivière avec de l'eau jusqu'à la taille et le matériel sur nos têtes, dépensé bien des efforts pour nous frayer à la machette un chemin au trevers d'une jungle dense et épineuse, nous finîmes par découvrir une grande ouverture toute noire presque invisible ...«

on the west side of the hill, as a long gash running north-west and south-east, where the side of the mountain seems to have collapsed into what was originally a subterranean passage. The part that has collapsed forms an ante-chamber about 100 yards long [some 90 m] and about 15 yards [13.7 m] high (Plate 1, figs. 1, 2) and its floor is about 20 feet [6 m] below the surface of the mountainside (Pl. 1, fig. 2). The debris has been more or less washed away, and in the course of time the flow of water appears to have been diverted to newer and deeper channels (Pl. 1, figs. 6, 7, 8). The connection between them is a narrow passage about two feet [0.6 m] in diameter (Pl. 1, fig. 3) which [was dynamited to enlarge it (DERANIYAGALA 1956: 118) and] descends steeply and enlarges after about ten feet [3 m], when it is almost possible for the investigator to walk upright for about 100 yards (Pl. 1, fig. 4). It then narrows down again and descends into a large subterranean chamber covered with stalagmitic deposits (Pl. 1, figs. 5, 6) about 30 feet [9 m] or 40 feet [12 m] below the level of the floor of the external ante-chamber. Beyond it is a lake about 120 yards [110 m] long and about 50 yards [45 m] wide, which is about 20 feet [5.5 m] deep in places (figs. 7, 8). This chamber ramifies into various passages where the air is so deficient in oxygen that the observer is attacked by a faint sense of dizziness after a couple of hours; in the further passages this deficiency is even more marked (Pl. 1, fig. 7).«

CAVE DESCRIPTION 1961: SIFFRE (1975: 29-30) was shown a large cave entrance (no size mentioned), which was almost invisible due to vegetation, and nearly impenetrable because of creepers intertwined to a degree forming a wall. In many places the cave floor is covered with guano in remarkable thickness. The walls and ceilings are marked with 1 m-diameter scallops while a lake contains putrid water. Beyond the lake and beneath a low vault, the cave passage regains comfortable dimensions and contains good calcite formations, including large stalagmites covered with micro-gours. The rock exposed on the cave walls and ceiling consists of partly very pure and partly impure crystalline limestone with mica and gneissic interstratifications (402).

CAVE DESCRIPTION 1971: STRINATI & AELLEN (1981: 459): A large and dimly lit entrance chamber gives access to a narrow cave passage, which descends into a cave chamber containing "decorations" (speleothems) and bat guano.

Beyond a constriction lies yet another cave chamber, where a shallow pool of water covers almost the entire floor (403).

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974: 241; 1983: 243): »This extensive cavern, which is at an elevation of just under 2000 feet [610 m], is festooned with stalagmite. The subterranean monster, which contains, among other things, a large lake, is 400 feet [about 120 m] or so in length —certainly one of the longest in the country.«

CULTURAL HISTORY - archaeology: DERANIYAGALA (1956: 117) reports from »Istripura cave ... the first discovery of fossilized shells and bones consolidated into a breccia-like mass by travertine in a cave deposit« (404).

DERANIYAGALA (1956: 118) explains that »examination of the shelving ledges around the lake revealed two unpitted pebbles as large as a man's fist, which had apparently been brought in by man from the river deposits outside and employed as hammer stones. Potsherds with a mat basket as well as wicker work impressions externally were also found. The most interesting discovery however was made when the sides of the narrow entrance in the floor of the ante-chamber was dynamited to enlarge it, for embedded in the fragments were quartz flakes, the result of human workmanship, charcoal, shells of two species of the water snails *Paludomus Swainson* and one species of tree snail *Acavus Montfort* (Pl. 2, fig. 2) and mammalian bones some of which were bovines such as buffalo or gaur, sambhur and axis deer, and jaws of the monkey *Presbytis entellus thersites Blyth* (Pl. 2, figs. 5, 6). The almost vertical position of this compacted ossiferous layer indicates strong tilting of the original floor, probably as a result of subsidence, which in turn appears to have been caused mainly by the caving in of beds underground by subterranean stream action.

The deposit that accumulated subsequently was loose earth that covered the new floor surface to a depth of three feet and this too contained charcoal, quartz flakes, animal bones and shells of aquatic, terrestrial and arboreal snails.

The completeness of the jaws and their association with both aquatic and arboreal snails as well as with quartz chips and charcoal, indicate that they are the result of human habitation and not due to carcasses that were brought in by carnivores.«

SPELEOMETRY: CEYLON TRAVELLER (1974: 241; 1983: 243) regards the Istripura Cave (Pannala) as one of the largest caves of the island.

SIFFRE (1975: 29-30) estimates that »grotte d'Istripura, près d'Pamula« is more than an estimated 600 m long.

402 SIFFRE (1975: 29-30): »Dans de très nombreux endroits et sur des épaisseurs importantes, le sol est entièrement recouvert de guano ... vastes cupules d'environ un mètre de diamètre... un lac d'eau putride dans lequel croupissaient des chauve-souris mortes ... Derrière le lac et sa voûte basse, la grotte prit des dimensions confortables et devint bien concrétionnée, avec de grosses stalagmites recouvertes de micro-gours. Les cupules des parois et du plafond, en roche vive, laissaient apparaître toutes les impuretés, tous les minéraux contenues de la roche encaissante, en particulier des espèces de "rogons" de mica allant de quelques décimètre à des paillettes millimétriques ... En certain endroits, le calcaire cristallin était pur, parfaitement blanc, alors qu'en d'autres points il pouvait se charger de nombreuses impuretés et être interstratifié avec des bancs d'une roche qui ressemblait à du gneiss.«

403 STRINATI & AELLEN (1981: 459): »Une grande salle d'entrée semi-obscur communique par un étroit couloir descendant avec une salle bien concrétionnée et, par endroits, recouvert de guano de chauves-souris. Après un rétrécissement on parvient dans un dernière salle occupée presque entièrement par un lac peu profond.«

404 »Travertine« (DERANIYAGALA 1956: 117) means »generally concretionary and compact calcium carbonate« (MONROE 1970: K18). According to WALTHAM & LOWE (1995: 36), »the term is normally used only for deposits formed outside caves, where plants and algae cause the precipitation by extracting carbon dioxide from the water and give travertine its porous structure. Travertine forms most commonly on waterfalls that build up like gour dams.«

COURBON & CHABERT (1989: 81) confirm that »*M. Siffre ... attribue 600 m de développement à Istripura (Pannala)*« and took the apparently erroneous statement of STRINATI & AELLEN (1981: 459), according to which »*Istri-gal-lena (Welimada)*« (an alternative name for →Istripura Cave, Welimada) is »*600 m également*« long (405).

According to MIDDLETON & WALTHAM (1986: 182), »... *dense rain forest makes exploration difficult, but in the Kandy and Adam's Peak district [406] there are many known caves (Istripura Cave, 600 m long)*« and that's it.

CAVE CLIMATE: STRINATI & AELLEN (1981: 459) recorded temperatures: 23.5°C in the air of the entrance chamber; 25.5°C in the air and 25°C in the water of small gour pools in the 2nd, decorated chamber; 27°C both in the air and in the water of the "Lake Chamber" (the third).

CAVE LIFE: SIFFRE (1975: 29) describes diving bats (Chiroptera) and observed numerous gigantic 20 to 30 cm diameter spiders (*Tarantula palmata*). STRINATI & AELLEN (1981: 459) collected toads (*Bufo melanostictus* Schneider), bats (Chiroptera: *Hipposideros* sp.), spiders (identified by BRIGNOLI 1972), Amblypyges, Orthoptera, Hemiptera (identified by VILLIERS 1970), Diptera and Coleoptera.

EXPLORATION HISTORY: 1955 (circa): Paulus Edward Pieries DERANIYAGALA (1955, 1956) arranged exploration, archaeological excavation and took (one of?) the earliest series of underground flash photographs in a Sri Lankan cave.

1961: The unacknowledged village headman (without name) of »*Pamula*« (sic! qua: Pannala) arranged for a small group of unacknowledged men (without recognised names) who walked Michel SIFFRE (1975: 29) and a certain »*Caldera*« (tourist guide), to the entrance on an Istripura cave on the banks of the Mahaveli Ganga. As soon as the cave entrance was shown to Michel Siffre, he immediately discovered it and then, following an unacknowledged »*jeune indigène*« (an indigenous youth without recognised name), spent more than one hour to have a quick look at some »*six cents mètres de longueur*« (an estimated 600 m of length).

1970.01.19: Pierre Strinati and Villy Aellen visited and collected cave life (STRINATI & AELLEN 1981: 859).

ISTRIPURA CAVE, Watumulla

see: Istripura Cave, Kosgolla

Ceylon Traveller 1974: 241, 1983: 243.

ISTRIPURA CAVE, Welimada

Esterepure Cave, Istri-gal-lena (Välimada), Istri-gal-lena (Welimada); Istripura Cave (Paranagama), Istripura Cave/Cavern (No 1)

Explored and allegedly "surveyed" (measured lengthwise) but unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sri Lanka: Uva province: Badulla district: Welimada (Wälimada) area: Paranagama village.

LOCATION: Uva province: Badulla district: Welimada (Wälimada): Paranagama (Paranagama) village.

POSITION: Everest 1830 (unspecified EPE) N06°57': E080°54' / N06.95°: E080.9° (CEYLON TRAVELLER 1974: 240; 1983: 242, probably after DERANIYAGALA 1958): 1380 m asl (STRINATI & AELLEN 1981: 459) or »4,700 feet« = 1433 µ asl (CEYLON TRAVELLER 1974: 240, 1983: 242).

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Length: Estimated 600 m. Vertical range: Not known.

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Brignoli, Paolo Marcello 1972; Brooks, Simon James, Gebauer, Herbert Daniel & Waltham, Anthony "Tony" 2002; Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967; Courbon, Paul & Chabert, Claude 1986, 1989; Deraniyagala, Paulus Edward Pieries 1965; Deraniyagala, Siran Upendra 1980; Domrös, Manfred 1976; Mauriès, Jean-Paul 1981; Middleton, John R & Waltham, Anthony "Tony" C 1986a, 1986b, 1992; Papp, Lazlo 1984; Sket, Boris 1982; Strinati, Pierre & Aellen, Villy 1981; Wilson, Jane M 1988.

MANUSCRIPT REFERENCES: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 27: Istripura Cave / Cavern (No 1); Eckrich, Michael 1984: Bat cave distribution map.

COMMUNICATOR: Eckrich M 1984, personal communication.

A kind of "not very deep pothole" (STRINATI & AELLEN 1981: 459) or, perhaps, a collapse doline (without identified shape or dimensions) intersects a perennially active stream cave with a small rivulet or, if you prefer, descends for an unidentified distance down into "two huge passages" (407).

Michael Eckrich (München: Zoologisches Institut, 1984 personal communication) told me that this cave is perhaps not in limestone and might have formed due to mass wasting of a soft rock layer sandwiched between more durable strata.

ETYMOLOGY: The cave itself seems to be called "istripura" or »*city of women*« (WILSON 1988: 22) while the alternative "Istri-gal-lena" translates into »*women's rock's cave*« (compare →Istripura Cave, Pannala).

405 COURBON & CHABERT (1986: 81): »... *M. Siffre ... attribue 600 m de développement à Istripura (Pannala) et P. Strinati 600 m également à Istri-gal-lena (Welimada)*.«

COURBON & CHABERT (1989: 138): »*Siffre gave a length of 600 m to Istripura cave (in Pannala), while P. Strinati found Istri-gal-lena cave (in Welimada) to also be 600 m long*.«

406 »*Kandy and Adam's Peak district*« (MIDDLETON & WALTHAM 1986) is bogus.

407 STRINATI & AELLEN (1981: 459): »... *s'ouvre par un puits peu profond. Ce puits donne accès à 2 galeries, l'une ascendante, l'autre descendante. Ces galeries assez vastes sont parcourues par un petit ruisseau*.«

So far, I saw Istripura Cave (Welimada) transcribed (romanised), called, spelled, or edited as

4 = Istri-gal-lena	AELLEN et al (2001: 1977 fig. 1)
Esterepure	CT = CEYLON TRAVELLER (1974; 1983: 242 after DERANIYAGALA 1958; Survey of Ceylon / Survey of Sri Lanka a.i. "Nuwara Eliya" one inch map).
Istri Gal-lena (cave)	DERANIYAGALA (1965: 144)
Istri Gal-lena caves	WILSON (1988: 22)
Istri-gal-lena, Vālimada	DERANIYAGALA (1965)
Istri-gal-lena, Welimada	BRIGNOLI (1972: 924, 927); COURBON & CHABERT (1986: 81; 1989: 138); STRINATI & AELLEN (1981: 459); WILSON (1988: 22)
Istripura Cave	MIDDLETON & WALTHAM (1986: 182); PAPP (1984)
Istripura Cave/Cavern (No 1)	Brooks (1995 Mss no. 27)
Istripura Cave, Hanguranketa	AELLEN et al. (2001: 1977)
Istripura cave, Paranagama	CT (1974: 240; 1983: 242)
Istripura cave, Welimada	CT (1974: 240; 1983: 242)
Istripura caves, Welimada	CT (1974, 1983: 154)
Istripura Caverns	BROOKS et al. (2002: 19)
Istripura caverns, Welimada	CT (1983: 145); WILSON (1988)
Istripura Höhle, Welimada	DOMRÖS (1976: 53).

SITUATION: About 7.5 km in a direct line approximately north of Welimada (408) and 2 km in a direct line NNE of Paranagama (409), the entrance to this Istripura cave lies in the saddle on the northern side of the peak and trigonometrical station »Esterepure 4771« (410).

SITUATION 1974: CEYLON TRAVELLER (1983: 145): Istripura lies a travelling distance of »25 miles« (40 km) from Ella and north of Welimada.

CEYLON TRAVELLER (1983: 155): From Welimada, the cave entrance lies at a travelling distance of »six miles« (about 10 km), including a 1.5 miles (2.4 km) long ascent on foot: Turn off near »MP 4 I/2« (kilometre 7.24) on the road to Paranagama.

CEYLON TRAVELLER 1974: 240; 1983: 242): »The entrance to this complex of caves [complex of cave passages] lies on the hillside beyond Welimada, in close proximity to the ancient village of Paranagama, which may be reached by road (about six miles) from Welimada. The cave lies almost directly beneath the trigonometrical point named Esterepure on the one-inch map, and is approached by footpath from Paranagama.

For map readers, the location is 6°57' N: 80°54' E. The cave lies to the north-east of Paranagama and of the remains of Fort Macdonald [411]. ... The cavern lies at an altitude of about 4,700 feet« (1433 m asl).

SITUATION 3 (CEYLON TRAVELLER 1983: 153-154): The Ragala (412) Circuit Bungalow (at 5000 feet, 119 miles from Colombo, 13.5 miles from Nuwara Eliya) is an »unexcelled centre for mountain hikes« including one »longer but much easier (18 miles but by road or bridle track all the way) passing old British station of Fort MacDonal and within reach of famous Istripura Caves via Waldemar Group to Welimada.«

POSITIONS: The Istripura Cave (Welimada) has been positioned at N06°58'00": E080°54'05": 1380 m (M. Eckrich 1984 personal communication)

N06°57': E080°54': 1435 m or »4,700 feet« (CEYLON TRAVELLER 1983: 242)

N06°57'57": E080°54'15": 1380 m (STRINATI & AELLEN 1981: 459; WILSON 1988: 22)

CAVE DESCRIPTION 1970: STRINATI & AELLEN (1981: 459): A not very deep shaft intersects a sizable cave passage, which is an estimated 600 m long and drains a small rivulet / running, which can be divided into an upstream and a downstream section (413).

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1983: 145): »... a series of caverns, only very slightly explored ... are said to provide the longest underground galleries in the island.«

408 Welimada N06°54'04": E080°55'22" WGS84 <www.nima.mil/geonames> accessed 16.11.2003 at 3400 feet (CEYLON TRAVELLER 1983: 155) equalling 1036 m asl is said to lie at travelling distances of 132 miles (212 km) from Colombo, 16.5 miles (27 km) from Nuwara Eliya and 13 miles (21 km) from Bandarawela. WILSON (1988: 22) places Welimada 54 km south-east of Kandy (N07°17'47": E080°38'06" WGS84).

409 Paranagama N06°57'35": E080°53'00" (Everest 1830, Survey of Sri Lanka One-Inch sheet "Nuwara Eliya" 1972).

410 The peak »Esterepure 4771« is indicated near N06°58'00": E080°54'05" (±50 m): 1454.2 m asl (Everest 1830) on the Survey of Sri Lanka sheet "Nuwara Eliya"

411 »Fort Mc Donald« (N06°57'15": E080°53'20" Everest 1830, Survey of Sri Lanka One-Inch sheet "Nuwara Eliya" 1972) or »Fort MacDonal« (CEYLON TRAVELLER 1983: 145) and »Fort M'Donald« (BAKER 1855) is »... the military post at the village of Parnagamma, ... named after Major M'Donald of the 19th Regiment, who performed arduous services in this part of the country during the rebellion of 1817 and 1818« (FORBES 1840, 1841. ii: 126). No wonder »It was at Fort M'Donald, and in this neighbourhood, that potatoes were first successfully cultivated to any extent in Ceylon, so as to supply the market, as is now done (since 1830), at a moderate price« (FORBES 1840, 1841. ii: 129).

412 The Ragala Circuit Bungalow lies at an elevation of »5000 feet« (about 1525 m asl) and at a travelling distances of 119 miles (191 km) from Colombo and 13.5 miles (22 km) from Nuwara Eliya (CEYLON TRAVELLER 1974, 1983: 153). The village of Ragala is positioned near N07°00'28": E080°51'14" (WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

413 STRINATI & AELLEN (1981: 459): »La ... grotte s'ouvre par un puits peu profond. Ce puits donne accès à deux galeries, l'une ascendente, l'autre descendente. Ces galeries assez vastes sont parcourues par un petit ruisseau. Développement: environ 600 m.«

CEYLON TRAVELLER (1974: 240; 1983: 242): »The entrance to this complex of caves is on the hillside; it leads into numerous large, damp, underground galleries, some of which stretch for quite some distance into the mountain. Within the cavern ... is a large lake of very cold water.«

CAVE DESCRIPTION 1984: Michael Eckrich (München: Zoologisches Institut, 1984 personal communication) tells me that a collapse entrance gives access to a single cave passage, which runs very close and parallel to the surface, divides after some distance into two galleries which both lead to blockages of washed-down debris.

CAVE DESCRIPTION 1988: WILSON (1988: 22) had learned about certain »Istripura caverns« which »... are said to be the longest and most complex of the island. They are situated a few miles north of Welimada ... I did not get a chance to visit this cave ... Presumably these caves are those Strinati & Aellen (1981) call Istri-Gal-Lena caves [414] ... which they say comprises two communicating caves one with about 150 m of passage and the second with two vast galleries and a deep well with 600 m of passages« (415).

CAVE DESCRIPTION 1995: Brooks (1995 Mss no. 27: Istripura Cave/Cavern No 1): »A complex cave in limestone consisting of many large and damp underground galleries of some size and a lake. The same location has also been described as a site consisting of two separate caves one of 150 m length and the other of 600 m length divided into two large galleries and containing a deep well (Lake?)«

CAVE DESCRIPTION 1995: BROOKS et al. (2002: 19): There are »two Istripura Caverns« (no names mentioned), which are »reputed to be around 600 m and 150 m long and containing large underground galleries and lakes« (416).

CAVE POTENTIAL: CEYLON TRAVELLER (1974, 1983: 145): »At Istripura north of Welimada are ... a series of caverns, only very slightly explored ... [They] are said to provide the longest underground galleries in the island.«

STRINATI & AELLEN (1981: 459) suspect that →Istripura Cave (Welimada) is connected with the nearby →Istripura Cave (Welimada) 2: »... deux grottes qui communiquent peut-être entre les elles. On pénètre dans la première par une entrée basse qui donne accès à 3 couloirs.«

Also found in the vicinity of Istripura Cave (Welimada) is not only →AA Cave (Baker) and the caves at →Hakgala, →Luckyland Estate, and →Padanwela (near Wilson's Bungalow), but also the possibly accessible sinking stream resurging at →Sita Kund (Hakgala).

SPELEOMETRY: STRINATI & AELLEN (1981: 459) ascribe about 600 m of length to »Istri-gal-lena près de Welimada« (417) but may have confused this length or this Istripura Cave with the →Istripura Cave (Pannala), which they have also visited but described without mentioning any dimensions.

COURBON & CHABERT (1989: 81) take the 600 m for granted and report that »Siffre« (SIFFRE 1975: 29-30) gave an estimated length of about 600 m for Istripura Cave (Pannala), while P. Strinati found Istri-gal-lena cave (Welimada) to also be 600 m long (418).

CAVE CLIMATE: Temperature 24°C on 17th January (STRINATI & AELLEN 1981: 459).

CAVE LIFE: BRIGNOLI (1972) deals with spiders (Arachnida: Aranea) collected on 1970.01.17 from »Grotta di Istri-gal-lena, Welimada« by Pierre Strinati and Villy Aellen. Page 924 mentions immature specimens of Campostichomma (Agelenidae).

STRINATI & AELLEN (1981: 459) noticed bats (Chiroptera: Hipposideros sp.), toads (Rana gracilis Gravenhorst), spiders (BRIGNOLI 1972), collembola and crickets (Orthoptera).

EXPLORATION HISTORY: 1835, circa: Major FORBES (1840, 1841.ii: 126) gives the impression of having noticed »between Himbleatwelle and Fort M'Donald« (N06°57': E080°53') a karst surface when he had »re-crossed the Oomayo [Uma Oya N06°55'02": E080°57'18" WGS84], and perceived that the stream had the same impetuous character, and that its banks preserved the same wild and rugged scenery as had attracted my attention in its downward course through Gampaha« (N06°43': E081°02').

1970.01.17: Pierre Strinati and Villy Aellen visited, explored and collected cave life (STRINATI & AELLEN 1981: 1977).

1981: Boris SKET (1982) heading a »group from Ljubljana University (Slovenia) ... visited Istripura Cave near Hanguranketa [419] and the area of Jaffna Peninsula ...« (AELLEN, SKET & STRINATI 2001: 1977).

414 WILSON (1988: 22) claims that STRINATI & AELLEN (1981) call the Istripura Cave (Welimada) »Istri-Gal-Lena caves« (sic!) but already DERANIYAGALA (1965: 143) had called this cave is "Istri-gal-lena" or »Cave [at the] Rock [of the] Istri.«

415 WILSON (1988: 22) and BROOKS (2002: 19) misinterpret STRINATI & AELLEN (1981), who had not at all reported a »deep well with 600 m of passages« but a shallow pit (the French "puit" can mean both well and shaft) intersecting one descending cave passage, which gave the impression of being an estimated 600 m long.

416 It is a pleasure to watch "real-time" cave formation due to wishful thinking processes when seeing how an initially »puits peu profond« (STRINATI & AELLEN 1981: 459) or "not very deep pit" develops within a few years into a »deep well with 600 m of passages« (WILSON 1988: 22) that soon becomes a »complex cave consisting of many large ... galleries of some size and a lake« (Brooks 1995 Mss, item 27) which eventually ends up as happily overdone »large underground galleries and lakes« (BROOKS et al. 2002).

417 »Istri-gal-lena près de Welimada« (STRINATI & AELLEN 1981) or, literally translated, the "cave at the rock of Istri" (Istripura Cave, Welimada): »Développement: environ 600 m.«

418 COURBON & CHABERT (1986: 81) subscribe to a point of view according to which »... M. Siffre ... attribue 600 m de développement à Istripura (Pannala) et P. Strinati 600 m également à Istri-gal-lena (Welimada)«. In other words: »Siffre gave a length of 600 m to Istripura cave (in Pannala), while P. Strinati found Istri-gal-lena cave (in Welimada) to also be 600 m long« (COURBON & CHABERT 1989: 138).

419 The »Istripura Cave near Hanguranketa« (AELLEN et al. 2001) appears to correspond to the »2 = Istripura« indicated by AELLEN et al. (2001 fig. 1 location map) near 07°55'N: E080°55' and thus at a location resembling that of →Istripura Cave (Welimada N06°57': E080°54').

ISTRIPURA CAVE, Welimada 2

Explored and allegedly "surveyed" (measured lengthwise) but unmapped natural stream cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sri Lanka: Uva province: Badulla district: Welimada (Wälimada) area: Paranagama village.

LOCATION: Uva province: Badulla district: Welimada (Wälimada): Paranagama (Paranagamma) village.

POSITION: Everest 1830 (assumed EPE ±500 m) N06°58': E080°54' / N06.9.6667°: E080.9° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (One-Inch series).

SPELEOMETRY: Length: Estimated 150 m. Vertical range: Not known.

BIBLIOGRAPHY: Brooks, Simon J, Gebauer, Herbert Daniel & Waltham, Anthony "Tony" 2002; Strinati, Pierre & Aellen, Villy 1981.

A low entrance without specified shape or dimensions faces an unidentified direction and leads to three parallel and, upon entering, ascending cave passages. Altogether an estimated 150 m long, the cave is suspected to connect with the first →Istripura Cave (Welimada): *»... deux grottes qui communiquent peut-être entre les elles. On pénètre dans la première par une entrée basse qui donne accès à trois couloirs«* (STRINATI & AELLEN 1981: 459).

EXPLORATION HISTORY: 1970.01.17: Pierre Strinati and Villy Aellen visited, explored and collected cave life (STRINATI & AELLEN 1981: 459).

ISTRIPURA CAVERNS (BROOKS 2002)

see: Istripura Cave, Pannala

see: Istripura Cave, Welimada

BROOKS, S J et al. (2002: 19).

Among the three known Istripura caves (Kosgolla, Pannala, and Welimada) are *»two Istripura Caverns«* which are not only *»reputed to be around 600 m and 150 m long and containing large underground galleries and lakes«* but also *»are now believed to be drowned under the Victoria Reservoir«* (BROOKS et al. 2002: 19).

This statement is problematic insofar as

a) the only drowned Istripura Cave, the one near Pannala, is only 600 m long while

b) the only 600 + 150 m long Istripura caves, the two near Welimada (N06°57': E080°54': 1380 m asl), lie at an elevation of 1360 m asl and thus 1130 m above the water level of the Victoria Reservoir (Victoria Dam N07°13': E080°47') at ca. 225 m asl.

<i>Istripura cave length</i>	<i>cave lake</i>	<i>m asl</i>	<i>Victoria drownability</i>
Mulhalkale	120 yes	600	impossible
Pannala	600 yes	260	not impossible
Welimada 1	600 yes	1360	impossible
Welimada 2	150 no	?	impossible

ISTRIPURA CAVERNS (CEYLON TRAVELLER)

see: Istripura Cave, Welimada

Ceylon Traveller 1974, 1983: 155.

ISTRIPURA CAVERNS (WILSON 1988)

see: Istripura Cave, Welimada

see: Istripura Cave, Pannala

Wilson, Jane M 1988: 22.

WILSON (1988: 22) had learned that *»Istripura Caverns ... a few miles north of Welimada ... are said to be the longest and most complex on the island. ... I did not get a chance to visit this cave«* and therefore, unhindered by reason, found it effective to *»... suspect that its size has been exaggerated.«* Additionally, WILSON (1988: 22) refrained from comprehending that STRINATI & AELLEN (1981) visited also the other Istripura Cave near Pannala. This problem she solved by deciding that *»they seemingly erroneously identified«* the other Istripura Cave.

ISTRIPURA CAVE, Waldemar Group

see: Istripura Cave, Welimada

Ceylon Traveller 1974, 1983: 154.

ISTRIPURA CAVES, Welimada

see: Istripura Cave, Welimada

Ceylon Traveller 1983: 154.

The Rangala Circuit Bungalow (at 5000 feet, 119 miles from Colombo, 13.5 miles from Nuwara Eliya) is an *»unexcelled centre for mountain hikes«* including one *»longer but much easier (18 miles but by road or bridle track all the way) passing old British station of Fort MacDonal and within reach of famous Istripura Caves via Waldemar Group to Welimada«* (CEYLON TRAVELLER 1983: 153-154).

ISTRIPURA GALGÉ, Mulhalkälé

see: Istripura Cave, Kosgolla

Deraniyagala Paulus Edward Pieries 1955: 301.

ISTRIPURA (Pamula), grotte de

see: Istripura Cave, Pannala

Siffre.Michel 1975: 29.

SIFFRE (1975: 29) narrates to have inquired for caves in the vicinity of *»Nuwora-Elya«* (sic! qua: Nuwara Eliya) and to have been told by a village headman of *»Pamula«* (sic!) about a large cave, which is called *»grotte d'Istripura«* and lies above the banks of the Mahaveli Ganga (420).

420 Little doubt remains that *»Pamula«* (SIFFRE 1975: 29) is a misprint of Pannala, especially since the entrance to Istripura Cave (Pannala) *»... is about 1.5 miles [2.4 km] south of the bend of the Mahaveli [Mahaveli] river ... and on the side of a hill between two tributaries of this river, the larger of which is the Kurunda oya ...«* (DERANIYAGALA 1956: 117-118; with location map).



ISURUMUNIYA ROCK TEMPLE (Skeen & Co.) <www.imagesofceylon.com/ruins/r62.jpg>

ISURAMUNI CAVERN-TEMPLE

see: Isurumuniya rock temple

Forbes, Jonathan 1840, 1841.i: 416.

ISURUMUNIYA ROCK TEMPLE

or: Isuramuni vihare, Kalugalla wihare

A man-made sacred rock-cut chamber ('cave' temple).

LOCATION: Northern Central province: Anuradhapura district: Anuradhapura ruins: Tissa Wewa reservoir.

POSITION: WGS84 (assumed EPE ± 2.5 km) N08°21' E080°23' / N08.35° E080.38333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Anuradhapura" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841; Lonely Planet, Sri Lanka 2003; Reichenbach, Kurt & Kiedrowski, Rainer 1995.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

WEBSITE: <www.imagesofceylon.com/ruins/r62.jpg> accessed 2009.08.15.

»This rock temple, dating from the reign of Devanampiya Tissa (3rd century BC), has some very fine carvings« (LONELY PLANET 2003: 246) and represents one of the few rock temples (man-made "cave" temples) of Sri Lanka (421).

ETYMOLOGY: Isuramuni or Kalugalla wihare (FORBES 1840, 1841.i: 416), Isurumuniya Vihara (LONELY PLANET 2003: 242) or Ussurumuniye (Eckrich 1984 Mss: Bat cave distribution map).

SITUATION: LONELY PLANET (2003: 242 "Anuradhapura" location map) indicates »56« (Isurumuniya Vihara) adjacent south of the Royal Pleasure Garden, above the eastern shore of the Tissa Wewa reservoir and west of the Kurunegala Road at a spot that lies at approximate linear distance of 1.5 km south-west from the Anuradhapura Train Station and 1 km approximately north-west of the Anuradhapura New Town Train Station and the New Bus Station (422).

CAVE DESCRIPTION: FORBES (1840, 1841.i: 416-417): »Between the sitting and standing figures, the Isuramuni or Kalugalla wihare has been cut in the hard rock; and in this cavern-temple part of the stone has been left, and afterwards shaped into the figure of Buddha seated on a throne: the two pillars in the front of this wihare are also part of the solid rock. These works were completed in the twelfth century, and in the reign of Prakrama Bahoo; yet are not only undecayed, but the most minute ornaments are sharp and undiminished by time or weather ...«

CAVE POTENTIAL: About 500 m in a direct line due south of the Isurumuniya Vihara are extensive remains of the Vessagiriya cave monastery complex.

CAVE LIFE: LONELY PLANET (2003: 246) commands that »You can't miss the resident colony of bats« (Chiroptera).

422 REICHENBACH et al. (1995: 73 with location map) show »Felsentempel« (rock temple) at the same location but the outsized scale of the map suits people who rarely ever use their feet.

421 Another rock temple on the island of Sri Lanka is the →Gal Vihara at Polonnaruwa.

ITIKALA CAVE

Speleologically unexplored and unmapped natural or modified natural cave or rock shelter.

LOCATION: Unidentified (Eastern or Southern) province: Unidentified (Amparai or Hambantota) district: Kumbukkan Oya basin: Yala National Park: Yala East area: Kumana (Kumanu): Itikala (perhaps: Itigala).

POSITION: WGS84 N06°34': E081°44' / N06.5.6667°: E081.73333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

One of the eight Sri Lanka "CAVE" (423) entries (424) listed on <www.nima.mil/geonames> (accessed 16.11.2003) and <www.wayhoo.com> (accessed 25.05.2004).

SITUATION: Near the sea coast in the →Yala National Park (Survey Department 1977: Road Map of Sri Lanka).

ITTEKANDA "CAVE" 1

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonne (Kolonna) Korale: Rakwana range (Rakwana - Bulutota range) area: Ittekanda (Ittakanda) village.

POSITION: WGS84 N06°24': E080°38' / N06.4°: E080.63333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Rakwana" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

The first of three unspecified caves or rock shelters (Brooks 1995 Mss no. 35, 36, 37 after DERANIYAGALA 1980: 177).

SITUATION: Somewhere in the hillside of »Ittakanda« (Brooks 1995 Mss) or Ittekanda (N06°24': E080°38'), and possibly in the Kolonne (Kolonna) korale.

CULTURAL HISTORY - Archaeology (DERANIYAGALA 1980: 177): Excavation yielded stone tools made from chert and quartz.

ITTEKANDA "CAVE" 2

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonne (Kolonna) Korale: Rakwana range (Rakwana - Bulutota range) area: Ittekanda (Ittakanda) village.

POSITION: WGS84 N06°24': E080°38' / N06.4°: E080.63333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Rakwana" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

423 <ftp://ftp.nga.mil/pub/gns_data/Designations.html> (accessed 28.05.2004): »cave(s): An underground passageway or chamber, or cavity on the side of a cliff.«

424 <www.nima.mil/geonames> (accessed 16.11.2003) lists the »CAVE« entries

Dagaba Caves	N06°36': E081°23
Henanegala Cave	N07°35': E081°17
Itikala Caves	N06°34': E081°44
Lunuatugalge Cave	N06°31': E081°30
Lunuhinda Cave	N07°40': E080°39
Mulagama Cave	N07°15': E081°29
Talaguruhela Rock Caves	N06°34': E081°29
Viharegala Rock Cave	N06°39': E081°39.

Archaeological excavation of the second of three unspecified caves or rock shelters »in the hillside of Ittakanda« (Brooks 1995 Mss no. 35, 36, 37) or Ittekanda (N06°24': E080°38') also yielded stone tools made from chert and quartz (DERANIYAGALA 1980: 177).

ITTEKANDA "CAVE" 3

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonne (Kolonna) Korale: Rakwana range (Rakwana - Bulutota range) area: Ittekanda (Ittakanda) village.

POSITION: WGS84 N06°24': E080°38' / N06.4°: E080.63333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Rakwana" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

Archaeological excavation of the third of three unspecified caves or rock shelters »in the hillside of Ittakanda« (Brooks 1995 Mss no. 35, 36, 37) or Ittekanda (N06°24': E080°38') also yielded stone tools made from chert and quartz (DERANIYAGALA 1980: 177).

JAFFNA CAVES (MIDDLETON et al. 1986)

Fabulous speleothem caves, probably in phosphorescing Whisky jelly.

LOCATION: Northern province: Jaffna district.

POSITION: Imaginary.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: »Small«. Vertical range: ±0 m.

BIBLIOGRAPHY: Middleton, John & Waltham, Anthony "Tony" C. 1986a, 1986b, 1992; Brooks, Simon J et al. 2002.

A »few short, well-decorated caves« created MIDDLETON & WALTHAM (1986: 181), followed by BROOKS et al. (2002: 19), anywhere »in the barren Jaffna peninsula« where not only the caves and their locations but also the decorations remain to be realised.

JAFFNA PIT (BOSTED & LINDSLEY 1989)

see: Tidal Well, Puttur

Courbon, Paul & Chabert, Claude (1989, edited by Bosted, Peter & Lindsley, Karen:), page 138: »Czech divers reached -65 m in 1977 in a flooded pit near Jaffna (Karszt és Barlang, 1978, I-II, profile).«

JAFFNA PUIT (COURBON & CHABERT 1989)

see: Tidal Well, Puttur

Courbon, Paul & Chabert, Claude (1989: 81).

JAFFNA SHAFTS (MIDDLETON et al. 1986)

Fabulous pothole caves, probably in phosphorescing Whisky jelly.

LOCATION: Northern province: Jaffna district.

POSITION: As you like.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: 0 m. Vertical range: 0 m (+0m / -0m).

BIBLIOGRAPHY: Middleton, John & Waltham, Anthony "Tony" C. 1986a, 1986b, 1992; Brooks, Simon J et al. 2002.

»Many small shafts« created MIDDLETON & WALTHAM (1986: 181) and subscribed BROOKS et al. (2002: 19). They are all fabricated »in the barren Jaffna peninsula« where not only the many locations but also the »small shafts« themselves remain to be identified.

JAILANY, cave of

see: Hituwa Lena

<www.jailani.org/chapt-4b.htm> accessed 2009.09.17.

JAMBU WELL HILL, caves on the

Epigraphically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelters.

LOCATION: Northern province: Mannar district: Vilankulam (Velankulam, Vellankulam): Jambu Well Malai (Jambu Well Hill).

POSITION: Representative WGS84 or Everest 1830 coordinates (± 50 km) N09°00': E080°30' / N09°: E80.5° (or so).

MAPS: Unidentified SoC / SoSL sheet perhaps Mantai, Murunkam, Puliyanukulam, Tunukkai, or Vavuniya (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909.

Modified natural rock shelters, which had been used as troglodyte hermitage retreats, reported PARKER (1909: 417-418) from one »Hill of the Jambu Well.«

SITUATION: »About eight miles [13 km] north-east of Vilankulam [425], in the Northern Province. The hill itself is quite inconspicuous and is hidden in the midst of wild thorny jungle frequented by bears, three of which, an adult and two cubs, escaped from an open cave at it on the occasion of my first visit to the place. The top of the hill is crowned by rocks and large boulders, a few of which are also on its slopes; the hollows under their sides formed shelters which were improved for the occupation of the monks who took up their residence in them.«

PARKER (1909: 418): »There are two other low hills to the south of it, called respectively Tevandan Puliyanukulam Malei [426], and Erupotana-kanda [427], the three being nearly in a line about one and a half miles [2.5 km or so] long. Erupotana-kanda is a hill somewhat like Niravi Malei, but higher, with numerous large boulders on its slopes. The other hill is formed by an immense steep-sided rock, with a high vertical precipice to the east, and a gradual ascent on the north and south-west sides. There are large boulders on its top, which extends in a long north and south line.«

425 »Vilankulam« (PARKER 1909) is not identified. A prominent »Vellankulam« in the vicinity of N09°12': E080°06' or N09°11': E080°07' is indicated on the "Road Map of Sri Lanka" (Survey Department 1977) at a distance of 25 miles (40 km) along the road from Mannar (N08°59': E079°54') generally north, and at about halfway towards Jaffna (N09°40': E080°00').

<www.nima.mil/geonames> (accessed 16.11.2003) lists Velankulam TRIG N09°12': E080°06' Mantai; Vellankulam PPL N09°11': E080°07' Manrai; Vellankulam PPL N09°03': E080°37' Tunukkai; Vellankulam PPL N08°48': E080°20' Tunukkai; Vellankulam PPL N08°44': E080°23' Tunukkai.

426 www.nima.mil/geonames (accessed 16.11.2003) lists 48 different »Puliyanukulam« feature but no »Tevandan Puliyanukulam« and not a single »Puliyanukulam« hill.

427 www.nima.mil/geonames (accessed 16.11.2003) has only the reservoir Erupotana Wewa N08°48': E080°35' (WGS84).

CAVE DESCRIPTION (PARKER 1909: 418-419): »... cleared out and prepared for the occupation of the ascetic monks to whose use it was made over. ... At two of the caves a deep cut [drip ledge], termed a *katdra*, was also made along the rock, above the front of the cave, and for a short distance below this the face of the stone was cut away, as is usual in nearly all such cases, in order to prevent the rain-water that trickled down the front of the upper part of the rock from entering the room.«

EXPLORATION HISTORY: 1880 (circa): S. Haughton of the Civil Service, noted inscriptions (PARKER 1909: 419).

1886: H. PARKER (1909: 419) and G. M. Fowler, who was then the Assistant Government Agent of the district, inspected inscriptions.

1887: G M Fowler found more inscriptions (PARKER 1909).

KABARA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Karawita: Kekule village.

POSITION: (If at Kekule village), Estimated WGS84 coordinates N06°37': E080°23' / N06.616667°: E080.38333333° (or so): 185 m asl or »600 feet« (CEYLON TRAVELLER 1983: 250).

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Estimated 15 m. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Deraniyagala, Paulus Edward Pieries 1955; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 26.

An entrance (7.9 m wide, 4 m high) leads to a short cave (up to 5.8 m wide, 9 m high, 15 m long) which DERANIYAGALA (1955: 300-301) regarded as a »rock shelter« (sic!) because archaeological excavation yielded evidence indicating that people of the prehistoric Udapiyan tribe used the cave to take shelter.

ETYMOLOGY: The Sinhala "kabara" is a blotched white.

SITUATION 1 (DERANIYAGALA 1955: 300): At a travelling distance of »seven to eight miles« (11 or 13 km generally south) from Ratnapura (N06°40'58": E080°23'57" WGS84) on a mountain side above the village of »Käkulé« or »Kekule« (428) near Hangamuwa (429).

The entrance to the cave is reached by walking upstream along the bed of a stream that is active only during heavy rains.

SITUATION 2 (CEYLON TRAVELLER (1974: 249; 1983: 250): »Kekule village lies in the Karawita area [430], south of Hangomuwa [a village] at the end of the minor road from

428 »Käkulé« (DERANIYAGALA, P E P 1955), »Kekule« (CEYLON TRAVELLER 1974; 1983) or »Kekule« N06°37': E080°23' (WGS84 <www.nima.mil/> accessed 16.11.2003).

429 Hangomuwa N06°38'45": E080°23'23" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

430 Karawita [*] N06°35'30": E080°27'10" (Everest 1830, Survey Department 1977: Road Map of Sri Lanka) is a village south of Ratnapura

* Not to be confused with Kuruwita N06°46'45": E080°22'07" <www.nima.mil/geonames> accessed 16.11.2003 NNW of Ratnapura.

Kotamulla [431] on the Ratnapura - Palawela road [432]. On the mountain side above the village, at an elevation of approximately 600 feet [185 m], is a cave (or a rock shelter) named Kabara Galge. Access to this site is achieved by ascending the dried bed of a stream which contains no water except during heavy rains. ... The site is seven to eight miles from Ratnapura.«

CAVE DESCRIPTION 1: CEYLON TRAVELLER (1974: 249; 1983: 250): »The cave, which extends inwards for fifty feet [15 m], has a twenty-six foot [7.9 m] wide entrance. The floor of the cave is nineteen feet [5.8 m] wide while the roof is thirty feet [9 m] from the floor. There is a perennial stream a mile away, possibly the source of a permanent drip from the rock above the cave.«

CAVE DESCRIPTION 2: Brooks (1995 Mss: no. 26 after: DERANIYAGALA, S U 1980: 174) recorded a 7 m wide and 4 m high entrance in gneiss leading to a 8 m long cave chamber which yielded »some very rich deposits« when archaeologically excavated by Deraniyagala »in 1953« (sic!).

CULTURAL HISTORY - archaeology: Surface exploration of the cave floor yielded pitted pebbles, characteristic of the Udupiyan tribe of *Homo Sapiens Balangodensis*. Other stone age 'finds' included anvils, grindstones, snail shells, animal bones, stone implements and flakes in addition to some bone artifacts.«

EXPLORATION HISTORY: 1954.06.24: Paulus Edward Pieries DERANIYAGALA (1955: 301) visited and excavated.

KACCATKODI, caves at

or: Kachchakodiya

Epigraphically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelters.

LOCATION: Northern province: Mannar district: Vilankulam (Velankulam, Vellankulam): Jambu Well Malai (Jambu Well Hill). **POSITION:** Representative WGS84 or Everest 1830 coordinates (±50 km) N09°00': E080°30' / N09°: E80.5° (or so).

MAPS: Unidentified SoC / SoSL sheet perhaps Mantai, Murunkam, Puliyankulam, Tunukkai, or Vavuniya (One-Ich series).

SPELEOMETRY: Length: Not known. Vertical range: Not known. **BIBLIOGRAPHY:** Parker, H 1909.

A group of at least 44 troglodyte »caves« (man-made rock chambers used for religious purposes) with ancient inscriptions (433).

SITUATION: At »Kaccatkodi« (434), which lies »a mile and a half« or about 2 or 3 km »south of Erupotana« (435). Compare the caves on →Jambu Well Hill.

KADDIGAWAY NITRE CAVE

see: Kadigawa Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 8.

KADIGAWA NITRE CAVE

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Demoole pattoo« (Davy 1821) area: »Kaddigaway« (Davy 1821) = Kadigawa village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet "Galgamuwa" or "Wariyapola" (One-Ich series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

The Nitre Cave no. 8 (DAVY 1821: 31 footnote) is situated somewhere near a place called »Kaddigaway« (436) in the »Demoole pattoo« (437) of the likewise obsolete »Seven Korles district« (438).

KADIGOMUWA NITRE CAVE

or: Kodigomoova Nitre Cave

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: »Four Korles« (Davy 1821) area: »Kodigomoova« (Davy 1821) = Kadigomuwa village.

POSITION: Representative WGS84 coordinates (approximate EPE ±30 km) N07°15': E080°20' / N07.25°: E080.33333° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheets: Gampaha, or Kandy.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

From the »district of the four Korles« (439), DAVY (1821: 31 footnote) lists the »nitre-cave ... 19. Kodigomoova.«

431 Kotamulla N06°40'01": E080°22'57" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

432 The »Ratnapura - Palawela road« (CEYLON TRAVELLER 1974; 1983) runs from Ratnapura (N06°40'58": E080°23'57" WGS84) generally south-west to Palawela (N06°39': E080°21').

433 PARKER (1909: 432 inscription 43): »South cave (b). This is another example of ' Paeraeli Basa/ When the letters are correctly arranged it becomes Nele hasati dicu taba. It is read from right to left. The Cave of the workman Cudi Tissa.«

PARKER (1909: 434): »In the inscriptions at the Kaccatkodi caves, No. 44 belongs to a Pamatissa who was also the son of a chief called Nandika.«

PARKER (1909: 435 figure 152): »Cave Temple, Kaccatkodi.«

434 »Kaccatkodi« (PARKER 1909: 432) is not identified unless it is the same as the village of Kachchakodi which <www.nima.mil/geonames> (accessed 16.11.2003) positions (oops!) at N09°01': E081°33' (sic!) and thus about 50 km in a direct line west from the coast --in the Indian Ocean.

435 »Kaccatkodi« (PARKER 1909: 432) is not identified but there is the water reservoir Erupotana Wewa N08°48': E080°35' <www.nima.mil/geonames> (accessed 16.11.2003) about 7.7 km in a direct line north-east from the town of Vavuniya (N08°45': E080°30').

436 »Kaddigaway« (DAVY 1821) is not identified but in Kurunegala district are the two villages of Kadigawa (N07°43': E080°00') on sheet Wariyapola and Kadigawa (N08°08': E080°24') on sheet Galgamuwa.

437 The obsolete administrative subdivision »Demoole pattoo« (DAVY 1821) is not identified.

438 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

439 The »district of the four Korles« (DAVY 1821) corresponds more or less to Kegalla district (circa N06°45': E080°10' to N07°20': E080°30').

ETYMOLOGY: »These names, it may be clearly remarked, are not those of the caves themselves, which are generally nameless, but of the nearest inhabited places ...« (DAVY 1821: 31 footnote).

SITUATION: At an unspecified location somewhere in the vicinity of an »inhabited place« (440) called »Kodigomoova« (DAVY 1821) or Kadigomuwa (441).

KADOOROO-WUVA NITRE CAVE

see: Kaduruwewa Nitre Cave

Davy, John 1821: 31 footnote.

KADURUPOLUNA "CAVES"

or, perhaps: Kadurupoluna Rock Shelters

Unexplored and unmapped modified natural, painted caves or rock shelters.

LOCATION: Unidentified province: Unidentified district: »Kadurupoluna« (KUSCH 1973c) or, perhaps, Kadurupokuna village.

POSITION: Not known <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c.

Unspecified "caves" (or rock shelters) of »Kadurupoluna« (KUSCH 1973c: 22) or, perhaps, at the village of Kadurupokuna (442), contains rock art represented by "drawings" (sic) similar to the "paintings" (sic) in red colour (443) in so-called "caves" at →Tantirimalai (N08°34': E080°15' in Anuradhapura district), →Mahalena (N06°39': E081°42' in Amparai district), and of →Madagala (unidentified).

KADURUWEWA NITRE CAVE

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Hatilispahay korle« (Davy 1821) area: »Kadooroo-wuva« (Davy 1821) or, perhaps, Kaduru Wewa, Kaduruwewa village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheets Dambulla, Galgamuwa, Nalanda, or Wariyapola (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 7 (DAVY 1821: 31 footnote) is situated

somewhere near a place called »Kadooroo-wuva« (444) in the obsolete administrative subdivision »Hatilispahay korle« (445) of the likewise obsolete »Seven Korles district« (446).

KADUWELA ROCK TEMPLE

Speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave) in granite (HAECKEL 1882 edited 1926: 52).

LOCATION: Western province: Colombo district: Kelani Ganga (Kelany river) area: Kaduwela (Kaduwell) village.

POSITION: WGS84 N06°55'52": E079°58'25" / N06.931111111°: E079.973611111° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Colombo" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Haeckel, Ernst 1883, 6th edition 1922.

Talipot palms / *Corypha umbraculifera* (447) flanked a flight of steps ascending to a forest covered hill to a place of frequent pilgrimages. Here, in the back of a pillared hall (mandapam) at the foot of a huge rock, a wide natural »grotto« extends deep into the underside of an overhanging mass of granite. The modified natural temple cave is probably enlarged by man and contains a colossal statue of a recumbent Buddha cut from the living rock exposed on the back wall.

SITUATION: HAECKEL (1883 edited 1922: 47) places the village of »Kaduwell« or Kaduwela (448) above the left

444 »Kadooroo-wuva« (DAVY 1821) as such is not identified but there are in the area covered by the »Seven Korles« (Kurunegala district N07°15': E079°50' and N08°20': E080°35')

the villages

Kaduru Wewa (N07°44': E080°24'),

Kaduruwewa (N07°47': E080°23'),

Kaduruwewa (N07°57': E080°22'),

Kaduruwewa (N07°58': E080°24'),

Pahala Kaduruwewa (N07°57': E080°20')

and the water reservoirs

Kaduru Wewa (N07°34': E079°56') and

Kaduru Wewa (N07°44': E080°24').

445 »Hatilispahay korle« (DAVY 1821) is not identified.

446 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

447 HAECKEL (1883 edited 1922: 46): »... die Riesenstämme der mächtigen Talipotpalme ... der stolzen Königin unter den Palmen von Ceylon (*Corypha umbraculifera*). Ihr ganz gerader weißer Stamm gleicht einer schinken Marmorsäule und erreicht über 100 Fuß Höhe. Jedes einzelne von den Fächerförmigen Blättern der mächtigen Gipfelkrone bedeckt einen Halbkreis von 12 bis 16 Fuß Durchmesser, einen Flächenraum von 150 bis 200 Quadratfuß; sie finden gleich allen Teilen der Pflanze vielfache Verwendung, namentlich als Schutzdach, sind aber besonders berühmt, weil sie bei den Singhalesen früher die Stelle des Papiers ausschließlich vertraten ...«

448 »Kaduwell« (HAECKEL 1883 edited 1922: 46-54) corresponds to the Kaduwela (*) at N06°55'52": E079°58'25" <www.nima.mil/geonames> accessed 16.11.2003 on Survey of Sri Lanka (1977 Road Map) in Colombo district.

* Not Kaduwela (N07°24': E080°39') or Kaduwela (N07°30': E080°50').

440 DAVY (1821: 31 footnote): »... the nearest inhabited places ... are in many instances several miles remote, most of the caves being situated in the wildest and most deserted parts of the country.«

441 Kadigomuwa (N07°12': E080°19'), Kadigomuwa (N07°08': E080°14'), or Kadigomuwa (N07°19'06": E080°26'08" WGS84) close to the Kandy - Colombo railway line.

442 »Kadurupoluna« (KUSCH 1973c) is not identified unless it is the same as Kadurupokuna N06°01': E080°46' (www.nima.mil/geonames accessed 16.11.2003) in Hambantota district on SoC / SoSL sheet Matara.

443 KUSCH (1973c: 23) based his literary research on Kukla, Jiri (1958), Lajta, Hans (1972), Manjusri, L T P (a.i.), Mauri, Manuela (a.i.), Trimmel, Hubert (1968), and »Ceylon« (i.e. Dhanapala, D.B. 1957b).

(south) bank of the »Kelanyfluss« or Kelani Ganga (449) at a travelling distance of »zehn englische Meilen« (10 miles, 16 km) or two to three hours by one-horse calash (450) from the Whist Bungalow (near Colombo) along a route east towards »Awisawella« (451) and the fort »Ruanwella« or Rawanwella / Ruwanwella (452).

HAECKEL (1883 edited 1922: 52-53) reached the sacred cave site and cult spot on a wooded hill by wading several ditches and walking through fairly light forest with colourful butterflies and many birds (beautiful woodpeckers, wood doves), pillar-like trees (Terminalia and Sapindae, Tectona grandis), and fine examples of Euphorbia antiquorum, the giant spurge (453).

CAVE DESCRIPTION (HAECKEL 1883, 1922: 52): HAECKEL 1883 edited 1922: 52): A wide, natural "cave" (or rock shelter), seemingly enlarged by man, penetrates deep beneath the overhanging mass of rock. The temple's pillared hall ... is built into the rock in such a way, that the naked rock forms not only the back wall but also the substance of the recumbent colossal statue of Buddha, which leans onto it ... A flight of rocky steps ascends to a level area on the top of the rock from where one has a fine view across a landscape of wooded hills and the plains beyond up to the river (454).

ROCK ART (wall paintings, sculpture): HAECKEL (1883 edited 1922: 52-53) utterly failed to recognise the rock art at Keduwela (455).

449 »Kelanyfluss« (HAECKEL 1883 edited 1922) is the Kelani Ganga N06°58'40": E079°52'10" (WGS84 <www.nima.mil/> accessed 16.11.2003).

450 The distinguished expedition-style explorer HAECKEL (1883 edited 1922: 47) considers "black Tamils (Malabaris)" second to horses: »Fast alle Reit- und Kutschpferde der Insel werden vom Indischen Festlande oder von Australien eingeführt, da die Pferdezucht auf Ceylon selbst nicht gedeiht, europäische Pferde aber das Klima sehr schlechth vertragen und bald unbrauchbar werden. Die kleinen Ponys von Birma laufen vortrefflich, wenn sie auch nicht lange aushalten; mit zehn englischen Meilen (2-3 Fahrstunden) ist ihre Leistungsfähigkeit in der Regel erschöpft. Die Kutscher sind gewöhnlich schwarze Tamils (Malabaren), in weiße Jacken gekleidet, mit rotem Turban; sie laufen mit erstaunlicher Ausdauer hinter dem Wagen her oder stehen nur zeitweise auf dessen Trittbrett; sie müssen außerdem beständig laut ausrufen ...«

451 »Awisawella« (HAECKEL 1883, 1922: 47) is Avissawella N06°57'11": E080°13'06" (WGS84).

452 »Ruanwella« (HAECKEL 1883 edited 1922: 47) or Rawanwella (APA map, Nelles, circa 1984 undated) and Ruwanwella (N07°02'44": E080°15'14" WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

453 HAECKEL (1883 edited 1922: 52-53): »Nachdem wir mehrere Gräben durchwatet hatten, wanderten wir durch lichtetes Gehölz auf einem reizenden Pfade aufwärts zu einem bewaldeten Hügel, der durch einen Buddhatempel berühmt ist, den Gegenstand vieler Wallfahrten. Wir trafen dabei auf mehrere Hüttengruppen, welche im dichten Waldesschatten unter den säulengleichen Stämmen riesiger Bäume (Terminalien und Sapinden) wie Kinderspielzeuge aussahen. Weiterhin kamen wir auf eine sonnige Lichtung, in der bunte Schmetterlinge und Vögel in großer Zahl umherflogen, besonders schöne Spechte und Waldtauben. Endlich führte uns eine Treppe zwischen Talipotpalmen aufwärts zu dem Tempel. Dieser liegt ungemein malerisch mitten im hohen Walde, unter dem Schutz eines gewaltigen Granitfelsens verborgen. ... Der Rückweg vom Felsentempel nach Kaduwella führte uns durch einen anderen Teil des Waldes, der wieder eine Anzahl neuer Insekten, Vögel und Pflanzen zeigte: unter anderen den berühmten Tiekbaum (Tectona grandis) sowie einige Riesenexemplare der kaktusförmigen Wolfsmilch (Euphorbia antiquorum) mit nackten, blaugrünen prismatischen Ästen. Der letzte Teil des Weges, durch sumpfige Wiesenflächen, war tüchtig heiß, und nach der Rückkehr in das Rasthaus war unser erstes ein Schwimmbad im Flusse, eine herrliche Erquickung, auf welche das nachfolgende fröhliche Frühstück doppelt mundete.«

454 HAECKEL (1883 edited 1922: 52): »Eine weite, natürliche Grotte, die wahrscheinlich künstlich erweitert ist, geht tief in die Unterseite der überhängenden Felsmasse hinein. Die Säulenhalle des Tempels (mit sechs Rundbogen an der Frontseite, drei an der schmalen Giebelseite) ist so in die Grotte hineingebaut, daß der nackte Felsen nicht allein die hintere Wand des Tempels bildet, sondern auch das Material für die liegende, and letztere angelehnte Kolossalstatue des Buddha selbst. ... Eine Felsentreppe hinter dem Tempel führt auf die obere Fläche des Felsens hinauf, von der man eine hübsche Aussicht über das benachbarte waldige Hügelland und weiterhin über die Ebene bis zum Flusse hat.«

455 HAECKEL (1883 edited 1922: 52-53): »Die Figur des Gottes ist in allen Buddhatempeln, welche ich auf Ceylon besucht habe, stereotyp dieselbe, ebenso wie die monotone Wandmalerei, welche an den inneren Tempelwänden Szenen aus seiner irdischen Lebensgeschichte darstellt. Dieselbe erinnert in ihrer steifen Zeichnung und den einfachen grellen Farben vielfach an die altägyptischen Wandmalereien, obwohl sie im Einzelnen sehr verschieden sind ...«

KAIKAWALA NITRE CAVE, Uda

see: Lunugala Lena

Kusch, Heinrich 1973c: 23.

One of the two caves of Sri Lanka, which KUSCH (1973c: 23) mentions finally (456), is an unspecified Nitre Cave near Kaikawala in Uda.

IDENTITY: This is the only »Nitre Cave« noticed by KUSCH (1973c: 23) but it is mentioned without acknowledging a source of inspiration (457).

SITUATION: KUSCH (1973c: 23) locates his one and only nitre cave somewhere in the vicinity of one »Kaikawala« (458), which is a village on the approach to →Lunugala Lena, and also but enigmatically »in Uda« (459).

KALODAY, Höhle von

see: Ekiyirina "Cave"

Sarasin, Fritz 1931: 54.

KALODAY 2, Höhle von

see: Gongine "Cave"

Sarasin, Fritz 1931: 54.

KALOODAWELLA NITRE CAVE

see: Kaludawella Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no. 12.

KALU GALGE

see: Alu Galge (Tellula)

Sarasin, Fritz & Sarasin, Paul 1908: 1-15.

KALUDAWELLA NITRE CAVE

or: Kaloodawella Nitre Cave

Unexplored and unmapped natural cave.

LOCATION: Central province: Kandy district: Kitulgala area: »Kaloodawella« (Davy 1821) = Kaludawella (Kaludawela, Kaludewala) village.

POSITION: N07°29': E080°38' / N07.4833°: E080.633° (WGS84).

MAP: Survey of Ceylon / Sri Lanka sheet Kurunegala or Rangala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 12 (DAVY 1821: 31 footnote) lies near »Kaloodawella« which appears to correspond to Kaludawela / Kaludawella / Kaludewala, a village and tea estate at the trigonometrical station Kitulgala (N07°29': E080°38').

KALUGALLA WIHARE, Anuradhapura

see: Isurumuniya rock temple

Forbes, Jonathan 1840, 1841.i: 416.

KALUKOLA DENIYA CAVE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Kalukoladeniya (Kalukola Deniya): Akiriyagala.

POSITION: Estimated WGS84 or Everest 1830 N07°15': E080°20' / N07.25°: E080.33333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1980, 1992.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 24.

A cave or rock shelter without identified shape or dimensions (Brooks 1995 Mss, item no. 24) is said to have yielded, on archaeological excavation, one of the first stone celts or adzes, which gentlemen inclined to cherish antiquarian tastes, discovered in Sri Lanka.

SITUATION (CEYLON TRAVELLER 1974: 254; 1983: 256): »The Kalukoladeniya cave [460] is situated close to Akiriyagala [461], near Kegalla« (N07°15'11": E080°21').

CULTURAL HISTORY - Archaeology: CEYLON TRAVELLER (1974: 254; 1983: 256): »Unlike most caves in this part of the country, it has no association with Buddhist history. ... exploration of its floor yielded a stone celt of fine grained crystalline rock. The celt is believed to belong to a late Stone Age industry.«

DERANIYAGALA, S U (2002): »The extreme rarity of stone celts in Sri Lanka (An excellent specimen on chert has been discovered in the Samanala-wewa explorations around Kinchigune [462]; G.Juleff 1990, pers. comm.), despite the

460 »Kalukola Deniya« or »Kalukoladeniya« is not identified but in the vicinity of Kegalla / Kegalle (N07°15'11": E080°21') we have a choice of

N07°01': E080°30' Koladeniya, an estate

N07°20': E080°40' Alakoladeniya

N07°29': E080°20' Alakoladeniya

N07°29': E080°24' Alakoladeniya

N07°30': E080°24' Madige Alakoladeniya

N07°21': E080°08' Puskoladeniya

N07°15': E080°24' Wekoladeniya.

461 »Akiriyagala« is not identified

462 <www.nima.mil/geonames> (accessed 16.11.2003) lists no Kinchigune from Kegalla district, only one Kinchigune N06°11': E080°45' (WGS84) in Hambantota district and another Kinchigune N06°41': E080°46' (WGS84) in Balangoda district.

456 KUSCH (1973c: 23): »Abschliessend wäre noch die Henegala Cave im Gebiet von Unuwurabubula (Bintenna) bei Maha Oya und die Nitre Cave bei Kaikawala in Uda zu erwähnen.«

457 KUSCH (1973c: 23) »Literatur« lists eight BIBLIOGRAPHY out of which KUKLA (1958) and TRIMMEL (1968) mention no »Kaikawala nitre cave« (or so) but I have neither traced nor seen the tourist guide books »Ceylon« (DHANAPALA 1957b), LAJTA (1972), MANJUSRI (a.i.), MAURI (a.i.), and MOHL (1969), or the item »Südostasien I, Geographis-kulturelle Ges. im Kunstkreis, Bd. 1, Luzern 1967.«

458 »Kaikawala« (KUSCH 1973c: 23) or »Kaikiwela« (URAGODA 1973: 38) is the village of Kaikawala N07°25': E080°50' (WGS84<www.nima.mil/geonames> accessed 16.11.2003).

459 The Sinhala adjective "uda" means »upper« (LONELY PLANET, Sri Lanka 2003: 255) but KUSCH (1973c: 23) uses »Uda« as if it were an area or region. A probably other "UDA" or U.D.A. is the Urban Development Authority, established in 1978 by the Government of Sri Lanka »to promote the integrated planning and implementation of economic, social and physical development in urban development areas« (www.uda.lk accessed 2009.09.02).

occasional availability of fine-grained igneous rocks such as dolerite for their manufacture, suggests that functionally they were not essential for the subsistence economy: the felling of trees and the tilling of the ground were probably not vital operations, unlike in a Neolithic economy (Despite the evidence for barley and oats cultivation on the Horton Plains [463] at 10,000 - 7,500 BP, it is noteworthy that stone celts have not been found.«

KANAÁTAWELA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Unidentified (Eastern or Uva) province: Unidentified (Amparai or Monaragala) district: Maha Oya basin area: Pollebadda (Pollebedda): Kanaátawela: Nuwaragala.

POSITION: Representative WGS84 or Everest 1830 (estimated EPE ±5 km) N07°30': E081°25' / N07.5°: E081.416667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" (One-Inch series).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Sarasin, Fritz & Sarasin, Paul 1908.

A rock shelter (SARASIN & SARASIN 1908) or true cave with an inhabitable entrance area (used as a shelter), which lies somewhere south-east of the town of Maha Oya (N07°32': E081°21') in the vicinity of something »Kanaátawela« (not identified) and at a walking distance of 20 minutes without direction from the →Wauwuwela Galge.

Compare the →Nuwaragala "Caves" (N07°29': E081°26').

KANABISUNGE GALGE

or: Mandagala "cave"

Speleologically unexplored and unmapped modified natural troglodyte rock shelter or cave (temple cave).

LOCATION: Southern province: Hambantota district: Yala National Park area: Mandagala.

POSITION: (If near the Mandagala Dagoba), WGS84 N06°31': E081°37' / N06.51667°: E081.61667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1983.

Kanabisunge galge, a »cave in a remarkable state of preservation« (CEYLON TRAVELLER 1983: 174), is one of the »at least six« →Mandagala »caves« or modified natural rock shelters, if not man-made rock chambers with »pre-Christian inscriptions chiselled on their rock faces.«

463 LONELY PLANET, Sri Lanka (2003: 200): »The Horton plains form an undulating plateau more than 2000 m high, about 20 km south of Nuwara Eliya [N06°58'11": E080°46'12" WGS84] and 20 km west of Haputale [N06°46': E080°58' (WGS84)]. They consist mainly of grasslands interspersed with patches of forest ... Sri Lanka's second- and third-highest mountains — Kirigalpotta (2395 m) and Totapola (2359 m) — rear up from the edges of the plateau ...«

FORBES (1840, 1841.ii: 145): »... the most elevated table-land in Ceylon, viz. the open plains extending between the Totapola range and the mountains which overhang Saffragam. This elevated region had received the name of Horton Plains, in honour of Sir R. Wilmot Horton the Governor, from Mr. Watson, 58th regiment, and Mr. Fisher, 78th regiment, who were the first Europeans that visited this tract of country.«

ETYMOLOGY: This "galge" »... was said to be the abode of a blind queen, hence Kanabisunge galge« (CEYLON TRAVELLER 1983: 174).

SITUATION (CEYLON TRAVELLER 1983: 174): »Under a crag 200 feet [61 m] above the plains« at the base of the →Mandagala "caves" on the »Mandagala rock« in the »Mandala range« (464).

CULTURAL HISTORY - rock art (mural paintings): »The white-washed walls of this cave ... are still intact. So are its two little windows and its door through which bear and leopard now stalk seeking shelter.«

KARAMBAGALA CAVE

or, perhaps: Kurandaka Lena

Unexplored and unmapped modified natural, painted cave or rock shelter.

LOCATION: Southern province: Hambantota district: Walawe Ganga: Siyambalagoda - Ridiyagama area: Mahapelessa: Karambagala & Pilamagala / Pillamagala.

POSITION: WGS84 (approximate EPE ±5 km) N06°14': E081°00' / N06.23333°: E81.0° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Ambalantota.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The unspecified Karambagala cave (compare →Kurandaka Lena) is famous for its paintings (rock art), which represents the »the remarkable pre-Christian (200 B.C.) murals discovered by the renowned Ceylonese painter L.T.P. Manjusri« (CEYLON TRAVELLER 1983: 69).

SITUATION: (CEYLON TRAVELLER 1983: 69): At the rocky sentinel of Karambagala (465) »beyond« (north? of) Ridiyagama Tank (466).

CAVE POTENTIAL: (CEYLON TRAVELLER 1983: 69): »Still further beyond is the jungle hermitage of Madunagala [see →Madunagala Caves, Pilamagala / Pillamagala] and the hot springs of Mahapelessa« (N06°15': E080°59').

464 »Mandagala rock« or »Mandala range« (CEYLON TRAVELLER 1983: 174) as such is not identified but there is a Mandagala Dagoba near N06°31': E081°37' WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

465 According to BROHIER, R.L. (in CEYLON TRAVELLER 1974: 253; 1983: 255), Karambagala is »... that prehistoric upheaval of stone ... which seems to have haphazardly burst out of this bleak tangle of grassy glade and scrubby plain.«

466 Compare the approach to →Madunagala Caves (Pilamagala / Pillamagala). CEYLON TRAVELLER (1983: 69), WGS84 coordinates after <www.nima.mil/geonames> (accessed 16.11.2003): Approaching from Ambalantota (N06°07': E081°01'), »cross over the bridge over the broad Walawe Ganga ... At a busy junction [Dehigahalande junction?] ahead is a road to the left which leads to ... Ridiyagama ... [N06°13': E080°59', NB44-06; delicious curd and treacle, large and beautiful tank] ... Beyond this tank [N06°12'32": E080°59'08", NB44-06] are the murals discovered in the Karambagala cave. Still further beyond is the jungle hermitage of Madunagala and the hot springs of Mahapelessa [N06°15': E080°59', NB44-06].«

KATARAGAM, »*Höhle von*« (cave at)

see: Dagaba Galge (Kimegala)

Sarasin, Fritz 1931: 43; Sarasin, Fritz & Sarasin, Paul 1908: 1-15.

KATUGAHA GALGE

or: Buttala Cave; Katugaha Galge, Kutugahugalge

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter or cave in gravitationally dislocated gneiss boulders.

LOCATION: Uva province: Monaragala district: Buttala village: Katugaha.

POSITION: WGS84 N06°49'40": E081°15' / N06.82777778°: E081.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1980; Sarasin, Fritz & Sarasin, Paul 1939.

MANUSCRIPT REFERENCES: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 8; Eckrich, Michael 1984: Bat cave distribution map.

An archaeologically relevant »*rock shelter*« (SARASIN 1939: 160-161; DERANIYAGALA 1980: 155) or, perhaps, a true cave with an inhabitable entrance area.**ETYMOLOGY:**

Buttala Cave Brooks (1995 Mss, item no. 8)

Katugahagalge CEYLON TRAVELLER (1974: 242; 1983: 244); SURVEY OF SRI LANKA (a.i. before 1984 "Buttala" toposheet)

Katugahagalge <www.nima.mil/geonames> accessed 16.11.2003

Kutugahagalge Eckrich, M (1984 Mss: Bat cave distribution map)

SITUATION: SURVEY OF SRI LANKA (a.i. before 1984) toposheet "Buttala" indicates »*Katugahagalge*« (N06°49': E081°15') at a travelling distance of about 3.3 km north of Buttala (467).CEYLON TRAVELLER (1974: 242; 1983: 244) places »*Katuhagalge*« north of →Yudaganawa (468), and a little more than a mile and a half (2.5 km) along a minor road north of Buttala (N06°45': E081°14').**CULTURAL HISTORY:** Archaeological investigation: SARASIN (1939: 160-161). Listed by DERANIYAGALA (1980: 155) and Brooks (1995 Mss: no. 8: Buttala Cave).**EXPLORATION HISTORY:** 1908: Fritz Sarasin and Paul Sarasin excavate (SARASIN 1939; DERANIYAGALA 1980).**KATUWANNAWA "ROCK CAVES"**

Unexplored and unmapped modified natural troglodyte caves or rock shelters.

LOCATION: North Western province: Kurunegala district: Dedura Oya (Daeduru-oya): Katuwannawa.

POSITION: Estimated WGS84 coordinates (assumed EPE ±2.5 km) N07°45': E080°15' / N07.75°: E080.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909.

Two »*small rock-caves*« (PARKER 1909: 258) or modified natural rock shelters used as troglodyte meditation retreats »*prepared for the monks*.«**SITUATION** (PARKER 1909: 258): At a village of »*Katuwannawa*« (469), which is said to lie at a travelling distance of »*two miles*« (about 3 km) »*north of the junction* [probably near N07°42': E080°16'] *of the Kimbulwana-oya* [470] *with the Daeduru-oya* [471], *which still bears the name of Siriwardhana-nuwara*.«**KEERIMALAI " SNAKE CAVE "**

Explored and mapped natural cave in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Keerimalai (Kerimalai).

POSITION: (WGS84, estimated EPE ±5 km) N09°49': E080°00' / N09.8167°: E80° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: 19.5 m. Vertical range: Not known.

BIBLIOGRAPHY: Mitter, Pavol 1978, 1979a.

No locally known name has been identified for a NNW facing cave entrance (about 1.5 m high and a metre wide) leading to some 19.5 m of not only surveyed but actually mapped rift cave passages.

ETYMOLOGY: The Slovene caver Pavol MITTER (1979a: 156-157) reported the amazing case of a cave with a Slovene name in a Tamil / Sinhala speaking country:»*Hadia jaskyna pri Kirimalai*« (MITTER 1979a: 156-157) or »*Hadiu jaskynu pri Kerimalai / Snake Cave by Kirimalai*« (MITTER 1978: 147).**SITUATION:** At an unspecified location somewhere in the vicinity of the village of Keerimalai (N09°49': E080°00') on the Jaffna Peninsula.**CAVE DESCRIPTION (472):** The so-called »*Snake Cave*« consists of an about 12 m long horizontal cave developed along two faults along »*190/65*« and »*184/85*« (without units but probably rather degree than grade). The entrance, about 1.5 m high and a meter wide, leads to a chamber from where two branches continue. The south-eastern one ends some 7.5 m from the entrance in a wall, and the southern one runs some 12 m from the entrance into an impenetrable fissure.

467 Buttala (N06°45': E081°14') lies on the highway A4 and about 10 km along the road approximately east from Wellawaya (N06°44': E081°06') and some 15 or 18 km along the road approximately south-west from Monaragala (N06°52': E081°21').

468 SURVEY OF SRI LANKA (a.i. before 1984) toposheet "Buttala" indicates »*Katugahagalge*« (N06°49': E081°15') about 3 km in a direct line approximately NNE from Yudaganawa (N06°46': E081°14').

469 »*Katuwannawa*« (PARKER 1909: 258) as such is not identified unless it has something to do with the pair of neighbouring »*tanks*« (water reservoirs) Katuwannawa Wewa (N07°43': E080°18' WGS84) and, a little further west, Maha Katuwannawa Wewa (N07°43': E080°17').

470 Kimbulwana Oya N07°42': E080°16' <www.nima.mil/> accessed 16.11.2003.

471 Dedura Oya N07°36'09": E079°47'25" WGS84 <www.nima.mil/geonames> accessed 16.11.2003.

472 MITTER (1979a: 156-157) provides a cave description in Slovene, complete with a tiny cave plan.



The more or less horizontal floor, mostly covered with sand and soil with a few fallen rocks and one larger boulder, is partly covered with a shallow pool in the distal end of the southern branch.

EXPLORATION HISTORY: 1979: Pavol Mitter and Milan Liska explored and mapped (MITTER 1978, 1979a, 1979b).

KEERIMALAI SPRING

or: Kirimalai spring

Unexplored and unmapped natural spring in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Keerimalai (Kirimalai), »Keerimale« (PRIDHAM 1849) village.

POSITION: WGS84 N09°49': E080°00' / N09.816667°: E80° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Arumugan, S. 1970; Ceylon Traveller 1974, 1983; Cook, Elsie K 1931; Cooray, P Gerald 1967; Kukla, Jiri 1958; Kusch, Heinrich 1973c; Trimmel, Hubert 1968.

A »fresh-water spring« (COORAY 1967: 71, 263 fig. 93), which is part of a subterranean drainage system in the karst of the Jaffna peninsula, possibly indicates the exsurgence of an active, water-filled stream cave.

Compare →Manipay Sinkhole and the somehow »nearby« (sic!) →Keerimalai Snake Cave.

COOK (1931: 137) explains that the »... Jaffna Peninsula is ... very flat and low-lying, and the limestone bed is evidently fairly level; as it extends under the sea, salt water enters the holes [in the sense of conduits] and is drawn into the underground circulation. It is not surprising, therefore, that the wells of this region exhibit great peculiarities. ... e.g. at Kirimalai, there are freshwater springs on the seashore coming from holes that are not connected with the sea.«

ETYMOLOGY: No locally known name has been identified for this karst spring (and exsurgence cave?) called after village of Keerimalai (Kirimalai, Keerimale). The "Dravidian" (Konkani, Malayalam, Tamil, Telugu, etc.) noun "malai" means »hill« and "keri" (kere, keeri, kiri, querem, etc.) is a »tank« (water reservoir), pool, lake, etc.

SITUATION: At an unidentified location on the Jaffna Peninsula and somewhere in the vicinity of the village of Keerimalai, Kirimalai, or Keerimale (473).

SPRING DESCRIPTION 1958: KUKLA (1958: 169) does not acknowledge his source of inspiration (474) according to which there is an unspecified »cave« located »in Keerimalai ... giving 1600 litres of fresh water per minute« (475): »Most probably, a big underground system of caves [read: conduits] exists in Jaffna with galleries formed above the sea level in the geological past, which now lie below the sea.«

SPRING DESCRIPTION 1967: COORAY (1967: 71): »There is no surface drainage in the Jaffna Peninsula, all the water which falls on the surface passing downwards along fissures formed by solution of the limestone and flowing in underground channels [cave passages, conduits]. The 'bottomless well' at Puttur and the fresh-water spring at Keerimalai are both parts of this subterranean drainage system.«

473 Keerimalai (N09°49': E080°00' www.nima.mil/geonames accessed 16.11.2003) or »Keerimale« (PRIDHAM 1849) and »Kirimalai« (COOK 1931: 137).

474 ARUMUGAN (1970) needs to be checked.

475 TRIMMEL (1968: 266 after KUKLA 1958) confirms: »Einem Höhlenportal bei Keerimalai entströmen rund 1600 l Süßwasser je Minute.«

KUSCH (1973c: 23, apparently after KUKLA 1958), had learned there are smaller and larger caves, including Keerimalai and Kerudavil, in the larger limestone deposits near Jaffna.

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974: 249; 1983: 250): A »new cave« of unknown age (previously not known), complete with a »small« underground lake (unidentified dimensions), was revealed a few years ago near the cement factory at Keerimalai (N09°49': E080°00').

CAVE POTENTIAL: Already PRIDHAM (1849, 2: 515) suspected »some subterranean communication« between the →Tidal Well (Navakkeeri) and »sea at Keerimale« (476).

KEERIMALAI WELL

see: Keerimalai Spring

Cooray, P Gerald (1967: 71, 263 fig. 93).

»There is no surface drainage in the Jaffna Peninsula, all the water which falls on the surface passing downwards along fissures formed by solution of the limestone and flowing in underground channels [cave passages, conduits]. The 'bottomless well' at Puttur and the fresh-water spring at Keerimalai are both parts of this subterranean drainage system« (COORAY 1967: 71).

KEGALLA "CAVES"

A natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district.

MAPS: Survey of Ceylon / Sri Lanka sheet: Dandagamuwa, Gampaha, Kandy, or Kurunegala (One-Inch series).

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965: 144 figure 21.

Without further notice in the text, unspecified »Kegalla caves« (DERANIYAGALA 1965: 144 figure 21) is indicated on the »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galgé).«

IDENTITY: Unknown. The archaeologically most important caves in Kegalla district (477) are Beli Lena (Kitulgala), Doravak Lena, and Alu Lena (Attanagoda) but there is also Helapitha Lena, Lenagala, Pilima Lena, and Yataha Lena.

KERUDAVIL, jaskyna

see: Periya Mandapam (Kerudavil)

Sásvari, Tibor & Terek, Jozef 1984: 109.

KERUDAVIL BARLANG / CAVE

see: Periya Mandapam (Kerudavil)

Sásvari, Tibor 1978: 50 cave plan.

KERUDAVIL HÖHLE

see: Periya Mandapam (Kerudavil)

Kusch, Heinrich 1973c: 23.

KERUDAWILL DRY CAVE

see: Periya Mandapam (Kerudavil)

Mitter, Pavol 1979a: 154-155.

KHIDR, cave of

or: Grotto of Chidr, Khidr, Khizr

Unexplored and unmapped modified natural troglodyte rock shelter.

LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C. & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton AR. 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Lee, Samuel 1829; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

An troglodyte "cave" (or modified natural rock shelter) is associated with the mythical Khidr (478), Chidr (479), or Khizr (480), Khwaja the Green One (481) of Arabic / Islamic tradition.

»This cave lies in a spacious place, where there is a spring which is also called by his name [482]; it is full of fish, but no one catches them. Close to this there are two tanks cut in the rock on either side of the path« (Ibn BATTUTA edited by GIBB & BECKINGHAM 1994: 853-855).

SITUATION: On the southwestern ascent to the »Mountain of Sarandip« (Adam's Peak WGS84 N06°48'30":

478 BECKINGHAM (1994 editor the GIBB 1929 edition of Ibn BATTUTA: 854, 855): »At the grotto of Khidr the pilgrims leave their belongings and ascend thence to the summit of the mountain ... It is customary for the pilgrims to stay at the grotto of Khidr for three days ...«

479 LEICHT (1999 editor of Ibn Battuta: 201) transcribes and translates »Chidr Grotte.«

480 GIBB (1929 editor of Ibn Battuta reproduced 1998: 259) transcribes and translates »grotto of Khidr« as does LEE (1829 editor of Ibn Battuta: 189-190): »... the cave of Khizr, in which there is a large space.«

481 CROOKE, William (1927 editor of Mrs. B. [Begum?] Meer HASSAN ALI, 1832: Observations on the Mussulmans of India) letter 11 footnote 29): »Khwaja Khizr, 'the green one', a water spirit ...«

LEE (1829 editor of Ibn Battuta: 189-190): »Various are the opinions of the Orientals as to this personage, whether he was a prophet, a wali, a saint, or an angel; whether he was Moses, Jeremiah, Elias, Elisha, St. George, &c. &c. However, all agree in thinking very highly of him; some believing him in heaven, others still on earth, but invisible. Mr. Hamaker, in his notes on the "Liber de expugnatione Memphidiis et Alexandriae" has perhaps given the greatest and most authentic variety of opinions about him. See pp. 161-2, with the authorities there cited.«

482 Identified by SKEEN (1870: 228 reprinted 1997).

476 The Tidal Well (Navakkeeri N09°46': E80°05') lies about 10 km in a direct line approximately ESE (8.5 km east and -5.5 km north) from the village of Keerimalai (N09°49': E080°00').

477 Kegalla, the town, at N07°15'11": E080°21'02" (WGS84).

E080°29'53": 2134 m asl) and above the tenth chain (483)

KHIZR, cave of

see: Cave of →Khidr

Lee, Samuel (1829 editor of: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 189-190.

KHUZI, cave of Baba

Unexplored and unmapped modified natural troglodyte rock shelter.

LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet: Hatton or Ratnapura.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354 (edited by Defrémery, C. & Sanguinetti, B.R. 1874-1879; edited by Gibb, Hamilton AR. 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

An unspecified troglodyte »cave« (LEICHT 1999: 200) or a »number of grottoes« (GIBB 1929 ed. 1998: 258), associated with a certain Baba Khuzi / Baba Chuzi (484), who seems to be a Muslim saint. Compare the caves of →Baba Tahir, Cave of al- Sibak.

SITUATION: At a difficult to reconstruct location somewhere beyond »a place called "The Old Woman's Hut" which is the end of the inhabited part« on the way from a place called »Kunakar« (see: Cave of →Ustad Mahmud the Lur) and the »Lake of Monkeys« to a certain »Pass of Iskandar« on a route to the »Mountain of Sarandip« (Adam's Peak N06°48'30": E080°29'53": 2242.3 m asl).

CAVE DESCRIPTION: According to GIBB (1929 ed. 1998: 258), IBN BATTUTA (1355 for 1325-1354) notes »a number of grottoes« but according to LEICHT (1999: 200) one cave (485).

483 GIBB (1929 edition reproduced 1998: 258-259) gives an abridged description of approach and situation; BECKINGHAM (1994: 853-854) more details: »There are two tracks on the mountain leading to the Foot [pars pro toto for: footprint, on the peak]. The Mama track [ascending from Maskeliya northeast of Adam's Peak] is easy and is the route by which the pilgrims return, but anyone who goes by that way is not considered by them to have made the pilgrimage at all. The Baba track [ascending from Kuruwita in the south-west] is difficult and stiff climbing. At the foot of the mountain where the darwaza is there is a cave, which is ascribed also to Iskandar [see: Cave of the →Sultan], and a spring of water. Former generations cut a sort of stairway on the mountain, and fixed iron stanchions on it, to which they attached chains for climbers to hold on by. There are ten such chains, two at the foot of the hill by the darwaza [GIBB 1929 reproduced 1998: 258-259 translates "threshold"], seven successive chains farther on, and the tenth is the "Chain of the Profession of Faith", so called because when one reaches it and looks down to the foot of the hill, he is seized by apprehensions and recites the profession of faith for fear of falling. When you climb past this chain you find a badly kept track. From the tenth chain to the grotto of Khidr is seven miles.«

484 Baba, literally 'grandfather'; affectionate appellation for a male person of any age.

485 Ibn BATTUTA (edited by LEICHT 1999: 200): »Nach... Baba Chuzi ist dort eine Höhle benannt.«

VALENTYN needs to be traced, read, and understood (486). **CAVE LEGEND:** According to GIBB & BECKINGHAM (1994: 853), IBN BATTUTA (1355 for 1325-1354) narrates how »It is related that as a certain traveller was passing by this place the leeches feasted on him. He took no notice and did not squeeze lemons on them but he lost so much blood that he died. His name was Baba Khuzi, and there is a cave there which is called by his name. We continued our journey to the seven caves, then to the pass of Iskandar ...«

KIMEGALLE CAVERNS

see: Galge Caves (Kimegala)

see: Dagoba Galge

Davy, John 1821: 419; Pridham, Charles 1849, 2: 578.

KIRIPOKUNAHELA CAVES

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte caves and springs, probably in Miocene limestones.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Kiripokuna: Kiripokunahela.

POSITION: WGS84 N06°37': E081°44' / N06.616667°: E081.73333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Five caves« (or modified natural rock shelters) with inscriptions.

SITUATION (CEYLON TRAVELLER 1974, 1983: 171): About »two miles« (3 km) from Okanda (487) and on the road south-east towards Kumana (488) is a »jeep track to the right« (probably north-west): »Follow it for two miles [about 3 km] and you come to an open glade dominated by a lotus-covered pond, Kiripokuna [489]. Half a mile [800 m] north of this water-hole is an extensive, flat-topped, and rock hill: Kiripokunahela [490].

A flight of steps carved on a large boulder leads to what remains of a crumbling dagaba. At the base [491] are five caves with inscriptions and another [inscription?] on a flat rock.«

486 »E.B.« (in LAIDLAY 1848 edited 2000: 373 footnote) explains that »Valentyn has given a minute and exact account of this mountain and the images found on the summit of Adam's Peak [Samanta kuta parvata, Samadhela Sripada], in his description of Ceylon.«

487 Okanda N06°39': E081°46' (WGS84 <www.nima.mil/> accessed 16.11.2003) is »the entrance to the Yala National Park« (CEYLON TRAVELLER 1974, 1983: 171).

488 »Kumanu« (CEYLON TRAVELLER 1974, 1983: 171) is the village of Kumana (N06°31': E081°42') near the marsh Kumana Villu (N06°31': E081°42').

489 Kiripokuna (N06°37': E081°43') is a »perennial water source for the hordes of animals that are attracted to it during the dry months« (CEYLON TRAVELLER 1974, 1983: 171).

490 Kiripokunahela N06°37': E081°44'

491 The circumstances are too unclear to decide if the caves are »at the base« of the dagaba or at the base of the hill, which, expressively flat-topped, appears to represent an isolated, residual hill built up from Miocene limestones.

CULTURAL HISTORY - human use: »There are a series of water holes, one of which has a slab of rock thrown across to facilitate the drawing of water« (CEYLON TRAVELLER 1974, 1983: 171).

CAVE POTENTIAL: In case the caves are at the base of the hill, we can expect either wave-cut notches or possibly extensive, horizontal, and anastomosing labyrinths of vadose cave passages formed at the halocline.

The »water holes« may represent cenotes: collapse dolines (closed depressions) giving access to the karst water table and the phreatic zone. Diving spots?

KITULGALA

see: Beli Lena (Kitulgala)

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 3 Fa Hien Cave.

KITULGALA BELI-LENA CAVE

see: Beli Lena (Kitulgala)

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 4 Kitulgala Beli-lena Cave.

KIWULEYA " ROCK CAVE "

Speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters.

LOCATION: Uva province: Monaragala district: Westminster Abbey ridge area: Siyambalanduwa: Kiwuleya.

POSITION: WGS84 N06°55': E081°30' / N06.916667°: E081.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Tirukkivil" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The unspecified »rock cave« (CEYLON TRAVELLER 1974: 252; 1983: 254) at Kiwuleyaya (N06°55': E081°30' WGS84) is associated with one Nanbanna Vihara / Nanbanna Vihare (N06°55': E081°30').

SITUATION: In the north of Siyambalanduwa (N06°54': E081°33') and some 6 km west of Westminster Abbey (N07°02': E081°32') on the road to Baduluwela (N07°05': E081°26') in the Sellaka Oya Sanctuary.

KOKETUWA, cave on the hill of

Chiropterologically investigated but speleologically unexplored and not actually surveyed (unmapped) natural cave.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Diyapotagam Pattuwa: Rakwana range (Rakwana - Bulutota range): Halwinne dola / Halwinna stream basin area: Rakwana: Pallabeda, Werawatta and Wavulpane (Vavulpane, Waulpane) villages.

POSITION: WGS84 (assumed EPE ±1 km) N06°22': E080°48'20" / N06.3.6667°: E080.80555556° (M. Eckrich 1984 pers. comm.).

MAP: Survey of Ceylon / Sri Lanka: Timbolketiya (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

A cave (Eckrich 1984, personal communication).

SITUATION: At a travelling distance of 3 miles (5 km) west along the road from Embilipitiya (492) and high up on the eastern side / spur of the hill Kokekotuwa 975, which lies on the northern (right-hand) side of the road towards Panamure / Panamura (N06°21': E080°46'), Kolonne (N06°24': E080°41') and the Bulutota Pass (N06°28': E080°38').

492 Embilipitiya N06°20'38": E080°50'56" WGS84 <www.nima.mil/geonames> accessed 16.11.2003 is on the highway A18 from Pelmadulla (about 15 km east of Ratnapura) generally south-east to Hambantota.

CAVE POTENTIAL: In one way or another "near" Kokekotuwa hill lies the »Limestone Cave« between the villages of ->Wavulpane and Werawatta.

KOLONNE MINE 1

Chiropterologically investigated but speleologically unexplored and unmapped man-made mine excavated for plumbago / graphite.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area.

POSITION: WGS84 (assumed EPE ±5 km) N06°24': E080°40' / N06.4°: E080.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Rakwana" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

Elephant grass hides the mouth of a shaft (requiring tackle?) giving access to a plumbago (graphite) mine in the west of Kolonne (N06°24': E080°41').

APPROACH (Eckrich 1984, pers. comm.): At the southern edge of the village of Kolonne (N06°24': E080°41'), a cart-track west starts between a temple on the left and a monastery and school on the right-hand side and leads after 1.8 km to the beginning of an ascending footpath off to the "right" (perhaps north or north-west). Following the footpath for an estimated 100 m, the the mouth of the shaft is found (or so) about 2 m below the path, on the "left" (or so) and in tall "elephant grass" (oh yes).

CAVE LIFE: Eckrich, Michael (1984, personal communication) had surveyed bats here (Chiroptera).

KOLONNE MINE 2

Chiropterologically investigated but speleologically unexplored and unmapped man-made mine excavated for plumbago / graphite.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area.

POSITION: WGS84 (assumed EPE ±5 km) N06°24': E080°40' / N06.4°: E080.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Rakwana" or "Timbolketiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

Another entrance, which can be found only with the help of a knowledgeable guide, lies in the vicinity of the first mine (see above) in the west of Kolonne (N06°24': E080°41') and either connects with with or leads to a separate plumbago (graphite) mine (Eckrich 1984, personal communication).

CAVE LIFE: Eckrich, Michael (1984, personal communication) had surveyed bats here (Chiroptera).

KOMARIKAGALA " ROCK CAVE "

Chiropterologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Uva province: Monaragala district: Kukuranpola (Kurukampola) village: Komarikagala (Komarika Gala, Komarika Rock).

POSITION: WGS84 N06°41': E081°11'30" / N06.68333333°: E081.1916667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

Apart from ruins, the so-called »Komarikagala rock cave« (CEYLON TRAVELLER 1974: 253; 1983: 255) of unspecified nature and character is currently (1974) used by

bats as a day roost (Eckrich 1984, personal communication) and seems to have been modified (circa 200 BC) by Buddhist religion workers into a troglodyte hermitage retreat.

SITUATION 1: SURVEY OF SRI LANKA (a.i., before 1984) toposheet Buttala indicates »Komarikagala Rock Cave« near N06°41': E081°11'30" (Everest 1830) and about 2 km in a direct line approximately SSW from the village of Kukuranpola (493), which is accessible by a jeepable, about 4 or 5 km long road from the village of Pelwatta Udawela (494), which lies on the highway A4 at a travelling distance of 4 km from Buttala (N06°45': E081°14') west towards Wellawaya (N06°44': E081°06').

CEYLON TRAVELLER (1974: 253; 1983: 255) confirms that the »Komarikagala rock cave and ruins« lie south-east of Wellawaya (N06°44': E081°06') and south-west of Buttala (N06°45': E081°14').

APPROACH 1 (CT 1974: 253; 1983: 255): »A rough road that is now [1974] being developed into a parallel road connecting the Uva and Southern Provinces takes off southwards from Buttala. About 2.5 miles [4 km] along this road, a path takes off to the right [sic! probable qua: west]. This leads to the village of Kukuranpola and goes on to Telulla [495]. The cave is situated close to Kukuranpola. ... The [walking] distance is approximately eight miles ...« or 13 km.

APPROACH 2 (CT 1974: 253; 1983: 255): »An alternative route is to turn off along a path to the south of the Wellawaya - Buttala road at the 144th milepost [km 231.7]. This path, too, leads to Kukuranpola. The [walking] distance is approximately ... six miles« or or 10 km.

SITUATION 2: Michael Eckrich (München: Zoologisches Institut, 1984 Mss "Bat cave distribution map" without coordinates) indicates the bat research site »Komarikagala« near N06°45': E081°15' (±25 km) and thus in the scrubland (496) of Komarikagala (N06°41': E081°12').

KONGALA " CAVES "

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelters, probably in Miocene limestone.

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Kongala.

POSITION: WGS84 N06°34': E081°42' / N06.5.6667°: E081.7° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet Panama or Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

493 »Kukuranpola« (SURVEY OF CEYLON a.i. "Buttala" sheet; CEYLON TRAVELLER 1974: 253; 1983: 255) is also spelled Kukurampola (N06°41': E081°12' <www.nima.mil/geonames> accessed 16.11.2003).

494 Pelwatta Udawela N06°45': E081°11' (www.nima.mil/geonames accessed 16.11.2003).

495 »Telulla on the Wirawila - Wellawaya road« (CEYLON TRAVELLER 1974: 253; 1983: 255) is the village of Telulla (N06°36': E081°08') which lies at a travelling distance of about 15 km (or so) along the highway A2 from Wellawaya (N06°44': E081°06') initially south to Wirawila (N06°17': E081°13') and then south-west to Hambantota (N06°07': E081°07').

496 Scrubland: An area of low trees, bushes, and shrubs stunted by some environmental limitation.

A »number of caves, ten of which have inscriptions« (CEYLON TRAVELLER 1983: 172).

SITUATION: The rocky hill Kongala (497) is »285 feet« (87 m) high and lies »four miles« (6.5 km) from Kumana (498) »as the crow flies or 7 miles [11 km] along a jeep track by-passing Bovattagala [499].

This outcrop covers an extensive area ... Close by is a large pond, Nelumpath Pokuna, that attracts many wild animals.«

KOODIGOMOOWA NITRE CAVE

see: Kadigomuwa Nitre Cave

Davy, John 1821: 31 footnote.

KOOVAINI, cave of

see: Kuveni Lena

Turnour, George (1832.07.14 in: Forbes, Jonathan 1840, 1841 vol. 2: 275): »Wejaya ... married ... Koovaini, the daughter of a native Prince, by whom he had two children ...«

KORATOTA " CAVE DWELLING "

Speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Western province: Colombo district: Kaduwela: Koratota village.

POSITION: WGS84 N06°55'00": E080°00'00" / N06.916667°: E80° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Avissawella or Colombo.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings ... are scattered throughout Sri Lanka [and] there are many a bare half-hour's drive from Colombo. One of the nearest, 12 miles [19.3 km along a road in an unspecified direction], is at Koratota [500], a rock temple still in use two miles [3 km along the road generally east] from Kaduwela [501]« (CEYLON TRAVELLER 1974: 249; 1983: 251).

KOSGALA CAVES

see: Kosgalla Cave

Lonely Planet, Sri Lanka 2003: 220.

497 Kongala (trigonometric station) N06°34': E081°42' (www.nima.mil/geonames accessed 16.11.2003).

498 »Kumana« (CEYLON TRAVELLER 1983: 172) or »Kumanu« (CEYLON TRAVELLER 1983: 171) is the village of Kumana (N06°31': E081°42') near the marsh →Kumana Villu (N06°31': E081°42').

499 »Bovattagala« (CEYLON TRAVELLER 1983: 172) is the large, flat-topped hill Bowattagala N06°33': E081°41' (www.nima.mil/geonames accessed 16.11.2003) »three miles« (about 5 km along a road) west of Kumana (N06°31': E081°42').

500 Koratota N06°55': E080°00' is a village that lies at a travelling distance of about 20 km approximately south-west from Colombo city (Fort Railroad Station at N06°56'01": E079°51'01" WGS84).

501 Kaduwela N06°55'52": E079°58'25" (WGS84), the town about 15 km west of Colombo, not one of the two villages of Kaduwela N07°24': E080°39' and Kaduwela N07°30': E080°50' (www.nima.mil/geonames accessed 16.11.2003).

KOSGALLA CAVE, Ratnapura

Unexplored and unmapped natural cave.

LOCATION: Central province: Ratnapura district: Kosgalla (Kosgala) village.

POSITION: WGS84 N06°44': E080°21' / N06.73333°: E080.35° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Lonely Plante, Sri Lanka 2003; Wayland, E J 1914.

In the vicinity of Ratnapura are two »highly impressive caves« (CEYLON TRAVELLER 1974, 1983: 154), of which the one (502) at »Kosgalla« (503) is said to lie »five miles« (about 8 km) from the R.H. (rest house) at Ratnapura.

IDENTITY: Little doubt remains that the nameless cave at »Kosgalla« (CEYLON TRAVELLER 1974, 1983: 154) is identical with »some caves at Kosgala ... about 8 km from [Ratnapura] town« (LONELY PLANET 2003: 220) but neither of these is to be confused with →Istripura Cave (Kosgolla), which could be considered a "Kosgolla Cave (Nuwara Eliya)".

CULTURAL HISTORY - archaeology (504): I have not seen WAYLAND, E J (1914): Palaeolithic remains at Kosgalla Estate, Ratnapura district.- *Journal of the Royal Asiatic Society (Ceylon Branch)*, vol. XXIII, N & Q 28 part IV, pp. 117-119.

KOSGOLLA CAVE, Nuwara Eliya

see: Istripura Cave, Kosgolla

Ceylon Traveller (1974: 241, 1983: 243).

The »third Istripura cave« lies » ... near the village of Kosgolla in the valley overlooking Mulhalkalle (Watumulla) on the Kandy - Hanguranketa road«

KOTIYAGALA VIHARA "CAVE TEMPLE"

or: Kotiyagala Vihara Temple Cave

Speleologically unexplored and unmapped modified natural or man-made, sacred, troglodyte, and painted cave or rock shelter (temple cave).

LOCATION: Uva province: Monaragala district: Kotiyagala: Godegedara vihara.

POSITION: (If at Wattagama), WGS84 N06°48': E081°30' / N06.8°: E081.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Batticaloa, Nuwara Eliya, Happutale, Rukam, or Vakaneri.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A so-called »cave temple« (CEYLON TRAVELLER 1974, 1983: 350), which may consist of a modified natural rock shelter or a true cave used as a temple cave, contains a statue of the recumbent (reclining) Buddha and paintings (rock art): »The cave roof and walls must once have been fully covered with paintings.

502 The other of the »highly impressive caves« in the vicinity of Ratnapura lies near »Eratne / Batatota« and is either →Batadomba Lena or →Batatota Lena.

503 The village of Kosgalla or Kosgala N06°44': E080°21' (www.nima.mil/geonames accessed 16.11.2003) lies at a linear distance of 7.5 km north-west of Ratnapura (N06°40'58": E080°23'57" WGS84).

504 »Kosgalla Estate, Ratnapura district« (WAYLAND 1914) is probably the Kosgalla estate (N06°43': E080°20') and not the other Kosgalla estate (N06°01': E080°28').

Much evidence of them remains --elephants gambolling among lotus and olu flowers, horses, hares, serpents, swans, parrots, buffaloes, and female figures similar to those of Sigiriya.«

SITUATION (CEYLON TRAVELLER 1983: 350): Apparently in the province of Uva and accessible by »a six-mile walk« (10 km without orientation) simply »through jungle« from a place called »Kotiyagala« (505), which itself is said to lie »some 12.5 miles« (about 20 km without orientation) on the road to a place called Wattagama (506) that is reached from the »Wellawaya - Pottuvil road« (507) via »a turn off at the 174th mile on the Wellawaya - Pottuvil road« (508).

KOTMALE CAVES

see: Kuttemalai Shelter

Ceylon Traveller 1974, 1983: 177.

KUDAWE CAVE

see: Sinharaja Forest Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 18.

KUDAWA CAVE, Gilimale

Unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sabaragamuwa province: Ratnapura district: Kudawa: Gilimale.

POSITION: Estimated WGS84 coordinates N06°45': E080°29' / N06.75°: E080.48333333° (or so).

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Cooray, P Gerald 1967; Deraniyagala, Paulus Edward Pieries 1958.

An unspecified cave in crystalline limestone mentions COORAY (1967: 97 after DERANIYAGALA 1958) at a location somewhere in the vicinity of the village of Kudawa (N06°45': E080°29') near Gilimale (N06°44': E080°26').

505 »Kotiyagala« (CEYLON TRAVELLER 1974, 1983: 350) is not identified.

506 <www.nima.mil/geonames> (accessed 16.11.2003) lists eight distinct populated places called Wattagama but Wattagama N06°48': E081°30' is nearest to the town of Wellawaya.

507 The »Wellawaya - Pottuvil road« (CEYLON TRAVELLER 1983: 350) is the highway A4 from Colombo (N06°55'55": E079°50'52" WGS84) generally east via the district headquarters of Avissawella (N06°57'11": E080°13'06" WGS84), Ratnapura (N06°40'58": E080°23'57" WGS84), and Haputale (N06°46': E080°58') to the town of Wellawaya (N06°44': E081°06'), and then via the district headquarters of Monaragala (N06°52': E081°21') to the town of Pottuvil (N06°52': E081°50') on the eastern coast of the island.

508 The »174th mile« (CEYLON TRAVELLER 1983: 350) possibly lies in the vicinity of the »175« indicated on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) near N06°55': E081°23' on the road from Wellawaya generally east to Pottuvil and at a T-junction where a road south leads to Wattagama N06°48': E081°30' (WGS84 <www.nima.mil/> accessed 16.11.2003).

KUDAWE CAVE, Sinharaja Forest

see: Sinharaja Forest Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 18.

KUDIMBI GALA ROCK SHELTER(s)

or: Kudimbegala galge, Kudimbigala caves

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelters (temple caves).

LOCATION: Eastern province: Amparai district: Okanda area: Mahalenagala: Kudimbi Gala (Kudimbe Gala, Kudimbegala, Kudimbigala) crag.

POSITION: At Kudimbegala Dagaba spot feature and triangulation station N06°40': E081°45' / N06.6667°: E081.75° (WGS84).

MAPS: Survey of Ceylon / Sri Lanka sheet: Panama.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965; Hussein, Asif (a.i.); Rambukwella, A T 1963.

Apparently several modified natural rock shelters, which are considered to represent »a number of caves« that are used for religious purposes, are not only »inhabited by a sect of hermit monks« but also contain »inscriptions« (CEYLON TRAVELLER 1974, 1983: 171) and paintings together with engraved Brahmic script (DERANIYAGALA 1965: 146).

ETYMOLOGY: So far, I saw Kudimbi Gala galge called, spelled, transcribed (romanised) or edited as Kudimbegala

HUSSEIN, Asif (a.i. after RUMBUKWELLA 1963)

Kudimbi Gala DERANIYAGALA (1965: 146)

Kudimbigala CEYLON TRAVELLER (1983: 171)

Kudumbi gala (crack) DERANIYAGALA (1965: 144 figure 21)

SITUATION: At the base of the »Kudimbigala« (CEYLON TRAVELLER 1974, 1983: 171).

DERANIYAGALA (1965: 146) places »Kudimbi gala crag« (509) somewhere in the Eastern Province but CEYLON TRAVELLER (1983: 171) has »Kudimbigala« dominating the north-eastern entrance of the Yala National Park, where the »lofty and impressive rock« lies »on the right« (about north-west) and »a mile« (one or two kilometres) »before« (approximately north or north-east) reaching Okanda (510) from the town of Panama (511).

CULTURAL HISTORY - rock art (DERANIYAGALA 1965: 146): In some »caves« (or rock shelters) on the island of Sri Lanka, »... the stone age paintings on the bare rock are overlain by three phases of Vādda [Vedda, Veddah, Wedda, etc.] painting, whereas in others there are Sinhala fresco paintings upon plaster together with Brahmic script which has been engraved in the rock. The earliest of the latter [512] appear to be in rock shelters at Kudimbi gala crag and in the Gal Oya valley in the Eastern province.«

509 The »Kudimbi gala crag« (DERANIYAGALA, P E P 1965: 146) is the spot feature and triangulation station Kudimbegala Dagaba N06°40': E081°45' (WGS84 <www.nima.mil/> accessed 16.11.2003) --at least the CEYLON TRAVELLER (193: 171) says of his »Kudimbigala« that »... one cannot but take a second look at this bare peak surrounded by the remains of a dagaba.«

510 Okanda N06°39': E081°46'

511 Panama N06°45': E081°48'

512 The circumstances are too unclear to decide if »the latter« (DERANIYAGALA 1965: 146) refers to Brahmic script or to fresco paintings together with Brahmic script.



KUDIMBIGALA ROCK SHELTER
www.kataragama.org/centers/ accessed 2008.08.16

HUSSEIN, Asif (a.i. after RUMBUKWELLA 1963): »Capt. Rambukwella, who led an expedition to the Mahalenama area [513] in search of the Nittevo in May 1963 has recorded that during the course of the expedition, an excavation of a cave at Kudimbegala revealed at a depth of eight to ten inches [20 or 25 cm], the vertebrae of a talagoya (monitor lizard) and a segment of a carapace of a star tortoise. This is an interesting discovery since according to tradition, these creatures constituted part of the Nittevo diet« (514).

KUDUMBI GALA CRAG

see: Kudimbi Gala Rock Shelter(s)

Deraniyagala, Paulus Edward Pieries 1965: 144 figure 21.

KUDUWE CAVE

see: Sinharaja Forest Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 18.

KUMBURU LENA

Unexplored and unmapped natural cave or rock shelter.

LOCATION: North Western province: Kurunegala district: Melsiripura village.

POSITION: WGS84 N07°39': E080°30' / N07.65°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter called »Kumburulena« or Kumburu Lena (the Sanskrit "kumbh" is a water pot) is situated somewhere near Melsiripura (N07°39': E080°30') in Kurunegala district (CEYLON TRAVELLER 1974: 254; 1983: 256).

513 Mahalenama (triangulation station) N06°39': E081°42' and Mahalenama Eliya (forest) N06°38': E081°42' (www.nima.mil/geonames accessed 16.11.2003).

514 Compare introduction: Troglodyte caves.

KURAGALA CAVE TEMPLE

see: Hituwa Lena

Wilson, Jane M 1988: 23.

KURANDAKA LENA

or, perhap: Karambagala Cave

Unexplored and unmapped natural or man-made painted cave or rock shelter.

LOCATION: Southern province: Hambantota district: Ambalantota area.

POSITION: (If at the town of Ambalantota itself), WGS84 N06°07': E081°01' / N06.1167°: E081.01667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Ambalantota.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c.

Apparently several unspecified "caves" (KUSCH 1973c: 20) or rock shelters are said to have something to do with »Kurandaka« (515). Compare →Karambagala Cave.

SITUATION: Precisely somewhere »In the jungle« (KUSCH 1973c: 20) near Ambalantota (N06°07': E081°01').

COOK (1931: 67): »Along the southern coast there is also a narrow bed of limestone not formed in an ordinary coral reef, which must have developed during a short period of subsidence; this can be seen at Hambantota« (N06°07': E081°07').

CULTURAL HISTORY: According to KUSCH (1973c: 20) after an unidentified source (516), one of the caves in the vicinity of Ambalantota is mentioned as »Kurandaka Lena« in the 5th century Visuddhimagga composed by Buddhaghosa. In the same "cave" (or so), King Gothabaya of Magama (Tissamaharama) sponsored the cave paintings (rock art).

KURUGALA CAVE

see: Hituwa Lena

Basset, Ralph Henry 1929; Morgan, Robert 1943: 13.

KURUGALA CAVERN

see: Hituwa Lena

Ceylon Traveller 1983: 154.

KURUKULLA BERG, Höhlen

see: Hituwa Lena

Hausig, Hans Wilhelm 1984, 5: 398 after Eliot, Charles Norton Edgcumbe 1921 reprinted 1962, 3: 389, 394.

KURUWITA, Grotte près d'

see: AA Cave (Siffre 1975: 21), Batadomba Lena, or Batatota Lena

Siffre, Michel 1975: 21.

KUSALANA KANDA, Cave on the

Speleologically unexplored and unmapped modified natural troglodyte caves or rock shelters (temple caves).

LOCATION: Eastern province: Batticaloa district: "Ru-gama" (Rugam, Rugama, Rukam, Rukambutur, Rukamputur, Urukam): "Kusalana-kanda".

POSITION: (If at Rugama / Rukam itself), WGS84 N07°39': E081°29' / N07.65°: E081.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909.

»Through the kindness of my friend Mr. F. Lewis of the Forest Department in Ceylon, I am able to add a recently found inscription cut at a cave at Kusalana-kanda [517], near Rugama [518], in the Eastern Province. It was discovered and copied by his Forest Ranger ... a facsimile [Fig. No. 151], and a transliteration and tentative translation [519] of it as it stands in the hand-copy sent to me« (PARKER 1909: 445).

KUTTEMALAI SHELTER 1

or: Gal Oya Rock Shelter, Kotmale Cave

Archaeologically investigated but speleologically unexplored and unmapped modified natural, painted, and troglodyte rock shelter, probably in gravitationally dislocated boulders.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Kuttemalai Estate (Kotmale Colony).

POSITION: WGS84 N07°16': E081°37' / N07.2.6667°: E081.616667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Kalmunay (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

One of the »two small caves among the boulders in the Kotmale Colony« (CEYLON TRAVELLER 1974, 1983: 177) contains Veddah rock art (paintings).

SITUATION: Among the boulders in the »Kotmale Colony« or Kuttemalai Estate (520), which lies about »three miles« (about 5 km) east of »Kohobana junction« or Kohombana

517 »Kusalana-kanda« (PARKER 1909) in the Eastern Province is not identified. Not at all in the Eastern Province is one estate Koslankande (N06°45': E081°01') in Badulla district (Eastern Central province) and the village of Kusalagama (N08°01': E080°31') in Anuradhapura district (Northern Central province).

518 »Ru-gama« (PARKER 1909) is not identified unless it stands for the town of Rugam, or Rugama, Rukam, Rukambutur, Rukamputur, and Urukam (N07°39': E081°29').

519 PARKER (1909: 445 inscription 66): »Upaja Naga p(u)te Raja Abaye nama tata-p(u)te Gamani Tisa narnate nakarate sudasane sagasa. Born the son (of) Naga (and) by King Abhaya named (his) own son (the prince) named Gamani Tissa has prepared the 'Beautiful' (cave) of the Community.

This agrees so accurately with the account in the Maha-vansa (i, p. 129) of Watta-Gamini Abhaya's adoption of the son of his brother, King Khallata-Naga, that it appears to settle the question of the identification of the sovereign called Gamini-Tissa, who is thus Mahacula Maha-Tissa.«

520 »Kotmale Colony« (CEYLON TRAVELLER 1983) is not identified unless it has something to do with the estate Kuttemalai N07°16': E081°49' (WGS84 <www.nima.mil/> accessed 16.11.2003).

515 »Kurandaka« (KUSCH 1973c: 20) is not identified. There is a trigonometrical station Karandaka (N07°57': E080°40') but this lies 210 km in a direct line north of Ambalantota (N06°07': E081°01').

516 KUSCH (1973c: 23) based his literary research on Kukla, Jiri (1958), Lajta, Hans (1972), Manjusri, L T P (a.i.), Mauri, Manuela (a.i.), Trimmel, Hubert (1968), and »Ceylon« (i.e. Dhanapala, D.B. 1957b).

(521) on the road from Amparai (N07°17': E081°40') approximately north to Gonagolla (N07°27': E081°38').

CULTURAL HISTORY - rock art: Paintings depict a »female dancer and a man, holding a flower in his left hand, opposite her. The colours used are red, yellow, green, black and white« (CEYLON TRAVELLER 1983: 177).

KUTTEMALAI SHELTER 2

or: Gal Oya Rock Shelter, Kotmale Cave

Archaeologically investigated but speleologically unexplored and unmapped modified natural, painted, and troglodyte rock shelter, probably in gravitationally dislocated boulders.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Kuttemalai Estate (Kotmale Colony).

POSITION: WGS84 N07°16': E081°37' / N07.2.6667°: E081.616667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet Kalmunay (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The other of the »two small caves among the boulders in the Kotmale Colony« (CEYLON TRAVELLER 1983: 177) or Kuttemalai Estate (N07°16': E081°49'), which lies about »three miles« (about 5 km) east of Kohombana (N07°24': E081°37') on the road from Amparai (N07°17': E081°40') approximately north to Gonagolla (N07°27': E081°38').

KUTUGAHUGALGE

see: Katugahagalge

Eckrich, Michael 1984: Bat cave distribution map.

KUVENILENA, Jaffna

Unexplored and unmapped fabulous or natural sacred cave.

LOCATION: Northern province: Jaffna district.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet Jaffna or Point Pedro (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Mahanamo 459 - 477; Tennent, James Emerson 1859, 1860, 1861; Turnour, George 1837.

A fabulous closed depression, complete with a pool of water, is mentioned in the 7th chapter of the 5th-century Pali chronicle transcribed (romanised) as Maha Wanse, Mahawanso, or Mahavansa, etc.

ETYMOLOGY: So far, I saw queen "kuveni" (the »caving« ?) transcribed (romanised), spelled, or edited as

Cawany LAIDLAY (1848: 371 footnote) after Landresse (522) in ABEL REMUSAT (1836)

Koovaini Turnour (in FORBES 1840, 1841. ii: 275)

Kuveni TENNENT (1860)

Kuwani FORBES (1840,1: 11; 1841, 2: 44 footnote).

521 »Kohobana junction« (CEYLON TRAVELLER 1983: 177) or »Kohombana junction« (CEYLON TRAVELLER 1974: 253; 1983: 254) appears to correspond to the village of Kohombana N07°24': E081°37' (www.nima.mil/geonames accessed 16.11.2003).

522 LAIDLAY J.W. (1848 edited 2000: 371 footnote †) after »M« (Monsieur) C. Landresse (in: ABEL REMUSAT J P 1836) referring to UPHAM (s.a.: »Sac. and Hist. Books of Ceylon, Vol. I, p. 69, and Vol. II, p. 171 et seq.«): »The Sinhalese books state that it was Vija (Vijay), son of Sinhala, who ... with the aid of Cawany, effected the destruction of the supernatura beings that remained in the island ...«

CULTURAL HISTORY - cave legend (523): TENNENT (1860, 1: 332): »Wijayo and his followers, having made good their landing [on the island of Sri Lanka in ca. 563 BC], are met by a "devo" (a divine spirit), who blesses them and ties a sacred thread as a charm on the arm of each. One of the band presently discovers the princess in the person of a devotee, seated near a tank [water reservoir], and she being a magician (Yakkhini) imprisons him and eventually the rest of his companions in a cave [524].

... all these persons not returning, Wijayo, becoming alarmed, equipping himself with the five weapons of war, proceeded after them, and examined the delightful pond: he could perceive no footsteps but those leading down into it, and there he saw the princess. It occurred to him his retinue must surely have been seized by her, and he exclaimed, 'Pray, why dost not thou produce my attendants?' 'Prince,' she replied, 'from attendants what pleasure canst thou derive? drink and bathe ere thou departest.' [525]

523 Also associated with »Kuvani« (TENNENT 1860) or »Kuwani« (FORBES 1840, 1841) and »Wijayo« (TENNENT 1860) or »Vijaya« (FORBES 1840, 1841) is →Saega Lenna (Sri-Wasta-Poora).

524 TURNOUR (1837) has noticed the strong similarity between this story and Homer's account of the landing of Ulysses in the island of Circe (Odys. x. l. 343). The resemblance is so striking that it is difficult to conceive that the Sinhalese historian of the 5th century was entirely ignorant of the works of the European father of poetry.

525 TENNENT (1860, 1.iii Note): »It is impossible not to be struck with a curious resemblance between this description and that in the 10th book of the Odyssey, where Eurylochus, after landing, returns to Ulysses to recount the fate of his companions, who, having wandered towards the palace of Circe, had been imprisoned after undergoing transformation into swine. Ulysses hastens to their relief, and having been provided by Mercury with antidotes, which enabled him to resist the poisons of the sorceress, whom he discovers in her retreat, the story proceeds:

*The faulchion keen, with death denouncing looks,
Rush'd on her, she, with a shrill scream of fear,
Ran under my raised arm, seized fast my knees,
And in winged accents plaintive thus began.
Who, whence thy city, and thy birth declare.
Amazed I see thee with that potion drenched,
Yet unenchanted: never man before
Once passed it through his lips and lived the same.
... Sheath again*

*Thy sword, and let us on my bed recline,
Mutual embrace, that we may trust henceforth
Each other without jealousy or fear.*

*The goddess spake, to whom I thus replied:
Oh Circe, canst thou bid me meek become,
And gentle, who beneath thy roof detain'st
My fellow-voyagers ...*

*No, trust me, never will I share thy bed,
Till first, oh goddess, thou consent to swear
That dread, all-binding oath, that other harm
Against myself, thou wilt imagine none.*

*I spake, she, swearing as I bade, renounced
All evil purpose, and her solemn oath
Concluded, I ascended next her bed«
She spake, I, drawing from beside my thigh
(COWPER's Odyssey, B. x, p. 392).*

Seizing her by the hair with his left hand, whilst with his right he raised his sword, he exclaimed, 'Slave, deliver my followers or die.' The Yakkhini terrified, implored for her life; 'Spare me, prince, and on thee will I bestow sovereignty, my love, and my service.' In order that he might not again be involved in difficulty he forced her to swear, and when he again demanded the liberation of his attendants she brought them forth, and declaring 'these men must be famishing,' she distributed to them rice and other articles procured from the wrecked ships of mariners, who had fallen a prey to her. A feast follows, and Wijayo and the princess retire to pass the night in an apartment which she causes to spring up at the foot of a tree, curtained as with a wall and fragrant with incense» ().

KUWANI, cave of

see: Kuveni Lena (Jaffna)

Forbes, Jonathan 1840, 1: 11 footnote; Forbes, "Major" 1841, 2: 44 footnote, 275.

FORBES (1840 vol. 2: 44 footnote): »In the Raja Wallia, **Kuwani**, of the aboriginal race of Ceylon, mistress and wife of Vijeya their conqueror, is represented as having been warned of her hard fate by Eiswara in a dream.«

FORBES (1840 vol. 2: 79): »...Vijeya formed a connexion with a beautiful female of the country, called **Kuwani** (of the Yakka race) ...«

FORBES (1840 vol. 2: 81): »The spirit of **Kuwani** is still supposed to haunt the country, and inflict misfortune on the race of the conqueror by whom she was betrayed. **Kuwanigalla** is a bare mountain of rock on which are two stones, one slightly resembling a human figure in a standing attitude, the other looking like a seat. It is on this that traditions assert the Yakkini sometimes appears, and casts the withering glance of malignant power over the fair fields and fertile valley of Asgiri« or Asgiriya (526).

LAKSAPANA FALLS CAVE

or: Laxapana Falls Cave

Unexplored and unmapped natural cave, possibly in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Adam's Peak area: Norton Bridge: Maskeliya Oya valley: Laksapana (Laxapana) Falls. POSITION: WGS84 N06°54': E080°30' / N06.9°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Estimated ±12 m (+12m / -0m).

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967.

A »magnificent cave« (COORAY 1967: 97) or, perhaps, gaping rock shelter (?), in Precambrian (Khondalite series) limestone, is an estimated 9 or 12 m high, and just about visible behind the base of the 115 m (377 feet) high Laksapana Falls (Laxapana Falls) and, »what can be seen of it is thirty to forty feet in height« (COORAY 1967: 97).

SITUATION (CEYLON TRAVELLER 1974: 244; 1983: 246): »Beyond the peak« (527) or on the northern fringe of the Adam's Peak Wilderness Sanctuary and a short distance south-west of the village of Norton Bridge (528), the apparently »magnificent« entrance lies »at the foot of Laxapana Falls« or Laksapana Falls (529).

APPROACH: »To reach it involves a steep but rewarding descent« (COORAY 1967: 97 quoted in CEYLON TRAVELLER 1974: 244; 1983: 246).

CAVE DESCRIPTION: COORAY (1967: 97 quoted in CEYLON TRAVELLER 1974: 244, 1983: 246): »This is a magnificent cave, partly occupied by a large pool, and what can be seen of it is thirty to forty feet [9 to 12 m] in height. It is not possible to get into this cave, or even very near to it. One can only stand at a distance on the huge, rather slippery boulders that lie strewn about, and catch a glimpse through falling spray of a scene as awe-inspiring and silently majestic as something from a Rider Haggard story« (530).

LENAGALA

Unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Warakapola village: Lenagala (Lena Gala).

POSITION: (If at Lenagala Ihala), WGS84 N07°12': E080°15' / N07.2°: E080.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Gampaha" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter (CEYLON TRAVELLER 1974: 254; 1983: 256).

ETYMOLOGY: The Sinhala "lenagala" is compounded of "lena" (cave) and "gala" (rock) and possibly means a conspicuous, isolated rocky mass with one or several caves or rock shelters.

SITUATION: CEYLON TRAVELLER 1974: 254; 1983: 256) places »Lenagala« in the vicinity of Warakapola (531) and thus in an area where we find the villages of Lenagala (N07°06': E080°13'), Lenagala Ihala (N07°12': E080°15'), and Lenagala Pahala (N07°07': E080°16').

527 The »peak« (CEYLON TRAVELLER 1974: 244; 1983: 246) is Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" WGS84 <www.nima.mil/geonames> 16.11.2003) culminating at »7360 feet« (Survey Department 1977: Road map of Sri Lanka) or 2243 m asl (LONELY PLANET 2003: 187).

528 Norton Bridge, a village near N06°54'01": E080°31'04" <www.nima.mil/geonames> accessed 16.11.2003.

529 »Laxapana Falls« (COORAY 1967: 97; CEYLON TRAVELLER 1974: 244; 1983: 246) is marked »Laksapana Falls 377 Ft.« (115 m) on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) and positioned both as Laxapana Falls and as Laksapana Falls near N06°54': E080°30'

530 The very simple and popular victorian Rider Haggard (Sir Henry Rider Haggard 1856-1925: King Solomon's Mines.- London, 1885) penned a romantic African adventure which played for the English the role that Emilio Salgari played for the Italians and Karl May for the Germans: The superior civilized goodman abroad has daring problems with bad natives but wins in the end.

531 Warakapola (N07°13'33": E080°12'09" WGS84 <www.nima.mil/geonames> accessed 16.11.2003) is indicated as »Warakapola« on the "Road Map of Sri Lanka" (Survey Department 1977).

526 »Asgiri« (FORBES 1840, 1841) or Asgiriya N07°18': E080°38' (www.nima.mil/geonames accessed 16.11.2003): »A sequestered and most romantic spot in the Matale district« (FORBES 1840 vol. 2: 81 footnote).

LIMESTONE CAVE, Timbolketiya

see: Wawul Galge, Wellawaya

Survey of Ceylon: Timbolketiya (one-inch map); Wilson, Jane M 1988: 23.

LOWER OUVA, great cave in

see: Wawul Galge, Wellawaya

Pridham, Charles 1849: 709.

LOWER UVA NITRE CAVE

see: Wawul Galge, Wellawaya

Brohier, Richard Leslie 1956.

LUCKYLAND ESTATE CAVE

Biospeleologically investigated but speleologically unexplored and unmapped natural pothole cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Unidentified (Central or Uva) province: Unidentified (Badulla, Nuwara Eliya) districts: Luckyland (Lucky Land) Estate.

POSITION: WGS84 (±5 km) N06°59': E080°55' / N06.984°: E080.917° <www.nima.mil/geonames> accessed 16.11.2003).

MAP: Survey of Ceylon / Sri Lanka sheet Nuwara Eliya.

SPELEOMETRY: Length: Estimated 40 m. Vertical range: Estimated ±40 m (+0m / -40m).

BIBLIOGRAPHY: Siffre, Michel 1975.

An estimated up to 2 m by 4 or 5 m wide pothole cave entrance (532) in crystalline limestone gives access to an estimated 40 m descent / fall down to a floor of earlier fallen bat shit and boulders.

According to SIFFRE (1975: 30, 34, 38-39), the rift pot of the cave in the »*Lucky Land Estate*« (Luckyland Estate) is slippery from bat guano and controlled by a geological disturbance and originates from an allegedly »tectonical« (gravitational?) dislocation (533).**SITUATION:** In the geographic centre of Sri Lanka (SIFFRE 1975: 31) and at an unspecified location somewhere within the »*Lucky Land Estate*« (SIFFRE 1975: 31), which is the tea plantation (SIFFRE 1975: 38) called Luckyland (534).

532 SIFFRE (1975: 30) gives a photograph titled »*exploration de Lucky Land Estate Cave dans la centre de Ceylan*« shows a person climbing out of the mouth of a joint-controlled pot hole half covered with vegetation.

533 SIFFRE (1975: 38-39): »*Il s'agissait d'une espèce de large diaclase située au milieu d'une plantation et d'une profondeur de quatre-vingts mètres environ. Dès premiers mètres, je dus descendre en escalade sur des roches noichâtres recouvertes de guano. Les blocs étaient très glissants et à plusieurs reprises je fis des chutes heureusement sans gravité. Après dix minutes de progression, j'étais couvert d'excréments de chauves-souris. Je ne fus pas long à apercevoir celles-ci ... Je continuai ma progression tout au long de la paroi droite de la cavité à la recherche d'éventuelles galeries adjacentes. Mais rien. Uniquement le voûte rocheuse qui rejoignant un sol de gros éboulis.*«

534 Luckyland N06°59': E080°55' <www.nima.mil/> accessed 16.11.2003) in Badulla district (sheet Nuwara Eliya) but not the other estate Luckylandwatta (N07°34': E080°41') in Matale district (SoC / SoSL sheet Rangala).

Also found in the vicinity of Luckyland Estate cave is the enigmatic →AA Cave (Baker), →Istripura Cave (Welimada), the cave at →Hakgala, the cave at →Padanwela (near Wilson's Bungalow), and →Sita Kund (Hakgala).

CAVE DESCRIPTION: The climb down past very slippery rocks blackened by bat guano descends into a rocky vault with no apparent ways on. The ceiling is coated with "flying mammals" but a gap between fallen boulders allows descending 2 or 3 m down into an dead end stuffed with bats and bat guano.**CAVE LIFE:** SIFFRE (1975: 38-39) noticed bats (Chiroptera) and bat guano.**EXPLORATION HISTORY:** 1961 February or March: The so-called »*M. Deraniyagala*« (i.e. "Monsieur" = Mister Deraniyagala, Paulus Edward Pieries, naturalist, Natural History Museum, Colombo) told Michel SIFFRE (1975: 34) about a kind of large rift about 40 m deep (535).1975.03.15: An unacknowledged local guide walked Michel SIFFRE (1975: 38) and his servant »*Caldera*« to the entrance. Michel Siffre descended on a rope, looked around, ascended and exited.**LUNU GALGE**

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area.

POSITION: (If at Uggalkaltota »Ukgal Kaltota« itself), WGS84 N06°38'57": E080°52'32" / N06.64916667°: E080.87555556° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 19 Lunu-Galge.

One of a series of »*rock shelters*« (536) or true caves with inhabitable entrance areas is called »*Lunu Galge*« (DERANIYAGALA 1980: 172).**SITUATION:** Somewhere on the escarpment between the villages Diyavinna and »*Ukgal Kaltota*« or Uggalkaltota (N06°39'13": E080°52'32" WGS84) in the vicinity of a spot which lies about 20 or 25 km east-south-east of Balangoda (N06°38'57": E080°40'20" WGS84) and some 10 or 15 km south-south-west of Haputale (N06°46': E080°58').**CULTURAL HISTORY:** Archaeological excavation is said to have yielded allegedly »*meagre prehistoric finds*« (Brooks 1995 Mss, item no. 19; after DERANIYAGALA 1980: 172).

535 SIFFRE (1975: 34): »*Une espèce de large diaclase ... d'une profondeur de quatre-vingts mètres environ.*«

536 Other »*rock shelters*« (so so) on this escarpment are →Bambaragala Shelter, →Budugala Caves, →Diyavinna Cave, →Kurugala Cave →Udupiyan Galge.

LUNUATUGALGE

or: Lunuatu Galge

Unexplored and unmapped modified natural troglodyte cave or rock shelter (temple cave).

LOCATION: Unidentified (Southern or Uva) province: Unidentified (Hambantota or Monaragala) district: Yala National Park area: Lunuatu Galge (Lunuatugalge).

POSITION: WGS84 N06°31': E081°30' / N06.516667°: E081.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Hambantota, Kataragama, or Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

WEBSITE: <www.nima.mil/geonames> accessed 16.11.2003.

One of the eight Sri Lanka "CAVE" (537) entries (538) which were listed on <www.nima.mil/geonames> (accessed 16.11.2003) and, less accurate, on <www.wayhoo.com> (accessed 25.05.2004).

ETYMOLOGY: "Lunuatugalge" means »Home [of] Lunuatu« (galge is a contraction of gala ge; gala = stone, rock; ge = home, house).

SITUATION (after CEYLON TRAVELLER 1974, 1983: 173): South of the peaks of the →Talaguruhela (N06°34': E081°29') and west of the Diulanagoda (N06°37': E081°33') by the the Kumbukkan oya.

ACCESS: The absence of Lunuatugalge caves for consumers of the CEYLON TRAVELLER (1974, 1983: 173) is probably explained with saying that »Only scientists are allowed to enter its [the Natural Reserve's] portals and this too, with the express permission of the Department of Wild Life Conservation.«

CAVE DESCRIPTION: CEYLON TRAVELLER (1974, 1983: 173) mentions Lunuatugalge (without any caves or rock shelters) as a waypoint on on the approach from the northern boundary of the »Yala Strict Natural Reserve« (111 square miles north-west of Block II and between the Menik Ganga and the Kumbukkan oya) to the »1,001 feet« (305.2 m) peak Dematagala.

LUNUGALA LENA

or: Nitre Cave, Nitro Caves, Vedilunu Guhava

Explored and mapped natural cave and fabulous tunnel in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »Doombera district« (Davy 1821), »Dombera« (FORBES 1840, 1841. ii: 240), »Nitre Cave district« (LEITER 1948: 61) or in »Uda« (KUSCH 1973c) area: Corbett's Gap / Corbets Gap (Attala-mettuwa, Corbets Gap): Loolwatta (Looloowatte, Loolwatte) via »Kaikiwala« (URAGODA 1973) or »Kaikawala« (KUSCH 1973c) to Mimure (Meemoorra, Meemora, Meemure, Memora, Mimura) village: Lunugalla (Lunugala).

POSITION: Unspecified map datum possibly WGS84 coordinates N07°25'03.8": E080°52'13.9" / N07.41772222°: E080.87052778° (www.lakdasun.com/trails/trail-14-nitro-caves... 2009.01.21 accessed 2009.08.02): 721 m asl (2365 feet, PEET 1946) or 611 m asl (2000 feet, CEYLON TRAVELLER 1974: 243, 1983: 245) or 676 m asl (GPS on <www.lakdasun.com/trails/trail-14-nitro-caves...> 2009.01.21 accessed 2009.08.02).

MAP: Survey of Ceylon / Sri Lanka sheet "Rangala" (One-Inch series).

SPELEOMETRY: Length: Approximately 60 m. Vertical range: ±18 m (+18m / -0m).

BIBLIOGRAPHY: Brohier, Richard Leslie 1956; Ceylon Traveller 1974, 1983; Cook, Elsie Kathleen 1951; Cooray, P Gerald 1956, 1961a, 1961b, 1967; Davy, John 1821, 1822; Forbes, Jonathan 1840, 1841; Gamage, Anjuna 2005.08.06; Hill, Carol A & Forti, Paolo 1986; Leiter, N 1947, 1948; Peet, Geoffrey A 1945, 1946; Pridham, Charles 1849; Uragoda, C G 1973; Wilson, Jane M 1988.

NOT SEEN LITERARY SOURCES: Cooray, P. Gerald 1961a, 1961b; Keunemann, H 1956; Poulter, R S V 1956; Rosayro, R A de 1958; Ferguson, A M 1859 = »Ferguson's Directory«, and »Times' Green Book« a.i. before 1948.

MANUSCRIPT REFERENCES: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 40; Eckrich, Michael 1984: Bat cave distribution map.

WEBSITE: <www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> accessed 2009.08.02.

A north to NNE-east facing cave entrance (PEET 1946 cave plan), 25 m wide and 11.7 m high (PEET 1946: 93) leads to a »large cave« (CEYLON TRAVELLER 1974: 243, 1983: 245), which, upon entering, ascends by an angle of 39° towards approximate SSW, is the »biggest« in the area (LEITER 1948: 65) and »one of the largest limestone caves of Ceylon« (LEITER 1948: 61), famous for once having been exploited for »nitre« (saltpetre, potassium nitrate), and has formed by dissolution of crystalline and dolomitic, »variable in composition and texture« (COORAY 1956: 56) limestone of the Precambrian Khondalite Series (539).

539 LEITER (1949: 64-65) compiled from unacknowledged sources that »The Nitre Cave District consists of rocks of the Khondalite Series, in places impregnated with the intrusive rocks of the Charnockite Series. ... Though the quartzite is the most dominant member in the Khondalite Series, the crystalline limestones and dolomites are the most consistent formations.... The quartzite bands are very prominent and these are intercalated with calc-magnesian granulitic strata in the form of lenticular pockets. These pockets vary in thickness from a few inches up to 20 feet [6.1 m]; they occur at varying elevations, from 1,540' to about 4,200' [469 m to 1280 m], but are very frequent at along the 2,500' [762 m] contour line south of the Heen Ganga. Wherever the limestone has been dissolved out of these pockets the caves do occur.«

537 <ftp://ftp.nga.mil/pub/gns_data/Designations.html> (accessed 28.05.2004): »cave(s): An underground passageway or chamber, or cavity on the side of a cliff.«

538 <www.nima.mil/geonames> (accessed 16.11.2003) lists Dagaba Caves (N06°36': E081°23'), Henanegala Cave (N07°35': E081°17'), Itikala Caves (N06°34': E081°44'), Lunuatugalge Cave (N06°31': E081°30'), Lunuhinda Cave (N07°40': E080°39'), Mulagama Cave (N07°15': E081°29'), Talaguruhela Rock Caves (N06°34': E081°29'), Viharegala Rock Cave (N06°39': E081°39').

ETYMOLOGY: PEET (1946: 94): »The native name for Nitre Cave is "Lunugala" (white salt rock). One might take this to refer to the nitre but the whitest of that was not nearly so white as the limestone. We questioned, Panniah the quite was most emphatic upon the point that lunugala was limestone. Why the Tamils should have [a?] different name for the same rock ten miles apart is something of an enigma.«

URAGODA (1973: 39): »When walking from Karambaketiya to Mimure one gets distant glimpses ... of a rock with a white patch. It marks the situation of Nitre Cave. The villagers call it Lunugala (salt-rock) or Wawulagala (bat-rock). All these three names are most appropriate. The cave is the homing grounds of thousands of bats, and it is known to contain nitre or potassium nitrate or saltpetre which is a salt (=lunu). It speaks a lot of the innate intelligence of these remote villagers to have realised that the cave contains a chemical which is scientifically classed as a salt, this line of thinking being implied in the name Lunugala.«

CEYLON TRAVELLER (1974: 243, 1983: 245): »Nitre Cave« is »... named after the thick layers of nitrate left from the droppings of bats over centuries.«

GAMAGE (2005.08.06): »About 5 km from the Meemure Village - is the "Vedilunu Guhava" (Nita Caves).«

Foreigners prefer to call Lunugala Galge simply »Nitre Cave« and then distinguish it from all the other nitre caves by relating it either to the Corbett's Gap (540), to the village of Mimure (541), which lies on the approach to the cave, or to the region of »Doombera« (HILL & FORTI 1986: 104; PRIDHAM 1849, ii: 709), Dombera or Dumbara (COOK 1931: 351) covering »The Knuckles« or Rangala range.

So far, I saw Lunugala Lena called, spelled, transcribed or romanised and edited as
Doombera, cave in DAVY (1821: 31 footnote item 32, 379-380)
Doombera, cave near PRIDHAM (1849, 2: 663, 709)
Meemoorra Cave FORBES (1840, 1841.ii: 103 footnote); PRIDHAM (1849, 2: 663)
Memoora, cave at DAVY (1821: 31 footnote, 350, 379); PRIDHAM (1849, 2: 663, 709); DAVY (1822: 161)
Memora Cave DAVY (1821: 33)
Mimure, cave near BROHIER (1956); PEET (1945, 1946)
Nita Cave GAMAGE (2005.08.06)
Nitre Cave CEYLON TRAVELLER (1974: 243, 1983: 245); URAGODA (1973)
Nitre Cave, Doombera DAVY (1821: 31 footnote item 32); HILL & FORTI (1986: 104)
Nitre Cave, Kaikawala KUSCH (1973c: 23)
Nitre Cave, Kandy WILSON (1988: 22)
Nitre Cave, Knuckles COOK (1951: 351)
Nitre Cave, Mimure CEYLON TRAVELLER (1974: 243, 1983: 245)
Nitre Cave, Meemoorra FORBES (1840, 1841.ii: 103 footnote); PRIDHAM (1849, 2: 663)
Nitre Cave, Rangala BROHIER (1956); COORAY (1967)
Nitre Cave in Uda KUSCH (1973c: 23)
Nitre Cave(s) Brooks (1995 Mss no. 40)
Nitre Caves, Peet 1945 WILSON (1988: 22)
Nitro Caves <www.lakdasun.com/trails/trail-14-nitro-caves...> (accessed 2009.08.02)

Salpeterhöhle

Wawulagala Lena

Vedilunu Guhava

URAGODA (1973: 39)
GAMAGE (2005.08.06)
POSITION 1946: N07°25'00": E080°52'30" (unspecified map datum probably Everest 1830): 712 m asl (or »2365 feet« Geoffrey A. Peet 1954 July in: PEET 1946).

POSITION 1946: N07° 25.064': E080° 52.232' (N07°25'03.8": E080°52'13.9"): 673 m asl (unspecified map datum, GPS 2009.01.21 <www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> accessed 2009.08.02).

SITUATION: In the Knuckles Wilderness (542) of the »Rangala range« (543), in the upper Heen Ganga basin, and in the obsolete »Doombera district« (544).

540 »Corbett's Gap« (CEYLON TRAVELLER), »Corbetts Gap« (PEET 1946), »Corbett's Gap« (COORAY 1956) or »Corbets Gap« N07°22': E080°50' (www.nima.mil/geonames accessed 16.11.2003); in Sinhala: Attala-mettuwa.

FORBES (1840, 1841.ii: 101) narrates how he had »... breakfasted, at an elevation of three thousand three hundred feet above the sea, on a spot from which we saw into the valley of Meemoorra on one side, and on the other our view extended over the districts through which we had passed to the plains on the north and east of the Kandian territory.«

541 Mimura, Mimure N07°26': E080°50' <www.nima.mil/> accessed 16.11.2003)

Meemure GAMAGE (2005.08.06) www.lakdasun.com/trails/trail-14-nitro-caves ... (accessed 2009.08.02)

Meemoorra FORBES (1840, 1841.ii: 104); PRIDHAM (1849, 2: 663)

Memoora DAVY (1821: 379; 1822: 161)

Mimure CEYLON TRAVELLER (1974, 1983); COORAY (1956); LEITER (1948); URAGODA (1973).

542 The Knuckles (mountain) N07°24': E080°48' culminate with »Knuckles Peak« at »6112 feet« = 1863 m asl (Survey Department 1977: Road Map of Sri Lanka; COOK 1931: 351).

543 »Rangala Range« is meant to mean the range of hills above the village of Rangala N07°21'14": E080°47'07" <www.nima.mil/geonames> accessed 16.11.2003.

544 »Doombera« (DAVY 1821) or »Dumbara« is a »... wide open valley lying to the east of Kandy, separated from it by hills and ridges, and containing a great deal of fertile land, on which cocoa and tobacco are successfully cultivated. The alluvial valley floors are used for paddy, and this region contains some of the finest paddy terraces in the Hill Country. The population, which was no doubt at one time more dispersed, has been attracted more and more to the main arteries of communication ...« (COOK 1931: 346)

SITUATION 1821 (DAVY 1821: 379): Arriving from Kandy, and having descended, »... the path divided; we quitted that most trodden, which led to the secluded village of Memoora, and entered another, just perceptible, leading off to the right, before which a few withered boughs were strewed to show that the way was prohibited. After an hour's hard walking over most difficult ground, we arrived at the object of our search. The first view of the place was exceedingly striking. A large cave appeared in a perpendicular face of rock about three hundred feet high crowned with forest, at the base of which was a stage or platform of rubbish, that seemed in danger of sliding into a deep wooded valley, closed in by mountains of considerable elevation and remarkable boldness.«

SITUATION 1822 (DAVY 1822: 161-162): »Die Höhle befindet sich in der Nähe des Dorfes Memoora, in einem Felsen von 300 Fuß Höhe, der oben mit Gehölz bewachsen ist, und in Gefahr zu seyn scheint, in ein mit Holz bedecktes Thal herabzustürzen, welches rings umher mit hohen, kühn emporstrebenden Bergen umgeben ist.«

SITUATION 1840 (FORBES 1840, 1841. ii: 103 footnote): »Meemoorra is a deep narrow valley beyond Lakagalla [545]; and in the mountains which form the opposite side is a nitre cave, the most productive in the Kandian country, although the quantity it yielded was so trifling that it is not now worth working.«

SITUATION 1849 (PRIDHAM 1849, 2): »Near Meemoorra« (page 663) and »near Doombera« (page 709).

SITUATION 1931 (COOK 1931: 351): In »the Knuckles Group« section of the »Hill Country« region, which is »... cut off from the main mass, on the south of the Mahaweli Ganga Valley and on the west by the Matala Valley, the connecting link being the ridge which extends across the upper Matala Valley towards Wattagama. The central and eastern side of this region is wild country with no roads capable of taking anything more than a small bullock cart, and almost uninhabited. ...

In olden days it was no doubt more inhabited, on account of its connection with the route from Dambulla to Alutnuwara, the chief entrance to this side of the Hill Country, now completely abandoned. ... The western side of the region is considerably developed, mainly no doubt on account of its greater accessibility from the Kandy Plateau.«

SITUATION 1945 (PEET 1945: 69, 70): »Nitre Cave is 45 miles [72.5 km] west of Kandy and is reached by following the Kandy - Teldeniya road (or rather jungle track) towards Rangala. ... Little information seems to be available concerning Nitre Cave itself ... Apparently it lies, probably among many other caverns, in a stretch of limestone country through which flows the Mahaveli and its tributary the Heen Ganga.«

SITUATION 1948 (LEITER 1948: 61): »Before the roads were built from the coast to the interior of the Island ... Nitre

Cave District [546] ... was not such an outlandish place as it is now, as then the highway from Matala [547] to Badulla [548] passed through the district.

In the District, centrally placed, is one of the largest limestone caves of Ceylon, purported to contain nitre ... The easiest access to the Nitre Cave District is through Kandy - Teldeniya - Rangala to the Corbets [sic] Gap, which is the end of the motorable road -- altogether 28 miles« (45 km).

SITUATION 1956 (BROHIER 1956): »... Central Province. As a fairly well-known feature one of the latter lends itself to distinguish the country off Rangala, known as the Nitre Cave district. This cave too, off the secluded village called Mimure has claimed Dr. Davy's attention. He stresses that his excursion into " the hitherto unexplored district of Doombera," was chiefly for the purpose of examining the nitre cave ... His first impression of the cave, he describes as " exceedingly striking." It is perched on a perpendicular face of rock about three hundred feet high, on the side of a deep valley, closed in by mountains of considerable elevation and remarkable boldness.«

SITUATION 1967 (COORAY 1967: 66, figure 24) gives a line-drawing of the Knuckles massive as seen from Wamarapugala mountain (5116 feet, 1560 m), which shows the location of Nitre Cave on the northwestern side of Kehelphodoruwegala, a mountain rising to a height of 5016 feet (1530 m).

COORAY (1967: 97): On the island of Ceylon, »solution caves reaching up to 10 or 20 feet in height are sometimes found in crystalline limestone bands. The caves are generally in rather inaccessible spots, unfortunately, often on the sides of steep cliffs, as in the instance of Nitre Cave in the Rangala area. To reach this cave is difficult but well worth the effort, and when one gets there eventually one finds a large cave with a mouth almost 12 feet [3.66 m] high, in an almost vertical cliff face.«

546 LEITER (1948: 61) states that the »Nitre Cave district of Ceylon« (PEET 1945: 69) »... has been known by that name for some time, as there is reference to it in the writings of Dr. Davis' ...« This is not the case.

DAVY (1821) places this »nitre-cave« expressively »in Doombera« and this appears to be the »Dombara« mentioned by FORBES (1840, 1841.ii: 118-119): Having crossed the river Maha-oya, »... there is an ascent of three miles to the rest-house of Gonagamma [N07°01': E080°22'], fifteen miles from Kandy. At this place I left the main road to Badulla, and struck off towards Hanguranketa, over a ridge of the Dhialawa [Diyatalawa N06°48': E080°58'] mountain, from whence there is an extensive view over Walapane and Dombara, districts only separated by the Mahawelli-ganga, which is seen for a considerable distance, foaming and rushing through forests, in a succession of rapids, down to the plains of Beentenne [Bintenne, Upper Uva].«

But I have not identified or traced what Mr. N. LEITER (1948: 61), a member »of the staff of Trinity College, Kandy« (PEET 1945: 69), calls the »Times Green Book and Ferguson's Directory« which are said to »... grouped the few tea estates of the area to form the Nitre Cave District.«

547 Matala N07°28'18": E080°37'28" (WGS84).

548 Badulla N06°59': E081°03' (WGS84).

545 Major FORBES (1840, 1841.ii: 102) narrates how he ascended from »Uyangamma-tenna-wewa (lake of the garden-flat)« (not identified) the »peaks of Lakagalla« which seems to be related to the estate (tea plantation) Lagalla (N07°33': E080°44').

SITUATION 1973 (URAGODA 1973: 37-44): »The gateway to the Knuckles region is Corbet's Gap. Of the two alternative routes available, the approach from Rangala [N07°21'14": E080°47'07" WGS84] is more picturesque ... The other route is from Hunasgiriya [549] which lies on the Kandy - Mahiyangana [550] road. Buses ply the first 16 km to Loolwatte [551] from whence it is about 5 km to Corbet's Gap where these two routes meet.

[page 38] The bottom of the valley is reached by a steep meandering road 5 km long, the terminus being the village Karambaketiya [unidentified] ... Progress beyond this point is by a footpath leading to two very ancient Kandyan villages, Kaikiwela ...« or Kaikawela (552) »... and Mimure ...

Kaikawela is probably 5.5 km from Karambaketiya, and Mimure another 2.5 km away. The path crosses the rocky upper reaches of the Heen Ganga ...

[page 39] When walking from Karambaketiya to Mimure one gets distant glimpses, on the opposite mountain range across the valley, of a rock with a white patch. It marks the situation of Nitre Cave. The villagers call it Lunegala (salt rock) or Wawulagala (bat rock) ...

[page 42] The take off point in the climb to Nitre Cave is a tiny hamlet of four huts called Na-ela which is about 6.5 km from Kaikawela. The track crosses the Heen Ganga and Maha Oya in quick succession ... It would be unwise not to engage a guide at Na-ela, for after an initial descent towards a jungle stream, the final climb is through trackless terrain. ... it is by holding on supple saplings that one levers himself up the gradient, almost 45 degrees steep at [page 43] places, along a track that has to be traced by cutting through the undergrowth. ... With the final few laborious steps one emerges from the fringe of the jungle directly in front of the mouth of the cave which occupies the base of a massive rock ...

[page 44] On reaching Na-ela there was an alternative route to Karambaketiya and Corbet's Gap through St. Martin's Estate [N07°24': E080°51']. The distance ... was about 10 km, and the road did not prove difficult.«

SITUATION 1973 (KUSCH 1973c: 23): One of the two caves of Sri Lanka, which KUSCH (1973c: 23) mentions finally (553) without obvious reasons (554), is the Nitre Cave near »Kaikawala« or Kaikiwala (N07°25': E080°50') in an area

549 »Hunasgiriya« (URAGODA 1973) may relate to the village of »Hunnasgiriya« (N07°18': E080°51') or to the estate »New Hunasgiriya« (N07°22': E080°41').

550 Mahiyangana N07°19': E080°58'58" (WGS84).

551 Loolowatte, Loolowattie, Loolwatte (estate N07°22': E080°51') is shown as »Loolowatte« on the Sri Lanka Road Map (Survey Department 1977).

552 »Kaikiwela« (URAGODA 1973: 38) or »Kaikawala« (COORAY 1956 map; KUSCH 1973c: 23) is the village of Kaikawala (N07°25': E080°50').

553 KUSCH (1973c: 23): »Abschliessend wäre noch die Henegala Cave im Gebiet von Unuwurabubula (Bintenna) bei Maha Oya und die Nitre Cave bei Kaikawala in Uda zu erwähnen.«

554 KUSCH (1973c: 23) »Literatur« lists eight BIBLIOGRAPHY out of which KUKLA (1958) and TRIMMEL (1968) mention no »Kaikawala nitre cave« (or so) but I have neither traced nor seen the tourist guide books »Ceylon« (DHANAPALA 1957b), LAJTA (1972), MANJUSRI (a.i.), MAURI (a.i.), and MOHL (1969), or the item »Südostasien I, Geographis-kulturelle Ges. im Kunstkreis, Bd. 1, Luzern 1967.«

allegedly called »Uda« (555).

SITUATION 1974 (CEYLON TRAVELLER 1974: 243; 1983: 245): »... at an elevation of 2,000 feet on a slope of a north-easterly extension of the Knuckles range. It may be approached via Teldeniya [N07°17'49": E080°46'07" WGS84], Rangala [N07°21'14": E080°47'07" WGS84], Loolowatte [N07°22': E080°51'] (Corbett's Gap) and Mimure [N07°26': E080°50']. The cave, which is in the Knuckles Wilderness, is just over three miles [5 km] by jeep from Corbett's Gap [N07°22': E080°50'], the track terminating at the foot of the hill. The final climb involves an ascent over difficult terrain on a gradient of 45 degrees in some places.«

SITUATION 2005 (GAMAGE 2005.08.06): »About 5 km from the Meemure Village ... is the "Vedilunu Guhava" (Nita Caves).«

APPROACH 1945 (PEET 1945: 93): Approaching »Nitre Cave« from »Corbetts Gap« (sic), »... it was felt best that four of us should go on ahead to spy out the land. ... our guide led us along the well-marked path round the Spur but soon turned off into virgin jungle. After some way of moderately easy going, the first of many steep descents over wet rock, made the more hazardous by a topsoil of damp leaves and rotting vegetation, brought us to a racing stream pursuing its downward course by leaps and bounds over cascades and waterfalls. This we followed, leaping from rock to rock, spurred on to a higher endeavor in the matter of speed by hordes of loathsome leeches which dropped in showers from the trees and advanced over over the rock in our line of approach. Eventually, after many hours hard going, we arrived at the base of a lonesome cliff, and upon following this round for a short distance, an acrid smell – Nitre! – told us that we had reached our objective. In a last spurt of energy we stroved upwards and sank exhausted in the cave mouth.«

APPROACH 1995 (Brooks 1995 Mss, no. 40): »From Kandy, take the A26 Teldeniya road for between 20 to 22 miles [32.2 to 35.4 km] in the direction of Rangala and turn into the valley of the Heen Ganga, a tributary to the Mahaveli Ganga.«

APPROACH 2009 (556): From Colombo 170 km via A1 to Kandy and via 26 to Hunasgiriya (condition of the road stretch from Hunasgiriya onwards can vary from good to bad depending on the level of maintenance) and the village of »Loolwatta« to Corbett's Gap (in Sinhala: Attala-mettuwa). The 9.8 km long route from Corbett's Gap to »Nitro Caves« (sic) in the »Knuckles mountain range« initially descends 4.8 km from Corbett's Gap (1216 m asl, waypoint 01) some 500 m down to the village of Kumbukgolla at 450 asl (point 22 primary school), the furthest point accessible by 4WD, from where a 1.2 km footpath ascends some 250 to the entrance of »Nitro Cave« at 676 m asl (waypoint 55).

555 The Sinhala adjective "uda" means »upper« (LONELY PLANET, Sri Lanka 2003: 255) but KUSCH (1973c: 23) uses »Uda« as if it were an area or region. A probably other »UDA« or U.D.A. is the Urban Development Authority, established in 1978 by the Government of Sri Lanka »to promote the integrated planning and implementation of economic, social and physical development in urban development areas« (www.uda.lk accessed 2009.09.02).

556 <www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> (last updated 2009.01.21, accessed 2009.08.02)

From Corbett's Gap (1216 m asl, waypoint 01) walk or drive 4.8 km (500 m downhill) towards Meemure. At a sharp bend to the »left« (point 13), a 2.2 km jeep track to the »right« reaches after 2.2 km the few houses of Kumbukgolla (waypoint 22) and proceeds to the end of the jeep track (waypoint 34), which lies 4.8 km from the Meemure road turnoff and 9.8 km from Corbett's Gap.

From the end of the jeep track, start descending a foot path on the »left« (sic). After about 100 m the trail turns slightly left in a section paved with stones (waypoint 35) and continues passing small paddy plots, village houses and chena. About 350 m from the end of the jeep track, the trail enters a bushy forest patch (waypoint 38). Again 350 m further on (waypoint 42), do not descend »left« to a house but continue »... about 100 m along the trail you will find a similar trail on to your left climbing down to a river [waypoint 44]. Take this trail and climb [sic! read: walk] down to the river. In about 50 m, you will be on a large bed rock the stream flows over and drops about 10 m down creating a mini waterfall (waypoint 45). From here, turn right, walk about 20 m along the bed rock crossing the stream (waypoint 46) and find the continuation of the trail in to the forest ...

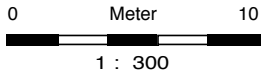
As you move in to the forest you will encounter a very steep climb for about 40 m or so. After that the climb will become moderate with occasional steep stretches. At about 75 m from the stream, the trail takes a slight right turn and continues its climb up [waypoint 49]. About 250 m from the stream you will pass an area which looks like a dry stream with a large rocks on the right side [waypoint 52]. Passing this, in another 50 m the trail starts the last 50 m of steep climb at a point where there are two large trees with ash color bark next to each other (waypoint 53). Passing this point and, climbing through two large boulders reach the opening of the Nitro Cave [waypoint 55]. Enjoy the stunning view of Lakegala Peak straight in front of the cave over the forest.«

point	North	East	m asl
01	07° 22.367'	080° 50.448'	1216
02	07° 22.485'	080° 50.567'	1159
03	07° 22.583'	080° 50.536'	1106
04	07° 22.543'	080° 50.283'	1042
05	07° 22.664'	080° 50.394'	1009
06	07° 22.767'	080° 50.378'	957
07	07° 22.922'	080° 50.460'	925
08	07° 22.955'	080° 50.502'	916
09	07° 23.105'	080° 50.489'	880
10	07° 23.241'	080° 50.450'	845
11	07° 23.314'	080° 50.553'	820
12	07° 23.303'	080° 50.383'	775
13 B	07° 23.392'	080° 50.437'	750
14 C	07° 23.392'	080° 50.527'	742
15	07° 23.499'	080° 50.495'	726
16	07° 23.571'	080° 50.495'	725
17	07° 23.719'	080° 50.621'	691
18	07° 23.857'	080° 50.777'	664
19 Y	07° 24.014'	080° 50.830'	641
20	07° 23.994'	080° 50.888'	636
21	07° 24.015'	080° 50.946'	628
22 E	07° 24.012'	080° 50.963'	622
23	07° 24.065'	080° 51.052'	613
24	07° 24.103'	080° 51.040'	608
25	07° 24.267'	080° 51.065'	593
26	07° 24.308'	080° 51.041'	577
27	07° 24.386'	080° 51.035'	595
28	07° 24.599'	080° 51.142'	610
29 F	07° 24.734'	080° 51.165'	585
30	07° 24.820'	080° 51.154'	562
31	07° 24.887'	080° 51.222'	527
32	07° 24.947'	080° 51.281'	536
33	07° 24.967'	080° 51.325'	534
34 G	07° 25.009'	080° 51.426'	520
35 Y	07° 25.042'	080° 51.472'	499
36	07° 25.062'	080° 51.495'	484
37	07° 25.079'	080° 51.516'	486
38 H	07° 25.095'	080° 51.544'	476
39	07° 25.103'	080° 51.556'	482
40	07° 25.113'	080° 51.614'	482
41	07° 25.061'	080° 51.676'	493
42	07° 25.046'	080° 51.710'	487
43	07° 25.038'	080° 51.723'	487
44 Y	07° 25.025'	080° 51.772'	469
45 Y	07° 25.013'	080° 51.830'	436
46 J	07° 24.998'	080° 51.838'	451
47	07° 25.020'	080° 51.862'	473
48	07° 25.044'	080° 51.899'	490
49 K	07° 25.055'	080° 51.964'	517
50	07° 25.037'	080° 52.045'	559
51	07° 25.044'	080° 52.092'	574
52 L	07° 25.050'	080° 52.143'	585
53 M	07° 25.068'	080° 52.189'	619
54	07° 25.061'	080° 52.212'	635
55 N	07° 25.064'	080° 52.232'	673

A	Corbetts's Gap
B	off Meemure road towards Kumbukolla
C	large stream
D	fork
E	Kumbukolla
F	forest
G	end of jeep track
H	bushy forest
J	stream
K	ascent
L	dry stream bed
M	two big trees
N	»Nitro Caves« or »Nitro Cave« (Lunugala Lena)
Y	FORK

GPS route to LUNUGALA LENA

<www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> last updated 2009.08.03



LUNUGALA LENA or: Nitre Cave, Doombera

Mimure village, The Knuckles, Kandy District,
Central Province, Sri Lanka

N07°25'03.6": E080°52'13.9" (WGS84): 721 m

Length: 60 m. Vertical Range: c. 15 m (+15/-0)
After PEET 1946

GROUND PLAN



ELEVATION



CROSS SECTIONS



CAVE DESCRIPTION 1821 (DAVY 1821: 379-380): Nitre cave of »Memoora in the Doombera ... The first view of the place was exceedingly striking. A large cave appeared in a perpendicular face of rock about three hundred feet high crowned with a forest... The cave was two hundred feet deep [about 60 m long], and at its mouth, which was nearly semicircular, about eighty feet [24.4 m] high and one hundred wide [25 by 30 m]. Its floor was rocky and steep, rapidly ascending inward, and its extremity was narrow and dark. To facilitate the ascent, ladders were planted in the most difficult places. [Considering the intensive nitre works] ... the cave may be considered partly natural and partly artificial« (557).

CAVE DESCRIPTION 1840 (FORBES 1840, 2: 103 footnote; 1841, 2: 104): »Meemoorra ... a nitre cave, the most productive in the Kandian country, although the quantity it yielded was so trifling that it is not now worth working.«

CAVE DESCRIPTION 1849 (PRIDHAM 1849, ii: 663): »Near Meemoorra is a nitre cave of large dimensions, and striking appearance. It appears in a perpendicular face of rock, about 300 feet high, crowned with a forest. The cave is 200 feet deep, and about 80 feet high, and 100 wide at its mouth, which is nearly semi-circular. The cave is partly natural and partly artificial.«

CAVE DESCRIPTION 1931 (COOK 1931: 351): The »Nitre Cave« (without village) in »The Knuckles Group« section of the »Hill Country« region is an »interesting feature« reputed to represent »a large natural cavern inhabited by thousands of bats, whose droppings have created a deposit on the floor of the cave.«

CAVE DESCRIPTION 1946 (PEET 1946, with cave plan, a longitudinal and five cross sections): »... the cave mouth ... was an imposing portal. Subsequent surveys proved it to have a breadth of 82 ft. [25.1 m] and a height of 38 ft. [11.7 m]. The cavern itself extended into the hill for a distance of 190 ft. [58.1 m] at a general upward slope of 39° [on a bearing of circa 160°]. Although in a very fine crystalline limestone, there was no sign of water action but as the cave undoubtedly dates from an earlier cycle of erosion when the valley stream was several hundred feet higher it is possible that these evidences have been obliterated by subaerial weathering. This is probably the case, since the walls and roof of the cave both show indications of considerable flaking.

All through the cavern were loose, deep, dusty drifts of the strong smelling bat guano, here and there crusted into nitre, brittle stuff which often occurred as pseudo rocks or walls, simulating the guano-covered real rock, and which treacherously broke away as one clambered around it. For the most part, the "nitre rock" is a hard, crumbly at pressure, clay-like rock, being an outdated [sic!] coagulation of the guano: colour varies from brown to dirty white and [the rock] contains a good deal of foreign matter. The guano itself resembles horse-droppings except in size which that of a

good sized rat dirt.

Stretched between the interstices of the limestone were tiny, glistening sheets of the purest calcite, which in haphazard, box-like formations encased clear and perfectly formed crystals of gypsum, a beautiful combination and, at least in my experience, rare.

... In recognition of ... [the bat's] tenacity as rulers of their domain, two of the smaller creeps [crawls] were named after them, e.g. "The Belfry" and "Bat's Retreat". The Belfry was appropriately named as it lies high in the cavern roof and is rather difficult to approach.«

CAVE DESCRIPTION 1948 (LEITER 1948: 65): »... Nitre Cave ... is the biggest and the best known. The nitre was obtained during the Sinhalese king's times from the bat guano that covers the floor of the cave.«

CAVE DESCRIPTION 1956 (COORAY 1956: 50): »The cave is, as previously reported, formed by the solution of a limestone band and has an inner level about 12 feet [3.76 m] higher than the mouth ... The floor of the cave was covered by a thin layer of sawdust-like guano or bat's dung, sometimes reaching 1-1/2 feet [0.3 to 0.56 m] in thickness in crevices and between boulders, but nowhere was it as spectacularly thick as expected. More surprising was the complete absence of bats ... Owing to the lateness of the hour the cave could not be explored more fully ...«

CAVE DESCRIPTION 1956 (KEUNEMANN 1956: 296): A great, wide cave infested with incredible colonies of bats, the floor being spongy with their dung.

CAVE DESCRIPTION 1967 (COORAY 1967: 97): »... a large cave with a mouth almost 12 feet [3.7 m] high, in an almost vertical cliff face. A platform within the main [part of the] cave forms the floor of an inner, smaller [part of the] cave, about 8 feet [2.4 m] high, the floor of which is covered with a soft, powdery, brown deposit like saw dust. This is the 'nitre' after which the cave is named; it is really the droppings (guano) of hundreds of bats which infest this and all such caves and give them their obnoxious smell.«

CAVE DESCRIPTION 1973a (URAGODA 1973: 43, figures 1, 2 opposite page 44): »The floor is about 15 feet [5 m] above ground level. A few rugged steps in the rock lead to a horizontally placed slab of rock that obstructs the entrance to the cave. The roof of the cave is roughly arch shaped and about 15 to 20 feet [4.6 to 6.1 m] from the floor. The main gallery, as it veers slightly to the left, narrows down considerably to end in a small elliptical opening which is beyond reach for investigation. [Keyword: fabulous tunnel:] According to folklore, this opening leads into another compartment which extends very far. From the main gallery two passages branch off to the left. The one further from the entrance is about 20 feet [6 m] long and it too ends in a dark opening beyond which is another compartment. The other passage is a short one near the entrance and it ends blindly.«

CAVE DESCRIPTION 1974 (CEYLON TRAVELLER 1974: 243; 1983: 245): »The roof of the cave varies in height from 15 to about 20 feet [4.6 to 6.1 m] above the floor level. The main gallery in the cavern then narrows down to tail off in a narrow opening which is too small permit entry or further exploration. From the entrance to the cavern, passages lead off into subsidiary caves. At the left of the cavern, a spring of cool, clear water sprouts from the rock.«

CAVE DESCRIPTION 2009 <www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> (last updated 2009.01.21, accessed 2009.08.02): »Nitro cave [sic!] is a large cave hidden deep in the southern parts of Knuckles Mountains. Inhabited by hundreds of thousands of bats for possibly many hundred thousand years had made this cave a

557 DAVY (1822: 161-162): »... dem erwünschten Ziel, nämlich der Salpeterhöhle, deren Anblick einen überraschenden Eindruck machte. Die Höhle selbst ist 200 Fuß tief, und bei ihrem halbcirkelrunden Eingang 80 Fuß hoch und 100 Fuß breit. Ihr Boden ist felsig und steil, und im Innern nach oben zu aufsteigend; das Ende ist Eng und ganz finster. Um das Auf- und Niedersteigen zu erleichtern, sind an den gefährlichen Stellen Leitern angebracht. Die Höhle scheint mir größtentheils Werk der Natur zu seyn, welchem die Kunst nachgeholfen hat.«

rich deposit of saltpeter (potassium nitrate) traditionally used to make gun powder. It is believed that this cave was used as a source of saltpeter by rulers of Sri Lanka ...»

CAVE POTENTIAL: PEET (1946: 93) draws attention to an obviously unexplored »The Belfry ... appropriately named as it lies high in the cavern roof and is rather difficult to approach« and noticed disappearing bats, which he »... managed to frighten most of them out ... [though] where they went to was an unsolved mystery ...« (558).

Last but not least, there is the belly crawl giving access to →Lunugala Lena 2 located »a little further up the ravine« where PEET 1946: 94) noticed a »... low fissure a few feet across and a foot high, which [gives access?] into the hill for a matter of some 20 ft. [6.1 m]. Possibly it connects with 'The Belfry' for it extends towards that part of Nitre Cave and is at the same level.«

SPELEOMETRY: Judging from the cave "survey" (British standards) of PEET (1946) the approximately 60 m long cave ascends about 18 m from the floor at the entrance to the ceiling near the distal »dwindle hole.«

PEET (1946: 93) confirms that »... the cavern extended into the hill for a distance of 180 feet [58 m] at a general [upon entering the entrance] upward slope of 39°.«

GEOLOGY: DAVY (1821: 32) reports from »the nitre cave near Memoora in Doombera ...« a very compounded rock consisting of calcspar, felspar, quartz, mica, and talc.

PRIDHAM (1849, 2: 709) had compiled from an unidentified source that »a very compounded rock, consisting of calcspar, felspar, quartz, mica, and talc« has been found in a »nitre cave near Doombera.«

COORAY (1956: 56) reports from the vicinity of »Nitre Cave« a »50 foot« (15 m) thick band of crystalline limestone, which is not only »variable in composition and texture« but also »interbedded with garnetiferous granulites and gneisses. The limestone is rather impure in parts and contains diopside, forsterite, phlogopite mica and spinel and the weathering out of bands of these impurities gives it a fluted appearance in parts. Contained also in the limestone are dark bands and lenses of mica schist and diopside granulite, the weathering out of which have given rise to small pockets in the walls of the cave.«

MINERALOGY: DAVY (1821: 31-32): »Judging from the four nitre caves that I have visited [559], and from the specimens of rocks of several more that I have examined, I believe that they are all very similar; and, that the rock in which they occur, in every instance contains at least felspar and carbonate of lime; from the decomposition of of the former of which, the alkaline base of the salt is generally

derived, and by the peculiar influence of the latter, (yet not fully understood,) on the oxygen and azote of the atmosphere, the acid principle is generated. I confirmation of this statement, it may be remarked, that I have never been able to detect saltpetre, excepting superficially, where air could have access; never accompanied by nitrat of lime, or magnesia; in no rock, not containing lime and felspar; that the richness of the rock, in general, has been proportional to the abundance and intimate mixture of these two ingredients; and, that the results of experiments which I have made on a variety of specimens of saltpetre-earth from Bengal, for which I am indebted to the kindness of Mr. Brown from Calcutta, were similar to those just mentioned, and tended to the same conclusions. Besides the essential circumstances of the presence of atmospheric air, lime and alkaline mineral, there are other circumstances which, if my observations be correct, greatly aid in the operation of forming the salt. I shall mention the most remarkable only, which appear to me to be slight humidity and the presence of a little animal matter. Perhaps humidity is absolutely necessary; certainly, I have seen spots in a nitre cave, without any impregnation of saltpetre, which, excepting their great dryness, seemed to possess every requisite for the production of the salt. Animal matter, by those ignorant of chemistry, is considered of itself the chief source of nitre. Persuaded by this, my countrymen in Ceylon, with whom I conversed on the subject, generally attributed the saltpetre of the caves in question to the dung of bats, with which the caves are more or less infested. It is easy to refute such a notion; and to show, that the dung of these animals, like any animal matter, is not an essential, merely an assistant circumstance. For this purpose, it will be sufficient to remark, that in the nitre-cave near Memoora in Doombera, in a very compounded rock consisting of calcspar, felspar, quartz, mica, and talc, in a humid state, exposed to air, and slowly decomposing, I have found a rich impregnation of saltpetre, though quite free from the dung of bats, or any other animal matter; and conversely, that I have not been able to detect any traces of this salt in the dung of bats, that had accumulated in great quantity in an old forsaken pagodah.«

PRIDHAM (1849, 2: 709) had compiled from unidentified sources that in the »nitre cave near Doombera ... a rich impregnation of saltpetre is found in a very compounded rock, consisting of calcspar, felspar, quartz, mica, and talc, in a humid state, exposed to the air and slowly decomposing, and free from bat dung or other animal matter. ... Nitrate of lime is never met with [on the island of Ceylon], except in combination with nitre. Sulphate of magnesia is seldom or never found, the only instance being the cave near Doombera. In the same cave, and nowhere else, alum is discoverable in a minute quantity. The acid of both these salts is probably derived from decomposing pyrites and the magnesia of the sulphate by decomposing talc. This sulphate forms with the nitre, and crystallises with it. It is rejected by the ignorant natives in their preparation of saltpetre.«

HILL & FORTI (1986: 104): »Cristobalite (lutecite, opal) ... Cave opal was first described by Davy (1821), who reported "hyalite" (opal) encrusting granitic rock in a "nitre" cave in Doombera, Ceylon.«

CULTURAL HISTORY - Human use: The cave sediment was exploited for nitre (saltpetre, NaNO₃). Dr. John Davy gives a chemical composition of the »nitre-rock of Memora [sic] in Doombera« (DAVY 1821: 33; PRIDHAM 1849, ii: 709) and describes the process (pages 379-380): »The workmen, whom I found at their labours, sixteen in number, were the rudest set of artificers I ever witnessed; their bodies,

558 PEET (1946) and his mates Anderson, Bollard and Neal saw only a little of the cave they had entered as they had to rely on candles for illumination. On top of that, they found the bats »... disturbing as they continually fanned our cheeks with their wings, occasionally brushing an ear, and forever whizzing past and blowing out our candles in their panic.«

559 The »four nitre caves« (DAVY 1821: 31) visited by Dr. John Davy (in about 1819) are probably all among the 22 »nitre-caves« listed by DAVY (1821: 31 footnote). Among the 22 nitre caves there are three which have been described in detail --and hence were probably visited by Dr. Davy:

»15. Memoora« or Lunugala Lena (DAVY 1821: 379-380)

»17. near Wellaway« (DAVY 1821: 429-430), and

»18. Maturatta« (Davy 1821: 439-440).

The fourth I cannot figure out.

almost naked, were soiled with dirt, and their bushy beards and hair were matted and powdered with brown dust. When I arrived, they were occupied, not in the cave, but on the platform before it, attending to the operations that were then going on in the open air, —of filtration, evaporation, and crystallisation. The apparatus employed was curious for its simplicity and rudeness. A small stream, of water was led from a distance to the place by a pipe of bamboos; the filters were of matting, in the shape of square boxes supported by sticks; and the evaporating vessels, and, indeed, all the vessels used, were the common chatties of the country, of which a great many were assembled of various sizes. The cave may be considered partly natural and partly artificial. I was informed, that during the last fifty years, for six months during the dry season, it has been annually worked, and that each man employed was required to furnish a load of nitre, which is about sixty pounds [27.2 kg], to the royal stores.«

CAVE LIFE: In late June 1945 PEET (1946: 93-94) used the light of candles for illumination but anyhow noticed »... bats [Chiroptera] of the benign, small, common cave variety« which he and his company »... found to be in indisputable possession [of the cave], although when surveying we managed to frighten most of them out, leaving but a few to hinder our observations. Where they went to was an unsolved mystery, but their companions, which stayed in the small tunnels of the cave were disturbing ... There was no sign of other animal life except for porcupines [Hystrix] whose discarded quills lay in some profusion around the cave entrance. In the insect world we saw only [sic!] spiders [conf. Arachnida] and one beetle [conf. Collembola] which we were unable to identify. For the lack of sterile impedimenta it was not possible to take any sample of the guano for bacteriological investigation.«

On 18th August 1956 COORAY (1956: 50) found »the floor of the cave covered by a thin layer of sawdust-like guano or bat's dung, sometimes reaching 1–1 1/2 feet [0.3 to 0.56 m] in thickness in crevices and between boulders ... More surprising was the complete absence of bats though this may have been due to their being recently smoked out as evidenced by a couple of smoking fires on the floor of the cave.«

URAGODA (1973: 44) relates to »an endless stream of medium sized bats« and the apparent lack of other living creatures.

EXPLORATION HISTORY: 1817, first days of September: Dr. John DAVY (1821: 379-380) visited and explored the cave, investigating the exploitation of nitre / saltpetre.

BROHIER (1956) confirms that »Davy's visit was made in the month of September 1817. ... He stresses that his excursion into " the hitherto unexplored district of Doombera" was chiefly for the purpose of examining the nitre cave.«

1934-1944: »Several Europeans have made the journey to the cave in the past decade [before July 1945] but have probably been discouraged from venturing far inside by the unholy stench. Certainly it is the reason that has kept Mr. Leiter and Miss Cook out, as the former has admitted« (PEET 1946: 94). 1945, end of July: Geoffrey A. PEET (1946) and »14 hardly souls, most of them raw amateurs« including one Anderson, a Bollard, and one Neal, transported nearly a ton of camping equipment on 19 bulls and 39 native bearers to pay a visit to Nitre Cave guided by Panniah (PEET 1946: 94): »The only "finds" was a common coin dated 1754, issued in Ceylon during the Portuguese occupation.« To explore and "survey" the cave (apparently by a compass & chain method) »... four

trips were made [from the base camp at the St. Martin's estate] to the cave, although only three could be termed successful for on the second attempt we used a shorter route ... we concluded by ploughing around in the jungle for five hours ... finding ... never a sight —or a small— of the cave.«

Eventually, PEET (1946: 94) arrived in believing adamantly that »... there can be little doubt that we were the first persons to visit Nitre Cave to make a thorough examination for upwards as the natives will not venture far inside, and the guano in the more inaccessible parts was completely undisturbed.«

1956 March: »The Ceylon Geographical Society and the Ceylon Natural History Society decided to send a joint expedition to the Knuckles Region with the purpose of carrying out a preliminary reconnaissance ...« (COORAY 1956: 47).

1956 August: »The Advance party was split into two groups with the intention of working from either end of the proposed route to the site ... Lieutenants G.W. Schokman and D.G. Fernando, starting from Corbet's Gap, made their way down to Mimure where they engaged a guide and then reconnoitered the route to the foot of Kalupahana [560]. Messrs. Allen Caldera and J. M. Henderson, Lieutenant R. Wijesinghe and seven army men worked their way from Bambrella Estate [561], across the Selvakande Plateau and the crest of the range down to Kalupahana where they met Lieutenants Schokmen and Fernando. ... Having established contact ... the advance party set about building a temporary open hut ... and returned via Bambrella to Colombo on the 7th« (COORAY 1956: 47).

1956.08.15: The party (562) left Colombo on the morning of August 15, and after lunch in Kandy reached Dehigolla Estate (563) in the evening.

1956.08.16: An early start was made on the 16th morning, 50 estate labourers acting as porters, and the long trek to base camp at »Mimure, 3,000 feet below and eight miles away was begun in a strong drizzle and heavy wind ...« (COORAY 1956: 49).

1956.08.18: »... the whole team (except Sydney Perera who was slightly indisposed) made the trip to Nitre Cave ... The party left Mimure at about 7 a.m. and did not reach the cave until nearly 2 p.m. owing to the frequent halts ... and discussions, sometimes heated. ... Several members of the team climbed to the inner cave ... Owing to the lateness of the hour the cave could not be explored more fully and the party left at 3 p.m. to return ...«

560 <www.nima.mil/geonames> (accessed 16.11.2003) lists seven villages and estates called Kalupahana.

561 Bambrella N07°24': E080°47' (WGS84).

562 COORAY (1956: 48-49): The personal of the main expedition comprised Gerald Cooray (geologist, Colombo), Ralph de Rosayro (Asst. Conservator of Forests), B.A. Abeywickrema (botanist), S. Sivalingam (zoologist, Dept. Fisheries), R.A.P. Malalasekera (zoologist, Aquinas), Sydney Perera (geographer, Kingswood College), Christopher Wickremasinghe (Wild Life Observer), Victor G. Merritt (Forester, Photographic Survey Corporation, Canada), David K. Erb (geologist, Photographic Survey Corporation, Canada), Alan M. Caldera (geographer), Cecil W. Wickramamanayake (correspondent, Ceylon Observer), Hemapala (camp cook), and Punchirala (camp cook).

563 »Dehigolla Estate« (COORAY 1956) is probably either Dehigolla Estate (N07°22': E080°52') or Dehigolla Estate (N07°18': E080°51'). Far too far south-east is another Dehigolla Estate (N07°09': E081°08').

LUNUGALA LENA 2

Explored and mapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »Doombera district« (Davy 1821), »Dombera« (FORBES 1840, 1841. ii: 240), »Nitre Cave district« (LEITER 1948: 61) or in »Uda« (KUSCH 1973c) area: Corbett's Gap / Corbets Gap (Attala-mettuwa, Corbets Gap): Loolwatta (Loolooowatte, Loolwatte) via »Kaikiwala« (URAGODA 1973) or »Kaikawala« (KUSCH 1973c) to Mimure (Meemoorra, Meemora, Meemure, Memora, Mimura).

POSITION: Unspecified map datum probably Everest 1830 (assumed EPE ±2.5 km) N07°25'00": E080°52'30" / N07.416667°: E080.875° (PEET 1946).

MAP: Survey of Ceylon / Sri Lanka sheet "Rangala" (One-Inch series).

SPELEOMETRY: Length: Estimated 6 m. Vertical range: Not known.

BIBLIOGRAPHY: Peet, Geoffrey A 1946.

A »... low fissure a few feet across and a foot high, which [gives access?] into the hill for a matter of some 20 ft. [6.1 m]. Possibly it connects with 'The Belfry' for it extends towards that part of Nitre Cave and is at the same level« (PEET 1946: 94). Compare →Alu Lena / Alu-Galge (Brooks 1995 Mss).

SITUATION: From the entrance to →Lunugala Lena »... a little further up the ravine« (PEET 1946: 94).

EXPLORATION HISTORY: 1945, end of July: Geoffrey A. PEET (1846) peeped into a belly crawl passage.

LUNUGE CAVE

or: Lunuhinda Cave

Unexplored and unmapped natural cave, probably in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Matale district: Nalanda (Nalande, Nalandi) village.

POSITION: Unspecified map datum probably Everest 1830 N07°39'34": E080°39'07" / N07.65944445°: E080.65194445° (STRINATI & AELLEN 1981: 459): 290 m asl (barometric, STRINATI & AELLEN 1981: 459).

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Brignoli, Paolo Marcello 1972; Forbes, Jonathan 1840, 1841; Pridham, Charles 1849; Strinati, Pierre & Aellen, Villy 1981.

A small drop down into a »puit« (STRINATI & AELLEN 1981: 459) or shaft without identified dimensions gives access to a descending cave chamber characterised by dislocated boulders and bat guano with associated cave fauna. Several, allegedly »peu importantes« (little important) leads continue into diverse directions.

IDENTITY: »Lunuge Cave« is but another name for »Lunuhinda Cave« (STRINATI & AELLEN 1981: 459) and possibly is not only the same as Nitre Cave Nalandi (DAVY 1821) but also either Nitre Cave Nalande (FORBES 1840) 1 or Nitre Cave Nalande (FORBES 1840) 2.

ETYMOLOGY: Since the Sinhala "ge" is the equivalent of an apostrophe indicating possession, "lunu ge lena" translates literally into »Lunu's Cave« and means Cave of Lunu. Foreigners, however, prefer to call the cave not by its name but after the nearby populated place of Nalanda (Nalandé, Nalande).

So far, I saw Lunuge Lena or Lunuge Galge called, spelled, transcribed (romanised), or edited (chronologically sorted) as

Nalandi nitre cave

DAVY (1821: 31 footnote »nitre-cave« no. 14)

Nalande nitre cave

FORBES (1840, 1841.ii: 52)

Nalandé nitre cave

PRIDHAM (1849, 2: 656)

grotta di Lunuge, Nalanda

BRIGNOLI (1972)

Lunuge Cave

STRINATI & AELLEN (1981: 459)

Lunuge

STRINATI & AELLEN (1981: 460)

Lunuge Cave, Nalanda

AELLEN et al. (2001: 1977)

Lunuhinda Cave

STRINATI & AELLEN (1981: 459)

POSITION 1: Lunuge Cave N07°39'34": E080°39'07" (unspecified map datum probably Everest 1830): 290 m asl (barometric, STRINATI & AELLEN 1981: 459).

POSITION 2: Lunuhinda Cave (N07°40': E080°39' WGS84) is one of the eight "CAVE" thingumbobs of Sri Lanka listed on <www.nima.mil/geonames> and <www.wayhoo.com>

SITUATION: At an unspecified location somewhere in the vicinity of Nalanda (564), a small town and great tourist hot spot about 25 km along the road A9 north of Matale (N07°28'18": E080°37'28" WGS84) and 20 km along the road short of (south of) Dambulla (N07°51'36": E080°39'06" WGS84).

SITUATION 1: DAVY 1821: 31): »Nalandi«

SITUATION 2: FORBES (1840, 1841.ii: 52-53): »In the neighbourhood of Nalande« which itself lies »fifteen miles [24 km] from Matale, and the same distance from Dambool« (Dambulla).

SITUATION 2 (PRIDHAM 1849): In the vicinity of »Nalandé«

SITUATION 3: STRINATI & AELLEN (1981) place Lunuge Cave / Lunuhinda Cave at an unspecified location and without identified spatial relation »près de Nalanda« (near Nalanda).

CAVE DESCRIPTION 1840: FORBES (1840, 1841.ii: 52-53): One of »... two caves, from which a small quantity of saltpetre was prepared under the native Government.«

CAVE DESCRIPTION 1981: STRINATI & AELLEN (1981: 459): »Un puits peu profond donne accès à une chambre descendante; nombreux blocs éboulés et grands amas de guano de chauve-souris. Plusieurs galeries peu importantes partent dans diverse directions.«

CAVE CLIMATE: STRINATI & AELLEN (1981: 459) report a temperature of 26°C (in the air?).

CAVE LIFE: Lunuge Cave is the type locality of Andasta genevensium Brignoli 1972 (Theridiosomatidae).

STRINATI & AELLEN (1981) report to have collected on 25th January 1970 bats (Chiroptera: Hipposiderus sp., Rousettus sp.), frogs (Rana Euphylyctis cyanophlyctis Schneider, Ptyas Rhacophorus microtympamus), a reptile (Ptyas mucosus maximus Deraniyagala), Molusca, Isopoda, Diplopoda, spiders, Amblypyga, Collembola and Orthoptera. BRIGNOLI (1972) describes the taxonomy of spiders (Arachnida, Aranea) collected from »Grotta di Lunuge, Nalanda« by Strinati / Aellen: Page 908: Oonopidae: Gamasomorpha subclathrata Simon 1909. Pages 909-910 Pholcidae: Pholcus ceylonicus O. Pickard Cambridge 1869. Pages 911-913: Theridiosomatidae: Andasta genevensium n.sp.

564 »Nalandi« (DAVY 1821) and »Nalande« (FORBES 1840) and »Nalandé« (PRIDHAM 1849) is the small town or village of Nalanda N07°40'32": E081°38'35" (WGS84 <www.nima.mil/> accessed 16.11.2003) indicated as a place of archaeological and tourist interest on the "Road Map of Sri Lanka (Survey Department 1977).

AELLEN, SKET & STRINATI (2001: 1977, 1978) confirm to have collected on 25th January 1970 Myriapoda: Diplopoda: Cambalopsidae: Trachyiulus willeyi Carl 1941; Arachnida: Aranaea: Theridiosomatidae: Andasta genevensium Brignoli 1972; Oonopidae: Gamasomorpha cf subclathrata Simon.

LUNUHINDA CAVE

see: Lunuge Cave

Strinati, Pierre & Aellen, Villy 1981: 459.

MADAGALA "CAVES"

Unexplored and unmapped modified natural sacred caves or rock shelters (temple caves).

LOCATION: Unidentified province: Unidentified district: »Madagala« (KUSCH 1973c) or, perhaps, Mudagala (Muda rock).

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c.

Unspecified »Höhlen« (caves or rock shelters) at »Madagala« (KUSCH 1973c: 22 after somebody) or, perhaps, at one of the villages called Mudagala (565), contain rock art represented by "drawings" similar to "paintings" (566) in red colour in other »Höhlen« (or so) on →Tantirimalai (N08°34': E080°15'), at →Mahalenama (N06°39': E081°42') and near →Kadurupoluna (unidentified).

MADUNAGALA CAVES

Unexplored and unmapped modified natural troglodyte caves or rock shelters (temple cave).

LOCATION: Unidentified (Southern or Uva) province: Unidentified (Hambantota or Monaragala) district: Walawe Ganga: Siyambalagoda - Ridiyagama area: Mahapelessa: Karambagala & Pilamagala / Pillamagala.

POSITION: WGS84 (approximate EPE ±5 km) N06°19': E081°00' / N06.31667°: E81° <www.nima.mil/geonames> 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: Timbolketiya (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The jungle hermitage Madunagala (CEYLON TRAVELLER 1983: 69) and about 90 or more »caves« (CEYLON TRAVELLER 1974: 253; 1983: 255-256) of dubious nature are known from the rocky mass of Pilamagala (also: Pillamagala) or →Karambagala: »Local legend has it that arhats (saints) had lived in these caves in years gone by.«

SITUATION 1 (CEYLON TRAVELLER 1983: 69): Approaching from Ambalantota (567), »cross over the bridge over the broad Walawe Ganga... At a busy junction [Dehigahalande junction?] ahead is a road to the left which leads to... Ridiyagama... [delicious curd and treacle, large and beautiful tank]... Beyond this tank are the murals discovered in the Karambagala cave. Still further beyond is the jungle hermitage of Madunagala and the hot springs of Mahapelessa.«

SITUATION 2 (CEYLON TRAVELLER 1974: 253; 1983: 255-256): »Not very far from the highway that links Embilipitiya with the south, and on the right bank of the Wellawaya river, stand two rocky sentinels, Karambagala and Pillamagala. The former [the latter?] consists of a group of ninety caves or more ...

Lilanagala [568] lies to the north of Karambagala. The two rocky masses may be approached from Siyambalagoda, about halfway between Embilipitiya and Nonagama on the south coast road. At Siyambalagoda there is a turn-off to the east, which leads to the river crossing at Bedigantota. From here a footpath leads to Mahapelessa where there are hot springs. At Mahapelessa the path divides: north to Pillamagala [also: Pilamagala] and south-east to Karambagala. The same track, via the hamlet of Habaraduwa, may also be used to visit both cave sites.«

MAGHARAJA HÖHLE

see: Dambulla Galge Cave 2 = Maharaja Viharaya

Reichenbach, Kurt & Kiedrowski, Rainer 1995: 71.

MAHA ALUT LENA

see: Dambulla Galge Cave 3 = Maha Alu Vihara

Source: Misplaced, sorry !

MAHA ALUT LENA

see: Dambulla Galge Cave 3 = Maha Alu Vihara

Reichenbach, Kurt & Kiedrowski, Rainer 1995: 71.

MAHA VIHARÈ

see: Dambulla Galge Cave 2 = Maharaja Viharaya

Leclercq, Jules 1898.

The greatest and most beautiful of these temples is the »Maha Vihara« (Sanskrit: big monastery) with some fifty grand statues of Buddha and curious frescoes from different times. In other words, »Les plus grand et le plus beau de ces temples est la Maha Viharè, avec un cinquantaine de grandes statues de Boudha et de curieuses fresques restaurées à différentes époques« (LECLERCQ 1898).

565 »Madagala« (KUSCH 1973c) is not identified unless it is the same as Mudagala (N06°56': E080°23' in Kegalle district, on sheet Avissawella) or as Mudagala (N07°31': E081°19' in Batticaloa district, on sheet Maha Oya).

566 KUSCH (1973c: 23) based his literary research on Kukla, Jiri (1958), Lajta, Hans (1972), Manjusri, L T P (a.i.), Mauri, Manuela (a.i.), Trimmel, Hubert (1968), and »Ceylon« (i.e. Dhanapala, D.B. 1957b).

567	Ambalantota	N06°07'00": E081°01'00"
	Bedigantota	N06°15': E080°57'
	Embilipitiya	N06°20'38": E080°50'56"
	Habaraduwa	N06°14': E081°01'
	Karambagala	N06°14': E081°00'
	Mahapelessa	N06°15': E080°59'
	Nonagama	N06°07': E080°59'
	Pilamagala	N06°19': E081°00'
	Ridiyagama	N06°13': E080°59'
	Ridiyagama Tank	N06°12'32": E080°59'08"
	Siyambalagoda	N06°13'44": E080°57'03"
568	»Lilanagala« (or so) is not identified.	

MAHAKANDE CAVE

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelters in.

LOCATION: Unidentified province: Unidentified (Badulla, Kandy, Kegalle) districts: Mahakande.

POSITION: WGS84 N06°46': E081°03' / N06.7.6667°: E081.05° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Unidentified (Gampaha, Haputale, Kandy, Nuwara Eliya).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Strinati, Pierre & Aellen, Villy 1981.

An allegedly less important cave or rock shelter, which STRINATI & AELLEN (1981: 459) count among rift caves and half dark overhangs or rock shelters (569).

ETYMOLOGY: The Sinhala "maha" means »large, big tall, important« and "kanda" is a hill.

SITUATION (STRINATI & AELLEN 1981: 459): Unidentified.

CAVE DESCRIPTION: None (STRINATI & AELLEN 1981: 459).

EXPLORATION HISTORY: 1970 January: Pierre STRINATI and Villy AELLEN (1981: 459) visited »Mahakande Cave« and collected unspecified bats.

MAHAKELLE NITRE CAVE

or: Maha-kelle Nitre Cave

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Hatilispahay korle« (Davy 1821) area: unidentified »Mahakelle« (Davy 1821) village.

POSITION: (stunningly lousy EPE ±56 km) N07°30': E080°12'30" / N07.5°: E080.20833333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified or NC44-14.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 5 (DAVY 1821: 31) is situated

- a) somewhere near a place called »Maha-kelle« (570)
- b) in the obsolete »Hatilispahay korle« (571) and
- c) in the likewise obsolete »Seven Korles district« (572).

MAHALENAMA "CAVES"

Speleologically unexplored and unmapped modified natural, painted caves or rock shelters.

LOCATION: Eastern province: Amparai district: Yala National Park area: Mahalenama.

POSITION: WGS84 N06°39': E081°42' / N06.65°: E081.7° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c.

One or several unspecified "caves" (or rock shelters) at Mahalenama (573) contain rock art represented by "drawings" (KUSCH 1973c: 22) in red colour similar (574) to the "paintings" (sic) in the so-called "caves" (or rock shelters) of →Tantrimalai (N08°34': E080°15' in Anuradhapura district), →Madagala (unidentified) and of →Kadurupoluna.

MAHARAJA HÖHLE

see: Dambulla Galge Cave 2 = Maharaja Viharaya

Source: Misplaced, sorry !

MAHARAKSAHELA 'CAVES'

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte caves or rock shelters.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Uhana.

POSITION: WGS84 N07°26': E081°33' / N07.43333°: E081.55° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified..

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

There are »rock caves« on Maharaksahela (Maha Raksha hela), the great Raksha's rock (575).

APPROACH: CEYLON TRAVELLER (1974: 251; 1983: 253) locates Maharaksahela lies in the »desolation of Bintenne« (576) and at a spot which is reached by walking initially towards →Hamangala (N07°25': E081°35') and →Mellagala (N07°25': E081°35'), and then by proceeding about 4 km in a westerly direction around the base of the hills which rise for about 60 to 90 m from the plain.

569 The four (or three?) »autres grottes peu importantes« (other, less important caves), which STRINATI & AELLEN (1981), esteemed noteworthy, are represented either by »abris semi-obscures« (half dark overhangs or rock shelters) or by »réseau de fissures« (rift cave systems), are Mahakande Cave, »Vavul-lena« (Wavul Lena, Kosgama Dodampé), »Rajagiri-lena« (Rajagirilena, one of the →Mihintale Rock Shelters), and »Mihintale Caves« (Mihintale Rock Shelters).

570 »Maha-kelle« (DAVY 1821) as such is not identified. There is, however, one village of Mahakeliya (N07°35': E080°17' WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

571 »Hatilispahay korle« (DAVY 1821) is not identified.

572 The obsolete »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

573 Mahalenama N06°39': E081°42'

574 KUSCH (1973c: 23) based his literary research on Kukla, Jiri (1958), Lajta, Hans (1972), Manjusri, L T P (a.i.), Mauri, Manuela (a.i.), Trimmel, Hubert (1968), and »Ceylon« (i.e. Dhanapala, D.B. 1957b).

575 Maharaksahela N07°26': E081°33'

576 The Sinhala "bintenne" or »Beentenne« (FORBES 1841, 2: 80) is said to translate literally into »back of beyond« and to connote the »wilderness« but the »greater part of the Uva Province is known as Bintenne« (CEYLON TRAVELLER 1983: 347). Additionally, there is a peak »Bintenna 2372« near N06°32': E080°58': 723 m asl shown on the "Road Map of Sri Lanka" (Survey Department 1977).

MAHINDA'S CAVE, Mihintale

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelters in granite (KUSCH 1973: 173).

LOCATION: Northern Central province: Anuradhapura district: Mihintale area.

POSITION: WGS84 (estimated EPE ±2.5 km) N08°21': E080°30' / N08.35°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Keyserling, Hermann Count 1914; Keyserling, Hermann Graft 1919; Lonely Planet, Sri Lanka 2003.

What appears to be rather a magnificent viewpoint than a rock shelter is associated with the Buddhist teacher Mahinda. **SITUATION:** LONELY PLANET (2003: 250 "Mihintale" location map) indicates with the number »9« (Mahinda's Cave) a spot about 500 m on foot approximately north-east and uphill from the Ambasthale Dagoba at →Mihintale.

LONELY PLANET (2003: 252): »Mahinda's Cave ... There is a path leading northeast from the Ambasthake Dagoba down to a cave where there is a large flat stone. This is said to be where Mahinda lived and the stone is claimed to be where he rested. The track to the cave is hard on tender bare feet.«

CAVE DESCRIPTION: KEYSERLING (1914): »... the wonder of wonders in Ceylon is the rock of Mihintale, where Mahinda ... spent and ended his days. This retreat, a narrow retreat on the highest point of the mountain, hewn by the hand of an artist out of the rock, is more regal than anything I have yet beheld. It is overshadowed by steep cliffs which descend abruptly to the valley in front of it. Beneath, the infinite primeval forest expands, whose holy silence is only broken now and again by the trumpeting of elephants. ... It is impossible to spend even the briefest time in this place without progressing inwardly.«

CULTURAL HISTORY - religious folklore: Mahinda, son of the great Indian emperor Ashoka, converted in 247 BC King Devanampiya Tissa of Anuradhapura to Buddhism.

COOK (1931: 12) quotes from KEYSERLING (1914) in order to give one more example of travellers' records which »... amuse the reader, especially if he be an inhabitant of Ceylon« but show not only »how each man looks with different eyes upon the same land ...« and also reveals »not a little of an irresistible temptation on the part of the inhabitants to nourish their sense of humour at the expense of credulous strangers in search of marvellous things and strange antiquities.«

MALAYADI "CAVE"

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Hingurana junction: Malayadi temple (Illukapitiya Raja Maha Vihare).

POSITION: (If at Malalyadi Mandam), WGS84 N07°13': E081°41' / N07.21667°: E081.6833° (guesswork).

MAP: Survey of Ceylon / Sri Lanka sheet "Tirukkovil" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: CT = Ceylon Traveller 1974, 1983.

One of many →Malayadi temple caves (CT = CEYLON TRAVELLER 1974: 252; CT 1983: 254) or »Malayadi caves« (CT 1974, CT 1983: 177) is said to contain rock art: »Veddah drawings« (CT 1974: 252; CT 1984: 177, 254).

MALAYADI "TEMPLE CAVES"

or: Illukapitiya Raja Maha Vihare

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Hingurana junction: Malayadi temple (Illukapitiya Raja Maha Vihare).

POSITION: (If at the estate Malalyadi Mandam), WGS84 N07°13': E081°41' / N07.216667°: E081.68333333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Tirukkovil" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

About 15 of the many »Malayadi caves« (CEYLON TRAVELLER 1974, 1983: 177) or »Malayadi temple caves« (CEYLON TRAVELLER 1974: 252; 1983: 254) contain inscriptions (rock art: epigraphy).

SITUATION: From Amparai (N07°17': E081°40') at a travelling distance of »eight miles« (13 km approximately south) and in the vicinity of the »ancient edifice« of the Malayadi temple (577), which is also known as Illukapitiya Raja Maha Vihare (CEYLON TRAVELLER 1974: 252; 1983: 254).

APPROACH 1 (CEYLON TRAVELLER 1983: 177): »To get there, turn east at the Hingurana junction« (N07°13': E081°39') on the road from Amparai (N07°17': E081°40') south-west to Siyambalanduwa (N06°54': E081°33').

APPROACH 2 (CEYLON TRAVELLER 1974: 252; 1983: 254): On the road from Amparai (N07°17': E081°40') generally southwards to Hingurana (N07°04': E081°38') off the sugar factory towards the Malayadi temple, which is also known as Illukapitiya Raja Maha Vihare, and »... may be visited by bus from Amparai.«

CULTURAL HISTORY - rock art: One of these »rock caves« contains unspecified »Veddah drawings« (CEYLON TRAVELLER (1974: 252; 1983: 254).

MALIGA VIHARA "CAVE TEMPLE"

Frequently visited but speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave).

LOCATION: Central province: Nuwara Eliya district: Teldeniya - Mahiyangana road: Hunnasgiriya area: Daladagama: Maliga Vihara.

POSITION: Representative WGS84 coordinates (assumed EPE ±10 km) N07°16': E080°51' / N07.26667°: E080.85° (guesswork).

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A »cave temple« (CEYLON TRAVELLER 1974, 1983: 37) at the Maliga Vihara, Daladagama (578), contains rock art of the Kandy period: Buddha images, statues of gods and paintings of the same era. Close to the vihara is a pillar inscription of the Polonnaruwa period.

577 »Malayadi temple« (CEYLON TRAVELLER 1974: 252; 1983: 254) is not identified unless it is the same as what is positioned as the estate Malayadi Mandam N07°13': E081°41' (www.nima.mil/geonames accessed 16.11.2003).

578 This »Daladagama« (CEYLON TRAVELLER 1974, 1983: 37), of which the "dalada" bit means tooth, is said to lie 6 km along the path south of Hunnasgiriya (N07°18': E080°51') is not identified. Another Daladagama (N07°49'25": E080°14'47" WGS84, Kurunegala district, North Western Province) lies about 85 km in a direct line north-west of Hunnasgiriya

APPROACH (CEYLON TRAVELLER 1974, 1983: 37): On the road from Teldeniya (N07°17'49": E080°46'07" WGS84) east to Mahiyangana (N07°19'00": E080°58'58" WGS84), turn at Hunnasgiriya (N07°18': E080°51') to the south and proceed about »four miles« (6 km) along a footpath towards Medagammeda (579) or »Meda Maha Nuwara« (Survey Department 1977: Road Map of Sri Lanka).

MANDA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural painted cave or rock shelter.

LOCATION: Eastern province: Unidentified district.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1953.

A rock shelter (or cave?) painted with monochrome silhouettes and with a few symbols, situated somewhere in the Eastern Province (DERANIYAGALA 1953: 125) and, but this is mere guesswork, in the vicinity of a Manda Gala (Manda rock), Manda Kanda (Manda mountain), or a populated place called Manda (580).

MANDAGALA " CAVES "

including: Kanabisunge Galge

Speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Southern province: Hambantota district: Yala National Park area: Mandagala.

POSITION: (If near the Mandagala Dagoba), WGS84 N06°31': E081°37' / N06.51667°: E081.61667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1983.

»At least six caves« (CEYLON TRAVELLER 1983: 174) or modified natural rock shelters »with pre-Christian inscriptions chiselled on their rock faces« include →Kanabisunge galge, a »cave of particular interest.«

SITUATION (CEYLON TRAVELLER 1983: 173-174): »Four miles« (6.5 km) east of the rock »Athurumithurugala« or Athurumithurugala (581) above the »delightfully named tank Athurumithuru wewa« or Athurumithuru Wewa (582) is a »green parkland« covering the bed of the »Mandagala Tank« or Mandagala Wewa (583). »Here, above the dimbul trees rises the striking split-faced Mandagala rock reaching over 500 feet [152.5 m]. This rock is one of the four peaks in the

Mandala range« (584).

APPROACH (CEYLON TRAVELLER 1983: 174): »Mandagala is easily reached by foot along game trails from the Kumbukkan oya or by a rough track (which also leads to Athurumithuru wewa) turning north at Nabadagas wewa [585] near Potana on the Yala - Kumana jeep track« (586).

MANELA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Palle Pattu: Gawaragiriya (Gavaragiriya) village.

POSITION: (If at the village of Gawaragiriya itself), WGS84 N06°38'32": E080°16'00" / N06.6422222°: E080.2.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Horana" (One-Inch series).

SPELEOMETRY: Length: Estimated 9 m. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 30.

A 7 m wide and 4 m high entrance gives access to a 9 or 10 m »long« (perhaps wide or horizontally deep) »cave« or rock shelter. Three archaeological test pits were sunk to a depth of 7 feet (2.1 m).

SITUATION: At an unspecified location somewhere in the vicinity of the village of »Gararagiriya« (sic! probable qua: Gawaragiriya, Gavaragiriya) in the administrative subdivision Palle Pattu, Sabaragamuwa province (Brooks, S J 1995 Mss no. 30).

MANIPAY SUBSIDENCE

or: Sink Hole near Manipay, Manippai, Manippay

A subsidence sinkhole (closed depression) in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Manipay (Manippai, Manippay) village.

POSITION: WGS84 N09°43': E080°00' / N09.716667°: E80° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known. BIBLIOGRAPHY: Arumugan, S 1970; Ceylon Traveller 1974, 1983; Coomaraswamy, A K 1906; Cooray, P Gerald 1967.

COOMARASWAMY (1906 in COORAY 1967: 71) narrates an eyewitness's account (587) of a subsidence on 20th April 1905 resulting in a closed depression (swallow hole, sinkhole) at the village of »Manipay« (588):

579 Medagammeda (N07°16': E080°52'), not
Medagammeda (N07°04': E080°39') or
Medagammeda (N06°41': E080°42').

580 <www.nima.mil/geonames> accessed 16.11.2003 lists
Manda Gala (N06°06': E080°07'), Galle dt., Southern
Province;
Mandagala Dagoba (N06°31': E081°37') in Yala, partly
Hambantota district (Southern Province) and
partly Amparai district (Eastern Province)
Mandakanda (N06°17': E080°07'), Galle dt, Southern
Province.

581 »Athurumithurugala« (CEYLON TRAVELLER 1983: 173)
is Athurumithurugala N06°30': E081°36'

582 »Athurumithuru wewa« (CEYLON TRAVELLER 1983:
173, 174) is Athurumithuru Wewa or Athurumithuru Wewa
N06°30': E081°35'

583 »Mandagala Tank« (CEYLON TRAVELLER 1983: 174)
or Mandagala Wewa N06°31': E081°38'

584 »Mandagala rock« or »Mandala range« (CEYLON
TRAVELLER 1983: 174) as such is not identified but
there is a Mandagala Dagoba N06°31': E081°37'

585 Nabadagas Wewa N06°28': E081°37'

586 »Potana« (perhaps near N06°25': E081°35') is not
identified but said (CEYLON TRAVELLER 1983: 174) to
lie on the jeep track along the coast from Yala (N06°22':
E081°31') north-east to Kumana (N06°31': E081°42').

<www.nima.mil/geonames> (accessed 16.11.2003) lists
from the area N06°22': E081°31' to N06°31': E081°42'

Pahala Potana Eliya N06°28': E081°37' (estate)

Pahala Potana Lewaya N06°27': E081°38' (lagoon)

Uda Potana Eliya N06°26': E081°36' (estate)

Uda Potana Lewaya N06°26': E081°36' (lagoon)

Uda Potana Modera N06°25': E081°37' (stream).

587 CEYLON TRAVELLER (1974: 249; 1983: 250).

588 Manipay, Manippai, or Manippay (N09°43': E080°00').

»At dawn ... the villagers living near the Kerai fields heard a strange sound which was found to have been caused by the collapse of the surface soil over an area of about 10 feet [3 m] in diameter. The pit thus formed contained a pool of saltwater which gradually widened till about 4 p.m. when the pool was about 40 feet [12 m] in diameter; soil from the sides continued to fall in for a time. The depth of the water was about 30 feet [9.15 m], and its surface about one foot [0.30 m] below the surface of the field. Salt water, passing through underground passages, gradually undermined a place where the subsoil was more than usually friable. Similar occurrences are said to have taken place in the past in Jaffna.«

CEYLON TRAVELLER (1974: 248; 1983: 250) explains that the Jaffna Peninsula is »one vast shelf of limestone« and has a »structure like a sponge« before drawing attention to the fact that »strangely enough, although it [the Jaffna Peninsula] abounds in curiosities such as the Tidal Well near Pottur [Puttur] and the Sink Hole [589] at Manipay, few caverns are actually known. A new one, complete with an underground lakelet, was revealed a few years ago by a subsidence at Keerimalai, near the Cement Factory« (590).

MANIYANGAMA CAVE

see: Beli Lena (Athula)

Deraniyagala, Siran Upendra 2002: 5.

MARAVIDIYA

or: "Caves" on Gunner's Quoin

Frequently visited but speleologically unexplored and unmapped modified natural, sacred and painted, troglodyte caves or rock shelters (temple caves) with spring.

LOCATION: Northern Central province: Polonnaruwa district: Dimbulagala (Gunner's Quoin).

POSITION: WGS84 N07°51': E081°08' / N07.85°: E081.13333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

There is a »series of caves« (CEYLON TRAVELLER 1974, 1983: 112) or modified natural rock shelters »with white plastered walls known as Maradiya« at the →Dimbulagala: »Two are better preserved and contain paintings [rock art] which once covered the whole plastered surface.

On the summit and within the caves are two pools of clear water. In two other caves the paintings are in a bad state, but the bold outlines are clear.«

SITUATION: »Near the very summit« (CEYLON TRAVELLER 1974, 1983: 112) of the →Dimbulagala / Gunner's Quoin (591).

MATIGHARA CAVE

see: Metigaha Aregalge

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 13.

MATTI ARU TUF A STREAM

or: Pinnacle Rock Tufa Stream

An occurrence of Holocene travertine (calcareous tufa).

LOCATION: Eastern province: Trincomalee district: Tiriyai: Pinnacle Rock (Vilatti Malai, Nachchiya Malai).

POSITION: WGS84 N08°46': E081°01' / N08.76667°: E081.016667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Nilaveli or Padawiya, or Kokkilai (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Fernando, Kishanie S. 2003.

WEBSITE: <www.dailymirror.lk/2003/06/25/feat/3.html> accessed 2005.08.17.

A stream depositing calcareous tufa (travertine) which can be expected to be fed by a possibly enterable karst spring (exsurgence) rising from Miocene Jaffna Limestone.

SITUATION: In the vicinity of Tiriyai (592), »at the foot of the hill« (CEYLON TRAVELLER 1974:?, 1984: 119) called →Pinnacle rock (593) and »Vilatti Malai in Tamil (CEYLON TRAVELLER 1974:?, 1984: 119) or is »known as Vilatti Malai in Tamil and Nachchiya malai« (FERNANDO 2003), rises »southwards of Kuchchaveli« (N08°49': E081°06').

APPROACH 1 (CEYLON TRAVELLER 1974 edited 1984: 120): South of Kuchchaveli (N08°49': E081°06'): »A most convenient way to reach this out-of-the-ordinary site is to hire a vallam, an outriggerless dug-out canoe, from the fishing settlement at the Salappai Aru ferry. The journey—one way—is about four miles through fascinating mangrove swamp and heavy, bird-filled jungle.«

APPROACH 2 (FERNANDO 2003): »The 25 kilometre jungle track to Tiriyaya [N08°52': E081°01'] was irresistible to us. This was our second trip. It was not so long ago that it was inaccessible to civilians and now it seemed it had opened its vistas luring many into its wilds. Passing Nilaweli and a few other small hamlets, the security check points warned us that we were travelling into the hidden heart of Lanka along its eastern sea line rarely broken by the mark of man. However, the once deserted migrant fishing hamlets seemed

591 Both »Gunnars Quoin 1753« (metres above sea level) and »Dimbulagala« (place of archaeological and tourist interest) on the "Sri Lanka road map" (Survey Department 1977).

<www.nima.mil/geonames> (accessed 16.11.2003) positions (WGS84):

N07°52': E081°07' Dimbulagala RKS (rocks: conspicuous, isolated rocky masses)

N07°51': E081°08' Dimbulagala Archaeological Reserve ANS (ancient site: a place where archeological remains, old structures, or cultural artifacts are located).

592 Tiriyai N08°52': E081°01'

593 Pinnacle Rock (N08°46': E081°06'), the hill (a rounded elevation of limited extent) 14 km in a direct line south-east of Tiriyai (N08°52': E081°01'), and not Pinnacle Rock (N08°34': E081°14'), the rock (a conspicuous, isolated rocky mass) 40 km in a direct line south-east of Tiriyai (WGS84 <www.nima.mil/> accessed 16.11.2003).

589 The author of CEYLON TRAVELLER (1974: 248; 1983: 250) had obviously a kind of »sink hole« in mind where the hole itself is sinking. In the speleological sense of the word, the terms "sink" and "sinkhole" are synonyms for doline used by US American geomorphologists. Also used, more widely, by engineering geologists to describe almost any form of small surface depression (LOWE & WALTHAM 1995: 32).

590 The »subsidence at Keerimalai« (CEYLON TRAVELLER 1974: 248; 1983: 250) appears to be the →Keerimalai Well.

to be awakening. There were more huts and more people than during our last visit. ...

However, to explore these strange places is not yet possible due to tight security. In fact it is almost a shock to realise the fragility of the peace which we enjoy along the roads of Colombo when we pass through the heavily guarded and constantly patrolled jungle tracks. At all times you may be sure to find soldiers watching you almost hidden amongst the trees.«

TUFA DESCRIPTION 1: CEYLON TRAVELLER (1974, 1983: 119-120): »At the foot of the hill runs a small river [no name mentioned: Matti Aru], which is said to have the property of petrifying objects by coating them with a heavy deposit of calcium [more likely: calcium carbonate, calcareous tufa]. It is certainly true that on the sand banks lining the stream petrified crab shells and similar objects, apparently turned into limestone, are often found.« Slow cavers: Take care!

TUFA DESCRIPTION 2: FERNANDO, K.S. (2003): »Nihal Fernando in his book the Ceylon Traveler [sic! qua: Ceylon Traveller] says that it is certainly true that on the sand banks lining the stream petrified crab shells and similar objects apparently turned into limestone are often found. The petrified crabs of Matti Aru [594], which is one of the several rivers which flow into Salape Aru [595] as common estuary, have been said to be of medicinal value and used to cure urinary disorders. Dr. H. Woodward describes a certain medicinal crab found here used in the Chinese pharmacopoeia.«

MATUGAMA CAVE

see: Yakgiri Lena

Deraniyagala, Paulus Edward Pieries 1965: 144 figure 21.

MATURATA CAVE

see: Maturata Nitre Cave (Padiyapellela)

Kukla, Jiri 1958: 169.

MATURATA NITRE CAVE, Padiyapellela

Exploited for nitrate and bat guano but speleologically unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulate (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Nuwara Eliya district: Belihul Oya (Bilhool-oya Davy 1821) river basin: »Hewahette district« (Davy 1821) area: Maturata (Maturatta Davy 1821) military station: Padiyapelella village.

POSITION: WGS84 (without recorded EPE) N07°05': E080°48' / N07.08333° : E80.8° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of India sheet "Hanguranketa" or "Nuwara Eliya" (One-Inch series).

SPELEOMETRY: Length: Estimated 46 m. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Adams, F D 1929; Cooray, P Gerald 1967; Davy, John 1821; Kukla, Jiri 1958; Pridham, Charles 1849; Trimmel, Hubert 1968.

An about 40 or 50 m long cave in crystalline limestone lists DAVY (1821: 31 footnote) as Nitre Cave no. 18, Maturatta, Hewahette district.

594 The Tamil "aru" means »stream« (water course) and there is one Matti Aru N08°6': E079°49'

595 »Salappai Aru« (CEYLON TRAVELLER 1984: 120) or »Salape Aru« (FERNANDO 2003). The Tamil "aru" means »stream« (water course).

ETYMOLOGY: No locally known name has been identified for the nitre cave associated with what had been a military station at »Maturatta« (Maturata). If I am not mistaken, I saw this cave called

Matura Cave TRIMMEL (1968: 266)

Maturata Cave KUKLA (1958)

Maturata, Padiyapelella COORAY (1967: 97): »Other caves in crystalline limestone are found at ...«

Maturatta nitre-cave DAVY (1821: 339)

Maturaty, jeskyni u KUKLA (1958)

nitre-cave, Maturatta DAVY (1821: 31 footnote)

nitre cave at Maturatta PRIDHAM (1849, 2: 708)

SITUATION 1 (DAVY 1821: 439): In the side of a mountain, about »two miles« (3 km) from »the post at Maturatta [Maturata] and considerably lower« (596).

SITUATION 2: The »Map of the Island of Ceylon« (folded, in: DAVY 1821) shows »Maturatta« above the east (orographically right) bank of the »Bilhool-oya« or Belihul Oya (597) and at a spot south-east of where the "road" from »Fort Mc'Donald« (598) generally NNW to »Hangranketta« (Hanguranketa N07°10'38": E080°46'43" WGS84) crosses the the »Bilhool-oya« (Belihul Oya).

SITUATION 3 (COORAY 1967: 97): Somewhere in the vicinity of the village of Maturata near Padiyapelella (599).

CAVE DESCRIPTION 1821 (DAVY 1821: 339-340): »Its dimensions are relatively small; where highest, its roof may be reached with the hand; and where widest, it hardly exceeds twenty-four feet [7.3 m]. Its floor, though nearly horizontal in its general direction, is rugged and uneven, from masses of rock, and from pits dug in it during the rebellion, for the purpose of secreting grain. Its roof is much fissured; as you advance it becomes lower and lower, and the cave darkens: you can go a very little way without light, and a very little way walking erect. To reach the end, as I did, I was obliged to go on my hands and knees, and in some places lie down and creep forward. The distance from its mouth to its extremity may be about 150 feet [45.7 m], instead of the three miles [about five kilometres], which is the depth

596 »Maturatta« (DAVY 1821) is Maturata N07°05': E080°48' (www.nima.mil/geonames accessed 16.11.2003).

FORBES (1840, 1841.ii: 120): »From Hanguranketa the rugged track, miscalled a road, winds over stones, along watercourses, and through swamps ; then crosses a mountain torrent, the Bilhool-oya ; after which for two miles there is a steep ascent to Maturatta, a military post, the commandant of which had civil jurisdiction over the surrounding districts. Untenable as a military position against an intelligent enemy, this station appeared to be only commendable for its cool climate.«

597 »Bilhool-oya« (DAVY 1821) is the Belihul Oya N07°11'19": E080°50'41" WGS84, not the other Belihul Oya (N06°41': E080°46').

598 »Fort Mc Donald« (N06°57'15": E080°53'20" Everest 1830, Survey of Sri Lanka One-Inch sheet "Nuwara Eliya" 1972) or »Fort MacDonald« (CEYLON TRAVELLER 1983: 145) and »Fort M'Donald« (BAKER 1855) is »... the military post at the village of Parnagamma [Paranagama], ... named after Major M'Donald of the 19th Regiment, who performed arduous services in this part of the country during the rebellion of 1817 and 1818« (FORBES 1840, 1841. ii: 126).

599 <www.nima.mil/geonames> (accessed 16.11.2003) positions Padiyapelella N07°05': E080°48' at the same spot as the villages of Ehalagastenna, Maligatenna, Maturata, Uduwella, Ukutule, Wetagepota, Wewatenna, and Yatiwella.

assigned to it by the natives, who speak merely from guess, being afraid to explore its recesses, (so they say,) believing them to be inhabited by demons.«

CAVE DESCRIPTION 1929: ADAMS (1929) needs to be identified, traced, and read, understood and counterchecked.

CAVE DESCRIPTION 1958: KUKLA (1958: 169 apparently after ADAMS 1929) was lead to believe that »only small caves« occur in the crystalline limestone exposed on the island of »Ceylon ... including Maturata cave, which is filled with hydromagnesite deposit and is the most interesting one.«

CULTURAL HISTORY - Human use & mineral exploitation:

DAVY (1821: 27, 489) reports the presence of »native carbonate of magnesia« (dolomite, MgCaO₃).

DAVY (1821: 31 footnote) reports exploitation of nitrate (saltpetre, NaNO₃).

DAVY (1821: 34-35) notes the presence of common salt (NaCl): »The only instance that I found ... [anywhere in Ceylon / Sri Lanka] in solid form, was in the nitre-cave at Maturatta, where, mixed with silica and carbonat [sic] of magnesia, it formed a white crust on a small portion of rock consisting of dolomite, decomposing felspar [feldspar] and mica.«

PRIDHAM (1849, 2: 708): »Common salt ... is never or seldom found in the interior [of Ceylon], except in minute quantities, dissolved in water. The only known exception is at the nitre cave at Maturatta, where it is found in the solid form mixed with silica and carbonate of magnesia, and forms a white crust on a small portion of dolomite rock, decomposing felspar and mica.«

COORAY (1967: 97) draws attention to »Maturata makul« manufactured in the vicinity of the village of Maturata and decides that it is »hydromagnesite« which is used for white-washing the walls of viharas (religious buildings) and as paint for pottery (600).

KUKLA (1958: 169), possibly based on ADAMS (1929), took the Maturata »hydromagnesite« (COORAY 1967) to be true hydromagnesite (601): »V literaturě je zmínka o jeskyni u Maturaty s ložiskem hydromagnesitu, kterého se používá jako malířské hlinky« (602).

TRIMMEL (1968: 266) follows KUKLA (1958) and draws attention to smaller caves known from the crystalline limestones occurring on the island of »Ceylon« where not only one but some of them, e.g. »Matura Cave«, contain hydromagnesite as a cave sediment (603).

EXPLORATION HISTORY: 1819 (circa): Dr. John DAVY (1821: 340) not only identified the whereabouts of the »nitre-cave, Maturatta« but also entered and explored: »To reach the end, as I did, I was obliged to go on my hands and knees, and in some places lie down and creep forward.«

MATURATTA CAVE

see: Maturata Nitre Cave (Padiyapellela)
Pridham, Charles 1849, 2: 708.

MATURATTA NITRE CAVE

see: Maturata Nitre Cave (Padiyapellela)
Davy, John 1821: 31 footnote »nitre-cave« no 18.

MEDAGAMA NITRE CAVE

or: Meddegama Nitre Cave

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Sabaragamuwa province: Ratnapura district: »district of Saffragam« (Davy 1821) area: »Meddegama« (Davy 1821), Medagama village.

POSITION: Not known <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Colombo, Haputale, Nuwara Eliya, or Ratnapura (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 21 of DAVY (1821: 31 footnote) lies in »Saffragam district« (604) and somewhere in the vicinity of an inhabited place called »Meddegama« or Medagama (605).

MEDDEGAMA NITRE CAVE

see: Medagama Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no. 21.

MEDELLENEWA NITRE CAVE

see: Midellewa Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 2.

600 All the hydromagnesite occurrences which I saw in caves were tiny and barely sufficient enough to white-wash a thumbnail sized surface. I wonder if »hydromagnesite« (COORAY 1967) means burned and slaked dolomite.

601 Hydromagnesite Mg₃(CO₃)₄·4(OH)₂·4H₂O is a white coloured carbonate mineral, vitreous to silky when wet, earthy and powdery when dry: »Feels like cream cheese when rubbed between the fingers. Extremely fine grained. Rare in most caves. A common constituent of moonmilk. Cannot be positively identified without an X-ray examination« (HILL & FORTI 1986: 19).

602 KUKLA, Jiri (1958: 169 summary): »There are only small caves in the crystalline limestones including Maturata cave, which is filled with [a] hydromagnesite deposit and is the most interesting one.«

603 TRIMMEL (1968: 266): »Kleinere Höhlen sind in kristallinen Kalken bekannt; manche von ihnen (Matura Cave) enthalten als Höhlensediment Hydromagnesit.«

604 The obsolete »the district of Saffragam« (DAVY 1821) corresponds more or less to the Ratnapura district between circa N06°15': E080°15' to N06°50': E080°50' (Survey Department 1977: Road Map of Sri Lanka).

605 <www.nima.mil/geonames> (accessed 16.11.2003) lists »Medagama« or so district, sheet
Medagama N06°46': E080°19' Ratnapura, Colombo
Medagama N06°44': E080°26' Ratnapura, Colombo
Medagama N06°44': E079°58' Ratnapura, Colombo
Maddegama N06°43': E080°41' Ratnapura, Ratnapura
Medagama N06°36': E080°42' Ratnapura, Haputale
Meddegama N06°29': E080°39' Ratnapura, Rakwana
Maddegama N06°22': E080°22' Galle, Rakwana
Medagama N06°04': E080°50' Hambantota, Ambalantota
Midigama N05°58': E080°23' Matara, Ambalantota

MEEMOORRA NITRE CAVE

see: Lunugala Lena

Forbes, Jonathan 1840, 1841 vol. 2: 101, 103 footnote; Pridham, Charles 1849, 2: 663.

FORBES (1840, 1841.ii: 101): »*In ascending [606], we found several springs of the purest water; and breakfasted, at an elevation of three thousand three hundred feet above the sea, on a spot from which we saw into the valley of Meemoorra on one side, and on the other our view extended over the districts through which we had passed to the plains on the north and east of the Kandian territory.*«

FORBES (1840, 1841.ii: 103 footnote): »*Meemoorra is a deep narrow valley beyond Lakagalla ; and in the mountains which form the opposite side is a nitre cave ...*«

PRIDHAM (1849, 2: 663): »*Near Meemoorra is a nitre cave of large dimensions, and striking appearance ...*«

MELLAGALA 'CAVES'

Speleologically unexplored and unmapped modified natural troglodyte caves or rock shelters.

LOCATION: Eastern province: Amparai district: Gal Oya basin - Bintenne area: Kohombana junction: Uhana.

POSITION: WGS84 N07°25': E081°35' / N07.41667°: E081.58333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet Kalmunay (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A group of another so-called »*rock caves*« (CEYLON TRAVELLER 1974: 251; 1983: 253).

SITUATION: (after CEYLON TRAVELLER 1974: 251; 1983: 253): The rocky outcrops of Mellagala (607) lie in the »*desolation of Bintenne*« (608) and are best reached from Uhana (N07°22': E081°38') by proceeding 6.5 km to Kohombana (609) and then 4 km along a cart track. Leave this track, turn left and walk across the plain to the rocky outcrops which rise for about 60 to 90 m from the surrounding plains.

606 Major Jonathan FORBES (1840, 1841.ii: 102) narrates how he ascended from a certain »*Uyangamma-tennawewa (lake of the garden-flat)*« to the »*peaks of Lakagalla*« which may have something to do with the estate Lagalla (N07°33': E080°44').

607 There is one Mellagala N07°25': E081°35' (www.nima.mil/geonames accessed 16.11.2003) »*HILL*« or hill: »*A rounded elevation of limited extent rising above the surrounding land with local relief of less than 300 m.*«

608 The Sinhala "bintenne" or »*Beentenne*« (FORBES 1841, 2: 80) is said to translate literally into »*back of beyond*« and to connotates the »*wilderness*« but the »*greater part of the Uva Province is known as Bintenne*« (CEYLON TRAVELLER 1983: 347). Additionally, there is a peak »*Bintenna 2372*« near N06°32': E080°58': 723 m asl shown on the "Road Map of Sri Lanka" (Survey Department 1977).

609 »*Kohombana*« (CEYLON TRAVELLER 1974: 251; 1983: 253) and »*Kohombana junction*« (CEYLON TRAVELLER 1974: 253; 1983: 254) or »*Kohobana junction*« (CEYLON TRAVELLER 1983: 177) appears to correspond to the village of Kohombana N07°24': E081°37' <www.nima.mil/geonames> accessed 16.11.2003.

MEMINNAHELA GALGE 1

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter or cave in gravitationally dislocated gneiss boulders.

LOCATION: Uva province: Monaragala district: Buttala village: Meminnahela ridge.

MAPS: Survey of Ceylon / Sri Lanka sheets: Buttala, Passara.

BIBLIOGRAPHY: Sarasin, Fritz & Sarasin, Paul 1939: 160.

A large rock shelter in gravitationally dislocated gneiss boulders, which, in 1908, was characterised by shallow sleeping places of sloth bears (610). Compare: →Katugaha Galge and the cave at →Yudaganawa.

SITUATION (SARASIN 1939: 160): In a so-called »*Meminnahela ridge*« (unidentified) which is said to lie in one way or another »*near*« Buttala (N06°45': E081°15').

CAVE DESCRIPTION: SARASIN (1931: 46; 1939: 160): A »*large*« rock shelter (unspecified size) formed by overthrown boulders (611).

CULTURAL HISTORY - Archaeology: Excavation yielded historical pottery when dug to the base at a depth of a metre by the Sarasin brothers in 1908 (SARASIN 1931: 46; SARASIN & SARASIN 1939: 160).

CAVE LIFE: Shallow depressions on the floor indicates sleeping places of »*Lippenbären*« (612).

MEMINNAHELA GALGE 2

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter or cave in gravitationally dislocated gneiss boulders.

LOCATION: Uva province: Monaragala district: Buttala village: Meminnahela ridge.

POSITION: (If at Buttala itself), Representative WGS84 or Everest 1830 N06°45': E081°15' / N06.75°: E081.25° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheets: Buttala, Passara.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Sarasin, Fritz 1939: 160.

A roomy rock shelter, which is marked with a man-made notch (to deviate rain water), in gravitationally dislocated gneiss boulders. Compare: →Katugaha Galge and the cave at →Yudaganawa.

SITUATION: Near the first →Meminnahela Galge in the »*Meminnahela ridge*« (unidentified) which is said to lie in one way or another »*near*« Buttala (N06°45': E081°15').

CULTURAL HISTORY - Archaeology: The Sarasin brothers excavated Meminnahela Galge 2 in 1908 (SARASIN 1931: 46; SARASIN & SARASIN 1939: 160-161) and dug up remains of iron and pottery (613).

610 Sloth bears (*Melursus ursinus inornatus*) or »*Lippenbären*« (SARASIN 1931: 46; SARASIN & SARASIN 1939: 160).

611 SARASIN (1931: 46) or SARASIN & SARASIN (1939: 160): »*Eine grosse Halbhöhle ... gebildet durch übereinandergeworfene Felsblöcke. ... Die Grabung war mühselig infolge dicker, herabgefallener Gneissplatten und ergab nichts als einige Topfscherben bis hinab auf den anstehenden Fels in der Tiefe von 1 m.*«

612 SARASIN (1931: 46) or SARASIN & SARASIN (1939: 160): »*Ihr Boden zeigte seichte Höhlungen, Schlafstätten von Lippenbären.*«

613 SARASIN (1939: 160-161): »*Eine zweite geräumige, in der Näher befindliche Halbhöhle gab sich durch eine zum Abfluss des Regens in den Fels gehauene Rinne als frühere Einsiedlerwohnung kund. Auch hier erschwerten grosse Blöcke die Grabung, bei der wir nichts fanden als einige eiserne Geräte und Topfscherben bis hinab auf den Felsgrund.*«

MEMOORA NITRE CAVE

see: Lunugala Lena

Davy, John 1821: 31 footnote, 350, 379.

MEMORA NITRE CAVE

see: Lunugala Lena

Davy, John 1821: 38.

MENELA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district: Gawaragiriya (Gavatgiriya) village.

POSITION: WGS84 N06°38'32": E080°16'00" / N06.64222222°: E080.2.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Horana" (One-Inch series).

SPELEOMETRY: Length: Estimated 7.5 m. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 30.

A 5 m wide and 2.4 m high entrance without identified shape or orientation is said to lead to an estimated 7 to 8 m long cave »in gneiss« which yielded, when archaeologically excavated in 1953 to a depth of 2.1 m, stone tools and faunal remains (Brooks 1995 Mss, no. 30 after DERANIYAGALA 1980: 177).

SITUATION: In one way or another »near Gavatgiriya« (Brooks 1995 Mss, no. 30), which appears to be the village known as Gawaragiriya (N06°38'32": E080°16').

MENIK LENA

or: Cave of Gems

Frequently visited but speleologically unexplored and unmapped natural sacred (?) cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Sri Pada summit, Kuruwita side.

POSITION: Representative WGS84 coordinates (assumed EPE ±10 km) N06°45': E080°25' / N06.75°: E080.416667° (or so).

MAP: Ratnapura (Survey of Ceylon / Sri Lanka, One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter (CEYLON TRAVELLER (1974: 243; 1983: 245), possibly identical the →Adam's Peak Cave of MORGAN (1943: 13; after BASSET 1929). Compare the →Serendip Caverns.

ETYMOLOGY: "Menik Lena" means »Cave of Gems. Presumably someone, perhaps a pilgrim, picked up a gemstone there« (CEYLON TRAVELLER 1974: 243; 1983: 245).

Among Arabic speaking people (e.g. Muslims), "manik" is a honorary title. Presumably someone, perhaps a troglodyte, established there a hermitage retreat, which, from a lucrative point of view, is ideally placed at a pilgrim's main road.

SITUATION (CEYLON TRAVELLER 1974: 243; 1983: 245): Not far from the commencement of the final ascent of the pilgrim path from Ratnapura (N06°40'58": E080°23'57" WGS84) via Kuruwita (N06°46'45": E080°22'07" WGS84) to the summit of Adam's Peak / Sri Pada (N06°48'30": E080°29'53": 2243 m asl).

METIGAHA AREGALGE

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Danigala Range area: Danigala Range: Nilgala village.

POSITION: (If within 5 km from the village Danigala), WGS84 (estimated EPE ±5 km) N07°15': E081°23' / N07.25°: E081.38333333° (estimated).

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Deraniyagala, Siran Upendra 1980; Sarasin, Fritz & Sarasin, Paul 1908.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 13.

A kind of rock shelter is said to be situated at a distance of one hour on foot in an unidentified direction from →Ballawalaboka Galge in the hills above the village of Danigala (614).

ETYMOLOGY: »Metigaha Aregalge« (SARASIN & SARASIN 1908; DERANIYAGALA, S U 1980: 155) once had been corrupted into an Anglo-Pashtun almost-as-Farsi looking »Matighara Cave« (Brooks 1995 Mss, item no. 13).

CULTURAL HISTORY: Archaeological excavation down to the bedrock yielded historical findings (SARASIN & SARASIN 1908; DERANIYAGALA, S U 1980: 155).

MIDELLEWA NITRE CAVE

or: Medellenewa Nitra Cave

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Demoole pattoo« (Davy 1821) area: unidentified »Medellenewa« (Davy 1821) or Midellawa village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheets: Wariyapola, Nalanda.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 2 (DAVY 1821: 31 footnote) is situated a place called »Medellenewa« (615) in the »Demoole pattoo« (616) of the likewise obsolete »Seven Korles district« (617).

614 »Danigala« (CEYLON TRAVELLER 1984: 175) is said to lie at a travelling distance of »four miles« (6.5 km) »along a steep, winding jungle path« from Ratugala (unidentified), which itself is said to lie »twenty miles« (32 km without orientation) from »Inginiyagala« or Inginiyalgala (N07°13': E081°32') and »six miles« (10 km) from Mullegama (N07°20': E081°27').

The »Danigala Range« (CEYLON TRAVELLER 1983: 175) or »Danigala chain of hills« (Brooks 1995 Mss, item no. 12 after DERANIYAGALA 1980: 155) is named after the village of Danigala (N07°15': E081°23') north of the village of Nilgala (N07°11': E081°22').

615 »Medellenewa« (DAVY 1821) is not identified unless it is the same as one of the villages of Midellewa N07°53': E080°18' or Midellawa N07°38': E080°10' on SoC / SoSL sheets Wariyapola or Nalanda.

616 The obsolete administrative subdivision »Demoole pattoo« (DAVY 1821) is not identified.

617 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

MIHINTALE ROCK SHELTERS

or: Mihintala Caverns

Partly explored and mapped modified natural troglodyte rock shelters in granite (KUSCH 1973: 173).

LOCATION: Northern Central province: Anuradhapura district: Mihintale (Mihintala, Mihintele) area.

POSITION: WGS84 (without recorded EPE) N08°21': E080°30' / N08.35°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Forbes, Jonathan 1840, 1841; Keyserling, Hermann Count 1914; Keyserling, Hermann Graf 1919; Kukla, Jiri 1958; Kusch, Heinrich 1973b, 1973c; Lonely Planet, Sri Lanka 2003; Strinati, Pierre & Aellen, Villy 1981; Tennent, James Emerson 1859, 1860, 1861.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

At Mihintale, a number of »sixty-eight rock-temples, with thirty-two priests' chambers« (undated circa »Budha 805. a.d. 262« inscription in: FORBES 1840, 1841. ii: 277) were interpreted to represent 86 partly modified natural rock shelters (KUSCH 1973b: 173-176; 1973c: 22) and consist of »around 70 different sites for contemplation« (LONELY PLANET 2003: 251) that have been used as troglodyte hermitage retreats or »cave dwellings« (618).

STRINATI & AELLEN (1981: 459) limited their interest on zoological aspects and decided to count »Rajagiri-lena« among the biospeleologically less important caves or rock shelters, which consists either of rift caves or of half dark overhangs (619).

ETYMOLOGY: Mihintale (620) is of enormous spiritual significance to the Sinhalese because it is the site where Buddhism originated in Sri Lanka. Officially, it was king Devenipeatissa of Anooradhapooora, who »... induced Dharmaasooka [the Indian emperor Ashoka], sovereign of the many kingdoms into which Dambadiva [621] was divided, and whose capital was Pattilipatta [622], to depute his son

Mihindoo, and his daughter, Sangamitta, with several other principal priests to Anuradhapura, for the purpose of introducing the religion of Buddha. They arrived in the year 237, the first of this reign, and eighteenth of that of Dharroasooka. They established Buddhism, propagating its doctrines orally« (FORBES 1840, 1841. ii: 277).

Popular tradition, however, prefers to have King Devanampiya Tissa of Anuradhapura to have converted to Buddhism in 247 BC when meeting Mahinda (Mihinda, Mehindoo, etc.) while hunting deer around the hill at

Mehintalai FORBES (1840, i: 189, 241, 367, 382-387, 420)

Mihintala TENNENT (1859, i: 427)

Mihintale CEYLON TRAVELLER (1974, 1983); COOK (1931); KEYSERLING (1914, 1919); KUKLA (1958) KUSCH (1973b); LONELY PLANET (2003); STRINATI & AELLEN 1981)

Mihintallai FORBES (1840, 1841.ii: 277, 279, 283, 287)

Mihintele FORBES (1840, 1841.ii: 6, 324, 327, 330, 334)

Mihintellai FORBES (1840.ii: 278, 283).

SITUATION: From Anuradhapura (N08°21': E080°23') about 8 km east (KUSCH 1973b: 173) or at a travelling distance of 13 km (LONELY PLANET 2003: 250) approximately east along the road to Trincomalee (N08°34': E081°14').

KUSCH (1973b: 173): South of the Kantaka Chetiya (a dagoba) are rock faces containing caves in granite.

LONELY PLANET (2003: 251): »South of the Kantaka Chetiya ... a big boulder is cleft by a cave ... Through the cave, ledges on the cliff face acted as meditation retreats ... «

CAVE DESCRIPTION 1958: KUKLA (1958: 167): »Nejznamejsize vsech jsou cejlonské pseudokrasové jeskyne. Jsou to vetsinou hluboká abri, ktera vznikla vyvetraním méne vzdorných partií ruly obvykle na upati nějakého skalnatého vrcholu. Snad největší jsou jeskyne v Dambulle, umelerozsírené v buddhisticky chram. Abri je kryto zdí, takže vnitrek sesochami Buddy, vytsanými z ruly, je temny. Jen nekolikr'st v roce, za nábozenských slavností, se dze rozzehnou pochodne. Podobne mensí abri je v Mihintale.«

KUKLA (1958: 169): »Well known are the pseudokarst abris in Ceylon, such as Dambulla Cave and Mihintale Cave used as the buddhist sanctuaries.«

CULTURAL HISTORY - human use: FORBES (1840, 1841.ii: 277). »Devenipeatissa B.C. 306. Bud. 237. Reigned 40 years ... induced Dharmaasooka, sovereign of the many kingdoms into which Dambadiva was divided, and whose capital was Pattilipatta, to depute his son, Mihindoo [Mahinda, Mahindra, Mihinda], and his daughter, Sangamitta [Sumitta], with several other principal priests, to Anooradhapooora [Anuradhapura], for the purpose of introducing the religion of Budha. They arrived in the year 237, the first of this reign, and eighteenth of that of Dharmaasooka. ... The King built ... sixty-eight rock-temples, with thirty-two priests' chambers, on Mihintallai [sic!]...« FORBES (1840, 1841.ii: 327): »The inscriptions at Mihintele [sic!] bear no date. They must have been recorded about the year of Budha 805. a.d. 262.«

TENNENT (1859 revised 4th edition 1860, 1.IV.vii: 481): »In the Rajavali [p. 184], Devenipiatissa is said to have "caused caverns to be cut in the solid rock at the sacred place of Mihintala, and these are the earliest residences for the higher orders of the priesthood in Ceylon, of which a record has been preserved.«

LONELY PLANET (2003: 251): »Devanampiya Tissa (r. 247 and 207 BC) had 68 cave monasteries built.«

EXPLORATION HISTORY: In about 1911 or 1912, Hermann Graf KEYSERLING (1919) or Count KEYSERLING (1914) was shown »... the wonder of wonders in Ceylon is the rock of Mihintale, where Mahinda

618 CEYLON TRAVELLER (1974: 249; 1983: 251) classifies the rock shelters at Mihintale as »cave dwellings« (thus explaining for what they have been used) but gives no clue concerning their nature

619 The four (or three?) »autres grottes peu importantes« (other, less important caves) mentioned by STRINATI & AELLEN (1981), which are represented either by »abris semi-obscures« (half dark overhangs or rock shelters) or by »réseau de fissures« (rift cave systems), are Mahakande Cave, »Vavul-lena« (Vavul Lena, Kosgama Dodampé), »Rajagiri-lena« (Rajagirilena, one of the →Mihintale Rock Shelters), and »Mihintale Caves« (Mihintale Rock Shelters).

620 FORBES (1840, 1: 382 footnote) was lead to believe that »this rocky mountain, or parts of it, is mentioned by various names in the native histories, viz. Piyal Kula, M issako, Chetiyo, Saegiri« but strong believe moves mountains, e.g. →Sigiriya.

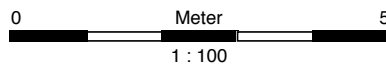
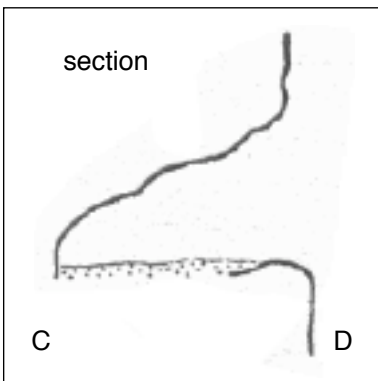
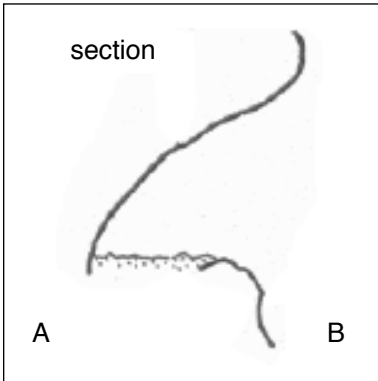
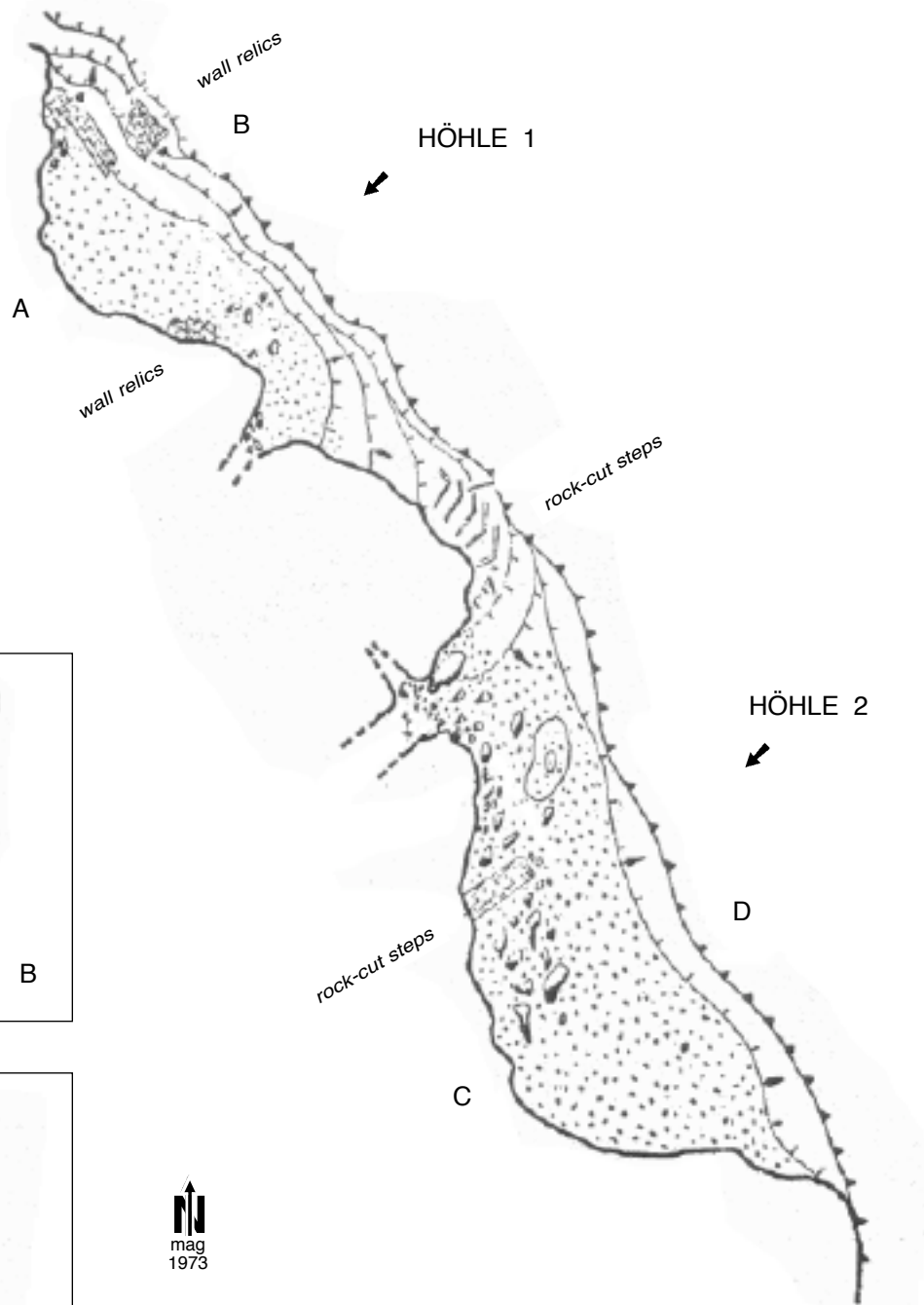
621 »Dambadiva« generally means continental India. FORBES (1840, 1841.ii: 319): »Dambadiva, or Jambodweepa [Jambudwip] is applied, according to the native literature of this island, to India in its most extended signification; and is sometimes used even in the sense of the Terra Cognita ...«

622 »Pattilipatta« is the town of Patna (N25°35': E085°15') in the Ganges valley of Uttar Pradesh, northern India.

MIHINTALE "CAVE" (KUSCH 1973)

Mihintale, Anuradhapura District, North-Central Province, Sri Lanka
circa N 08°21': E 080°30' (± 2.5 km, WGS84)

After KUSCH (1973c: 173)



... spent and ended his days. This retreat ... is more regal than anything I have yet beheld.»

1970 January: Pierre STRINATI and Villy AELLEN (1981: 459) visited not only unidentified »Mihintale Caves« but also →Rajagirilena and collected unspecified bats.

1973.04.03: Heinrich KUSCH (1973b: 175 cave plan) and Ingrid Staber surveyed two neighbouring, north-east facing rock shelters (no names mentioned: 4.20 m and 6.35 m wide, up to 3 m horizontally deep) connected by man-made, rock-cut steps.

MINA DAPU GALGE

or: Mulagama Cave

or: Mullegama Galge Cave / Rock Shelter

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Uva province: Monaragala district: Gal Oya basin: Gal Oya National Park: Senanayaka Samudraya Sanctuary area: Mullegama (Mulagama, Ambilinne) village.

POSITION: WGS84 (without recorded EPE) N07°15': E081°29' / N07.25°: E081.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Nilgala" (One-Inch series).

SPELEOMETRY: Not known.

BIBLIOGRAPHICAL REFERENCES: Deraniyagala, Paulus Edward Pieries 1965; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 17.

WEBSITES: <www.nima.mil/geonames> accessed 16.11.2003; www.wayhoo.com> accessed 25.05.2004.

No size is known of an allegedly »large« and »habitable cave / rock shelter« (Brooks 1995 Mss), which is either a rock shelter (DERANIYAGALA 1965: 144 figure 21) or a true cave with an inhabitable entrance area.

ETYMOLOGY: The Sinhala "galge" means a »rock shelter« while "lena" is a cave but I saw this item called, spelled, transcribed (romanised) or edited as

Mina dapu galge (rock-shelter) (DERANIYAGALA, P E P 1965: 144 figure 21)

Mulagama Cave (623)

Mullegama Galge cave / rock shelter (Brooks 1995 Mss, no. 17 after DERANIYAGALA, S U 1980: 157)

SITUATION 1: Brooks (1995 Mss, no. 17) places »Mullegama Galge« in an unidentified spatial relation »near« to one village of »Ambilinne« (unidentified).

SITUATION 2: Judging from the position N07°15': E081°29' (WGS84), »Mulagama Cave« lies north of the Gal Oya National Park (Senanayaka Samudraya Sanctuary N07°10': E081°32') where »Mullegama« is shown on my issue of the "Road Map of Sri Lanka (Survey Department 1977).

CULTURAL HISTORY: Archaeological investigation yielded historic finds (Brooks 1995 Mss, item no. 17 after DERANIYAGALA 1980: 157).

MULAGAMA CAVE

see: Mina Dapu Galge (Mullegama)

WEBSITES: <www.nima.mil/geonames> accessed 16.11.2003; <www.wayhoo.com> accessed 25.05.2004.

MULGEERELENNA

or: Mulgiri Lena, Mulgirigala Lena

Frequently visited but speleologically unexplored and unmapped modified natural sacred rock shelter (temple cave), probably in gneiss.

LOCATION: Southern province: Hambantota district: Tangalle (Tangalla) area: Mulgirigala (Adam's Brecht, Mulkirigala, Mulgeereleenna).

POSITION: WGS84 N06°07'12": E080°44'23" / N06.12°: E080.73972222° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: »Malte Brun, M.« = Malthe Bruun, Konrad 1834.

In addition to »two artificial caverns« on the hill →Mulgirigala (N06°07'12": E080°44'23" WGS84) reported MALTE BRUN (1834, 1. xlviii) an enigmatic »Mulgeereleenna remarkable natural cave« (624).

CAVE DESCRIPTION: MALTE BRUN (1834, 1.xlviii): »... the stupendous mountain of stone called by the Sinhala Mulgeereleenna, and by the Dutch Adam's Brecht, being one entire rock of a cubical form, 300 feet high. A winding flight of 545 steps lead to the summit, said to have been formed 1500 years ago. On the summit is a bell-shaped a tomb of Buddha [dagoba], similar to that which accompanies all his temples in the island. From this situation the view is rich and magnificent. A little way from the top there is a remarkable natural cave, and two artificial caverns, forming gloomy temples of Buddha.«

MULGIRIGALA LENA

or: Mulgeereleenna, Mulkirigala cave temple

Frequently visited but speleologically unexplored and unmapped modified natural, painted caves or rock shelters (temple caves).

LOCATION: Southern province: Hambantota district: Tangalle (Tangalla) area: Mulgirigala (Adam's Brecht, Mulkirigala, Mulgeereleenna).

POSITION: WGS84 N06°07'12": E080°44'23" / N06.12°: E080.73972222° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Forbes, Jonathan 1840, 1841; Lonely Planet, Sri Lanka 2003; »Malte Brun, M« (Malthe Bruun, Konrad) 1834; Wilson, Jane M 1988.

»A series of cleft-like caves in the huge rock« (LONELY PLANET, Sri Lanka 2003: 155), »rock temples« (FORBES 1840. 1841, vol. 2: 191) or »a remarkable natural cave« (compare →Mulgeereleenna) and »two artificial caverns« (MALTE BRUN 1834, 1, book XLVIII) have been excavated by nature from the metaphoric or granitic rocks at Mulgirigala (625), where they are found »stucked into the

623 <www.nima.mil/geonames> (accessed 16.11.2003) lists

Dagaba Caves	N06°36': E081°23	NB44-07
Henanegala Cave	N07°35': E081°17	NB44-03
Itikala Caves	N06°34': E081°44	NB44-07
Lunuatugalge Cave	N06°31': E081°30	NB44-07
Lunuhinda Cave	N07°40': E080°39	NB44-02
Mulagama Cave	N07°15': E081°29	NB44-03
Talaguruhela Rock Caves	N06°34':	
E081°29	NB44-07	
Viharegala Rock Cave	N06°39': E081°39	NB44-07.

624 The two man-made rock chambers are the Buddhist "cave" temples →Mulgirigala Lena, famous for frescoes, but nothing is known of the natural cave.

625 Mulgirigala (N06°07'12": E080°44'23" WGS84) or Mulkirigala (CEYLON TRAVELLER 1983: 67; WILSON 1988: 22) and Mulgirigala (APA / NELLES map "Sri Lanka" (1: 450,000, undated, circa 1995) lies about 12 km NNW of Tangalla (N06°01'23": E080°47'20").

side« (CEYLON TRAVELLER 1983: 67) and »a little way from the top« (MALTE BRUN 1834, 1, XLVIII).

The solitary black rock (626) thrusts some 100 m into the sky (627) and is praised for its »air of awesome grandeur about it, rare in this modern world« (CEYLON TRAVELLER 1983: 67).

SITUATION (LONELY PLANET, Sri Lanka 2003: 155-156): »About 16 km along the road northwest of Tangalla [N06°01'23": E080°47'20"] ... Mulkagiri can be reached by bus via either Beliatta or Wiraketiya (depending on the departures, it might be quicker to go via Miraketiya rather than wait for the Beliatta bus). A three-wheeler from Tangalla costs about Rs 440 for a return trip.«

FORBES (1840, 1841.ii: 191): »From Tangalle I turned inland for twelve miles [19 km], to visit the Buddhist temples of Mulgiri. This rock is about three hundred and fifty feet [107 m] in height, perpendicular on three sides, but attached on the north to a low, rocky range, of which it forms the abrupt termination. The small level spot on the summit, from which there is an extensive view over the southern maritime provinces, is surmounted by a dagoba: the ascent is not difficult, stone steps being placed wherever the rock was too steep to be easily surmounted. The dwellings of the priests of the establishment are situated near the base of the rock; and behind them, where there is an overhanging ledge, the remains of the oldest temples, now in ruins, may be distinguished. The new temples ... are ... within a little distance of the summit ...«

WILSON (1988: 22) adds little but confusion with noticing a misunderstood »cave temple« (sic! qua: temple cave), which, allegedly called »Mulkirigala« (sic! qua: Mulgirigala Lena), lies in one way or another »12 km north of Tangalla.«

CAVE DESCRIPTION (FORBES 1840, 1841. ii: 191-192): Near the base of the rock and »... behind the dwellings of the priests of the establishment ... is an overhanging ledge, the remains of the oldest temples, now in ruins. The new temples, as they are called, are excavated under a ledge within a little distance of the summit, and are in good repair. The rock temples of Mulgiri, although similar in design, are every way inferior to those at Dambool: the old temples were formed by Saidatissa in the second century before Christ; Kaluna Detootissa completed the new temples in the seventh century of the Christian era.«

CULTURAL HISTORY - rock art: FORBES (1840, 1841.ii: 191-192) ignored the famous frescoes (cave paintings) and decided that the »... inscriptions at Mulgiri consist of a few words in the square or Nagara character, and two lines of Cingalese, of little import and no value« (FORBES 1840, 1841. ii: 192 footnote).

MALTE BRUN (1834, 1, XLVIII) recorded »gloomy temples of Buddha, containing many statues and hieroglyphical paintings.«

626 »300 feet high« (MALTE BRUN 1834, 1, XLVIII) or »more than 300 feet« (CEYLON TRAVELLER 1983: 67).

627 MALTE BRUN (1834, 1, XLVIII): »The stupendous mountain of stone called by the Sinhala Mulgeerelenna, and by the Dutch Adam's Brecht, being one entire rock of a cubical form, 300 feet high. A winding flight of 545 steps lead to the summit, said to have been formed 1500 years ago. On the summit is a bell-shaped a tomb of Buddha, similar to that which accompanies all his temples in the island. From this situation the view is rich and magnificent.«

CEYLON TRAVELLER (1983: 67) focusses on the murals, »though beautiful and carefully preserved ... are not its claim to fame. Here, less than 150 years ago was discovered the 'key' to the Mahavamsa [628] and Culvavamsa, which have recorded the history of this island from 543 B.C. to modern times« (629).

LONELY PLANET, Sri Lanka (2003: 155-156) considers the »rock temple at Mulkirigala (admission Rs100), has a little of Dambulla and Sigiriya about. Steps lead up to a series of cleft-like caves in the huge rock. As with Dambulla, the caves shelter large reclining [recumbent] Buddhas, together with wall paintings and other smaller sitting or standing figures.«

MULKIRIGALA CAVE TEMPLE

see: Mulgirigala Lena

Wilson, Jane M 1988: 22.

MULLEGAMA GALGE

see: Mina Dapu Galge

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 17.

MUTAGALA 'ROCK CAVES'

or: Mutugalla Rock Caves

Speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Polonnaruwa district: Mutugala (Mutugalla) rock.

POSITION: WGS84 N07°58': E081°10' / N07.9.6667°: E081.1.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A group of »rock caves« including a »rock temple« (chaitya, chetiya?) at the Mutugala contains rock art (inscriptions) dating to the 2nd and 7th century AD.

SITUATION: Mutugala / Mutugalla (630) lies about 17 km in a direct line approximately east of Polonnaruwa (N07°56': E081°00') and, according to CEYLON TRAVELLER (1974: 251; 1983: 253), at the intersection of two minor roads in the jungle about 10 km north of Manampitiya (631), where the main road (632) and the railway cross the Mahaveli ganga.

628 Mahanama's Mahavamsa (edited, for example, in 1950, Colombo, by G.C. Mendis after the translation of W. Geiger) is a chronicle, dated back to about 500 A.D., with references to the ancient geography of Sri Lanka. The relevant commentary VAMSATTHAPAKASINI (edited by Malalasekera 1975) mentions the Sri Lanka caves →Cittapassa (p. 290) and →Mahindaguha (p. 607).

629 It was the scholarly George Turnour, Government Agent of Ratnapura, who discovered here this valuable "tika" (commentary) which permitted the translation. The discovery was made in 1826 and, together with his "guru" (teacher) Thero Galle, the Englishman unfolded to historians of Sri Lanka and the world twenty-three centuries of the Island's history.

630 »Mutugala« (CEYLON TRAVELLER 1974, 1983) is Mutugala / Mutugalla N07°58': E081°10'

631 There is the railway station Manampitiya (N07°55': E081°06') near the village of Manampitiya (N07°54': E081°07').

632 The »main road« (CEYLON TRAVELLER 1974: 251; 1983: 253) is the A11 from Anuradhapura approximately ESE to Valachchennai on the eastern coast.

NA-MALUWA CAVE

Archaeologically investigated but speleologically unexplored and unmapped natural or modified natural cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala kanda: Ritigala range.

POSITION: WGS84 N08°06': E080°39' / N08.1°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Elahera or Nalanda.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Among the »many« →Ritigala »caves« is one called »Na-maluwa« (CEYLON TRAVELLER 1974: 250; 1983: 252) in »a forest of ironwood trees (Na-gas)« (botanically: *Mesua ferrea*).

NA-ULPOTA "CAVE

or: Na-maluma cave

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala range: Ritigala kanda: Na-maluwa or Na-ulpota ridge.

POSITION: WGS84 N08°06': E080°39' / N08.1°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Elahera or Nalanda.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: McAlpine, W R & Robson, David 1983; Parnavitana, S 1970.

Among the »more than 70 known caves« recorded by Bell on →Ritigala, there are some on the »Na-maluwa or Na-ulpota ridge to the west« (633) of Ritigala Kanda itself.

McALPINE & ROBSON (1983: 361), probably after PARANAVITANA (1970): One inscription (rock art: epigraphy) »on a Na-ulpota cave« reads: »The cave of the Lord Mahatissa is given to the Sangha of the four quarters, present and absent« (634).

NAGALA ROCK, cave at

or, perhaps: Cave on Nagolla Gala / Nagollagala

or, perhaps: Cave on Nikawae-kanda

Frequently visited but speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave).

LOCATION: North Western province: Kurunegala district: Maho town: Galgamuwa - Nikawewa road area: Nikawewa (Nikawae) village: "Nagala Rock" (Nikawae Kanda; perhaps: Nagolla Gala, Nagollagala).

POSITION: (If at Nagolla), WGS84 N07°48': E080°24' / N07.8°: E080.4° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1983; Parker, H 1909.

A »temple cave« (CEYLON TRAVELLER 1983: 150) or »series of natural caves« (PARKER 1909: 332).

SITUATION 1 (PARKER 1909: 332): »High up on the precipitous eastern side of Nikawae-kanda [mountain at Nikawae / Nikawewa], a steep rocky hill in the North-western Province.«

SITUATION 2 (CEYLON TRAVELLER 1983: 150): Nagala Rock (635) is reached by bearing left at the top of the climb to the tiny, hideously "restored" but beautifully located cult spot (apparently a modified natural rock shelter used as a temple cave), which clings like a wild bees' nest to the face of Nagala rock near that Nikawewa (636), which lies »13 miles« (21 km, probably east-northeast along the road) from the Rest House at Maho (637).

CAVE DESCRIPTION 1 (PARKER 1909: 332): »... a series of natural caves. Some of these contained statues, and one had also a small dagaba which had been demolished by treasure seekers, so that only a little of the lower part remained.«

CULTURAL HISTORY - Human use: According to PARKER (1909: 332), »... an early monastery was established.«

PARKER (1909: 334) narrates how »... about eight years ago, Selaratna Thera, the energetic superior of the monastery now at the foot of the hill, undertook the restoration of the cave wihara [vihara]. Among other preliminary work, the heap of bricks in the lower part of the dagaba was removed, and it was then discovered that the persons who rifled it, possibly the followers of King Magha, had not found the true relic-chamber, which was covered by a large stone slab in the very bottom of the structure. When this was raised the undisturbed contents of the cavity under it were found to be as follows ...«

633 McALPINE & ROBSON (1983: 361): The »largest complexes« of caves (or of inscriptions?) on →Ritigala are »to be found on the Na-maluwa or Na-ulpota ridge to the west, the Kudda-armbedda ridge to the south-west, the Marakkala-ulpota on the south termination of the range, and the Andiyakanda ridge to the east.«

634 McALPINE & ROBSON (1983: 361): »The caves in almost all cases were granted by the donors to the Sangha (order of the monks) irrespective of sect or school and the phrase 'to the Sangha of the four quarters, present and absent', which ends many votive inscriptions, expresses the universality of the gift.«

635 »Nagala Rock« (CEYLON TRAVELLER 1983: 150) is not identified unless it is the same as the village of Nagolla N07°48': E080°24' <www.nima.mil/geonames> 16.11.2003.

636 Nikawewa N07°53': E080°25' <www.nima.mil/geonames> accessed 16.11.2003.

637 Maho N07°49'22": E080°16'40" (WGS84) lies at travelling distances of 82 miles (132 km) from Colombo (N06°55'55": E079°50'52" WGS84) and 29 miles (47 km) from Kurunegala (N07°29'12": E080°21'53" WGS84).

NALANDE NITRE CAVE (Forbes 1840) 1

see: Lunuge Cave

Forbes, Jonathan 1840, 1841: 52-53; Pridham, Charles 1849, 2: 656.

The first of »... two caves, from which a small quantity of saltpetre was prepared under the native government« (FORBES 1840, 1841. ii: 52-53 literally pilfered by PRIDHAM 1849, ii: 656).

SITUATION 1: FORBES (1840, 1841.ii: 52-53): »In the neighbourhood of Nalande ...«

SITUATION 2: PRIDHAM (1849, 2: 656): »In the vicinity of Nalande ...«

IDENTITY: Little doubt remains that one of the two »nitre caves« of FORBES (1840) is not only identical with the »nitre-cave 14. Nalandi« (DAVY 1821: 31 footnote) but also with →Lunuge Cave (Luhunda Cave, Lunuhinda Cave).

NALANDE NITRE CAVE (Forbes 1844) 2

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) Limestone.

LOCATION: Central province: Matale district: Nalanda (Nalande, »Nalandi« Davy 1821) village.

POSITION: (If at Nalanda itself), WGS84 N07°40'32": E080°38'35" / N07.67555556°: E080.64305556° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841; Pridham, Charles 1849.

The second of »... two caves, from which a small quantity of saltpetre was prepared under the native government« (FORBES 1840, 1841. ii: 52-53 literally pilfered by PRIDHAM 1849, ii: 656).

SITUATION 1: FORBES (1840, 1841.ii: 52-53): »In the neighbourhood of Nalande ...« (Nalanda N07°40'32": E080°38'35" WGS84).

SITUATION 2: PRIDHAM (1849, 2: 656): »In the vicinity of Nalande ...«

IDENTITY: Little doubt remains that one of the two »nitre caves« of FORBES (1840) --why not the first?-- is not only the same as »nitre-cave 14. Nalandi« (DAVY 1821: 31 footnote) but also identical with →Lunuge Cave (Luhunda Cave, Lunuhinda Cave).

NALANDÉ NITRE CAVE (Pridham 1849) 1

see: Lunuge Cave

Pridham, Charles 1849, 2: 656.

NALANDÉ NITRE CAVE (Pridham 1849) 2

see: Nalande Nitre Cave (Forbes 1840) no. 2

Pridham, Charles 1849, 2: 656.

NALANDI NITRE CAVE (Davy 1821)

see: Lunuge Cave

Davy, John 1821: 31 footnote »nitre-cave« no. 14.

NAVAKEERY WELL

see: Tidal Well (Navakkeeri)

Tennent, James Emerson 1859, 1860 vol. 1: 23.

NAVOKEIRY WELL

see: Tidal Well (Navakkeeri)

Tennent, James Emerson 1859, 1860 vol. 1: 23.

»Another well at Navokeiry, a short distance from it [the →Tidal Well, Puttur], does the same, whilst the well at

Tillipally is entirely unaffected as to its level by any rains, and exhibits no alteration of its depths on either monsoon.«

NERAVANA GAL LENA

Archaeologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Sabaragamuwa province: Ratnapura district: Kukul korale: Kukulegama village or Lenama village: Neravana gala.

POSITION: WGS84 N06°31': E080°22' / N06.5167°: E080.3667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1953; Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 21: Neravana-Galge.

One (or two?) unspecified, archaeologically relevant cave or rock shelter without identified nature, classifies Brooks (1995 Mss, no. 21) not only as »small« (without identified shape and dimensions) but also as being »in gneiss« (or so).

ETYMOLOGY: The »Neravana gal lena, Kukul korale« of DERANIYAGALA, P E P (1953: 131) rendered Brooks (1995 Mss, item no. 21) into a »Neravana-Galge.«

SITUATION 1953: DERANIYAGALA (1953: 131) seems to locate this "lena" (cave) registered as »Neravana gal lena, Kukul korale« somewhere on the "gala" (rock), which is known as »Neravana gal« (638) and lies in the administrative subdivision »Kukul korale« (639).

SITUATION 1995: Brooks (1995 Mss, no. 21) locates »Neravana-Galge close to the village of Kukulegama and the village of Lenama in the semi arid lowlands to the south east of Ratnapura« (640).

CAVE DESCRIPTION: Brooks (1995 Mss, no. 21): »A small cave or possibly two caves [641] ... formed in Gneiss [sic!] and similar to Batadombe-Lena« (sic! qua: Batadomba Lena).

CULTURAL HISTORY - archaeology: DERANIYAGALA (1953: 131 plate 12 figure 4) gives an illustration showing »A pitted celt from Neravana gal lena, Kukul korale.«

EXPLORATION HISTORY: 1945: Paulus Edward Pieries Deraniyagala undertook an archaeological investigation and recovered a pitted celt (DERANIYAGALA, S U 1980: 173) or »stone artifacts similar to those found at Batadomba-Lena Cave.«

638 »Neravana« (DERANIYAGALA 1953) is not identified unless it has something to do with the rubber estate Naravila / Narawila (N06°30': E080°07') or with the villages of Neraluwa (N06°07': E080°26') or Narawala (N06°06': E080°14').

639 »Kukul korale« (DERANIYAGALA 1953) or a populated place called »Kukul« is not listed on <www.nima.mil/geonames> accessed 16.11.2003.

640 There do exist villages called Kukulegama and Lenama but both of them do not lie »south east« (Brooks 1995 Mss) of Ratnapura (N06°40'58": E080°23'57" WGS84) but due south of the town and quite far away (40 km in a direct line) from each other:

Kukulegama (N06°31': E080°22' on SoC / SoSL sheet Rakwana) lies 19 km in a direct line due south of Ratnapura and

Lenama (N06°10': E080°27' on SoC / SoSL sheet Morawaka) lies 58 km in a direct line due south of Ratnapura.

641 Is there one Neravalgala Lena near Kekulegame and another Neravalgala Lena near Lenama?

NERAVANA-GALGE

see: Neravana Gal Lena

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 21.

NIKAWAE KANDA CAVES

see: Nagala Rock, caves on

Parker, H 1909: 192, 205, 332-335, 344, 345, 537, 631.

NIKAWAEWA CAVE WIHARA

see: Nagala Rock, caves on

Parker, H 1909: 536, 631.

NILGALA CAVE

see: Gangodedeniya Galge

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980, 1987, 2002.
MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 11: »Gangodadeniya-Galge (also called Nilgala Cave)«**NILMINI, mine near**

see: Ereporuwa

Eckrich, Michael 1984, personal communication.

NISO LENA

or: Nisolena

Unexplored and unmapped natural cave or rock shelter.

LOCATION: North Western province: Kurunegala district: Melsiripura village.

POSITION: (If at Melsiripura itself), WGS84 N07°39': E080°30' / N07.65°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Nalanda.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter called »Nisolena« (Niso Lena) is situated somewhere near Melsiripura (N07°39': E080°30') in Kurunegala district (CEYLON TRAVELLER 1974: 254; 1983: 256).

NISSANGALA LENA

Frequently visited but speleologically unexplored and unmapped natural sacred (?) cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's Peak area: Sri Pada summit, Maskeliya side.

POSITION: WGS84 N06°49': E080°31' / N06.816667°: E080.516667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A large »cave« or rock shelter »formed by a mass of overhanging rock« (CEYLON TRAVELLER (1974: 243; 1983: 245) is used by pilgrims and possibly identical with the »Adam's Peak Cave« (MORGAN 1943: 13 after BASSET 1929).

IDENTITY: Some dispute if this is Nissangala Lena. Compare →Nissangala Lena 2.

SITUATION: A little more than »a mile« (1.6 km) without orientation from the Dalhousie tea factory (N06°49': E080°31') and on the pilgrims route from Maskeliya (N06°50'09": E080°34'13" WGS84) to Adam's Peak / Sri Pada (N06°48'30": E080°29'53" WGS84: 2243 m).

NISSANGALA LENA 2

Frequently visited but speleologically unexplored and unmapped natural sacred (?) cave or rock shelter.

LOCATION: Sabaragamuwa province: Ratnapura district: Adam's

Peak area: Sri Pada summit, Maskeliya side.

POSITION: Estimated WGS84 coordinates N06°50': E080°28' / N06.833334°: E080.4.6667° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Some hold that the true Nissangala Lena on the pilgrims route from Maskeliya to Adam's Peak / Sri Pada is nearer to the summit (N06°48'30": E080°29'53" WGS84: 2243 m) but the exact location is not known (CEYLON TRAVELLER 1974: 243; 1983: 245).

NITRE CAVE

see: Lunugala Lena

BIBLIOGRAPHY: Ceylon Traveller 1974: 243, 1983: 245; Cook, Elsie Kathleen 1931; Leiter, N 1947, 1948; Uragoda, C G 1973: 40.
MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.**NITRE CAVE, Agalawatta**

see: Agalawatte Nitre Ccave

Davy, John 1821: 31 footnote, »nitre-cave« no. 11.

NITRE CAVE, Doombera

see: Lunugala Lena

Davy, John 1821: 31 footnote, 32-33, 379-380; Hill, Carol A & Forti, Paolo 1986: 104; Pridham, Charles 1849, 2: 701.

NITRE CAVE, Doonogama

see: Dunugama Nitre Cave

Davy, John 1821: 31 footnote, »nitre-cave« no. 20.

NITRE CAVE (FORBES 1840) no. 1

see: Lunuge Cave / Lunuhinda Cave

Forbes, Jonathan 1840, 1841: 52-53.

NITRE CAVE (FORBES 1840) no. 2

see: Nalande Nitre Cave (Forbes 1840) no. 2

Forbes, Jonathan 1840, 1841: 52-53.

NITRE CAVE, Galgiriyaawah

see: Galgiriyaawah Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 6.

NITRE CAVE, Gampaha

see: Wawul Galge, Wellawaya

Ceylon Traveller 1974: 247; Ceylon Traveller 1983: 249.

NITRE CAVE, Giribahwah

see: Giribahwah Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 4.

NITRE CAVE, Hapola Ketawette

see: Hapola Ketawetta Nitre Cave

NITRE CAVE, Hapolacadavette

see: Hapola Ketawetta Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 22.

NITRE CAVE, Kaddigaway

see: Kadigawa Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 8.

NITRE CAVE, Kadooroo-wuva

see: Kaduruwewa Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 7.

NITRE CAVE, Kaikawala, Uda

see: Lunugala Lena

Kusch, Heinrich 1973c: 23.

NITRE CAVE, Kaloodawella

see: Kaludawella Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no. 12.

NITRE CAVE, Kandy

see: Lunugala Lena

Peet, Geoffrey A 1945: 69; Wilson, Jane M 1988: 22.

NITRE CAVE, Koodigomoova

see: Kadigomuwa Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 19.

NITRE CAVE (KUSCH 1973)

see: Lunugala Lena

Kusch, Heinrich 1973c: 23.

NITRE CAVE, Lower Uva

see: Wawul Galge, Wellawaya

Brohier, Richard Leslie 1956.

NITRE CAVE, Maha-Kelle

see: Mahakelle Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 5.

NITRE CAVE, Maturatta

see: Maturata Nitre Cave

Davy, John 1821: 27, 31 footnote »nitre-cave« no 18., 34-35, 339-340; Pridham, Charles 1849, 2: 708.

NITRE CAVE, Meddegama

see: Medagama Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no. 21.

NITRE CAVE, Medellenewa

see: Midellewa Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 2.

NITRE CAVE, Meemoorra

see: Lunugala Lena

Forbes, Jonathan 1840, 1841 vol. 2: 101, 103 footnote; Pridham, Charles 1849, 2: 663.

NITRE CAVE, Memoora

see: Lunugala Lena

Davy, John 1821: 31 footnote »nitre-cave« no 15, 32; Pridham, Charles 1849, 2: 701.

NITRE CAVE, Memora

see: Lunugala Lena

Davy, John 1821: 33.

NITRE CAVE, Mimure

see: Lunugala Lena

Brohier, R L 1956; Ceylon Traveller 1974: 243, 1983: 245.

NITRE CAVE, Nalandé no. 1

see: Lunuge Cave / Lunuhinda Cave

Pridham, Charles 1849, 2: 656.

NITRE CAVE, Nalandé no. 2

see: Nalande Nitre Cave (Forbes 1840) no. 2

Pridham, Charles 1849, 2: 656.

NITRE CAVE, Nalandi

see: Lunuge Cave / Lunuhinda Cave

see: Nalande Nitre Cave (Forbes 1840) 1;

see: Nalande Nitre Cave (Forbes 1840) 2;

see: Nalande Nitre Cave (Pridham 1849) 1;

see: Nalande Nitre Cave (Pridham 1849) 2

Davy, John 1821: 31 footnote »nitre-cave« no. 14.

NITRE CAVE, Nuwarakalawiya

see: Nuwra Kalawiya Nitre Cave

Brohier, Richard Leslie 1956.

NITRE CAVE, Oonaweroowa

see: Unaweruwa Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 13.

NITRE CAVE, Padiyapellela

see: Maturata Nitre Cave

Davy, J 1821: 27, 34-35, 339-340; Pridham, Charles 1849, 2: 708.

NITRE CAVE, Paramakande

see: Paramakande Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 3.

NITRE CAVES (PEET 1945)

see: Lunugala Lena

Wilson, Jane M (1988: 22): »An interesting wartime note mentions ancient NITRE CAVES (Peet 1945) is [in?] an extensive area of limestone country about 22 miles ENE of Kandy.«

NITRE CAVE (PRIDHAM 1849) no. 1

see: Lunuge Cave / Lunuhinda Cave

Pridham, Charles 1849, 2: 656.

NITRE CAVE (PRIDHAM 1849) no. 2

see: Nalande Nitre Cave (Forbes 1840) no. 2

Pridham, Charles 1849, 2: 656.

NITRE CAVE, Rajavillah

see: Rajawella Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 16.

NITRE CAVE, Rangala

see: Lunugala Lena

Cooray, P Gerald 1967: 97. Brohier, Richard Leslie 1956; Ceylon Traveller 1974: 243, 1983: 245; Peet, Geoffrey A 1945, 1946.

NITRE CAVE, Ressoorowey

see: Ressoorowey Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 9.

No.	(DAVY 1821: 31)	district 1821	district 1977	village	toposheet (s)
1.	Werengodde	Seven Korles	Kurunegala		Wariyapola or Nalanda
2.	Medellenewa	Seven Korles	Kurunegala	Midellawa	Wariyapola or Nalanda
3.	Paremakande	Seven Korles	Kurunegala		Wariyapola or Nalanda
4.	Giribawah	Seven Korles	Kurunegala		
5.	Maha-kelle	Seven Korles	Kurunegala		
6.	Galgiriawah	Seven Korles	Kurunegala	Galgiriyawa	Dambulla or Galgamuwa
7.	Kadooroo-wuva	Seven Korles	Kurunegala	Kaduru Wewa	
8.	Kaddigaway	Seven Korles	Kurunegala	Kadigawa	Galgamuwa or Wariyapola
9.	Ressiroowey	Seven Korles	Kurunegala		
10.	Wadingapallama	Neurrakalava	Anuradhapura		
11.	Agalwatte	Matale	Matale	Agalawatta	Kurunegala
12.	Kaloodawella	Matale	Matale	Kaludawella	Kurunegala or Rangala
13.	Oonaweroowa	Matale	Matale	Unaweruwa	Kurunegala
14.	Nalandi	Matale	Matale	Nalanda	Nalanda
15.	Memooraa	Doombera	Kandy	Mimura, Mimure	Hanguranketa
16.	Rajahvilla	Doombera	Kandy	Rajawella	Hanguranketa
17.	Wellaway	Ouva	Monaragala	Wellawaya	Haputale
18.	Maturatta	Hewahette	Nuwara Eliya	Maturata	Hanguranketa or Nuwara Eliya
19.	Kodigomoova	Four Korles	Kegalla	Kadigomuwa	Gampaha or Kandy
20.	Doonoogama	Four Korles	Kegalla	Dunugama	Kandy
21.	Meddegama	Saffragam	Ratnapura	?	Nuwara Eliya or Ratnapura
22.	Hapolacadavette	Welassey	Badulla, Nilgala	Hapola, Ketawetta	Nilgala

Nitre Caves of Sri Lanka (modified after DAVY 1821)
Identified are 14 Lunuge Cave, 15. Lunugala Lena?, 17. Wellawaya Cave

NITRE CAVES, Saffragam

see: Saffragam Nitre Caves

Tennent, J E 1859, 1860 vol. 1: 31; Uragoda, C G 1973: 39.

NITRE CAVES (TENNENT 1859)

see: Sri Lanka yourself

Tennent, James Emerson (1859, 1860 vol. 1: 31): »Nitre has long been known to exist in Ceylon, where the localities in which it occurs are similar to those in Brazil. In Saffragam alone there are upwards of sixty caverns known to the natives, from which it is extractable, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable. Yet so sparingly has this been hitherto attempted, that even for purposes of refrigeration, crude saltpetre is still imported from India.«

NITRE CAVE, Unaweruwa

see: Unaweruwa Nitre Cave

NITRE CAVE, Wadingapallama

see: Wadingapallama Nitre Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 10.

NITRE CAVE, Welway

see: Wawul Galge, Wellawaya

Davy, John 1821: 396, 429; Pridham, Charles 1849, 2: 579.

NITRE CAVE, Wellawaya

see: Wawul Galge, Wellawaya

Davy, John 1821: 31 footnote: »nitre-cave« no 17; Pridham, Charles 1849: 709.

NITRE CAVE, Werengodde

see: Werengodde Nitrae Cave

Davy, John 1821: 31 footnote: »nitre-cave« no 1.

NITRO CAVES

see: Lunugala Lena

<www.lakdasun.com/trails/trail-14-nitro-caves-from-corbett-gap-knuckles.htm> last updated 2009.01.21, accessed 2009.08.02.**NUWARA KALAWIYA NITRE CAVE**

or: Kalawiya Nitre Cave

Speleologically unexplored and unmapped natural cave.
LOCATION: North Western province: Unidentified (Kurunegala, Puttalam) districts: Nuwarakalawiya (Nuwara Kalawiya) area.
POSITION: Not known <www.nima.mil/geonames> accessed 16.11.2003.
MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.
SPELEOMETRY: Length: Not known. Vertical range: Not known.
BIBLIOGRAPHY: Brohier, Richard Leslie 1956.

Among the unidentified number of »several« and allegedly »small« but otherwise unspecified and anonymous »nitre

caves« (BROHIER 1956) in the North Western Province, there is one »in Nuwarakalawiya« (unidentified).

SITUATION (BROHIER 1956): At an unidentified location somewhere in the easy to survey North Western Province (N07°15': E079°45' to N08°05': E080°35'), which covers only 7811 square kilometres.

NUWARAGALA "CAVE" 1

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Eastern province: Amparai district: Maha Oya basin area: Pollebadda (Pollebedda): Nuwaragala.

POSITION: WGS84 N07°29': E081°26' / N07.48333333°: E081.433333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

In addition to a »cave just below the summit« (CEYLON TRAVELLER 1983: 236) of the Nuwaragala (642), there is a »large artificial rock pool, 72 feet [22 m] by 59 feet [18 m] and 5 1/2 feet [1.8 m] deep« (CEYLON TRAVELLER 1983: 236) on the summit itself. Compare →Kanaátwela Galge and →Wauwuwela Galge.

SITUATION: Somewhere in the jungle south of the town of Maha Oya (643).

APPROACH: The route is from Maha Oya south-east for 10 km along a motorable road to the Veddah village of Pollebadda / Pollebedda (N07°28': E081°23'), from where »the buried city on the rock« is reached by an 8 km walk through dense jungle (a knowledgeable Veddah guide is essential) on a path that takes off to the »left« (sic) of the road at Pollebedda crossing the Rambukkan oya.

CULTURAL HISTORY - rock art (epigraphy): CEYLON TRAVELLER (1974, 1983: 236): »Brahmi inscriptions in a cave just below the summit indicate that it was occupied in the 2nd century BC.«

NUWARAGALA "CAVE" 2

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Eastern province: Amparai district: Maha Oya basin area: Pollebadda (Pollebedda): Nuwaragala.

POSITION: WGS84 N07°29': E081°26' / N07.48333333°: E081.433333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A »large cave containing inscriptions« (rock art: epigraphy) lies »on the western face of the rock« (CEYLON TRAVELLER 1983: 236) of Nuwaragala (N07°29': E081°26') in the jungle south of the town of Maha Oya (N07°32': E081°21').

642 The »ancient rock fortress« (CEYLON TRAVELLER 1983: 236) or ruin Nuwaragala N07°29': E081°26' (www.nima.mil/geonames accessed 16.11.2003) »may be considered the counterpart of Sigiriya, in the south-east of the island.«

643 Maha Oya (N07°32': E081°21'), on the road from Batticaloa (N07°43': E081°42') to Badulla (N06°59': E081°03') or Kandy (N07°17'47": E080°38'06" WGS84).

OCCAYAPU KALLU

see: Ochappu Kallu Rock Shelters

<www.nima.mil/geonames> (accessed 16.11.2003).

OCHAPPU KALLU ROCK SHELTERS

or: Occaypu / Ochayappu Kallu, Otchappuva Cave

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelters.

LOCATION: Unidentified (Northern Central, or North Western) province: Unidentified (Anuradhapura, Mannar, Puttalam) districts: Modaragam Aru basin: Wilpattu National Park (Vilpattu Game Reserve) area: Ochappu Kallu (Occaypu Kallu, Ochayappu Kallu, »Otchappuva« Brooks 1995 Mss) Leaning Rock.

POSITION: (If at the village of Ottappuwa, Ottappuwe), WGS84 N08°30': E080°02' / N08.5°: E080.033333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Kalpitiya, Kala Oya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 31: Otchappuva.

»Ledges and little caves« (644) reports CEYLON TRAVELLER (1983: 161) from the »foot of the climb to the intriguing 'leaning stone' ...« where »The view from the top is what the birds see ...« Compare the →Tantirimalai "caves" in the same area.

Brooks, S J (1995.04 Mss: no 31 Otchappuva) had learned of a so-called »small« (so what?) cave or rock shelter with an entrance some 4 m across that opens into a 3 or 4 m wide chamber.

ETYMOLOGY: »Otchappuva« (Brooks 1995 Mss, no. 31) stands for Occaypu Kallu (N08°30': E080°02'), »Ochappu Kallu / Ochayappu Kallu, the leaning stone« (CEYLON TRAVELLER 1974, 1983: 161).

SITUATION: In the »North Western semi-arid Lowlands« (DERANIYAGALA, S U 1980: 177) where the districts of Anuradhapura, Mannar, and Puttalam meet above the banks of the Madaragam Aru »on the edge of the Vilpattu Game Reserve« (Brooks 1995 Mss, no. 31) or Wilpattu National Park (645).

APPROACH (CEYLON TRAVELLER 1974, 1983: 161): »On the way to the Kokmotte bungalow [646], and quite close to it on the right, is a jeep track that leads to the ruins of Ochappu Kallu (Ochayappu Kallu), the leaning stone. Drive as far as you can, abandon your vehicle and then walk behind your tracker.«

644 »As you approach this rocky outcrop you will notice that your tracker appears to have suddenly developed acute laryngitis. He will cough loud, make odd noises in his throat, and cough painfully loud again. He will suddenly bring his axe down on a rock and grunt; you may well imagine that he has gone mad as well! In actual fact he is frightening away bear that frequent the ledges and little caves that are at the foot of the climb ...« (CEYLON TRAVELLER 1983: 161).

645 Wilpattu National Park (N08°25': E080°00' <www.nima.mil/> accessed 16.11.2003) named after the village of »Wilpattu, 26 km to the north of Puttalam [N08°02': E079°49'] and covering 1085 sqkm, is Sri Lanka's largest National Park ...« (LONELY PLANET, Sri Lanka (2003: 114).

646 »Kokmotte bungalow« (CEYLON TRAVELLER 1983: 161) is not identified unless it has something to do with the village of Kokkumadu N08°48': E079°57' <www.nima.mil/geonames> accessed 16.11.2003.

OCHAYAPPU KALLU LEDGES

see: Ochappu Kallu Rock Shelters
Ceylon Traveller 1974, 1983: 161.

OKANDA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural painted rock shelter.

LOCATION: Uva province: Monaragala district: Okanda village.

POSITION: N06°39': E081°46' / N06.65°: E081.7.6667° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Panama.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1953.

A »rock shelter« (DERANIYAGALA 1953: 125) complete with rock art.

SITUATION: Somewhere in the vicinity of the village of Okanda (N06°39': E081°46') in the Eastern Province.

CULTURAL HISTORY - rock art: Paintings, polychrome markings of animals inserted, and numerous symbols (DERANIYAGALA 1953: 125).

OKKAMPITIYA CAVE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gravitationally dislocated boulders.

LOCATION: Uva province: Monaragala district: Kumbukkan Oya basin: Okkampitiya (Okkampitiya Ihalagama) area.

POSITION: WGS84 (approximate EPE ±5 km) N06°45': E081°17' / N06.75°: E081.28333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Length: Estimated 5 m. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 9: Okkampitiya.

An allegedly anonymous and unspecified cave or rock shelter without identified shape or dimensions is said to consist of single 5 m wide chamber in gravitationally dislocated boulders (Brooks 1995 Mss no. 9).

ETYMOLOGY: No locally known name has been identified for this unspecified cave or rock shelter called after the possibly somehow »near« (or so) village of Okkampitiya or, to be precise, Okkampitiya Ihalagama.

IDENTITY: The so-called »Okkampitiya Cave« (Brooks 1995 Mss no. 9) is possibly identical with one of the named caves and rock shelters in the vicinity of Okkampitiya, including →Alu Lena (Okkampitiya), →Budugalge (Okkampitiya), and the →Habessa "rock cave" (galge?).

SITUATION: At an unspecified location without identified spatial relation to the village of Okkampitiya (647).

CULTURAL HISTORY - archaeology: Excavation in 1908 (perhaps by Fritz Sarasin and Paul Sarasin?) proved this site to be barren (Brooks 1995 Mss no. 9; after DERANIYAGALA 1980: 155).

EXPLORATION HISTORY: 1908: Excavation (by Fritz and Paul Sarasin?) proved the site to be archaeologically barren.

OLDEST CAVE FOUND

see: Wavulpane

Oldest Cave Found 1968a, 1968b, 1969.

OMUNA, cave at

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelter (temple cave) in gneiss.

LOCATION: Northern Central province: Polonnaruwa district: Maha Oya basin area: Omunagala Forest Reserve: Omuna (Oomanoo) village: Omuna Gala.

POSITION: (If at the village of Omuna itself), WGS84 (without recorded EPE) N07°37': E081°16' / N07.61667°: E081.2667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Maha Oya or Rukam.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Baker, Samuel White 1854, 1871, 1875, 1898; Sarasin, Fritz & Sarasin, Paul 1908; Sarasin, Fritz 1939.

»Caves that would have housed some hundreds of men« (BAKER 1854 edited 1871, 1875, 1898: chapter xii: A jungle trip) consist of a wide rock shelter (SARASIN & SARASIN 1908: 1-15), which is partly closed by a wall and characterised by a nearby spring. At least in the 1930s, it contained a Buddhist sanctuary and hermitage (SARASIN & SARASIN 1939: 83).

ETYMOLOGY: The »caves at Oomanoo« (BAKER 1854 edited 1871, 1875, 1898) and »Höhle am Omuna Felsen« (SARASIN & SARASIN 1908) are but other names of the cave on Omuna Galge / Omunagalge (Omuna Rock) near the village of Omuna.

SITUATION: Below an overhanging wall of the Omuna Rock / Omuna Galge (N07°37': E081°16'), which lies in the Omunagala Forest Reserve (N07°39': E081°18') and at a travelling distance of about 12 miles (19.3 km) approximately north-west of Maha Oya (N07°32': E081°21').

BAKER (1854 edited 1898.xii): »All vestiges of open country had long ceased. We now rode for seventeen miles through magnificent forest, containing the most stupendous banian trees that I have ever beheld. The ebony trees were also very numerous, and grew to an immense size. This forest was perfectly open. There was not a sign of either underwood or grass beneath the trees, and no track was discernible beyond the notches in the trees made at some former time by the Veddah's axe.«

APPROACH: BAKER (1854, 1871, 1875, 1898: chapter xii: A jungle trip) came across the »caves at Oomanoo« (648) on a route from one »Monampitya« (649) and past the »2000 feet

648 »Oomanoo« (BAKER 1854 edited 1898.xii) appears to correspond to Omuna, a village in the Omunagala Forest Reserve. This »Oomanoo« lies four Veddah miles or twenty-five Baker miles from one »Pyelay« (1850ies Government maps), which lies on the track from Badulla (35 Baker's miles distant) to Batticaloa, and on this track 4 Baker miles from one »Curhellulai« (not identified: Korelai?), which itself lies 4 Baker miles from the »Park« and 20 Baker miles from »the luxurious and pretty village of Bibille« (Bibile N07°10': E081°13').

649 »The village of Monampitya consists of about six small huts« (BAKER 1854 edited 1898 chapter xii) and lies on the banks of the Mahawelle (Mahaweli Ganga; also: Mahaveli, Mahawela, Mahevilla, Makawelu) River. There is one Manampitiya / Mannampitiya N07°55': E081°06' (WGS84) and another Manampitiya / Mannampitiya at N07°54': E081°07'.

647 Okkampitiya (Okkampitiya Ihalagama N06°45': E081°17' <www.nima.mil/geonames> accessed 16.11.2003) lies 10 km in a direct line approximately east of Buttala (N06°45': E081°14').

high *Gunner's Coin*« (650) to the village of »Oomanoo« in Veddah country.

CAVE DESCRIPTION (BAKER 1854 edited 1871, 1875, 1898: chapter xii): »In one part of this forest a rocky mountain appeared at some period to have burst into fragments; and for the distance of about a mile it formed the apparent ruins of a city of giants. Rocks as large as churches lay piled one upon the other, forming long dark alleys and caves that would have housed some hundreds of men. The effect was perfectly fairy like, as the faint silver light of the sun, mellowed by the screen of tree tops, half-lighted up, these silent caves. The giant stems of the trees sprang like tall columns from the foundations of the rocks that shadowed them with their dense foliage. Two or three families of 'Cyclops' would not have been out of place in this spot; they were just the class of people that one would expect to meet.«

EXPLORATION HISTORY: 1851 November 26: "Sir" Samuel White BAKER (1854 edited 1871, 1875, 1898, chapter xii: "A jungle trip"), accompanied by his brother Lieutenant Valentine Baker, Honourable E. Stuart Wortley (later: Lord Wharmcliffe), E. Palliser (Esq.) passed by the caves at »Oomanoo« (Omuna). For the fun of destroying wildlife, they were helped along by a large crew of gun bearers, trackers, servants and a Veddah guide: »The coolies, with the tents and baggage, kept close up with the horses, being afraid to lag behind, as there was not a semblance of a path, and we depended entirely upon our small guide, who appeared to have an intimate knowledge of the whole country.«

OMUNA FELSEN (SARASIN 1908), Höhle am

see: Omuna, cave at

Sarasin, Fritz & Sarasin, Paul 1908: 1-15.

OOMANOO (BAKER 1854), cave at

see: Omuna, cave at

Baker, Samuel White 1854, 1871, 1875, 1898 ch xii: "A jungle trip"

OONAWEROOWA NITRE CAVE

see: Unaweruwa Nitre Cave

Davy, John 1821: 31 footnote »nitre-cave« no 13.

ORANGENGROTTE

see: Bitter Orange, cave of the

[Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354, edited by Leicht, Hans 1999: 200.

OTCHAPUVA CAVE

see: Ochappu Kallu Rock Shelters

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 31.

PACCHIMA VIHARA

see: Dambulla Galge Cave 4 , Western Cave

Reichenbach, Kurt & Kiedrowski, Rainer 1995.

650 »Gunner's Coin« (BAKER 1854 edited 1898.xii) is the »Gunnars Quoin 1753« (Survey Department 1977: Road map of Sri Lanka), the colonial English name for the hill Dimbulagala (N07°52': E081°07' www.nima.mil/geonames> accessed 16.11.2003): 1753 m asl (Survey Department 1977: Road map of Sri Lanka).

PADANWELA, cave at

Unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Unidentified (Central or Uva) province: Unidentified (Badulla, Nuwara Eliya) district: Wilson's Bungalow: Padanwela.

POSITION: (If at Wilson's Bungalow itself) N06°53': E080°51' / N06.883334°: E080.85° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Not known.

BIBLIOGRAPHICAL REFERENCES: Cooray, P Gerald 1967; Deraniyagala, Paulus Edward Pieries 1958.

One of »other caves in crystalline limestone« (651) is at »Padanwela, near Wilson's Bungalow« (COORAY 1967: 97).

SITUATION: Within one the island's most pleasant trekking areas and in one way or another »near« Wilson's Bungalow (N06°53': E080°51'), which lies at linear distances of 12.5 km SE of Nuwara Eliya (N06°58'11": E080°46'12" WGS84), 7 km ESE of Hakgala Peak (652), and 7.6 km ESE from the town of Welimada (N06°54'04": E080°55'22" WGS84).

CAVE POTENTIAL: Found in the same vicinity are →AA Cave (Baker), →Istripura Cave (Welimada), the cave at →Hakgala, the →Luckyland Estate cave, the cave at →Padanwela (near Wilson's Bungalow), and →Sita Kund (Hakgala).

PADIYAPELLELA NITRE CAVE

see: Maturata Nitre Cave (Padiyapellela)

Cooray, P Gerald 1967: 97; Davy, John 1821: 27, 31 footnote, 34-35, 339-340; Pridham, Charles 1849, 2: 708.

PAHALA VIHARA

see: Ridi Vihara: Pahala Vihara

Lonely Planet, Sri Lanka 2003: 255.

PAHIYANGALA LENA

see: Fa Hien Lena

Internet, accessed 2009.08.02.

651 The »other caves in crystalline limestone« (COORAY 1967: 97) are found at i.e.:

»Ella (Ravana's Cave)« = Ravana Ella Cave

»Maturata (near Padiyapellela)« = Maturata Nitre Cave

»Wellawaya« = Istripura Cave (Wellawaya)

»Hakgala« = cave at →Hakgala

»Istripura (near Welimada)« = Istripura Cave (Welimada)

»Padanwela (Wilson's Bungalow)« = cave at Padanwela

»Patanagedera (near Lagalla)« = cave at Patanagedera

»Kudawa (near Gilimale)« = cave at Kudawa

652 Hakgala Peak (N06°54'36": E080°47'22" WGS84) dominates the Hakgala Strict Natural Reserve.

PAL HORA GALGE

Archaeologically investigated but speleologically unexplored and unmapped cave or rock shelter.

LOCATION: Sri Lanka: Western province: Colombo district: Uruwela village.

POSITION: (if at the Palhorakanda estate), WGS84 (without recorded EPE) N06°51': E080°09' / N6,85° : E80,15° (<www.nima.mil/geonames> accessed 16.11.2003).

MAPS: Survey of Ceylon sheet: Unidentified (Avisawella or Horana).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965.

Without further notice in the text, the approximate location of »Pal Hora galgé« is indicated on the location map (without coordinates) accompanying DERANIYAGALA (1965: 144 figure 21).

SITUATION 1: Judging from the not exactly precise »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galgé)« (drawn by J. B. Delair in: DERANIYAGALA 1965: 144 figure 21), »Pal Hora galgé« lies in the »Western Province« (Colombo district), about 30 km in a direct line approximately north of »Matugama cave« (i.e. Yakgiri lena, Matugama village N06°32': E080°08') and about 10 km approximately ESE from »Tun Modera« or Tunmodera (653).

SITUATION 2: »Pal Hora« (DERANIYAGALA 1965: 144 figure 21) is suspected to have something to do with the estate Palhorakanda (N06°51': E080°09').

IDENTITY: »Pal Hora galgé« is possibly another name for

Beli Lena (Athula)	N06°56':	E080°14'
Koratota "cave dwelling"	N06°55':	E080°00'
Sita Galge	N06°57'11":	E080°13'06"
Uruwela "cave dwelling"	N06°54':	E080°09'
Waula Kanda, cave on	N06°51':	E080°12'

PARAMAKANDA "CAVE DWELLING"

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter (temple cave).

LOCATION: North Western province: Puttalam district: Paramakanda.

POSITION: N07°55': E080°00' / N07.916667°: E80° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheets: Battulu Oya, Puttalam.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings are scattered throughout Sri Lanka ...« and »... these caves include those at Paramakanda in the Puttalam district ...« (CEYLON TRAVELLER 1974: 249; 1983: 251).

ETYMOLOGY: The Sinhala "kanda" means a hill.

SITUATION: Unknown (654).

IDENTITY: Compare the →Paremakande Nitre Cave.

653 There is the "PPL" (populated place, village) of Tunmodera (N07°29': E080°04') in the vicinity of the "ESTO" (oil palm plantation) called Tunmodara (N07°23': E079°52' WGS84 <www.nima.mil/geonames> accessed 16.11.2003) falling on the Survey of Ceylon sheet Avisawella or Horana

654 <www.nima.mil/geonames> (accessed 16.11.2003) positions under »Paramakanda« not only one village at N07°55': E080°00') but also »RKS« (conspicuous, isolated rocky masses) at N07°54': E080°00' (WGS84) in the lowlands south-east of Puttalam (N08°02': E079°49') and north-north-west of Anamaduwa (N07°52'39": E080°00'52" WGS84).

PAREMAKANDE NITRE CAVE

or, perhaps: Paramakanda "Cave Dwelling"

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Demoole pattoo« (Davy 1821) area: »Paremakande« (Davy 1821) or, perhaps Paramakanda village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified..

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

No locally known name has been identified for the Nitre Cave no. 3 (DAVY 1821: 31 footnote), which is said to be situated at »Paremakande« (655) in the »Demoole pattoo« (656) of the likewise obsolete »Seven Korles district« (657).

PATANAGEDERA, cave at

Unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Matale district: Lagalla: Patanagedera (Patanegedera) village.

POSITION: WGS84 N07°34': E080°45' / N07.5.6667°: E080.75° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Cooray, P Gerald 1967; Deraniyagala, Paulus Edward Pieries 1958.

Among eight »other caves in crystalline limestone« (COORAY 1967: 97), there is one (658) which is said to be found somewhere in the vicinity of the village of »Patanagedera« (COORAY 1967) or Patanagedera (N07°34': E080°45') near Lagalla (N07°33': E080°44').

655 »Paremakande« (DAVY 1821) is not identified unless it is the same as the Paramakanda (see above).

656 The obsolete administrative subdivision »Demoole pattoo« (DAVY 1821) is not identified.

657 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

658 COORAY (1967: 97): »Other caves in crystalline limestone are found at

Ella (Ravana's Cave)	Ravana Ella Cave
Maturata (near Padiyapelella)	Maturata Nitre Cave
Wellawaya	Istripura Cave (Wellawaya)
Hakgala	cave at →Hakgala
Istripura (near Welimada)	Istripura Cave (Welimada)
Padanwela (Wilson's Bungalow)	cave at →Padanwela
Patanagedera (near Lagalla)	cave at →Patanagedera
Kudawa (near Gilimale)	cave at →Kudawa

PATRIPOA CHAMBER

Unexplored and unmapped modified natural or man-made sacred cave, rock shelter (temple cave) or rock-cut chamber ('cave' temple).
 LOCATION: Sri Lanka: Northern Central province: Polonnaruwa district: Amban Ganga (Ambang Ganga, Ambanganga) river basin: Wasgomuwa Natural Reserve area: Gaetyagama.
 POSITION: Representative WGS84 coordinates (unspecified EPE) N07°48': E080°51' / N07.8°: E080.85° (or so).
 MAP: Survey of Ceylon / Sri Lanka sheet "Elahera" or "Polonnaruwa" (One-Inch series).
 SPELEOMETRY: Not known.
 BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841.

A »dilapidated rock temple« of unspecified nature and character said to have been mentioned (along with a dagoba) in a »... description of ruins ... furnished to me by the native whom I sent to copy inscriptions; and his account was afterwards confirmed by inhabitants from that district« (FORBES 1840, 1841.ii: 96).

SITUATION: Unidentified. Possibly within the Wasgomuwa Natural Reserve and from the →Gaetyagama rock temple (659) at a »distance of three miles« (about 5 km) downstream along the »Ambanganga« or Amban Ganga and Ambang Ganga (660) and at a the »extensive ruins, now known by the name of Maluwaya« (661).

PERIYA MANDAPAM

Partly explored and mapped natural cave and fabulous tunnel in upper Lower Miocene (Burdigalian) Jaffna limestone.
 LOCATION: Northern province: Jaffna district: Kankasanturay (Kankasanturay) area: Kerudavil (Kerudawill) village.
 POSITION: Everest 1830 (assumed EPE ±100 m) N09°48'48": E080°08'39" / N09.8133333°: E080.14416667° (Ceylon One Inch sheet "Point Pedro", revised 1959 edition reprinted 1971).
 MAP: Survey of Ceylon / Sri Lanka sheet: Point Pedro..
 SPELEOMETRY: Length: Approximately 70 m. Vertical range: ±6 m (+0m / -6m).
 BIBLIOGRAPHY: CT = Ceylon Traveller 1974, 1983; Kusch, Heinrich 1973c; Liska, Milan 1980; Mitter, Pavol 1978; Sasvári, Tibor 1978; Sasvári, Tibor & Terek, Jozef 1984; Siffre, Michel 1975.

An irregularly shaped pothole cave entrance in more or less level country descends up to 5 or 6 m down to the more or less level floor of a mostly daylight-lit, irregularly shaped cave chamber with a few speleothems (flowstone) and a one lateral continuation leading to a small daylight window (second entrance) northernmost corner in the the accessible part of the cave.

At an unidentified date »until recently« (CEYLON TRAVELLER 1974: 249-250; 1983: 250-251) it was possible to pass by subterranean passages all the way from from Periya Mandapam to →Sinna Mandapam. In 1974, and at least before 1983, the entrance to Periya Mandapam was still public.

According to LISKA (1980), the young sinkholes and combined horizontal / vertical caves on the flat surface of the peninsula (e.g. like Periya Mandapam) result from recent slow uplift (662).

ETYMOLOGY: The Tamil "periya mandapam" (663) translates into »great shelter« (CEYLON TRAVELLER

659 The →Gaetyagama rock temple is said to lie near the junction of the »Heerattee-oya« (either the Heerati Oya (N07°44'17": E080°50'37") or the Herati Oya (N07°39': E080°51' <www.nima.mil/geonames> accessed 16.11.2003) and the »Ambanganga« (FORBES 1840, 1841.ii: 96).

660 »Ambanganga« (FORBES 1840, 1841.ii: 96) seems to be the Amban Ganga or Ambang Ganga with its mouth near N07°52': E081°03' (www.nima.mil/geonames accessed 16.11.2003).

661 »Maluwaya« (FORBES 1840, 1841.ii: 96) is where? »This place is overgrown with jungle, and the principal remains are described as three buildings situated at some distance from each other. One of these, founded on a rock in which there is an excavated chamber, is called the →Patrippooa; at each of the others there is a stone trough, one of them formed in the rock, the other having been removed to its present situation. A long inscription, in an old form of Cingalese, was discovered in the vicinity of these buildings« (FORBES 1840, 1841.ii: 96-97).

662 Only 120 years before LISKA (1958), it was TENNENT (1859: 20) who already had pointed out that »the phenomenon of the gradual upheaval of these strata is sufficiently attested by the position in which they appear, and their altitude above the sea ; but, in close contiguity with them, an equally-striking evidence presents itself in the fact that, at various points of the western coast, between the island of Manaar [N09°03': E079°50'] and Karativoe [Karativu Island N08°28': E079°47'], the natives, in addition to fishing for chank shells in the sea, dig them up in large quantities from beneath the soil on the adjacent shores, in which they are deeply imbedded, the land having since been upraised.«

663 Periya Mandapam has been called, spelled, transcribed or romanised and edited as

Jaffna, grotte de SIFFRE (1975: 42)
 puits Jaffna, de SIFFRE (1975: 41 photograph)
 Cave Kerudavil SASVÁRI & TEREK (1984: 109)
 Jaskyna Kerudavil SASVÁRI & TEREK (1984: 109)
 Kerudavil Barlang SASVÁRI (1978: 50 cave plan)
 Kerudavil Cave SASVÁRI (1978: 50)
 Kerudavil Höhle KUSCH (1973c: 23)
 Kerudawill Dry Cave MITTER (1979a: 154)
 Periya Mandapam, Kankasanturay CT = CEYLON TRAVELLER (1974: 248, 1983: 250)
 Periya Mandapam, Kerudawill (LISKA 1980: 63, 66-67, 69)
 Periya Mandapam limestone cavern CT (1983: 131)
 Periya Mandapan, Kerudawill (LISKA 1980: 64)
 Perya Mandapam SASVÁRI (1978: 49-50)
 Perya Mandapan SASVÁRI & TEREK (1984: 108)
 Siberiya Mandapam pri Kerudavil MITTER (1978: 147).

1974: 248; 1983: 250) or upper, main, bigger, and »large shelter« (664).

SITUATION: East of Jaffna town and near the village of Kerudavil (665), which lies not far from Kankesanturai (N09°49': E080°02'), in a prominent ridge of rock and either well over 400 m (666) or almost 800 m (667) in an unspecified direction from →Sinna Mandapam, the corresponding »small shelter« (unidentified).

POSITION: Visiting Kerudavil Wasama and the cave in January 1979, I marked the location of Periya Mandapam near N09°48'50": E080°08'40" (±100 m, Everest 1830) on the One Inch sheet "Point Pedro" (Survey Department 1959 reprinted 1971).

CAVE DESCRIPTION 1961: SIFFRE (1975: 41) gives a photograph titled »Puits dans les calcaires miocenes de la presqu'île de Jaffna« (Shaft in Miocene limestones on the Jaffna Peninsula) and showing a view from the back corner of Periya Mandapam into the most daylight-lit part of the chamber where the trunk of a tree is visible which flourishes on the cave floor and grows out of the entrance.

SIFFRE (1975: 42) appears to give the show away by advertising »les très belles grottes coralliennes de la presqu'île de Jaffna« as if Periya Mandapam were a "very beautiful coral cave" (oops) instead of collector's item.

CAVE DESCRIPTIONS 1974: CEYLON TRAVELLER (1974, 1983: 131) just about mentions »... the limestone caverns at Sinna and Periya Mandapam extending for close on half a mile [less than 804 m], showing glimpses of the limestone shelf on which Jaffna stands.«

CEYLON TRAVELLER (1974: 248; 1983: 250): On the Jaffna peninsula, »... few caverns are actually known ... but the best known by far are the caverns locally called Sinna [Mandapam] and Periya Mandapam not far from Kankesanturai. The two caverns ... are well over quarter of a mile apart ...«

CAVE DESCRIPTION 1978: SASVÁRI (1978: 49-50): »E barlangok létrejöttekor nagy szerepet játszott a vertikális, helyenként a horizontális tektonika. Ezekben a gyenge helyeken utat talált a csapadékvíz a föld felszine alá, miközben a keskeny repedések a mészkő kémiai összetételétől függően szélesedtek. Független kémények jöttek létre, melyek szabályosan kialakult vízszintes üregekkel kötődtek össze. Ilyen jellegű barlangok Kerudavil mellett a Sinna és Periya Mandapam falucskák között találhatóak.«

SASVARI (1978: 50) gives a cave plan with four cross sections of »Kerudavil-barlang« and »Kerudavil Cave.«

CAVE DESCRIPTION 1979 (MITTER 1979a: 154- 155): The labyrinthic, 40 m long, 4 to 6 m below the surface, »Sucha jaskyna pri Kerudawill (Dry Cave by Kerudawill)« is said to once having been connected (by a fabulous tunnel) with »Sibiheria Mandapam« (sic!) or →Sinna Mandapam.

CAVE DESCRIPTION 1980: LISKA (1980) mentions the variously spelled »Periya Mandapam« and »Periya Mandapam« (sic) while describing some aspects of the Jaffna karst with head-born abstractions which create similarities with a karst landscape on the Caribbean island of Cuba, one of the West Indies in the Central American corner of the Atlantic Ocean (668).

CAVE POTENTIAL - fabulous tunnel: Periya Mandapam and →Sinna Mandapam »are well over quarter of a mile [402.3 m] apart, but until recently it was possible to pass by subterranean passages all the way from one to the other« (CEYLON TRAVELLER 1974: 248; 1983: 250).

On the other hand, »... the limestone caverns at Sinna and Periya Mandapam extending for close on half a mile [less than 804 m], show glimpses of the limestone shelf on which Jaffna stands« (CEYLON TRAVELLER 1974, 1983: 131).

CAVE LIFE: SASVÁRI & TEREK (1984: 110) appear to dedicate a paragraph (in Czech) to aspects of cave climate and cave fauna mentioning, as far as I can see, recent bat guano, *Prynicus lunatus* (Pedipalpi), Orthoptera, Opilionidae, and Diptera.

PERYA MANDAPAN

see: Periya Mandapam (Kerudavil)

Sasvari, Tibor 1978: 49; Sasvari, Tibor & Terek, Jozef 1984: 108.

PERYIA MANDAPAN (Kerudawill), jeskyna

see: Periya Mandapam (Kerudavil)

Liska, Milan 1980: 66-67.

PERYIA MANDAPAN (Kerudawill), suchá

jaskyna

see: Periya Mandapam (Kerudavil)

Liska, Milan 1980: 64.

664 The Sanskrit "mandapam" is a »pillared monastic assembly hall or porch« (*). The Sinhala "mandapaya" is a »raised platform with decorative pillars« (LONELY PLANET, Sri Lanka 2003: 294 glossary) and has been erected (sponsored) for public use to shelter passing pilgrims and travellers and the like.

* LAW, Bimala Churn (1976): Geographical essays relating to ancient geography of India. - (Delhi, Varanasi & Calcutta: Bharatiya) page 194.

665 »Kerudawill« (LISKA 1980, MITTER 1979) or Kerudavil N09°49': E080°09' (www.nima.mil/geonames accessed 16.11.2003) and Kerudavil Wasama (N09°40': E080°08'30" ±2.5 km, Ceylon One Inch sheet "Point Pedro", revised 1959 edition reprinted 1971) is reached by a 1.2 km long minor road turning inland off the main road from Kankesanturai to Point Pedro by a temple near milepost »5 3/4« (5.75 miles = 9.3 km, CEYLON TRAVELLER 1974: 249-250; 1983: 250-251).

666 CEYLON TRAVELLER (1974, 1983: 250): »... the cavern locally called Sinna and Periya Mandapam ... not far from Kankesanturay ... are well over a quarter of a mile [402 m] apart, but until recently it was possible to pass by subterranean passages [a fabulous tunnel?] all the way from one to the other.«

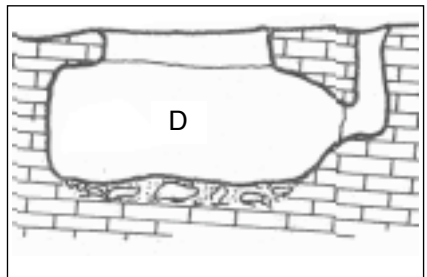
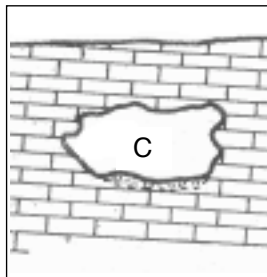
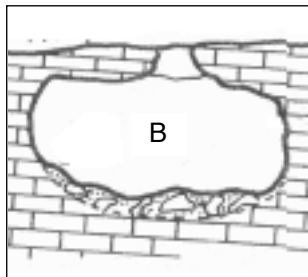
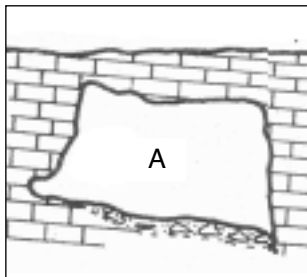
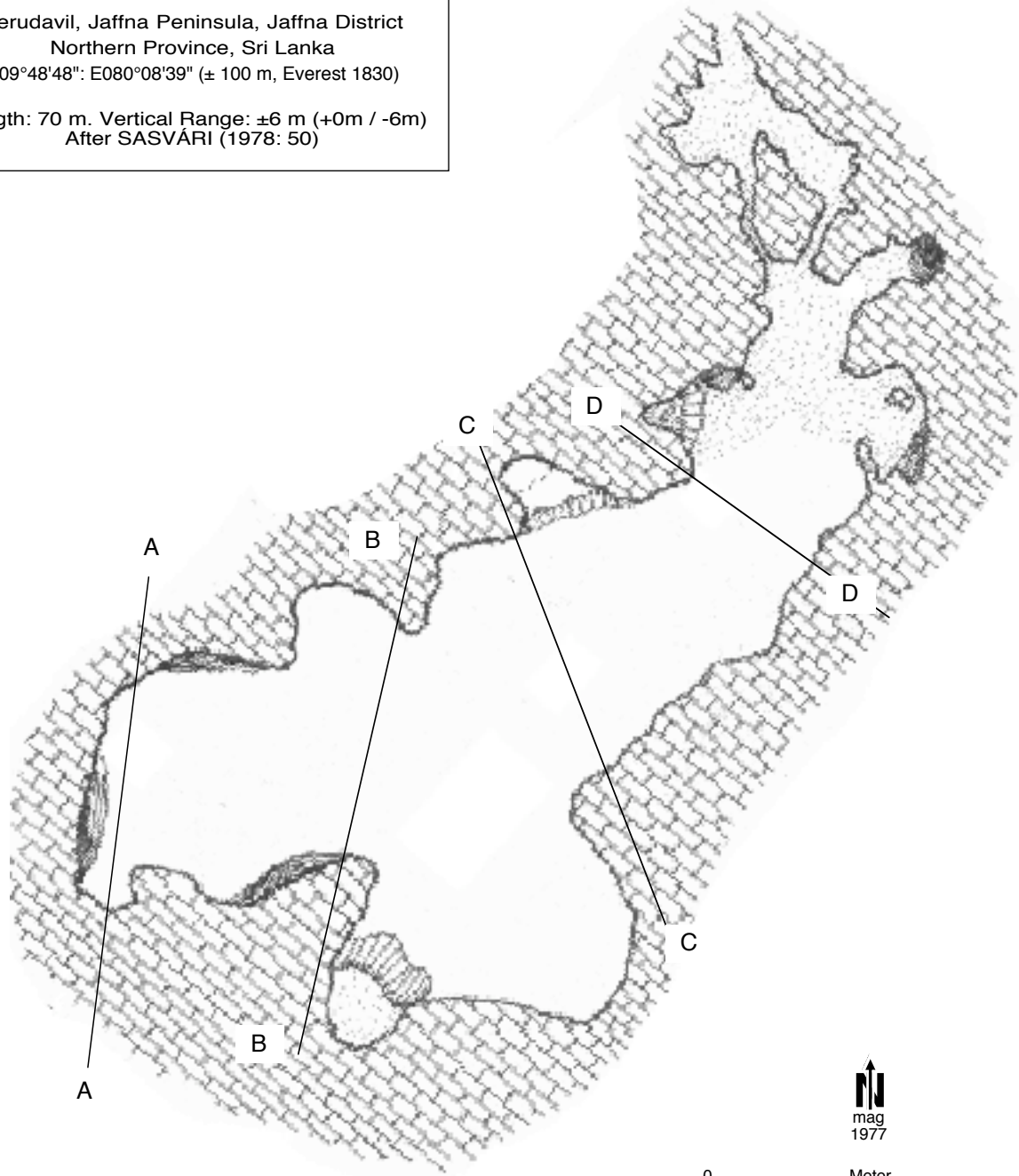
667 CEYLON TRAVELLER (1974, 1983: 131): »... the limestone caverns at Sinna and Periya Mandapam [are] exceeding for close on a half mile, showing glimpses of the limestone shelf on which Jaffna stands.«

668 To corroborate his hypotheses, LISKA (1980: 67 Obr. 3) gives a photograph which is said to show (without scale) the mouth of an allegedly artificial well, which, apart from having been noticed in the same vicinity, has nothing to do with Periya Mandapam.

PERIYA MANDAPAM or: Kerudavil Cave

Kerudavil, Jaffna Peninsula, Jaffna District
Northern Province, Sri Lanka
N09°48'48": E080°08'39" (± 100 m, Everest 1830)

Length: 70 m. Vertical Range: ±6 m (+0m / -6m)
After SASVÁRI (1978: 50)



PIDURAGALA " CAVE " no. 1

Frequently visited but speleologically unexplored and unmapped modified natural sacred cave or rock shelter (temple cave).

LOCATION: Central province: Matale district: Sigiriya (Sighiri, Sigiri): Piduragala (Pedurugalla).

POSITION: WGS84 N07°58': E080°46' / N07.9.6667°: E080.7.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Forbes, Jonathan 1840, 1841.

No locally known name has been identified for an unspecified »cave« (CEYLON TRAVELLER 1974, 1983: 114, 253) or »rock-temple« (FORBES 1840, 2: 12; 1841, 2: 12), which is used as an image house containing statues.

SITUATION: Near the base or »at the foot of the hill of Piduragala« or »Pedurugalla« (669), which lies »about a mile [1 or 2 km] to the north of Sigiriya« (N07°57': E080°45'), »above the modern temple« and at a point, where »a flight of steps made of rubble« (CEYLON TRAVELLER 1983: 114) lead to the summit.

CAVE DESCRIPTION (FORBES 1840, 2: 12; 1841, 2: 12): »The priest informed me that his cave-temple had been long in a state of ruin and choked up with rubbish; that its length is one hundred and twenty cubits [56 m], its breadth twelve cubits [5.6 m], and that two of the statues which it contained were cut from the solid rock. Near this temple are the ruins of a dagoba ; and thirty-six stone pillars point out the site of the assembly-hall of the priests.«

CEYLON TRAVELLER (1974: 251; 1983: 253): »The old image houses within a cave ... have now been renovated. Above the drip ledge of this cave is an inscription.«

CULTURAL HISTORY: FORBES (1840, 2: 12; 1841, 2: 12) mentions »... copies of Nagara inscriptions which appear on the rock of Sigiri, and on the neighbouring hill ... the rock-temple of Pedurugalla ...«

CEYLON TRAVELLER (1974: 251; 1983: 253), the »caves at Piduragala« are associated with »the brief history« of →Sigiriya (Kasyapa ruled between 459 and 477 A.D.) and »archaeological evidence indicates that they have been used by Buddhist anchorites in pre-Christian times.«

PIDURAGALA " CAVE " no. 2

Frequently visited but speleologically unexplored and unmapped modified natural troglodyte rock shelter (temple cave).

LOCATION: Central province: Matale district: Sigiriya (Sighiri, Sigiri): Piduragala.

POSITION: WGS84 (estimated EPE ±2.5 km) N07°58': E080°46' / N07.9.6667°: E080.7.6667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Forbes, Jonathan 1840, 1841.

Something along the lines of a »long cave« (670), »large

cave« (671), »cave dwelling« (672), or »rock-temple« (673) that »now serves as a vihara« (674), contains a colossal statue of Buddha in addition to an inscription (rock art: epigraphy).

SITUATION: »Close to the summit of the rock« (675) at the village of Piduragala (N07°58': E080°46'), which lies »about a mile« (1 or 2 km) »north« (676) of the fortified hill and tourist attraction →Sigiriya (N07°57': E080°45').

CAVE DESCRIPTION 1 (CEYLON TRAVELLER 1974: 251; 1983: 114, 253): Piduragala Cave no. 2 is »a large cave in which reposed a colossal image of the recumbent Buddha, made from brick and stucco. One of the caves now serves as a vihara. Under its drip ledge is a record in Brahmi script.«

CAVE DESCRIPTION 2 (CEYLON TRAVELLER 1983: 114): »A long cave [wide rock shelter?] on the east of the summit has been divided into three sections by walls. Near this cave is a 7th century inscription, which refers to the donation of gold and of fields. In one image house of this cave is a large recumbent Buddha statue made of brick and stucco, probably 10th century, and on the wall of another image house is the drawing of a woman.«

CULTURAL HISTORY: FORBES (1840, 1841.ii: 12) mentions »... copies of Nagara inscriptions which appear on the rock of Sigiri, and on the neighbouring hill ... the rock-temple of Pedurugalla ...«

PIHILEGODA GALGE

or: Pihilegodagalge

Archaeologically investigated but speleologically unexplored and unmapped natural troglodyte rock shelter.

LOCATION: Unidentified province: Unidentified district: »Pihilegoda« or, perhaps: Pihillikanda / Pihillakande tea plantation.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kempe, D 1988; Kopper, J S 1973; Seligmann, C G & Seligmann, B Z 1908, 1911.

A west-facing, about 11 m wide entrance gives access to 22 square metres of inhabitable space in a rock shelter with an average roof height of about 1.5 m.

SITUATION: Unidentified but »Pihilegoda« (KOPPER 1973) is reminiscent of the names of the village of Pillagoda (N06°09': E080°12') and the estates (tea plantations) Pihillikanda / Pihillakande (N07°26': E080°38') or Pillagoda Valley (N06°08': E080°14').

CAVE DESCRIPTION (KOPPER 1973: 36): »The dwelling is about 35 feet [11 m] long and averages seven feet [2 m] in depth from the drip line to the back wall for a floor area of about 237 square feet [22 square metres]. Average roof height appears to be five feet [1.5 m].«

669 »Piduragala« (CEYLON TRAVELLER 1974; 1983), »Pedurugalla« (FORBES 1840, 2: 12; 1841, 2: 12) or Pidura Rock above the village of Piduragala N07°58': E080°46' (www.nima.mil/geonames 16.11.2003).

670 CEYLON TRAVELLER (1983: 114).

671 CEYLON TRAVELLER (1974: ; 1983: 253).

672 CEYLON TRAVELLER (1974: 249; 1983: 251): »Cave dwellings ... include those at ... Piduragala in the Matale District.«

673 FORBES (1840, 1841.ii: 12)

674 CEYLON TRAVELLER (1983: 114)

675 CEYLON TRAVELLER (1974: 251; 1983: 253)

676 CEYLON TRAVELLER (1974: 251; 1983: 114, 253)

KEMPE (1988: 178): The »... typical rock shelter at Pihilegodagale is about 35 feet wide, averaging seven feet in depth from dripline to back wall, giving a floor area of about 237 square feet. It has an average height of about five feet. ... This shelter, incidentally, faced west: not the most popular orientation from a solar point of view.«

KEMPE (1988: 177-179) sums up »Kopper 1977« (KOPPER 1973).

CULTURAL HISTORY - human use (KOPPER 1973: 36): »In this limited space five extended families, which for the sake of conservatism is estimated at seven individuals each, lived for months at a time in 0.6 square metres of floor space or 1 cubic metre of total space per person.«

PILIKUTTUWA "CAVE DWELLING"

Frequently visited but speleologically unexplored and unmapped modified natural or man-made, troglodyte cave or rock shelter.

LOCATION: Western province: Colombo district: Gampaha area: Pilikuttuwa village.

POSITION: N07°04': E080°03' / N 7.06667°: E 80.05° (guesswork).

MAPS: Survey of Ceylon / Sri Lanka sheet: Gampaha.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings are scattered throughout Sri Lanka« and there is a »cave dwelling« or one of the »caves worth visiting« (CEYLON TRAVELLER 1974: 249; 1983: 251) especially at »Pilikuttuwa« or Pilikuttuwa (677) »near« (about 7 km in a direct line approximately WSW from the town of) one of the populated places called Gampaha (678).

PILIMA LENA

or: Pilimalena, Pilima-lena

Frequently visited but speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district: Kitulgala village: »Ing Oya« (Ingoya) estate.

POSITION: WGS84 N06°59'40": E080°24'41" / N06.99444445°: E080.41138889° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Hatton, Kandy.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

The unspecified cave or rock shelter »Pilima-lena« (679) is situated somewhere in the vicinity of the village of Kitulgala (N06°59'40": E080°24'41" WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

677 »Pilikuttuwa« (CEYLON TRAVELLER 1974: 249; 1983: 251) or Pilikuttuwa (N07°04': E080°03') lies about 26 km in a direct line approximately north-east from Colombo (N06°56'01": E079°51'01" (WGS84).

678 This »Gampaha« (CEYLON TRAVELLER 1974: 249; 1983: 251) seems to be that village of Gampaha (N07°05'30": E079°59'39" WGS84), which lies about 23.5 km in a direct line north-east from Colombo city (Fort Railroad Station at N06°56'01": E079°51'01" WGS84), not the other village of Gampaha (N06°43': E081°02' about 110 km east of Colombo, near Haputale, in Badulla district) or the estate Gampaha N06°59': E080°56' (WGS84) on the hills separating the districts of Badulla and Nuwara Eliya.

679 CEYLON TRAVELLER (1974: 253, 254; 1983: 256, 257)

PINNACLE ROCK 'CAVE'

or: Vilatti Malai, Nachchiya Malai

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter, possibly in limestone.

LOCATION: Eastern province: Trincomalee district: Tiriyai: Pinnacle Rock (Vilatti Malai, Nachchiya Malai).

POSITION: WGS84 N08°46': E081°01' / N08.76667°: E081.01667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Nilaveli or Padawiya, or Kokkilai (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Fernando, Kishanie S. 2003.

An »ancient cave hermitage dating back to very early Buddhist times. There is a Brahmin inscription [rock art: epigraphy] on the brow of the cave and some other strange stone formations« (680), possibly in limestone (681).

Compare →Tiriyai Cave.

ETYMOLOGY: »Pinnacle rock, called Vilatti Malai in Tamil (CEYLON TRAVELLER 1974:?, 1984: 119) is »known as Vilatti Malai in Tamil and Nachchiya malai« (FERNANDO 2003).

SITUATION (CEYLON TRAVELLER 1974:?, 1984: 119): In the vicinity of Tiriyai (682), »southwards of Kuchchaveli [N08°49': E081°06'] and visible from the northern shore of the ferry, stands ... Pinnacle Rock [683] ... Near the summit of the hill is an ancient cave hermitage ...«

680 FERNANDO (2003) <www.dailymirror.lk/2003/06/25> (accessed 2005.08.17).

681 CEYLON TRAVELLER (1983: 119-120): »At the foot of the hill runs a small river [no name mentioned: Matti Aru], which is said to have the property of petrifying objects by coating them with a heavy deposit of calcium [more likely: calcium carbonate, calcareous tufa]. It is certainly true that on the sand banks lining the stream petrified crab shells and similar objects, apparently turned into limestone, are often found.« Slow cavers: Take care!
FERNANDO (2003): »Nihal Fernando in his book the Ceylon Traveler says that it is certainly true that on the sand banks lining the stream petrified crab shells and similar objects apparently turned into limestone are often found. The petrified crabs of Matti Aru [*], which is one of the several rivers which flow into Salape Aru [**] as common estuary, have been said to be of medicinal value and used to cure urinary disorders. Dr. H. Woodward describes a certain medicinal crab found here used in the Chinese pharmacopoeia.«

* There is one Matti Aru N08°6': E079°49' (www.nima.mil/geonames accessed 16.11.2003) and the Tamil "aru" means »stream« (water course).

** »Salape Aru« (FERNANDO 2003) is the »Salappai Aru« (CEYLON TRAVELLER 1983: 120).

682 Tiriyai N08°52': E081°01'

683 There is not only the hill* Pinnacle Rock (N08°46': E081°06') 14 km in a direct line south-east of Tiriyai (N08°52': E081°01') but also the rock** Pinnacle Rock (N08°34': E081°14') 40 km in a direct line south-east of Tiriyai but the latter seems to be too far away.

* hill: a rounded elevation of limited extent rising above the surrounding land with local relief of less than 300 m

** rock: a conspicuous, isolated rocky mass.

CULTURAL HISTORY - Human use (CEYLON TRAVELLER (1983: 119): »Hugh Neville in Taprobanian suggests that this is one of the Island's most ancient places of worship and connects it interestingly with similar styles of worship in very far-flung places.«

APPROACH 1 (CEYLON TRAVELLER 1974 edited 1984: 120): South of Kuchchaveli (N08°49': E081°06'): »A most convenient way to reach this out-of-the-ordinary site is to hire a vallam, an outriggerless dug-out canoe, from the fishing settlement at the Salappai Aru ferry [684]. The journey—one way—is about four miles through fascinating mangrove swamp and heavy, bird-filled jungle.«

APPROACH 2 (FERNANDO 2003): »The 25 kilometre jungle track to Tiriyaya [N08°52': E081°01'] was irresistible to us. This was our second trip. It was not so long ago that it was inaccessible to civilians and now it seemed it had opened its vistas luring many into its wilds. Passing Nilaweli and a few other small hamlets, the security check points warned us that we were travelling into the hidden heart of Lanka along its eastern sea line rarely broken by the mark of man. However, the once deserted migrant fishing hamlets seemed to be awakening. There were more huts and more people than during our last visit. ...

However, to explore these strange places is not yet possible due to tight security. In fact it is almost a shock to realise the fragility of the peace which we enjoy along the roads of Colombo when we pass through the heavily guarded and constantly patrolled jungle tracks. At all times you may be sure to find soldiers watching you almost hidden amongst the trees.«

PINNACLE ROCK 'NICHE'

Frequently visited but speleologically unexplored and unmapped modified natural or man-made rock shelter (temple cave).

LOCATION: Eastern province: Trincomalee district: Tiriyai: Pinnacle Rock (Vilatti Malai, Nachchiya Malai).

POSITION: WGS84 N08°46': E081°01' / N08.76667°: E081.01667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Nilaveli or Padawiya, or Kokkilai (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»A strange, egg-shaped niche in a vertical rock, wonderfully smoothly-surfaced and not unlike a similar niche in the famous Hypogeum [Hypogæum] on the island of Malta« (CEYLON TRAVELLER 1974, 1983: 119).

SITUATION: »At a lower level« (CEYLON TRAVELLER 1974, 1983: 119) than the →Pinnacle Rock Cave.

PINNACLE ROCK TUFU STREAM

see: Matti Aru "Tufa Stream"

Ceylon Traveller 1974, 1983; Fernando, Kishanie S. 2003.

POTANA " SHELTER "

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter, probably in granite.

LOCATION: Central province: Matale district: Sigiriya (Sighiri, Sigiri): Potana.

POSITION: (If at the trigonometric station of Potana), WGS84 (estimated EPE ±2.5 km) N07°56': E080°42' / N07.933334°: E080.7° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Adikari, G. 1998; Deraniyagala, Siran Upendra 2002.

An archaeologically excavated but otherwise unspecified »shelter« (or cave where humans took shelter) yielded charcoal dated to 5800 cal BP (DERANIYAGALA 2002: 5 after Adikari 1998).

SITUATION: In the »lowland Dry Zone« (DERANIYAGALA 2002: 5) at an unspecified distance of 5 km (either along a route or in a direct line) approximately west of Sigiriya and, apparently, at a location spatially related to a place called Potana (685).

POTOOR WELL

see: Tidal Well (Puttur)

Tennent, James Emerson 1859, 1860 vol. 1: 21, 1860, 2: 536.

TENNENT (1859, 1860 vol. 1: 21): »... the remarkable well at Potoor on the west side of the road leading from Jaffna to Point Pedro ...«

TENNENT (1859, 1860 vol. 1: 21 footnote): »For the particulars of this singular well, see the Chap. on Jaffna, Vol. II«

POTUR WELL

see: Tidal Well (Puttur)

Balfour, Edward 1885 reprinted 1967-1968, 3: 274.

POWERSTATION CAVE 1

Chiropterologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Central province: Kandy district: Maskeliya Oya valley.

POSITION: Estimated Everest 1830 (assumed EPE ±1 km) N06°55'30": E080°28'15" / N06.925°: E080.47083333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

A so-called »Power Station Cave« (or two) seems to be the home of bats.

SITUATION 1: Eckrich, M. (1984 Mss: Bat cave distribution map) indicates »Powerstation Cave« at a road-head north of the cave of the →Seven Virgins (±1 km, N06°52'20": E080°30'50" Everest 1830).

SITUATION 2: Eckrich, M. (1984 personal communication) indicated on a partial photocopy of the Survey of Sri Lanka sheet "Hatton" (One Inch series, a.i. before 1984) the location of a pair of caves, which lie opposite across a road and

684 »Salappai Aru« (CEYLON TRAVELLER 1984: 120) or »Salape Aru« (FERNANDO 2003). The Tamil "aru" means »stream« (water course).

685 From the village and trigonometric station Sigiriya (N07°57': E080°45') lies at linear distances of 5.4 km ESE Potana N07°56': E080°42' trig. station 15 km NW Potanegama N08°02': E080°38' village, and 4 km WSW Potana Wewa N07°56': E080°43' reservoir.

-- at a travelling distance of 6 or 7 km along the road (4 km in a direct line north-west) from Norton Bridge, which runs initially ENE via the Aberdeen estate (686) and a series of hairpin bends, and later generally north-west (along and above the north-eastern bank of the Maskeliya Oya) towards the village of Morahenegama (687) and Ginigathena (N06°59'11": E080°29'22" WGS84) on the highway A7.

-- at a spot (west of the hairpin bends) where the above mentioned road has just finished a long right-hand bend (initially heading westish, later north) and continues (beyond the caves) for half a kilometre almost due north to a sharp left-hand bend, beyond which the road continues generally north-west towards village of Morahenegama, etc.

-- at linear distances of about 1.5 km from the peaks Bambaragala to the north, from Kiripanagala 3473 feet (1058.6 m asl) to the west, and from Bulatwalakanda 3234 feet (985.7 m asl) to the south-west.

CAVE LIFE: Since Michael Eckrich (München: Zoologisches Institut, 1984 Mss) indicates »Power Station Cave« on his bat cave distribution map, there are possibly bats (Chiroptera) in this cave.

POWERSTATION CAVE 2

Chiropterologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Central province: Kandy district: Maskeliya Oya valley.

POSITION: Everest 1830 (assumed EPE ±1 km) N06°55'31": E080°28'16" / N06.92527778°: E080.47111111° (estimated).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

Opposite across the road from the first Power Station Cave in another cave with bats.

CAVE LIFE: Since Michael Eckrich (München: Zoologisches Institut, 1984 Mss) indicates »Powerstation Cave« on his bat cave distribution map, there are possibly bats (Chiroptera) in this cave.

PUDULI GALGE

or, perhaps: Pulligoda Galge

Frequently visited but speleologically unexplored and unmapped modified natural, sacred and painted, troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Polonnaruwa district: Dimbulagala (Gunner's Quoin): Tamankaduwa (Tamankatuwa).

POSITION: WGS84 N07°51': E081°08' / N07.85°: E081.13333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Dhanapala, D B 1957a, 19957b, 1964a, 1964b.

A rock art site of unspecified nature and character (DHANAPALA 1957 reprinted 1964) is said to be located on

the Puduli Galge at Dimbulagala / Gunner's Quoin (688) near »Tamankaduwa« (689).

Compare →Dimbulagala caves and →Pulligoda Galge.

PULLIGODA GALGE

or, perhaps: Puduli Galge

Frequently visited but speleologically unexplored and unmapped modified natural, sacred and painted, troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Polonnaruwa district: »Tamankaduwa district« (KUSCH 1973c) area: Dimbulagala (Gunner's Quoin).

POSITION: WGS84 (estimated EPE ±2.5 km) N07°51': E081°08' / N07.85°: E081.13333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Kusch, Heinrich 1973c.

A so-called »cave on a boulder« (CEYLON TRAVELLER 1983: 112) at Pulligoda contains rock art. Compare the →Dimbulagala Caves and →Puduli Galge.

SITUATION: CEYLON TRAVELLER (1974, 1983: 112) places »Pulligoda« at a travelling distance of »three and a half miles« (5.6 km) »south« of Dimbulagala, the Gunner's Quoin.

KUSCH (1973c: 22) places »Pulligoda-Galge cave« (690) near »Dimbulagala« (sic) in a so-called »Tamankaduwa district« (691).

CULTURAL HISTORY - rock art: KUSCH (1973c: 22) lists from »Pulligoda Galge« relics of 12th-century paintings depicting four godlings with aureole seated on a carpet.

CEYLON TRAVELLER (1974, 1983: 112): »Two layers of plaster of clay and lime have been applied on the rock face to prepare it for the painting, which depicts five gods seated on a beautifully embroidered scarf —four in the anjali mudra (making obeisance with palms together) and the fifth holds up a garland of flowers. Part of the painting, which probably belongs to the 12th century, has broken off.«

688 Both »Gunnars Quoin 1753« (metres above sea level) and »Dimbulagala« (place of archaeological and tourist interest) on the "Sri Lanka road map" (Survey Department 1977).

<www.nima.mil/geonames> (accessed 16.11.2003) lists: N07°52': E081°07' Dimbulagala "RKS" (rocks: conspicuous, isolated rocky masses)

N07°51': E081°08' Dimbulagala Archaeological Reserve "ANS" (ancient site: a place where archeological remains, old structures, or cultural artifacts are located).

689 »Tamankaduwa« (DHANAPALA 1957, KUSCH 1973c: 22) is not identified.

690 The Sinhala "galge" is a contraction of "gala" (rock) and "ge" (home, house) and translates literally into »rock house« in the sense of a cave dwelling. Thus, "galge" relates to the use of such a "wild house" but gives no clue to decide if it is a natural or modified natural rock shelter, a cave, or something else.

691 Little doubt remains that »Tamankaduwa district« (KUSCH 1973c: 22) is bogus but DHANAPALA (1957) mentions from the vicinity of Dimbulagala / the populated place called Tamankaduwa and this is where the rock art site →Puduli Galge is found.

686 Aberdeen N06°55'30": E080°30' (www.nima.mil, accessed 16.11.2003) or N06°55'30": E080°30' (±1 km, Everest 1830, Survey of Sri Lanka One Inch sheet "Hatton" a.i. <1984).

687 Morahenegama N06°57': E080°28' <www.nima.mil/geonames> (accessed 16.11.2003) or N06°56'45": E080°27'30" (±1 km, Everest 1830, Survey of Sri Lanka One Inch sheet "Hatton" a.i. before 1984).

PUNDALUOYA

or: Pundaloya, Punduloya

Not only a swiftlet but also a louse-fly-wise investigated but speleologically unexplored and unmapped cave or not.

LOCATION: Central province: Nuwara Eliya district: Pundaluoya (Pundaloya, Punduloya).

POSITION: (If at the village of Pundaluoya, Pundaloya, Punduloya) itself, WGS84 (without recorded EPE) N 07°00'53": E 080°40'18" / N 7.014722°: E 80.67167° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon sheets: Hatton, Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Maa, T.C. 1980.

An unidentified thingumbob with nests of swiftlets (692).

SITUATION: At an unspecified location (MAA 1980: 842) somewhere in the vicinity of the village of »Pundaluoya« or Pundaloya and Punduloya (693).

CAVE DESCRIPTION: None. Possibly a cliff in the open air.

CAVE LIFE: E.E. Green is said to have collected (January 1898) at »Pundaluoya« specimens of a louse fly (Diptera: Hippoboscidae: Myopthiria Rondani), which J. Bequaert described as *M. lygaeoides* (694) and MAA (1980: 842-843) identified as one of the paratypes of *Myopthiria Myopthiria zeylanica*, sp. nov. (695).

PUTTUR TIDAL WELL

see: Tidal Well (Puttur)

Kukla, Jiri 1958: 166.

QUEEN SUNDARI " CAVE "

see: Dimbulagala "Caves"

Ceylon Traveller 1974, 1983: 112.

692 Swifts and swiftlets (Collocalia) are gregarious birds »... and build durable nests in extensive, compact colonies at high, sheltered, and hardly accessible places« (MAA 1980: 836) including caves.

693 »Pundaluoya« (MAA 1980: 842; Survey Department 1977: Road Map of Sri Lanka), which is positioned as Pundaluoya, Pundaloya, and Punduloya at N07°00'53": E080°40'18" <www.nima.mil/geonames> accessed 16.11.2003, is a village in Nuwara Eliya district (Central province, Sri Lanka) falling on the sheets Hatton or Nuwara Eliya (Survey of Ceylon, One Inch series), and on NB44-02 (American Military Service, U502 series).

694 I have not seen BEQUAERT, J C (1953): The Hippoboscidae or louse-flies of mammals and birds, 1.- Entomologica am. (n.s.) 32: 1-209, 33: 211-442 and BEQUAERT, J C (1954): The Hippoboscidae or louse-flies of mammals and birds, 2.- Entomologica am. (n.s.) 34: 1-232.

695 Out of the six specimens studied by MAA (1980), the male holotype (described by O. Theodor as *M. reduvioides*) had been collected (N. Ueshima 1966.10.27) from an unspecified location (nest of *Collocalia fuciphaga*) at Hunasgiriya (Hunnasgiriya N07°18': E080°51'), the female holotype had been collected (P. Strinati 1970.01.16 ex *C. brevisrostris unicolor*) from Rawanaella Cave, Ella.

Two male paratypes of *M. zeylanica* Maa 1980 (described by H. Oldroyd as *M. lygaeoides*) collected W.W.A. Phillips (1954.07.04) from »Hindagalla Cave, 5000 feet (1520 m asl), Uva Hills, Namunukula.«

RAJAGALA " CAVES "

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Eastern province: Amparai district: Yala National Park: Yala East: Kumana (Kumanu) area: Rajagala.

POSITION: WGS84 N07°30': E081°35' / N07.5°: E081.58333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet Kalmunay (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unidentified number of »many drip-ledged caves« on the forested Rajagala, the King's Rock or King of Rocks contain rock art (CEYLON TRAVELLER 1974, 1983: 177).

SITUATION (CEYLON TRAVELLER 1983:177): On the road from Amparai (N07°17': E081°40') generally north-west to Maha Oya (N07°32': E081°21'), about »two miles« or 3 km north of the Navakiri aru tank (696), to the »left« (without orientation: west or south-west).

CAVE DESCRIPTION (CEYLON TRAVELLER 1983:177): Some of the caves have walls in front, some contain fresco paintings, and many have rock inscriptions (rock art).

RAJAGIRI LENA

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelters.

LOCATION: Northern Central province: Anuradhapura district: Mihintale area: Indikatu Seya Complex: Rajagiri.

POSITION: WGS84 (estimated EPE ±2.5 km) N08°21': E080°30' / N08.35°: E080.5° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Anuradhapura" or "Medawachchiya" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003; Strinati, Pierre & Aellen, Villy 1981.

»Caves« (LONELY PLANET (2003: 253) with Brahmi inscriptions count STRINATI & AELLEN (1981: 459) among the less important caves or rock shelters, which consists either of rift caves or of half dark overhangs (697).

SITUATION: LONELY PLANET (2003: 250 "Mihintale" location map) indicates with the number »4« (Rajagirilena) a spot lying opposite across the Indikatu Seyu Complex and about 300 or 400 m west of the quintunx (ruined hospital) at →Mihintale.

LONELY PLANET (2003: 253): »Back on the road leading to the Old Road, and strictly speaking outside Mihintale proper, are the remains of a monastery enclosed in the ruins

696 The stream known as Navakiri aru rises on the Friar's Hood (N07°26': E081°30': »2195 feet« or 669 m asl) and debauches near N07°28': E081°43' into the Bay of Bengal. The »Navakiri aru tank« (CEYLON TRAVELLER 1983: 177) is possibly the sheet of water indicated (without name) near N07°25': E081°37' on the "Road Map of Sri Lanka (Survey Department 1977).

697 The four (or three?) »autres grottes peu importantes« (other, less important caves) mentioned by STRINATI & AELLEN (1981), which are represented either by »abris semi-obscures« (half dark overhangs or rock shelters) or by »réseau de fissures« (rift cave systems), are Mahakande Cave, »Vavul-lena« (Vavul Lena, Kosgama Dodampé), »Rajagiri-lena« (Rajagirilena, one of the →Mihintale Rock Shelters), and »Mihintale Caves« (Mihintale Rock Shelters) themselves.

of a stone wall. Inside are two dagobas, the larger known as *Indikatu Seya* (literally, *dagoba of the needle*). ... Nearby is a hill that's been dubbed *Rajagirilena* (royal cave hill) after the caves found here with Brahmi inscriptions in them. One of the caves bears the name of *Devanampiya Tissa*. A flight of steps leads up to the caves.«

EXPLORATION HISTORY: 1970 January: STRINATI & AELLEN (1981: 459) collected bats at »*Rajagiri-lena*«

RAJAWELLA NITRE CAVE.

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »*Doombera district*« (Davy 1821), »*Dombera*« (FORBES 1840, 1841. ii: 240), »*Nitre Cave district*« (LEITER 1948: 61) or in »*Uda*« (KUSCH 1973c) area: Corbett's Gap / Corbets Gap (Attala-mettuwa, Corbets Gap): »*Rajahvill*« (Davy 1821) = Rajawella estate.

POSITION: WGS84 N07°17': E080°44' / N07.28333333°: E080.733333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Hanguranketa or Rangala.

SPELEOMETRY: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave 16 (DAVY 1821: 31 footnote) is at »*Rajahvill*« and in the obsolete »*Doombera district*«.

SITUATION 1: Somewhere north-east of Kandy (N07°17'47": E080°38'06" WGS84) in the obsolete »*Doombera district*« (698), the »*Dombara*« of PERCIVAL (1803) and »*Dombera*« of FORBES (1840, 1841.ii: 240) falling on the SoC / SoSL sheet Rangala.

SITUATION 2: Some 10 km in a direct line approximately east of Kandy lies one »*Rajawella*« (699), an estate falling on the Survey of Ceylon / Sri Lanka sheet Hanguranketa.

RAKWANA "CAVES"

Archaeologically investigated but speleologically unexplored and unmapped natural caves or rock shelters, possibly in limestone.

LOCATION: Sabaragamuwa province: Ratnapura district: Rakwana village.

POSITION: WGS84 N06°28'18": E080°36'42" / N06.4716667°: E080.6116667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 35, 36, 37.

One, two or more unspecified »*caves*« or rock shelters are situated somewhere »*in the hillside*« near Rakwana (N06°28'18": E080°36'42" WGS84).

IDENTITY: Compare the cave in →Allington Estate.

CULTURAL HISTORY: Archaeological excavation yielded stone tools made from chert and quartz (Brooks 1995 Mss, no. 35, 36, 37; after: DERANIYAGALA, S U 1980: 177).

RALTARAN GUHAVA

see: Ravana Ella Cave

Wilson, Jane M 1988: 22.

698 »*Doombera*« (DAVY 1821), »*Dombara*« (PERCIVAL 1803), »*Dombera*« (FORBES 1840, 1841. ii: 240) is shown on the folded map accompanying DAVY (1821) to cover the Rangala range north-east of Kandy (N07°17'47": E080°38'06" WGS84).

699 Rajawella N07°17': E080°44' <www.nima.mil/geonames> accessed 16.11.2003.

RANAHINGE HERESSA GALGE

Archaeologically investigated but speleologically unexplored and unmapped natural cave or rock shelter in gneiss.

LOCATION: Sabaragamuwa province: Ratnapura district.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 32.

An allegedly »*small*« (so what?) cave or rock shelter without identified shape or dimensions (Brooks, S J 1995 Mss, no. 32 after DERANIYAGALA, S U 1980: 177).

ETYMOLOGY: »*Ranahinge*« (Brooks 1995 Mss) sounds strange. Does it stand for Ranasinghe?

»*Heressa*« (Brooks, S J 1995 Mss) sounds strange. Does it stand for Hewessa?

SITUATION: At an unidentified location somewhere in the vicinity of Ratnapura (N06°40'58": E080°23'57" WGS84).

CULTURAL HISTORY - archaeology: Excavation yielded stone tools (Brooks, S J 1995 Mss, no. 32 after DERANIYAGALA, S U 1980: 177).

RASNAKAWEWA VIHARA " CAVES "

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelters (temple caves).

LOCATION: Northern Central province: Anuradhapura district: Kahatagasdigiliya - Horowapotana (Horawapotana, Horowupotana) road area: Rasnakawewa.

POSITION: WGS84 N08°34': E080°44' / N08.5.6667°: E080.733333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Medawachchiya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

In addition to the Rasnakawewa vihara itself, which is built inside a »*cave*« (CEYLON TRAVELLER 1974, 1983: 106) and contains »*nine statues*« and »*paintings*« (rock art), there are »*several drip-ledged caves, some with inscriptions*« found »*all around the hummock of rock on which the vihara stands.*« **SITUATION:** Rasnakawewa (N08°34': E080°44') is not shown on "Road Map of Sri Lanka" (Survey Department 1977).

APPROACH: From Kahatagasdigiliya (700) north-east along highway A12 towards »*Horowapotana*« (CEYLON TRAVELLER 1983: 106), Horowupotana or Horawapotana (701), turn off at the »*16th mile*« (702) and proceed »*about 3 miles [4 or 5 km] on the Nikawewa road*« (703).

700 Kahatagasdigiliya (N08°25': E080°41') lies about 20 or 25 miles (35 or 40 km) along the road A12 from Anuradhapura (N08°21': E080°23') north-east to Trincomalee (N08°34': E081°14').

701 »*Horowapotana*« (CEYLON TRAVELLER 1983: 106), »*Horowupotana*« (Survey Department 1977: Road Map of Sri Lanka) or Horawapotana (N08°33': E080°50' <www.nima.mil/geonames> accessed 16.11.2003) lies about 35 miles (55 or 60 km) along the road A12 from Anuradhapura (N08°21': E080°23') north-east to Trincomalee (N08°34': E081°14').

702 To turn off at the »*16th mile*« (25.75 km) on the »*Kahatagasdigiliya - Horowapotana road*« is problematic insofar as 16 miles cover the entire travelling distance along the road from Kahatagasdigiliya (N08°25': E080°41') to Horawapotana (N08°33': E080°50').

703 <www.nima.mil/geonames/> (accessed 16.11.2003) lists 28 different "Nikawewa" entries from Sri Lanka and half a dozen from the area between N08°20': E080°35' and N08°35': E080°50'. There is also a water reservoir Nika Wewa (N08°33': E080°50').

RATTARAN GUHAVA

see: Ravana Ella Cave
Agrawal, Premendra 2007.

RAVAN ÄLLA CAVE

see: Ravana Ella Cave
Deraniyagala, Paulus Edward Pieries 1953: 127, plates 1-6.

RAVAN ELA CAVE

see: Ravana Ella Cave
Brooks, Simon J 1995 "The speleology of Sri Lanka" no 22.

RAVAN ELLA CAVE

see: Ravana Ella Cave
Brooks, Simon James 1995.04 "The speleology of Sri Lanka" no 22.

RAVAN ELLA CAVE (SIFFRE 1975)

see: Ravana Ella Cave, Ravanalla Cave
Brooks, Simon J 1995 "The speleology of Sri Lanka" no 22.

RAVAN TANK CAVITY

or: Bhoput Tank Cavity, Raban Tank

A »cavity« (or so).

LOCATION: Unidentified (Central or Southern) province: Unidentified (Hambantota, Nuwara Eliya) districts: Adam's Peak area: Kataragama (Catlgang, Catlgong, Katragama), Bhoput, Raban, and Ravan, or Rawan something.

POSITION: Representative WGS84 coordinates (assumed EPE ±25 km) N06°25': E081°25' / N06.416667°: E081.416667°.

MAPS: Survey of Ceylon / Sri Lanka sheet Kataragama or Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.
BIBLIOGRAPHY: Duncan, Jonathan 1799, 1807.

There exists an »*extensive mirky cavity*« (DUNCAN 1799) or »*extensive miry cavity*« (FORBES 1840, 1841) called »*Bhoput Tank*« (704) and »*Ravan*« or »*Raban Tank*« (705), which DUNCAN (1799, 1807: 39) was told about when chatting (in the 1790ies?) with a *saddhu* (holy man) called »*Purana Poori*« at Varanasi (Banaras, Benares N25°20': E083°00') in India.

704 A »*tank*« would mean an artificial lake (water reservoir), which of course is sort of a cavity, but how does it come to be a »*mirky cavity*«? There are hundreds if not thousands of man-made "wewa" (water reservoirs) all over Sri Lanka and some famous rock shelters are found close to some of them, including →Galge (Monaragala district), about 3 or 4 km east of the Menik Ganga but at least 100 km in a direct line from Adam's Peak / Sri Pada.

705 »*Ravan*« or »*Raban*« (DUNCAN 1799), where »*the b and v being pronounced indifferently in various parts of India*« (FORBES 1840, 1841. ii: 325), is a legendary warrior and tutelary deity with the wrong membership book, hence a demon. Compare →Ravana Ella Cave (near Ella).

SITUATION 1: DUNCAN (1799 reprinted 1807: 39) places the »*cavity*« on the island »*Silan*« (Ceylon, Sri Lanka) and at the side of the mountain »*Sreepud, or The Divine Foot*« (706) which had been from »*Catlgong*« or Kataragama (707), a town with a temple of »*Cartica / Carticeya*« (708) on the river »*Manic Gunga*« (Menik Ganga, the Gem River).

SITUATION 2: FORBES (1840, 1841.ii: 325-326) refers to a »*narrative of the travels of a Fakeer* [i.e. Purana Poori in: DUNCAN 1799] *in the middle of the last century*« and makes an »*extract from that paper*« (709), which mentions not only »*an extensive miry cavity, called the Bhoput Tank, and which bears also the name of the Tank of Ravan, or Raban*« but also locates the "cavity" in question on »*the Sreepud, or the 'divine foot,' situated upon a mountain of extraordinary height*« (Adam's Peak N06°48': E080°33' halfway between Ratnapura and Nuwara Eliya) but also draws attention to »*another plain called the Bhoput Talawa*« (710), which Major Jonathan Forbes decided to locate somewhere »*near Nowera-Elliye*« (Nuwara Eliya) to fix the location of »*Seeta Koond*« (or →Sita Kund).

SITUATION 3 (mere guesswork): The hill Sithulpahuwa (N06°23': E081°27') above the shores of the water reservoir Katagamuwa Wewa (N06°24': E081°24') lies about 10 or 15 km south-east of Kataragama (N06°25': E081°20').

RAVANA ELA CAVE

see: Ravana Ella Cave
Agrawal, Premendra 2007.

706 »*Sreepud, or The Divine Foot*« (DUNCAN 1799) or Adamova stitu (KUKLA 1958: 168), Adam's Peak (KUKLA 1958: 169), Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" (WGS84) culminating at »*7360 feet*« (Survey Department 1977: Road map of Sri Lanka) corresponding to 2243 m asl (LONELY PLANET 2003: 187).

707 »*Catlgong*« (DUNCAN 1799) or »*Catlgang ... Katragam*« (FORBES 1840, 1841. ii: 326) has been identified as the town of Kataragama (N06°25': E081°20') on the banks of the Menik Ganga (N06°22': E081°31').

708 »*Cartica*« or »*Carticeya*« (DUNCAN 1799) or Karttikeya (Kartikeya) is also called by the name of Subrahmanya (Subramanya, Subramanyar), the bachelor. He is the heavenly minister of defense; god of war (STRASSER 1993: 419); brother of Ganesha (Ganapati); his parents are Parvati and Shiva but he was born from Agni (fire) and Ganga / Akashaganga (water) and reared by the tribal Kritikas (RAMAYANA I.36).

The story of Karttikeya's disappointment, which was triggered by his parents conducting the marriage of his brother before his own is well-known (A): Karttikeya felt deceived and retired hurt to a sulking corner, where he is believed to reside pouting to this day (B).

A) GUPTA, S M (1988): Karttikeya, the son of Shiva.- (Somaiya Publications: Delhi).

B) JAIN, Sandhya (2004): Adi deo - Arya devata: A panoramic view of tribal - Hindu cultural interference.- (Rupa & Co: New Delhi), pages 206-209

709 The »*extract from paper*« tends to yield a watery pulp.

710 The Malayalam "talawa" or »*Talawe, an elevated and open space*« (FORBES 1840, 1841. ii: 120 footnote).

RAVANA ELLA CAVE

Frequently visited but speleologically unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Uva province: Badulla district: Kirindi oya - Ella Gap area: Ella town: Ella Rock.

POSITION: Everest 1830 coordinates (estimated horizontal precision error ±250 m) N06°51'55": E081°02'50" / N6.865278°: E081.04722° (M. Eckrich 1984 personal communication): 1220 m asl (equalling »4000 feet« DERANIYAGALA 1955b: 301), or 1311 m asl = »4300 feet« (CEYLON TRAVELLER 1974: 241, 1983: 243), or 1050 m asl (altimetric, STRINATI & AELLAN 1981: 459).

MAPS: Survey of Ceylon sheet: Nuwara Eliya.

SPELEOMETRY: Length: Estimated 100 m. Vertical range: Not known.

BIBLIOGRAPHY: Aellen, Villy, Sket, Boris & Strinati, Pierre 2001; Agrawal, Premendra 2007; Basset, Ralph Henry 1929; Brignoli, Paolo Marcello 1972; Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967; Curran, Charles F 1967, 1974; Deraniyagala, Paulus Edward Pieries 1945, 1953, 1965; Deraniyagala, Siran Upendra 1980, 1987, 1992, 1996, 2001b, 2002; Domrös, Manfred 1976; Dulling, L A 1926; Lonely Planet, Sri Lanka 2003; Maa, T C 1980; Morgan, Robert 1943; Sahni 1952; Seligmann, C G & Seligmann, B Z 1908, 1911; Siffre, Michel 1975; Strinati, Pierre & Aellen, Villy 1981; Tennent, James Emerson 1859, 1860, 1861; Villiers, A 1970; Wilson, Jane M 1988.

MANUSCRIPT REFERENCES: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 22, 39, 39a; Eckrich, Michael 1984: Bat cave distribution map.

COMMUNICATOR: Eckrich M 1984, personal communication.

A 15 or 18 m climb-up from a »rock temple« (711) gives access to the Ravana Ella Cave at the northern extremity of the Ella Rock.

It is not to be confused with the →Ravanalla Cave near the village of Ravanaella south-east of the Ella Rock.

The entrance to Ravana Ella Cave is suspected to face north (712), appears to be in one way or another 10 by 15 m »large« (Brooks 1995 Mss, no 39a) or is an estimated 10 m high (Eckrich 1984, personal communication), and resembles in shape »an inverted map of Sri Lanka« (CEYLON TRAVELLER 1974, 1983) or, looking through a pork eater's lens, is reminiscent of a ham (713).

711 »The cave is approached via a path to a rock temple fifty or sixty feet below on the mountainside. The ascent to the mouth of the cave demands grit and determination and the tenacity of a mountain goat« (CEYLON TRAVELLER 1974: 241, 1983: 243).

DERANIYAGALA (1953 plate 1 figure 2) gives a photograph showing the view »Looking outwards from inside the cave. The distant tree shows the precipitous drop. Note the three human figures.«

712 According to the CEYLON TRAVELLER (1974: 241, 1983: 243), Ravana Ella cave lies »at the northern extremity of the Ella Rock« (N06°51'15": E081°02'57": »4479 feet« = 1365.2 m asl, Everest 1830) and »overlooks the Ella resthouse« (N06°52'15": E081°02'50" ±250 m, Everest 1830, Survey of Ceylon One-Inch sheet "Nuwara Eliya" 1972), from which »the great rock is clearly visible, though an observer standing in the court of the rest-house would not see the entrance to the cavern, which is hidden by the configuration of the rock and by foliage.«

713 In shape, the island of »Ceylon« (Sri Lanka) »nearly resembles a ham« (HAMILTON 1828, 1: 382).

RAVAN ELLA CAVE

has been spelled, transcribed or romanised and edited as

Caltura inland caves	TENNENT (1859, 1860 vol. 1 p. 167; 1861 p. 248)
Ella Cave	MORGAN (1943: 13); CEYLON TRAVELLER (1983 p. 145, 214)
Ella, Höhle bei	DOMRÖS (1976: 53)
Raltaran Guhava	WILSON (1988: 22)
Rattaran Guhava	AGRAWAL (2007)
Ravan älle cave	DERANIYAGALA (1953: 127, plts 1-6)
Ravan Ela Cave	AGRAWAL (2007)
Ravan Ella Cave	DERANIYAGALA, P E P (1965: 144 fig. 21); SIFFRE (1975: 36 photograph); Brooks (1995.04 Mss no 22)
Ravana Cave	Eckrich, M. (1984 Mss: Bat cave distribution map)
Ravana Ella Cave	CEYLON TRAVELLER (1974 p. 241; 1983: 243)
Ravanaella Cave, Ella	AELLAN et al. (2001); MAA (1980: 842-843)
Ravanalla Cave	DERANIYAGALA, S U (1980: 174; 1987: 105; 1992: 465-467, 696; 1996; 2002: 32); Brooks (1995.04 Mss no 22)
Rawana, Cave of	WILSON (1988: 22)
Rawana Ella cave	LONELY PLANET, Sri Lanka (2003: 210-211)
Rawanaell cave	Brooks (1995 Mss no 39a)
Rawanaella Cave	AELLEN et al. (2001)
Rawanaella Cave, Ella	MAA (1980: 842); STRINATI & AELLEN (1981: 459, 460); WILSON (1988: 22)
Rawanaella (Ella), grotta di	BRIGNOLI (1972: 919, 927)
Rawanaella (Ella), grotte de	VILLIER (1970: 321, 324)
Rawanna, Cave of	Brooks (1995 Mss no 39a)

The cave is »quite a large one« (CEYLON TRAVELLER 1974: 242, 1983: 244) or an estimated 100 m long (STRINATI & AELLEN 1981: 459), formed in metamorphosed, crystalline limestone (COORAY 1967: 97) of the Precambrian (COORAY 1967) or Cambrian to Precambrian (DOMRÖS 1976) Khondalite series of rocks (714).

714 Brooks (1995 Mss, nos. 22, 39, 39a) created from selected aspects of Ravana Ella Cave and →Ravanalla Cave three distinct "caves" of which one (no. 39a) characterised by an entrance resembling »an inverted map of Sri Lanka« (a rectangular sheet of paper upside down), is »formed in Gneiss an appears to have formed by the erosion of a carbonate breccia from a large joint« (literally quoted).

IDENTITY: Ravana Ella Cave either is (or is not to be) confused with the other »Ravan Ela Cave« (AGRAWAL 2007) or »cave of Rawana, Rawanaella Cave« (WILSON 1988), which is »properly known as Rattaran Guhava« (AGRAWAL 2007) or »Raltaran Guhava« (WILSON 1988), where the entrance is said to be »a gash in the striking outcrop at Ella Gap« (WILSON 1988).

ETYMOLOGY: Apart from the not exactly conclusive name »Ella Cave« (MORGAN 1943: 13), the earliest printed appellation that I have seen is »Ravan Alle Cave« (DERANIYAGALA 1953).

According to CEYLON TRAVELLER (1974: 241; 1983: 243), »One of the best known caves in this country is that named after the legendary demon king of Sri Lanka, Ravana.« WILSON (1988) recorded the (apparently Tamil) cave "Raltaran Guhava" as an alternative name for »Rawanaella Cave« and AGRAWAL (2007) writes that »Ravan Ela Cave is properly called Rattaran Guhava« (compare →Ravanalla Cave).

Foreigners and resident urban scholars and prefer to call the cave along the lines of a Ravana Ella cave in the sense of the "Cave of the demon Ravan near the town Ella" (2.5 km north of the cave) or "Cave near the village of Rawanaella" (a kilometre south-east of the cave), which itself lies 2 km north of »Ravan alle or Ravana's Waterfall« (DERANIYAGALA 1953), and Rawanaella Falls. (715).

SITUATION: About a mile (1.6 km) in a direct line south of the town of Ella (716) and some 600 m in a direct line or a kilometre on foot south of (uphill from) the Ella rest house (717), and above (south) the road from Ella generally south-west towards the town of Wellawaya (N06°44': E081°06').

The cave entrance lies behind and above a »rock temple« (CEYLON TRAVELLER 1974: 241, 1983: 243) or a »little temple« (LONELY PLANET 2003: 211), which I suspect to be the →Doveviharaya (718), and is reached by climbing up a »precipitous ascent« (DERANIYAGALA 1953 plate 1 figures 3, 4) requiring a ladder.

SITUATION 1953: DERANIYAGALA (1953: 127): »Ravan alle cave (plate 1, figure 1) is on a hillside in the intermediate peneplain. It is about a mile away from Ravan alle or Ravana's Waterfall [719], which drops about 90 feet and flows into the valley. The stream is about one mile below the cave.«

SITUATION 1955: DERANIYAGALA (1955b: 301) places »Ravan alle« at an elevation of »4000 feet« (1220 m asl) and »1.5 miles« (2.4 km) as the crow flies north of →Alu Galge.

715 »Ravan alle or Ravana's Waterfall« (DERANIYAGALA, P E P 1953) is the same as the Rawanaella Falls N06°58': E080°51' (www.nima.mil/geonames accessed 16.11.2003)

716 Ella N06°52'30": E081°02'40" (±500 m, Everest 1830, Survey of Ceylon sheet "Nuwara Eliya" 1972).

717 Ella RH rest house N06°52'15": E081°02'50" (±250 m, Everest 1830, Survey of Ceylon sheet "Nuwara Eliya" One-Inch series, 1972).

718 Doveviharaya N06°51'57": E081°02'53" (±250m, Everest 1830, Survey of Ceylon sheet "Nuwara Eliya" One-Inch series, 1972).

719 The direction »about a mile away from Ravan alle or Ravana's Waterfall« (DERANIYAGALA 1953: 127) either indicates the location of →Ravanalla Cave or stands for 2.5 km in a direct line approximately NNW from the Rawanaella falls near N06°51'20": E081°01'30" (±250m, Everest 1830, Survey of Ceylon sheet "Nuwara Eliya" One-Inch series, 1972).

SITUATION 1974: CEYLON TRAVELLER (1974, 1983: 145): »For the landscape-lover --and the spelaeologist-- there are few places equal to Ella ... As for the cave-lover, the huge crag towering in front of the rest house hides the famous cave ...«

CEYLON TRAVELLER (1974, 1983: 214): »Twenty-five miles [40 km] beyond [the Ohiya Pass, »about 6000 feet« or 1829 m asl] on the railway is Ella, with its famous gap, rock, and cave.«

CEYLON TRAVELLER (1974: 241-242; 1983: 243-244) places the cave »... at the northern extremity of the Ella Rock, a great slab of primeval stone that dominates the valley of the Kirindi oya [720] as it flows down the Ella Gap [721]. Ravana Ella cave overlooks the Ella Resthouse, from which the great rock is clearly visible, though an observer standing in the court of the Resthouse would not see the entrance to the cavern, which is hidden by the configuration of the rock and by foliage. The cave is approached via a path to a rock temple [compare →Doveviharaya] fifty to sixty feet [some 15 or 18 m] below on the mountainside. The ascent to the mouth of the cave demands grit and determination and the tenacity of a mountain goat. An expedition to this site is not recommended in wet weather which, it should be added, prevails most of the time in the Ella area. March - April and August - September to early October provide the best opportunity for easy access.«

SITUATION 1988: WILSON (1988: 22) places one or the other »... cave of Rawana, Rawanaella Cave or Raltaran Guhava (Nuwara Eliya one inch map 06°51'19.0" N: 081°03'23" E: altitude about 1000 m asl) ... is difficult to find but its entrance is a gash in the striking outcrop at Ella Gap.«

SITUATION 2003 (LONELY PLANET, Sri Lanka 2003: 210-211, location maps on pages 211, 212): From the town of Ella (N06°52'30": E081°02'40" ±500 m, Everest 1830), »the Rawana Ella Falls are about 6 km [approximately ESE] down Ella Gap towards Wellawaya [N06°44': E081°06']. ... Further up the road and to your left [west to south-west] as you approach Ella, a side road takes you to a little temple [unidentified] and cave ... Just before the temple, in a cleft in the mountain that rises to Ella Rock [722], is a cave ... Boys often materialise to show you where a track up to the cave

720 Kirindi Oya N06°12': E081°18'

721 The Ella Gap (pass) lies about 2 km (or so) approximately south-west from the town of Ella (N06°52': E081°03'). According to LONELY PLANET, Sri Lanka (2003: 208), »... the sleepy village is nestled in a valley peering straight through Ella Gap to the coastal plain nearly 1000 m below, and over to the coast where, on a clear night, you can see the Kirinda lighthouse.«

722 »Ella Rock 4479« (N06°51'15": E081°02'57": 1365.2 m asl, Everest 1830) culminates about 3 km in a direct line south-southeast of Ella town (N06°52'30": E081°02'40" ±500 m, Everest 1830).

To get to the top, LONELY PLANET, Sri Lanka (2003: 211) recommends to head southwest »along the railway tracks (towards Bandarawela) for about 2.5 km until you come to the metal bridge; here you'll see the falls [the small Rawana Falls]. Continue along the tracks to just before the 166 1/4 km sign where you'll see a path heading to the left. Follow this over a creek, turn left, continue around a volleyball court, pass some houses and you'll soon come to woodland. The track continues to the top of the rock, where you'll be rewarded with stunning views. The walk takes about two hours each way.«

starts, but the track is steep, overgrown and slippery.«

POSITION (723): M. Eckrich (1984 personal communication) indicated »*Ravana ella cave*« near N06°51'55": E081°02'50" (Everest 1830) on the Survey of Sri Lanka sheet "Nuwara Eliya" (One-Inch series, 1972 edition). The cave entrance has been reported to lie at altitudes ranging between 1220 m asl or »4000 feet« (DERANIYAGALA 1955b: 301),

1311 m asl or »4300 feet« (CEYLON TRAVELLER 1974: 241, 1983: 243)

1050 m asl altimetric, STRINATI & AELLEN (1981: 459), 1000 m asl WILSON (1988: 22).

CAVE DESCRIPTION 1953: DERANIYAGALA (1953: 127): »The floor consists of (1) loose and (2) cemented beds. The loose upper ones are at times separated by thin cemented beds but the lower and older ones are all firmly cemented. The cementing is affected by the deposition of Calcium carbonate ... [washed-in hill sand, wind borne dust, bat and / or swiftlet guano, angular blocks of rock fall, products of spalling & decomposition] ... The cave is one of the few that could be worked out with any degree of reliability since extensive tracts of the floors of many of the other caves had been disturbed by villagers who had dug them for guano.«

CAVE DESCRIPTION 1970: STRINATI & AELLEN (1981: 459) report from near the summit of a rock face a large entrance at 1050 m asl (barometric) giving access to about 100 m of initially ascending and later descending cave passage: »Large entrée au sommet d'une paroi de rocher. Couloir ascendant allant en se rétrécissant et long d'une centaine de mètres.«

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974, 1983: 145): »The famous cave ... has not been explored beyond the lake that fills it only a short way from the entrance.«

CEYLON TRAVELLER (1974: 241-242; 1983: 243-244): »The entrance to the cave resembles an inverted map of Sri Lanka, the opening at floor level is extremely narrow and is obstructed by irregular shaped rocks protruding from the floor. The crevice in the rock face is much wider in the upper end, through the opening, overall, is so small relative to the size of the cavern that light hardly penetrates more than a few feet from the entrance. The cave is quite a large one —exactly how large has not been determined yet. Somewhere in its dark recesses a subterranean stream rushes in wet weather; at other times, dripping water pitpats in an unending effort to break the deathly silence.«

CAVE DESCRIPTION 1988: WILSON (1988: 22): »The cave of Rawana, Rawanaella Cave or Raltaran Guhava ... is difficult to find but its entrance is a gash in the striking outcrop at Ella Gap and requires rope or ladder to descend into it.«

CAVE DESCRIPTION 1995: Brooks (1995 Mss, nos 22, 39, 39a) composed about three apparently distinct caves (the other two are Ravana Ella Cave (Brooks 1995) and Ravanalla Cave) by combining some features of →Ravanalla Cave with selected aspects of Ravana Ella Cave.

Concerning the latter, Brooks (1995 Mss, no 22 see also 39a Ravanalla Cave / Ravan Ella Cave) notices a relatively »large cave [without identified dimensions or comparison for scale] that had been extensively archaeologically excavated over five seasons to yield a large sample [sic!] of artefacts. This cave is possibly the same as Ravana [sic!] Ella Cave 2 (No 39a).«

Brooks (1995 Mss, no 39: Ravana Ella Cave 1): »... a large cavern (size unspecified) that has been archaeologically excavated (Dr. P.E.P. Deraniyagala) to find significant remains. The Ceylon Traveller describes the cave as a small entrance that emits [sic!] little light and enters a cavern of vast size containing a stream in the far recesses« (compare: Cave description 1974 above).

Brooks (1995 Mss, no 39a: Ravana Ella Cave 2 / The Cave of Rawanna / Rawanaella Cave): »The sizeable entrance (10 m by 15 m) to the cave resembles an inverted map of Sri Lanka with an opening at floor level obstructed by rocks. Nest building swiftlets use this cave.« Which kind of swiftlets does not build nests?

CAVE DESCRIPTION 2003: LONELY PLANET, Sri Lanka (2003: 211) advises most individual travellers and backpackers to »... find the cave itself to be disappointing.«

CULTURAL HISTORY - archaeology (724): SELIGMANN (1908a, 1908b, 1908c, HADDON 1908) reports stone age tools recovered at 1220 m asl from an unidentified cave (no name mentioned).

DERANIYAGALA, S U (2002: 32) says »Ravanalla Cave« yielded »a large faunal assemblage, mostly of small vertebrates which have yet to be assigned to their proper stratigraphic context and analysed (disposition: Colombo National Museum).«

DERANIYAGALA, S U (1980: 174; 1987: 105; 1992: 465-467, 696; 1996 published 1998, 2001b, 2002) on the absence of prehistoric rock art and cave paintings, notes the only item of possible ritualistic interest—a human frontal bone in the deposit of »Ravanalla Cave.« This bone had been bifacially drilled, and the rough sutural edges and a zygomatic prominence chamfered off. One aspect of the bone had been smeared with red ochre. Traces of this latter substance are frequently encountered on prehistoric grindstones. The human remains excavated from Ravanalla were too fragmented for proper analysis.

CULTURAL HISTORY - religious folk lore: Hindu tales associate Ravana Ella Cave with Ravana, Sita and Rama, the legendary protagonists of the Ramayana epic.

CEYLON TRAVELLER (1974: ?; 1983: 145): »The famous cave where not only (according to legend) did the demon villain Ravana of the Ramayana hide the hapless Sita captive but also (according to the Sinhala palaeontologist Deraniyagala) sheltered Sri Lanka's early man, *Homo Sapiens Balangodensis*.«

LONELY PLANET, Sri Lanka (2003: 211) confirms that »Rawana Ella cave« is »... said to be the very one in which the king of Lanka [i.e. Ravana, Rawanna, etc.] held Sita captive.«

SPELEOMETRY: STRINATI & AELLEN (1981: 459) estimate a length of »... d'une centaine de metres« (about 100 m).

723 STRINATI & AELLEN (1981: 459) position Ravana Ella cave at N06°51'19": E081°03'23" (unspecified map datum probably Everest 1830) and thus at a spot which lies east below the »Ella Rock 4429« (N06°51'15": E081°02'57": 1350 m asl, Everest 1830) and on the road south via the village of →Ravanaella (with →Ravanalla Cave) towards the Ravanaella Falls.

724 I have not seen, traced or identified the contribution by SAHNI (1952): [unidentified title].- Man in Evolution (1 i): 188-189 which, according to DERANIYAGALA (1953: 127), is said to relate both to the holotype of *Homo sapiens balangodensis* and to Ravan Älle cave.

CAVE CLIMATE: DERANIYAGALA (1953: 127): »The local rainfall is heavy during six months of the year and infiltration through the roof and sides of the cave keeps about a quarter or half of the floor damp for nearly four months. ... The evidence of climatic fluctuation is provided by the calcium carbonate cemented beds which indicate humid periods with heavy rainfall and resultant increased drip.«

STRINATI & AELLEN (1981: 459) recorded, most likely in the air, the difficult to interpret temperature of »25°5« (probably either 25°C or 25.5°C).

CAVE LIFE: The cave of Ravan near the village of Ella is not only the home of edible-nest swiftlets (725) but also the type locality of *Bagauda aelleni* Villiers 1970, *Mimetus strinatii* Brignoli 1972 and of *Myophtiria zeylanica* Maa 1980.

BRIGNOLI (1972: 919-921) gives taxonomical descriptions of the spiders (Arachnida, Aranea) *Mimetus strinatii*, a new species, and a *Uloborus* sp. (Uloboridae).

SIFFRE (1975) gives two photographs (on page 37, legend on page 36) showing nests of edible-nest Swiftlets in »Ravan Ella Cave« without further notice.

MAA (1980: 842-843, fig. 9) gives a taxonomical description of the new species of louse-flies (726) *Myophtiria zeylanica* (Diptera: Hippoboscidae: *Myophtiria* Rondani 1878, identified as *M. reduvioides* by O. Theodor) collected from the swiftlets *Collocalia brevirostris unicolor* from »Ravanaella Cave, Ella«

725 MAA (1980: 836): »Swifts and swiftlets (*Apodidae*) of the genera *Collocalia* Gray 1840 (*Chaeturinae*) of the Old World, and *Aeronautes* Hartert 1802 (*Apodinae*) of the New World ... are gregarious, generally non-migratory, and built durable nests in extensive, compact colonies at high, sheltered, hardly accessible places. They are among the fastest flying birds in the world.«

MAA (1980: 840): The genus *Collocalia* (swiftlets) »... ranges from Reunion, Mauritius any Seychelle Islands in the western Indian Ocean eastward to the Marquesas and Society Islands in the central Pacific Ocean, and spreads northward to Assam [Meghalaya], Burma [Myanmar], south-west China (Yunnan, Szechwan, Hopeh), Tongkin and Micronesia (Caroline Is., Mariana Is.) and southward to New Caledonia and the northern tips of Australia.

The taxonomy of the genus is exceedingly difficult and complicated because the interspecific differences are very slight, the intraspecific variations often considerable and while different populations of the same species may occur in different isolated caves, one same cave may house two or more species.«

726 MAA (1980: 836-837): »Hippoboscids or louse-flies are ... superficially spider-like, specifically parasitic on swifts and swiftlets ... Largely because of the considerable difficulty in collecting, these flies are generally very rare in museum collections -- to my knowledge, less than three dozen specimens in all have been recorded in literature -- and their natural history is scarcely known. ... *Myophtiria* ... variants of spelling: *Myiophthiria*, *Myiophtheria* ... flies are flightless and spend much of their lives in nests of host birds, and the population density is never high, hence they are usually very difficult to collect. Wings in these flies are no longer of any use for reaching a new individual host with such behaviour, and the wing atrophy most probably only decreases the risk of being blown off the exceedingly fast-flying host (Bequaert 1953).«

STRINATI & AELLEN (1981: 459) and AELLEN, SKET & STRINATI (2001: 1978) list Arachnida (Aranea: Mimetidae: *Mimetus strinatii* Brignoli 1972), Insecta (Hemiptera: Reduviidae Emesinae: *Bagauda aelleni* Villiers 1970; Diptera: Hippoboscidae: *Myophtiria zeylanica* Maa 1980, »collected in nests of *Collocalia fuciphaga* and *Collocalia unicolor*, in *Rawanaella* and *Hindagala* caves«), and Vertebrata (Chiroptera: *Rousettus* spp.; Aves: *Collocalia unicolor* Jerdon, the edible-nest swiftlet).

VILLIERS (1970: 323-324) gives a taxonomical description of a new species of reduviid bugs, viz. *Bagauda aelleni*, n. sp. (Hemiptera: Heteroptera: Reduviidae: Emesina Amyot & Serville) and lists on page 321 two larvae of *Myiophanes greeni* Wygodzinsky 1966 which P. Strinati and V. Aellen had collected on 16th January 1970 from »Grotte de *Rawanaella*, près d'Ella« (cave of *Rawanaella* near Ella).

WILSON (1988: 22) mentions »*Collocalia*, Edible Nest Building Swiftlets, use this cave (Strinati & Aellen 1981).«

EXPLORATION HISTORY: 1859 (before): James Emerson TENNENT (1859, 1860 vol. 1: 167; 1861: 248) noted edible bird's nests provided from unspecified »inland caves« were brought from an unidentified location somewhere »35 miles from *Caltura*« (some 50 or 60 km from Kalutara N06°34'34": E079°57'57" WGS84).

1970.01.16: Pierre Strinati and Villy Aellen visited and explored the cave to collect specimens of cave fauna (BRIGNOLI 1972: 919; MAA 1980: 842; STRINATI & AELLEN 1981: 459; AELLEN et al. 2001: 1977; VILLIER 1970: 321).

RAVANA ELLA CAVE 2

BIBLIOGRAPHY: Agrawal, Premendra 2007.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 39.

COMMUNICATOR: Deraniyagala, »S.A.« (sic! qua: Siran Upendra) 1995.04, personal communication with Brooks, Simon J. (1995.04 Mss, item 39).

WEBSITE: <www.newsanalysisindia.com/131122007.htm> accessed 2009.09.18.

A climb down gives access to a cave, which is problematic not only insofar, as it »requires rope or ladder to descend into it« (AGRAWAL 2007; WILSON 1988: 22) or »a requires rope or ladder to assist descent« (Brooks 1995 Mss), but also has been confused not only with →Ravan Ella Cave (727) but also is possibly identical with →Ravanalla Cave.

ETYMOLOGY: The second cave of Ravana on the Ella Rock has been called

Raltaran Guhava WILSON (1988)

Rattaran Gihava AGRAWAL (2007)

Ravana Ela Cave AGRAWAL (2007)

Ravana Ella Cave 1 Brooks (1995 Mss item no. 39)

Rawana, cave of WILSON (1988)

Rawanaella Cave WILSON (1988)

POSITION: Not known (728).

727 While the entrance to the first Ravana Ella Cave is reached by a climb up, the second Ravana Ella Cave is entered by climbing down into it.

728 WILSON (1988: 22) position »Cave of *Rawana*, *Rawanaella* or *Raltaran Guhava*« at »6° 51' 19" N 81° 03' 23" E: altitude about 1000m« but this is just an incorrect copy of the position »*Rawanaella* Cave [or →Ravana Ella Cave] 6° 51'19" N / 81° 03'23" altitude 1.050 m (altimètre)« (STRINATI & AELLEN 1981: 459).

Brooks (1995 Mss, item no. 39) copied what WILSON (1988: 22) had copied from STRINATI & AELLEN (1981: 459).

SITUATION: In the vicinity of the town of Ella (N06°52'30": E081°02'40" Everest 1830) and somewhere on the flanks of the prominent »Ella Rock 4479« (N06°51'15": E081°02'57": 1365.2 m asl, Everest 1830, Survey of Sri Lanka one-inch sheet "Nuwara Eliya" 1972 edition).

SITUATION 1988: WILSON (1988: 22): »*The Cave of Rawana, Rawanaella or Raltaran Guhava ... is difficult to find but its entrance is a gash in the striking outcrop at Ella Gap.*«

SITUATION 1995: Brooks (1995 Mss item no. 39): »*Ravana Ella Cave 1 ... is difficult to find. It exists as a gash in the obvious (striking) outcrop of rock at Ella Gap. This cave is reported (S.A. Deraniyagala 4/95) to have been exposed during the construction of the road through Ella Gap ...*«

SITUATION 2007: AGRAWAL (2007) reports his »*Ravana Ela Cave, properly known as Rattaran Guhava*« from an unspecified location.

CAVE DESCRIPTION: An entrance without identified shape, size or dimensions gives access to a climb down of unspecified depth into cave chamber or cave passage of unidentified nature, character and dimensions.

CAVE DESCRIPTION 1988: WILSON (1988: 22): »*The Cave of Rawana, Rawanaella Cave or Raltaran Guhava ... The entrance is a gash in... and requires rope or ladder to descend into it.*«

CAVE DESCRIPTION 1995: Brooks (1995 Mss item no. 39): »*Ravana Ella Cave 1 ... The gash entrance rift / pot to this cave requires a rope or ladder to assist descent ... [729]. This opens into a large cavern (size unspecified) ... and is now possibly closed.*«

Brooks (1995 Mss item no. 39a): »*Ravana Ella Cave 2 / The Cave of Rawanna / Rawanaell Cave ... [starts with the entrance to ->Ravana Ella Cave but is, in this case / cave, leading] into a single cleft / chamber that runs into the hill for between 13 to 15 m. A side passage is present in the cave but this is completely blocked by fill. There are no other ways on.*«

CAVE DESCRIPTION 2007: AGRAWAL (2007): »... *Ravana Ela Cave ... properly known as Rattaran Guhava ... A visit to the cave requires a rope or rope ladder for entry as the floor is below the mouth. The cave has not been explored beyond the lake that fills it only a short way from the entrance.*«

CULTURAL HISTORY - archaeology: Both WILSON (1988) and AGRAWAL (2007) draw attention to ten skeletons of the Meso-Neolithic Balangoda Man that had been excavated either in this cave or (more likely), in ->Ravan Ella Cave, or in ->Ravanalla Cave. Brooks (1995 Mss), however, was not impressed and reduced the archaeological sensation to »*a large sample of artefacts*« (item 22) and some »*significant remains*« (item 39).

WILSON (1988: 22): »*The Cave of Rawana, Rawanaella Cave or Raltaran Guhava ... produced the most spectacular archaeological finds. Dr. P.E.P. [Paulus Edward Pieries] Deraniyagala found in it ten skeletons of the cannibalistic Meso-Neolithic Balangoda Man, Homo sapiens balangodensis.*«

AGRAWAL (2007): »*Ravana Ela Cave ... properly known as Rattaran Guhava ... it was in this cave that the Sri Lankan paleontologist, Dr Paul Deraniyagala, discovered ten skeletons of the cannibalistic Balangoda Man, Homo sapiens balangodensis.*«

RAVANA ELLA CAVE (BROOKS 1995)

see: Ravana Ella Cave, Ravana Ella Cave 2, Ravanalla Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" 22, 39, 39a.

Brooks (1995 Mss: 39a) shuffled selected aspects of several different Sri Lankan caves to create the apparently three distinct items Ravan Ella Cave (no. 22), Ravan Ella Cave 1 (no 39), and Ravan Ella Cave 2 (No. 39a).

IDENTITY 1: »*Ravanalla Cave (Ravan Ella Cave)*« (Brooks 1995a no. 22) is the original ->Ravana Ella Cave.

IDENTITY 2: »*Ravana Ella Cave 1*« (Brooks 1995a no. 39) combines not only selected aspects of ->Ravana Ella Cave with aspects of the anyhow difficult to identify ->Ravana Ella Cave (WILSON 1988) but also imputes to the »*Ceylon Traveller (p 243)*« (730) to describe »*Ravan Ella Cave 1*« (Brooks 1995 Mss no. 39) »*as a small entrance that emits [sic!] little light and enters a cavern of vast size containing a stream in the far recesses.*« This is not the case (731).

IDENTITY 3: »*Ravana Ella Cave 2 / The Cave of Rawanna / Rawanaell Cave*« (Brooks 1995a no. 39a) forwards a cave description where the entrance of Ravan Ella Cave (*resembling an inverted map of Sri Lanka*) is said to lead to a cave which I cannot identify (compare ->Ravanalla Cave):

»*A single cleft / chamber that runs into the hill for between 13 to 15 m. A side passage is present in the cave but this is completely blocked by fill. There are no other ways on.*«

RAVANA ELLA CAVE (WILSON 1988)

see: Ravana Ella Cave, Ravana Ella Cave 2, Ravanalla Cave

Wilson, Jane M 1988: 22.

Little doubt remains that WILSON (1988: 22) assembled selected aspects of a couple of distinct caves on the island of Sri Lanka to create one single (732) »*Cave of Rawana, Rawanaella Cave or Raltaran Guhava (Nuwara Eliya 1" map 6° 51' 19"N 81° 03' 23"E: altitude about 1000 m).*«

This "cave" (or one of the caves from which it is constructed) is said to have »... *produced the most spectacular archaeological finds. Dr. P.E.P. Deraniyagala found in it ten skeletons of the cannibalistic Meso-Neolithic Balangoda Man*

730 CEYLON TRAVELLER (1974: 243) relates to »*Nitre Cave*« (i.e. Lunugala Lena), Menik Lena, Nissan-gal Lena, and Batadomba Lena while CEYLON TRAVELLER (1983: 243) relates to Istripura Cave (Pannala), Istripura Cave (Kosgolla), Sita Kotuwa, caves on the Alugalkande and commences to describe Ravana Ella cave.

731 CEYLON TRAVELLER (1974: 242; 1983: 245): The entrance of Ravana Ella cave is »... *so small relative to its size of the cavern that light hardly penetrates more than a few feet from the entrance*« while »*somewhere in its dark recesses a subterranean stream gushes in wet weather; at other times, dripping water pit-pats, pit-pats in an unending effort to break deathly silence.*«

732 WILSON (1988: 22) gives the impression of basing the entire paragraph exclusively on »*Strinati & Aellen 1981*« but seems to have taken snippets from an unacknowledged source of information, which I suspect to have been a newspaper article like the one leading to the creation of Ravana Ella Cave (AGRAWAL 2007).

729 Brooks (1995 Mss item no. 39) inserts here a passage describing some parts of ->Ravana Ella Cave.

[733] ... *The cave is difficult to find but its entrance is a gash in the striking outcrop at Ella Gap and requires rope or ladder to descend into it* [734]. *Collocalia, Edible Nest Building Swiftlets use this cave* (Strinati & Aellen 1981).«

IDENTITY 1: Ravana Ella Cave (N06°51'55": E081°02'50" Everest 1830, sheet Nuwara Eliya): Little doubt remains that WILSON (1988) just copied the position N06°51'19": E081°03'23" (ignored map datum probably Everest 1830) of the original Ravana Ella Cave from STRINATI & AELLEN (1981: 459) though this is not the position of Ravana Ella Cave but that of the Ella Gap (pass) in the east and below the cave.

There is no need of a »rope or ladder to descend into« Rawana Ella Cave as one needs a ladder to climb up a rock face to gain the cave's entrance.

IDENTITY 2: Bambaragala Shelter (N06°38'30": E080°50'30" Everest 1830, sheet Haputale) is »a gash« and »the approach to this gash is narrow and precipitous ...« (DERANIYAGALA, P E P 1943: 101) and yielded Stone Age tools (no skeletal remains) but neither needs »rope or ladder« or is the home of swiftlets.

IDENTITY 3: Batatota Lena (N06°49'20": E080°22'20" Everest 1830, sheet Hatton) has been said to start with a »gash at the base of a cliff« (BROOKS 1995) and yielded many skeletal remains Balangoda Man but neither needs »rope or ladder« or is used by swiftlets.

IDENTITY 4: Istripura Cave, Pannala (N07°10'30": E080°53'30" Everest 1830, sheet Hanguranketa) is not used by swiftlets but it is seen from the distance »... on the west side of the hill, as a long gash running north-west and south-east ...« No »rope or ladder« is required to visit the entrance chamber but there is a slippery 9 or 12 m climb down to a wet cave level which yielded stone age tools (DERANIYAGALA 1956: 117) but no skeletal remains.

IDENTITY 5: Brooks (1995 Mss no. 39) recorded a so-called »Ravana Ella Cave 1« in the so-called »District Nawara Eliya« (735). »The entrance to this cave is difficult to find. It exists as a gash in the obvious (striking) outcrop at Ella Gap. This cave is reported (S.U. Deraniyagala, personal communication 1995.04) to have been exposed during the construction of the road through Ella Gap and is now possibly closed. NE 1" map 6'51'19" N, 81'03'23" E [736] at an altitude of 1000 m. The gash entrance rift / pot to this cave requires a rope or ladder to assist descent ...«

733 As far as I know, skeletal remains of Balangoda Man have been recovered not only from the caves called →Batadomba Lena (over 33 individuals), →Beli Lena on Kitulgala (12 individuals), and →Fa Hien Lena (over nine individuals) but also from the open air site →Bellan Bendi Pelessa (six individuals).

734 The estimated 40 m deep rift pot on →Luckyland Estate is the only known cave on the island, which requires a rope or ladder, but Istripura Cave (Pannala) has a slippery 9 or 12 m climb down where a hand line is useful.

735 The hint to »District Nawara Eliya« (Brooks 1995 Mss no. 39) appears to mean that the location of this Ravana Ella Cave lies in Badulla district and falls on the Survey of Ceylon / Survey of Sri Lanka sheet "Nuwara Eliya" (One-Inch series).

736 Little doubt remains that the entrance coordinates provided by Brooks (1995 Mss no. 39) are copied from WILSON (1988: 22) who herself had copied STRINATI & AELLEN (1981: 459)

RAVANA'S CAVE, Ella

see: Ravana Ella Cave
Cooray, P Gerald 1967: 97.

RAVANAELLA CAVE

see: Ravana Ella Cave, Ravanalla Cave

Maa, T C 1980; Strinati, Pierre & Aellen, Villy 1981: 459, 460; Wilson, Jane M 1988: 22.

RAVANALLA CAVE

or: Cave near the village of Rawanaella

Archaeologically investigated but speleologically unexplored and unmapped natural cave, probably in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulate (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sri Lanka: Uva province: Badulla district: Kirindi oya - Ella Gap area: Ella town: Ella Rock.

POSITION: (If at the village of Ravanaella itself), Everest 1830 (assumed horizontal precision error ±2500 m) N06°51'00.0": E081°03'20.0" / N6,85° : E81,05555556° (Survey of Ceylon 1972 "Nuwara Eliya" One-Inch series).

MAPS: Survey of Ceylon sheet: Nuwara Eliya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.
BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980, 1987; 1992, 1996, 2001b, 2002, 2003.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 22: Ravanalla Cave (Ravana Ella Cave).

A cave without specified nature or character, which is characterised by an unspecified cave entrance (DERANIYAGALA 1998, 2001b, 2002, 2003), once had been understood to represent not only »a large cave« (Brooks 1995 Mss, item no. 22) with unidentified dimensions but also »a large cavern (size unspecified)« (Brooks 1995 Mss, item no. 39) and »a single cleft or chamber that runs into the hill for between 13 to 15 m« (Brooks 1995 Mss, item no. 39a).

ETYMOLOGY: No proper cave name as such has been identified for the »Ravanalla Cave« (DERANIYAGALA, S U passim), which has been named after the village of Ravanaella (SURVEY OF SRI LANKA 1972: Nuwara Eliya, one-inch sheet) and possibly is not only identical with Ravana Ella Cave 2 but also with

Ravana Ella Cave SIFFRE (1975)

Ravana Ela Cave AGRAWAL (2007)

Ravana Ella Cave 1 Brooks (1995 Mss, item no. 39)

Ravana Ella Cave 2 Brooks (1995 Mss, item no. 39a)

Ravanaell Cave Brooks (1995 Mss, item no. 39a)

Ravanaella Cave WILSON (1988)

Ravanalla Cave DERANIYAGALA, S U (1980, 1987, 1992, 1996, 2001b, 2002, 2003)

Rawanna, cave of Brooks (1995 Mss, item no. 39a).

SITUATION: The village of »Ravanalla« is indicated as »Ravanaella« near N06°51'00": E081°03'20" (Everest 1830) on the Survey of Sri Lanka on-inch sheet "Nuwara Eliya" (1972 edition)

a) south-east of »Ella Rock 4479« (N06°51'15": E081°02'57": 1365.2 m asl, Everest 1830),

b) about 2.5 miles (4 km) along the road SSE of the Ella »R.H.« rest house (N06°52'15": E081°02'50" Everest 1830) overlooking Ella town (N06°52'30": E081°02'40" Everest 1830), and

c) about a kilometre along the road north-east of the Rawanaella Falls (N06°50'20": E081°03'15" Everest 1830).

SITUATION 1995: Brooks (1995 Mss, item no. 22) had learnt that »Ravanalla Cave (Ravana Ella Cave) ... is located in the upland intermediate zone to the east of Bandarwela

[sic!] *close to the village of Ravanella.*«

This probably means that this cave »near« (sic!) Ravanalla lies without specified spatial relation to the village of Rawanaella, which itself lies, generally spoken, in the »upland intermediate zone« (DERANIYAGALA 1956), the »ecozone E« of DERANIYAGALA (1988), and in one way or another approximately east of the town of Bandarawela (N06°50'13": E080°59'08" WGS84).

CULTURAL HISTORY - archaeology (737): Brooks (1995 Mss, item no. 22) refers to DERANIYAGALA (1980: 174) and writes that »Ravanalla Cave ... has been extensively archaeologically excavated over five seasons to yield a large sample of [sic! number? of] artefacts.«

BROOKS (1995 Mss no. 22): »Ravanalla Cave ... has been extensively archaeologically excavated over five seasons to yield a large sample of [sic! number? of] artefacts.«

DERANIYAGALA (1998): »At Ravanalla cave and Fa Hien-lena red ochre had been ceremonially smeared on the bones.«

DERANIYAGALA (2001b): »There are ... clear indications that the norm was for Balangoda Man to inter his dead irrespective of age or sex as secondary burials within his camp floors, having selected certain bones for this purpose. At Ravanalla cave and Fa Hien-lena red ochre had been ceremonially smeared on the bones ... It is possible that the latter, through a process of cultural retrogression, ceased to practise the more elaborate mortuary customs of their ancestors (Deraniyagala 1992: 465-467, 696).«

DERANIYAGALA (2002: 32): »Ravanalla cave in ecozone E has produced a large faunal assemblage, mostly of small vertebrates, which have yet to be assigned ...«

DERANIYAGALA (2002: 38): »... marine molluscan shell fragments in Mesolithic deposits of ecozones B, E, and D1 suggest that these have been introduced as items of trade (e.g. Bellan-bandi Palassa, Ravanalla, Kabara-galge, Beli-lena Kitulgala, Batadomba-len; Deraniyagala 1992: chap. 5.3.7).«

»There is some suspicion that the human frontal bone found in a prehistoric context at Ravanalla, with its conically drilled pits, had in fact been used to steady a fire-drill, much as the Vaddas are known to have used animal crania, and that the pitting in the former is a result of the rotary action of the vertical stick against the bone.«

DERANIYAGALA (2002: 53): »An item of possible ritualistic import to have been discovered in a prehistoric context in Sri Lanka is the human frontal bone from Ravanalla cave (Deraniyagala 1992: chap. 5.3.6), with pits drilled in it, the rough sutural edges and a zygomatic prominence chamfered off and one aspect of the bone smeared with red ochre...«

DERANIYAGALA (2003): »At Ravanalla cave and Fa Hien-lena red ochre had been ceremonially smeared on the bones.«

RAWANA CAVE

see: Ravana Ella Cave 2

Wilson, Jane M 1988: 22.

RAWANA ELLA CAVE

see: Ravana Ella Cave

Lonely Planet, Sri Lanka 2003: 210-211.

RAWANA ELLA CAVE 2

see: Ravana Ella Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 39a.

RAWANAELL CAVE

see: Ravana Ella Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 39a.

RAWANAELLA CAVE

see: Ravana Ella Cave

Aellen V, Sket B & Strinati P 2001: 1977 fig. 1, 1978, 1979; Strinati, Pierre & Aellen, Villy 1981: 459, 460; Wilson, Jane M 1988: 22.

RAWANAELLA (Ella), grotta di

see: Ravana Ella Cave

Brignoli, Paolo Marcello 1972: 919, 925, 927.

RAWANAELLA (Ella), grotte de

see: Ravana Ella Cave

Villiers, A 1970: 321, 324.

RAWANNA, cave of

see: Ravana Ella Cave

Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 39a.

RESSIROOWEY NITRE CAVE

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Naganpahay korle« (Davy 1821) area: unidentified »Ressiroowey« (Davy 1821) village.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified or NC44-14. SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 9 (DAVY 1821: 31 footnote) is situated somewhere in the vicinity of »Ressiroowey« (unidentified) in the »Naganpahay korle« (738) of the likewise obsolete »Seven Korles district« (739).

⁷³⁷ Not seen: DERANIYAGALA (1980: 174) after Brooks 1995 Mss no. 22; DERANIYAGALA (1992: 465-467) after DERANIYAGALA (2001b); DERANIYAGALA (1992: 696) after DERANIYAGALA (2001b); DERANIYAGALA (1992: chapter 5.3.6) after DERANIYAGALA (2002: 53); DERANIYAGALA (1992: chapter 5.3.7) after DERANIYAGALA (2002: 38)

⁷³⁸ »Naganpahay korle« (DAVY 1821) is not identified unless it has something to do with the village of Negampaha N07°59'14": E080°27'35" WGS84 <www.nima.mil/geonames> accessed 16.11.2003

⁷³⁹ The obsolete »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

RIDI VIHARA: PAHALA VIHARA

or: Lower Ridigama Temple Cave

Frequently visited but speleologically unexplored and unmapped modified natural, painted cave or rock shelter (temple cave).

LOCATION: North Western province: Kurunegala district: Ridigama: Ridi Vihara.

POSITION: WGS84 (assumed EPE ±2.5 km) N07°32': E080°29' / N07.53333°: E080.4833333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003.

»Although not on the usual beaten track, it's well worth a visit to see its wonderful frescoes [in the "upper" →Uda Vihare] and the unusual Dutch (Delft) tiles in the [lower Pahala Vihara] main cave« (LONELY PLANET 2003: 255).

ETYMOLOGY: »Ridi Vihara, literally the 'Silver Temple', is so named because it was here that silver ore was discovered in the 2nd century BC« (LONELY PLANET 2003: 254).

SITUATION: Ridi Vihara lies south of the Highway A6 from Kurunegala (N07°29'12": E080°21'53" WGS84) generally northeast to Dambulla (N07°51'36": E080°39'06" WGS84).

APPROACH (LONELY PLANET 2003: 255): »If you are coming from Kurunegala, the turn-off to Ridigama village [740] is on your right [east] just past Ibbagamuwa village [741]. The temple is about 2 km from Ridigama via Temple Junction. Buses run between Kurunegala and Ridigama village approximately every 45 minutes. From the village you can take a three-wheeler to the temple.«

CAVE DESCRIPTION (LONELY PLANET 2003: 255): Put up in the »... main cave, called the Pahala Vihara (Lower Temple)« is a gold-plated statue of Buddha, »secure in a special case« (see below: cave legend), and »a 9 m recumbent [reclining statue of] Buddha that rests on a platform decorated with a series of blue-and-white tiles, which where a gift from a Dutch consul [742].

Here you can see what remains of a beautiful piece of ivory carving over the lintel. Unfortunately, this and other pieces of art have been subject to vandalism over the years.«

CULTURAL HISTORY - religious folklore: »Legend has it that King Dutugemunu, who reigned in the 2nd century BC, lacked the funds to finish an important dagoba in Anuradhapura. The discovery of silver ore at the place now known as Ritigama allowed him to complete the work, and as a token of his gratitude he decided to establish a temple in the cave where the ore was allegedly discovered, and to put in this cave a gold-plated statue of the Buddha« (LONELY PLANET 2003: 255).

740 Ridigama is indicated with a symbol reminiscent of crossed bones and designating a »place of archaeological and tourist interest« near N07°32'30": E080°28'50" (Everest 1830) on my issue of the 1: 506,880 "Road Map of Sri Lanka" (Survey Department 1977)

<www.nima.mil/geonames> (accessed 16.11.2003) lists not only the two villages of Ridigama (N07°33': E080°29') and Ridigama (N07°42': E080°24') but also the trigonometric station Ridigama (N07°32': E080°29').

741 Ibbagamuwa N07°33': E080°27'

742 LONELY PLANET (2003: 255): »The tiles depict scenes from the Bible, including Adam and Eve being banished from the Garden of Eden, and the transfiguration of Christ«

CAVE LIFE: »The huge boulder that looms over the whole temple complex is attractive to the local wild bee population [potentially lethal *Apis dorsata*]; you can see their nests bulging below the overhang. It's said that those who enter the temple with impure hearts will get stung, so watch out« (LONELY PLANET 2003: 255).

RIDI VIHARA: UDA VIHARA

or: Upper Ridigama Temple Cave

Frequently visited but speleologically unexplored and unmapped modified natural, painted cave or rock shelter (temple cave).

LOCATION: North Western province: Kurunegala district: Ridigama: Ridi Vihara.

POSITION: WGS84 (assumed EPE ±2.5 km) N07°32': E080°29' / N07.53333°: E080.4833333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003.

It's well worth »... a visit to see its wonderful frescoes« (LONELY PLANET 2003: 255) of the Uda Vihara (Upper Temple) at the →Ridi Vihara.

SITUATION: In one way or another »nearby« (LONELY PLANET 2003: 255) the →Pahala Vihare of the →Ridi Vihara.

CULTURAL HISTORY - rock art: »... built by King Kirthi Sri Rajasinghe, the entrance has a Kandyan-period moonstone. It's interesting to try to pick out some of the clever visual tricks used by the fresco artists. In one case, what appears to be an elephant at a distance reveals itself on closer inspection to be a formation of nine maidens. Hindu deities and images of the Buddha are represented in the caves« (LONELY PLANET 2003: 255).

RIDIGAMA TEMPLE CAVE, lower

see: Ridi Vihara: Pahala Vihara

Lonely Planet, Sri Lanka 2003: 255.

RIDIGAMA TEMPLE CAVE, upper

see: Ridi Vihara: Uda Vihara

Lonely Planet, Sri Lanka 2003: 255.

RITIGALA CAVES

or: Caves of the Yakkas

Archaeologically investigated but speleologically unexplored and unmapped, modified natural sacred troglodyte rock shelters.

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala kanda (Rittigalla): Ritigala range.

MAPS: Survey of Ceylon / Sri Lanka sheets: Elahera, Nalanda.

BIBLIOGRAPHICAL REFERENCES: Bell, H C 1893; Ceylon Traveller 1974, 1983; Forbes, Jonathan 1840, 1841; Kamlesh, K a.i.; McAlpine, W R & Robson, David 1983; Paranavitana, S 1970; Parker, H 1909; Perera, Deepal V 1966.11.13; Pridham, Charles 1849.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

More than »70 known caves« (McALPINE & ROBSON 1983: 361), or »32 caves« (CT = CEYLON TRAVELLER 1974: 249, 250; 1983: 251, 252) or »cave dwellings« (generally modified natural rock shelters and true caves used for troglodyte religious purposes) contribute to this »rock and cave complex« (CT 1974: 250; 1983: 252).

ETYMOLOGY: FORBES (1840, 1: 386) spells »Ritigalla« and FORBES (1841, 2: 84) »Rittigalla« (743).

McALPINE & ROBSON (1974, 1983: 356): »The name Ritigala comprises two words: riti and gala, the latter meaning 'a rock' in Sinhalese. Mr. D.M. de Z. Wickremasinghe, a distinguished etymologist, had offered a number of derivations of riti of which the following appear to be the more favoured: it comes from the Pali word arittha meaning 'safety' and is used as such in the Mahavamsa and Culavamsa, the great chronicles of Sri Lankan history, thus rendering the whole word as 'safety-rock'. Considering the number of times in the island's history Ritigala has been a harbinger for royal and political refugees, the appellation is most fitting. Equally arittha can be translated as 'dreadful' giving Ritigala the appellation 'dreadful rock', which may well derive from the fear induced in people who remove flora from Ritigala, by the spirits which, according to legend, guard the mountain.«

SITUATION: In the Ritigala range (744), a natural reserve, which lies a short distance north of the »Habarana - Maradankadawela - road« or »Habarana - Maradankadawela - Anuradhapura road« (745).

CEYLON TRAVELLER (1974: 250) and CEYLON TRAVELLER (1983: 252): The Ritigala range rises »... 2,513 feet [766 m] out of the north - central plain, sheer and abrupt on almost all sides ... [and is] clearly visible at a short distance from the Habarana - Maradankadawela - Anuradhapura road, just past the little village of Palugaswewa« (746).

According to McALPINE & ROBSON (1983: 361), the »largest complexes« of caves (or of inscriptions?) on Ritigala are »to be found on the Na-maluwa or Na-ulpota ridge to the west, the Kudda-armbedda ridge to the south-west, the Marakkala-ulpota on the south termination of the range, and the Andiyakanda ridge to the east.«

743 FORBES (1840, 1841.ii: 84): »The account (In the Cingalese work Saddhamma Lankara) of an attack made on a settlement at the rocky mountain of Rittigalla (within thirty miles of the capital of the island), b.c. 382, by one of the chiefs of Dootoogaimoonoo is the latest mention which I have met with of these aborigines under their ancient name of Yakkas.«

744 The Ritigala range »... has four peaks over 700 m asl. The main peak ... [Ritigala kanda N08°06': E080°39' WGS84 <www.nima.mil/geonames> accessed 16.11.2003] is the highest at 765 m asl (McALPINE & ROBSON 1983: 356) or »2,513 feet« (CT 1974: 249; CT 1983: 251) = 766 m asl. »Ritigala Kanda is separated from the other three lying to the north by a steep gorge and stands alone at the southern end of the range« (McALPINE & ROBSON 1983: 355).

745 The »Habarana - Maradankadawela road« (CT 1974: 249; CT 1983: 251; McALPINE & ROBSON 1983: 355) or »Habarana - Maradankadawela - Anuradhapura road« (CT 1974: 250; CT 1983: 252) is the section of highway A11 which runs from Habarana (N08°03': E080°46') generally north-west via Maradankadawela (N08°08': E080°34') to Anuradhapura (N08°21': E080°23').

746 Among the 17 distinct villages of Palugaswewa listed on <www.nima.mil/geonames> (accessed 16.11.2003) is either Palugaswewa (N08°05': E080°29') or Palugaswewa (N08°03': E080°31') the relevant one.

CEYLON TRAVELLER (1983: 389) locates the archaeological site at Ritigala »in the jungle six miles off Galapitagala, between Anuradhapura and Habarana.«

FORBES (1840, 1: 386): »... the high mountain of Ritigalla rises abrupt and rocky on the south-east of Mehintalai« (Mihintale N08°21': E080°30').

APPROACH 1 (CT 1974: 249, 250; CT 1983: 251, 252): »The turnoff to the rock and cave complex is about five miles [8 km] beyond Palugaswewa, to the nearby village of Galapitagala [747] and thence about 7 miles [11 km] on foot. The walk to the peak takes about four hours. ... the northern slope [of Ritigala Kanda, the mountain] ... is the only practicable approach.«

APPROACH 2 (McALPINE & ROBSON 1983: 355): »To reach the ascent point of the ruins, caves and the summit, leave the Habarana - Maradankadawela - Anuradhapura road at Galapitagala, a small village to the north-east of the 8th milepost (13 km) ... Follow the dirt track through the village for about 6 km and turn left at a junction which is marked by a signpost to Ritigala. After a further 3 km the ascent point, where there is an Archaeological Department Office, is arrived at.«

CAVE DESCRIPTION (CT 1974: 250; CT 1983: 252): »Most of the caves lie beneath boulders with drip-ledges. They show evidence of having been lived in. ... Between two of the many caves (one of them is called Na-maluwa) a forest of ironwood trees [Sinhala: Na-ga; botanically: Mesua ferrea] spreads out on the mountainside.«

McALPINE & ROBSON (1983: 362): »The caves vary in size from one room to five rooms. In one cave Bell [BELL 1892] found a vihara with a shrine enclosed by a brick wall and seven images of the Buddha. Knowing the rejection of all images by the pansulikas monks, one is led to assume that this cave may have been occupied sometime after the pansulikas deserted the mountain.«

EPIGRAPHY (rock art): Many of the »more than 70 known caves« bear inscriptions, of which PARANAVITANA (1970) translated 35.

McALPINE & ROBSON (1983: 361): »All the cave inscriptions are incised on the dressed brow of the entrance to the cave below the drip ledge, which was cut to prevent rain from running down the face of the rock into the cave; it also gave the inscription some protection from water erosion.«

CEYLON TRAVELLER (1983: 389-390) claims that »... a number of caves at the site contain pre-Christian donative inscriptions which denote that the monastery had been in existence in the 3rd century B.C.«

CULTURAL HISTORY - legend / religion: FORBES (1840, 1: 386): »The native traditions are probably correct, in stating that the caves and residences of Yakkas [748] are still to be seen in Ritigalla, for these aborigines are mentioned as resisting at this place one of the chief is of Dootoogaimoonoo and a numerous force, B.C. 160. I was anxious to visit this mountain and search for the remains of the Yakka habitations, but my time was limited, and I could not overcome the terrors and prejudices of those who lived in the neighbourhood; they denied any knowledge of how the mountain could be

747 Galapitagala (N08°05': E080°40' <www.nima.mil/geonames> accessed 16.11.2003) is »... a small village ... whose appellation 'rock-upon-rock' derives from the large boulders surmounting each other along the Galapitagala tank, where there is a monastic cave with a votive inscription« (McALPINE & ROBSON 1983: 355).

748 FORBES (1840, 1: 386 footnote): »Yakkas (demons), demon worshippers.«

ascended, and avowed their dislike to trespassing on this stronghold of the devils.«

PRIDHAM (1849, 2: 536): »The caves and residences of the Yakkas are said by the natives to be still visible in Ritigalla, where they resisted one of the chiefs of Dootoo-gaimoonoo, and a numerous force, B.C. 160. The natives have a horror of trespassing on what they believe to be a stronghold of devils, and deny any knowledge of the way in which the mountain can be ascended.«

PARKER (1909: 179ff) delves into legendary history of the »large Buddhist cave-wihara or temple.«

EXPLORATION HISTORY: -0177 (PERERA 1966.11.13): King Suratissa established in the 2nd century BC the monastery Makula or Lanka Vihara, whose location is now no longer known, at the foot of the mountain (McALPINE & ROBSON 1983: 358 after »the chronicles« Mahavamsa, Culavamsa).

-0050, circa: King Lankatissa established in the 1st century BC the monastery Arittha Vihara at Ritigala (McALPINE & ROBSON 1983: 358).

850, circa: King Sena I had in the 9th century a monastery a built (conjectured to have been built on the site of the Arittha Vihara, whose ruins are extant today): »King Sena established his monastery for a sect of monks called pansulikakas, who came into prominence at the end of the 7th century AD ... they lived in caves and in monasteries in the mountains and forests« (McALPINE & ROBSON 1983: 358).

1000, circa: Tamil invasions from South India in the 10th and 11th centuries »... ravaged cities, towns, religious edifices, shrines, monuments and, no doubt, the monastery and caves of Ritigala itself« (McALPINE & ROBSON 1983: 359).

1100, circa: »After the beginning of the 12th century, the chronicles make no further mention of the pansulikakas ... From that time onwards, until the latter half of the 19th century, Ritigala's ruins and once inhabited caves lay undisturbed under the jungle and debris, inhabited only by leopard, bear, and elephant ... for almost a thousand years ...« (McALPINE & ROBSON 1983: 359).

McALPINE & ROBSON (1983: 362) confirm there is no evidence that »... further building took place after the establishment of the Ritigala monastery by King Sena I in the 9th century. It can only be assumed that after the decline of the pansulikakas, the monastery and caves fell into disuse and that during the intervening centuries Ritigala became, like the cultivated land on the central plain from which it rises, smothered and submerged in jungle and forgotten.«

In one »cave« BELL (1892) »... found a vihara with a shrine enclosed by a brick wall and seven images of the Buddha. Knowing the rejection of all images by the pansulikakas, one is led to assume that this cave may have been occupied sometime after the pansulikakas deserted the mountain« (McALPINE & ROBSON (1983: 362).

1872: »J.B.M. Ridout, surveyor« (PERERA 1966.11.13) or a »Government surveyor« (749) established a trigonometrical station on the summit of Ritigala Kanda and alluded to the existence of ruins in a report published in 1872 (McALPINE & ROBSON 1983: 359).

1892-1893, circa: »H.C.P. Bell, a former Archaeological Commissioner, discovered more than 32 caves in the range« (CEYLON TRAVELLER 1974: 250; 1983: 252), as »... it was left to H.C.P. Bell, the indomitable Archaeological Commissioner, to give the first extensive account of Ritigala in 1893. He explored the ruins and described them in great archaeological detail with supporting plans and drawings. They remain today the only accurate maps of the monastery precincts and cave complexes« (McALPINE & ROBSON 1983: 359).

1941.11.07: »Ritigala was given the status of Strict Nature Reserve on 7th November 1941 due to the rich source of flora and fauna. It is said that some of the species of plants that are found at Ritigala are found nowhere else in the world. After making this place a Strict Nature Reserve the control was handed over to Department of Wildlife Conservation« (KAMLESH a.i.).

RITIGALA TUNNEL

A fabulous tunnel.

LOCATION: Northern Central province: Anuradhapura district: Ritigala Natural Reserve area: Ritigala kanda: Ritigala range.

POSITION: WGS84 N08°06' E080°39' / N08.1° E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheets: Elahera, Nalanda.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kamlesh, K. a.i.; Perera, Deepal V. 1966.11.13.

Disputable literary sources created by instant experts mention a fabulous underground tunnel connecting the mountain Ritigala with the ancient capital Anuradhapura (750).

KAMLESH, K. (a.i.): »... King Pandukabhaya ... had also built an underground tunnel that lead to Anuradhapura. The entrance of the tunnel is visible even today.«

PERERA (1966.11.13) »Next to the maligawa, the king had built an underground tunnel that leads to Anuradhapura. The entrance of the tunnel is still visible.«

SABIK, cave of Al-

Unexplored and unmapped modified natural troglodyte rock shelter. LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Lee, Samuel 1829); Skeen, William 1870, 1997.

An unspecified »cave« (751) is said to be associated with one »al- Sabik« (752).

750 Anuradhapura (N08°21' E080°23') lies only 39 km in a direct line north-west of Ritigala kanda (N08°06' E080°39' WGS84).

751 GIBB (in: Ibn BATTUTA 1929, 1998: 258) notes »a number of grottoes.«

GIBB & BECKINGHAM (in: Ibn BATTUTA 1994: 258 note 15): »... that place... [was] identified by SKEEN 1870: 176.«

752 LEE (in: Ibn BATTUTA 1829: 188) records »... the cave of Sibak, [who was] an infidel king, who retired to this place for the purposes of devotion.«

GIBB & BECKINGHAM (in: Ibn BATTUTA 1994: 852 note 15): »This al-Sabik was a Sultan of the infidels, who became an anchorite in that place.«

749 PERERA (1966.11.13): »The first Archaeological Commissioner, H.C.P. Bell, surveyor J.B.M. Ridout and Henry Trimen who wrote the hand book of the Flora of Ceylon are among some of the distinguished English visitors to climb the mountain.«

SITUATION (753): Beyond »a place called "The Old Woman's Hut", which is the end of the inhabited part« on the way (754) from »Kunakar« (see: Cave of →Ustad Mahmud the Lur) and the »Lake of Monkeys« on a route to the »Mountain of Sarandip« (Adam's Peak WGS84 N06°48'30": E080°29'53": 2134 m asl).

SAEGA LENNA

or: Segalena

Unexplored and unmapped fabulous or natural cave or rock shelter.
 LOCATION: Central province: Unidentified (Badulla, Kandy) districts: Sri-Wasta-Poora (Srivastapur, Shrivastapur).
 POSITION: Not known.
 MAPS: Survey of Ceylon / Sri Lanka sheet "Hanguranketa" or "Rangala (One-Inch series).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841; Turnour, George 1837.

A »... cave called Saega Lenna« (FORBES 1840, 1841. ii: 82 after TURNOUR 1837) is the spot where the body of »Vijeya« was deposited after he had died (755).

ETYMOLOGY: So far, I saw the name of usurpator "Vijeya" (victor, winner) transcribed (romanised), spelled, or edited as

Vijeya	FORBES (1840, 1841.ii: 79-82)
Vijia (Vijay)	LAIDLAY (1848: 371 footnote †) after C. Landresse (756) in ABEL REMUSAT (1836)
Wejaya	FORBES (1840, 1841.ii: 275 after Turnour, George 1832.07.14)
Wijayo	TENNENT (1859, 1860).

SITUATION: According to legend, »Saega Lenna« is somewhere »near« (sic!) a place called »Sri-Wasta-Poora« which FORBES (1840, 1841.ii: 80 footnote) supposes »... to have been near Myungana [757] in Beentenne [758]; and that its name of Sri-Watta, or Wasta-Poora, was derived from the garden Mahanaga at Mahawelligam [759], the first spot in Lanka sanctified by the presence of Gautama Buddha.«

CULTURAL HISTORY - cave legend: Also associated with »Vijeya« (FORBES 1840, 1841) or »Wijayo« (TENNENT 1859, 1860) and »Kuwani« (FORBES 1840, 1841) or »Kuvani« (TENNENT 1859, 1860) is →Kuvani Lena (Jaffna).

FORBES (1840, 1841.ii: 79-82 after the translation of the Mahavamsa by TURNOUR 1837): »Vijeya« was »a prince of the royal family of Singhapoora [760], an exile and adventurer, driven from that country by command of his father, the King Singhabahu, landed in ... Lanka, at Tammenatotta [761] ... accompanied by seven hundred followers.

Having advanced into the forests of that district, Vijeya formed a connexion with a beautiful female of the country, called Kuwani (of the Yakka race); and soon after, by her means discovered that Pusamitta, daughter of the chief of Logalla [762], had been given in marriage to the chief of Lagalla [763] and that under the direction of the bride's mother, Kondanamika, the town of Sri-Wasta-Poora was for seven days to be a continued scene of festivity.

Vijeya determined on attacking the inhabitants while engaged in these rejoicings; and the Yakkini, Kuwani, mixing in the crowd, gave the signal of massacre. Vijeya and his followers rushed from their ambush, surprised the unsuspecting revellers, killed their chief Kalaseno, and so great was the slaughter of the Yakkas, that (says the Cingalese account) their blood flowed through the streets like streams of water in the rainy season.

753 i have not seen SKEEN (1870: 176, 227-228)

754 Ibn BATTUTA (edited by GIBB & BECKINGHAM 1994: 852 note 15): »... we continued our journey to a place called 'The Old Woman's Hut', which is the end of the inhabited part, and went to the cave of Baba Tahir, who was a devotee, and then to the cave of al- Sabik.«

755 FORBES (1840, 1841.ii: 82): »Vijeya died in the thirty-eighth year of his reign, from a disease (a species of leprosy) which he is supposed to have received as a punishment from those gods whom he had called to witness the oath he swore to Kuwani and afterwards violated.«

756 LAIDLAY J W (1848 edited 2000: 371 footnote †) after »M« (Monsieur) C. Landresse (in: ABEL REMUSAT J P 1836) referring to UPHAM (s.a.: »Sac. and Hist. Books of Ceylon, Vol. I, p. 69, and Vol. II, p. 171 et seq.«): »The Sinhalese books state that it was Vijia (Vijay), son of Sinhala, who ... with the aid of Cawany, effected the destruction of the supernatural beings that remained in the island ...«

757 »Myungana« (FORBES 1840, 1841. ii: 80) appears to be the town of Mahiyangana (Mahiyangana N07°19'00": E080°58'58" WGS84) where the borders of Badulla district and Kandy district meet on the SoC / SoSL sheets Hanguranketa and Rangala.

758 The Sinhala "bintenne" or »Beentenne« (FORBES 1841, 2: 80) is said to translate literally into »back of beyond« and connotes the »wilderness« but the »greater part of the Uva Province is known as Bintenne« (CEYLON TRAVELLER 1983: 347). Additionally, there is a peak »Bintenna 2372« near N06°32': E080°58': 723 m asl shown on the "Road Map of Sri Lanka" (Survey Department 1977).

759 »Mahawelligam« (FORBES 1840, 1841. ii: 80) is Mahaweligama (N07°01': E081°03').

760 FORBES (1840, 1841.ii: 79 footnote): »Probably Singhea, on the banks of the Gunduck, province of Bahar«

761 FORBES (1840, 1841.ii: 79 footnote): »Contrary to the opinion of the natives, I imagine this place to be Tamblegam in the Tamenkada district [where] there are several villages called Tammena, but none of them on the sea-coast.«

762 FORBES (1840, 1841.ii: 80 footnote): »Logalla, in the Ouwa district« is not identified.

763 FORBES (1840, 1841.ii: 80 footnote): »Lagalla, in the Matale district« seems to be Lagalla (N07°33': E080°44').

Before Kuwani betrayed her kindred and countrymen, Vijaya ratified former promises to make her his Queen by the most solemn oaths: the performance of these he afterwards evaded, and, having dispatched an embassy to the continent of India, procured from thence a Princess of the royal race of Pandi, whom he married and made Queen. ... The spirit of Kuwani is still supposed to haunt the country, and inflict misfortune on the race of the conqueror by whom she was betrayed. Kuwanigalla [764] is a bare mountain of rock on which are two stones, one slightly resembling a human figure in a standing attitude, the other looking like a seat. It is on this that traditions assert the Yakkini sometimes appears, and casts the withering glance of malignant power over the fair fields and fertile valley of Asgiri [765].«

SAFFRAGAM NITRE CAVERNS

More than sixty (60) natural caves.

LOCATION: Sabaragamuwa province: Ratnapura district: »Saffragam« (Tennent 1859) area.

MAPS: Survey of India sheet: Ratnapura.

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860, 1861; Uragoda, C G 1973.

More than 60 unidentified nitre caves reports TENNENT (1859, 1860 vol. 1: 31) from Ratnapura district or, to be precise, from »Saffragam alone« (766), where »there are upwards of sixty caverns [no names mentioned] known to the natives, from which it [nitre, potassium nitrate] may be extracted, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable« (767).

URAGODA (1973: 39) confirms that TENNENT (1860, 5th edition, page 31) mentions nitre caves in »Saffragam.«

764 »Kuwani-galla« (FORBES 1840, 1841. ii: 81) or Kuvanigala, Kuvenigala, Kuwanigala, and Kuwenigala is not identified.

765 »Asgiri« (FORBES 1840, 1841. ii: 81), »a sequestered and most romantic spot in the Matale district« (FORBES 1840, 1841. ii: 81 footnote), is not identified unless it is the same as the village of Asgiriya (N07°18': E080°38') in Kandy district. In Colombo district, there is another village of Asgiriya (N07°06': E079°59').

According to FORBES (1840, 1841.ii: 94), the »Nalando-oya rises in the rocky mountains that surround the romantic vale of Asgiri« and there is a Nalanda Oya with its mouth near N07°40': E080°39' <www.nima.mil/geonames> accessed 16.11.2003.

766 »Saffragam« (TENNENT 1859, 1860) or »Saffrecam corla« (PERCIVAL 1803) and »the district of Saffragam« (DAVY 1821) corresponds more or less to the Ratnapura district between circa N06°15': E080°15' and N06°50': E080°50' (Survey Department 1977: Road Map of Sri Lanka).

767 The only »nitre-cave« reported by DAVY (1821: 31 footnote) from »the district of Saffragam« (Ratnapura district) is »21. Meddegama« (unidentified).

SAINT MARTIN'S POTHOLES

Whirlpools (closed depression), possibly in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Knuckles / Rangala range - Heen Ganga basin in »Doombera district« (Davy 1821), »Dombera« (FORBES 1840 ed. 1841, 2: 240), »Nitre Cave district« (LEITER 1948: 61): Corbett's Gap / Corbets Gap (Attala-mettuwa, Corbets Gap): Loolwatta (Loolowatte, Loolwatte) via »Kaikiwala« (URAGODA 1973) or »Kaikawala« (KUSCH 1973c) to Mimure (Meemoorra, Meemora, Meemure, Memora, Mimura).

POSITION: (If at St. Martin's tea estate itself), Representative WGS84 coordinates (assumed EPE ±2.5 km) N07°24': E080°51' / N07.4°: E080.85° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Rangala" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Leiter, N. 1948.

A »string of potholes« (LEITER 1948: 63) in limestone are probably not holes in a pot but whirlpools visible in an abandoned stream bed. Compare the so-called »small fissure« (PEET 1946: 94) of →Hunugala Lena.

SITUATION (LEITER 1948: 63): Estimated »100 yards« (91 m) to the left and »30 feet« (9.15 m) above »stream« in a »river valley« (no name mentioned) somewhere above the tea factory of St. Martin's Group (N07°24': E080°51') in the upper Heen Ganga basin.

CAVE DESCRIPTION (LEITER 1948: 63): »Of geomorphological interest are many instances of the uniclinal shifting of the river valleys of which that above the tea-factory of St. Martin's Group merits special attention. Here the shifting is up the dip-slope, though every time the new water course is lower than the previous one.

To the left of this stream there is a string of potholes [without description, unspecified shape and dimensions] in the limestone, which now forms a low ridge of about 70' above the present stream and about 100 yards to the left of it.«

SAKVALA CAVE

or: AA Cave (Bell 1901) no. 2

A modified natural troglodyte rock shelter.

LOCATION: Northern Central province: Anuradhapura district: Anuradhapura ruins: Tissa Wewa reservoir.

POSITION: WGS84 (assumed EPE ±2.5 km) N08°21': E080°23' / N08.35°: E080.38333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Anuradhapura" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Bell, H C P 1901.

Not a "cave" in the speleological sense of the word but a daylight-side of an overhanging rock, which has been adapted as a rock shelter and contains a fascinating piece of rock art (engraving) depicting a »sakvala« or the possibly earliest attempt of a world map: »This weird circular diagram, incised on the bare rock ... may with every show of reason claim to be an old-time cosmographical chart illustrating in naivest simplicity the Buddhist notions of the universe.« (BELL 1901 published 1907: 5-9).

SITUATION: Among the »Tisavewa Ruins« (BELL 1901), »a ridge of granitic formation can easily be traced running on from the Vessagiri Rocks northwards, past Isurumuniya [→Isurumuniya], below the bund of Tisavewa [Tissa Wewa]. Thence it crosses the Anuradhapura-Puttalam Road, and bisects the Mirisavetiya area and Basawakkulam tank; and trends ever north through the western portion ("Galge" and other rocks) of the Lankarama and Jetawanarama areas.

The portion of the ridge just beyond the northern confines of Isurumuniya Rock Temple lies at the very foot of the embankment of the tank (Tisavewa), and is marked by a line of rocks of less magnitude than the Isurumuniya boulders. ... Behind the pansala, south-west, is the second line of boulders ... These southerly boulders, four or five in all, are both more massive and taller than those of the other group. The most southerly exhibits rectangular grooves of some building which once crowned its summit; both faces of two boulders, overhanging west and east, were adapted as cave shelters. ... Cave No 2 lies beneath the west face of the penultimate rock forming its back and roof and floor. It was entered by a few steps leading down from the rock ridge.«

CULTURAL HISTORY - rock art (BELL 1901): »A worn, and hardly recognizable asanaya of bricks rests against the rock at back. To the left (north) of this seat, or alter, is cut shallowly on the steeply projecting rock face a great chakra, or circle 6 ft in diameter, scored by rectangular divisions containing figures (mostly small circles), the whole girt, as a tyred wheel, by a band on which is displayed variant piscine and crustacean life swimming round from right to left.

The centre of the chakra is filled by a large circle comprising seven concentric rings, within a square 1 ft 2 in., to which cross lines are drawn vertically and horizontally from the encircling hand, cutting the chakra into quadrants. Further, parallel lines divide the circles vertically into ten strips, or slices, varying in width from 3 in. to 9 in., but matching to left and right of the central vertical line.

The concentric circles with their interspaces at the centre of the chakra can assuredly mean only the Sakvala, in the centre of which rises Maha Meru, surrounded by the seven seas (Sidanta) and walls of rock (Yugandhara, &c.) which shut in that fabulous mountain, 1,680,000 miles in height, half below, half above, the ocean's surface. Sun and moon (in the second strips) lie on either side of the Sakvala: round about in space are scattered innumerable other worlds represented by quadrisected circles [768].*

Below and around is the "world of waters" (i.e., the circular band) in which swarm gigantic uncouth denizens-fish, turtle, crab, chank, and other marine fauna.

This ancient "map of the world" -perhaps the oldest in existence is of quite extraordinary interest. Its presence here, within an eremite's cave at an out-of-the way nook of ancient Anuradhapura, testifies to the antiquity of that astronomical lore still pursued in some of the Buddhist monasteries of Ceylon.«

SALPETERHÖHLE, Memoora

see: Lunugala Lena

Davy, John (1822: 161-162): »Eine Stunde darauf kamen wir endlich zu dem erwünschten Ziel, nämlich zu der Salpeterhöhle, deren Anblick einen überraschenden Eindruck machte. Die Höhle befindet sich in der Nähe des Dorfes Memoora, in einem Felsen von 300 Fuß Höhe, der oben mit Gehölz bewachsen ist ...«

SASSERUWA 'CAVES'

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave). LOCATION: North Western province: Kurunegala district: Sasseruwa (Saessaeruwa, Sesseruwa) village.

POSITION: WGS84 N07°59' E080°25' / N07.983334°: E080.416667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Anuradhapura or Kala Oya (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Lonely Planet, Sri Lanka 2003; Parker, H 1909.

A »cave dwelling« (769) with »many caves (there are over a hundred of them)« (CEYLON TRAVELLER 1983: 116) at Sasseruwa, Saessaeruwa, or Sesseruwa (770) represent troglodyte hermitage retreats but »today only a few monks inhabit its caves« (CEYLON TRAVELLER 1983: 116, 251-252) or modified natural rock shelters (and, perhaps, true caves).

SITUATION (CEYLON TRAVELLER 1983: 116): Sasseruwa, nearly »seven weary miles« (11 km or so) as the crow flies west of the colossal statue at Aukana / Avukana (N08°01' E080°31') is reached by fair-weather roads.

LONELY PLANET (2003: 240) confirms that Sasseruwa is the »site of an ancient cave monastery in the jungle« 11 km west of Aukana, and reached by a rough road.

APPROACH 1: From →Aukana via Kalawewa, Hammillewa, and Negampaha --in the 1980s, this route had the better surface save for the last few kilometres.

APPROACH 2: From Aukana via Galgamuwa, Ehetuwewa, and Kuda Katnoruwa.

CULTURAL HISTORY - rock art: »Many of the caves, there are over 100 of them, have 'bow' inscriptions dating as far back as the second century before the birth of Christ« (CEYLON TRAVELLER 1983: 116, 251).

769 CEYLON TRAVELLER (1974: 249; 1983: 251): »Caves dwellings are scattered throughout Sri Lanka ... but the richest areas for caves of this sort are the North-Western and North-Central Provinces, with the Sabaragamuwa and Central Province borders not far distant second. These caves include those at ... Sasseruwa in Anuradhapura District ...«

770 Sesseruwa N07°59' E080°25' <www.nima.mil/geonames> (accessed 16.11.2003) or Sasseruwa (CEYLON TRAVELLER 1974: 249; 1983: 116, 252) and Saessaeruwa (PARKER 1909) is indicated as a »place of archaeological and tourist interest« and a little illegible as »Sasser#w« on my issue of the "Road Map of Sri Lanka" (Survey Department 1977).

768 BELL (1901 footnote): »Still used as an astrological emblem for the earth.«

SCARBOROUGH ESTATE, cave at

Archaeologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Unidentified (Central or Sabaragamuwa) province: Unidentified (Nuwara Eliya or Ratnapura) district: Maskeliya area: Scarborough Estate.

POSITION: WGS84 N06°47': E080°36' / N06.78°: E080.6° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Parker, H 1909; Pole, John 1909.03.05.

An unspecified »cave« (PARKER 1909 after John Pole 1909.03.05) or a rock shelter in which ancient stone tools were found: Flint implements, cores, and one arrowhead.

SITUATION: Somewhere within the Scarborough Estate (N06°47': E080°36') and about 6 or 7 km in a direct line approximately SSE from Maskeliya (N06°50'09": E080°34'13" WGS84).

CULTURAL HISTORY - archaeology: PARKER (1909: 64 footnote 1, 65 figures 20-34): »I am indebted to Dr. Seligmann for a cutting from the Ceylon Observer (weekly edition) for March 5, 1909, in which Mr. Pole gave an account of the discovery of numerous flint implements and cores in a cave on Scarborough Estate, in Maskeliya. Among them was one 'beautiful example' of an arrow-head, but of what type is not stated. Through the kindness of Mr. Pole and Mr. Gardner I am able to supply illustrations of a typical series of these articles which will indicate their shapes and character better than attempts at description. Mr. Pole was good enough to send me tracings of many of his finds.«

SCHAIM, Grotte des

see: Shaim, cave of

Leicht, Hans (1999: 202), editor of [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354).

SEBIK, Grotte des

see: Sabik, cave of al-

Leicht, Hans (1999: 200), editor of [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354).

SEETA KOONDA

see: Sita Kund (Hakgala)

Forbes, Jonathan 1840, 1841 vol. 2: 131-132.

SEETAKOTUWA, cave at

see: Sita Kotuwa, cave at

<www.nima.mil/geonames> accessed 16.11.2003.

SERENDIP MOUNTAIN CAVERNS

Kerr, Robert 1811; Renaudot, Eusebius 1718, 1733.

The Arab traveller Abu Zeid al Hasan-i-Sharif reported in 829 A.D. (in: RENAUDOT 1718: 545) unspecified »caverns, and other recesses« (no names mentioned):

»In the mountain of Serendip they find precious stones of various colours, red, green, and yellow, most of which are at certain times forced out of caverns, and other recesses, by waters and torrents« (771).

Compare the caves on ->Adam's Peak.

SERUVILA CAVES

see: Seruwawila "Caves"

Ceylon Traveller 1974, 1983.

SERUWAWILA "CAVES"

or: Wilgam Vihara Lena, Seruvila

Unexplored and unmapped natural or modified natural caves or rock shelters, possibly in limestone.

LOCATION: Eastern province: Trincomalee district: Seruvila Allai Sanctuary area: Seruwawila (Sairuwawilla, Seruvila, Seruvilla): Wilgam Vihara.

POSITION: WGS84 N08°22': E081°19' / N08.3667°: E081.31667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Trincomalee.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Unspecified »caves« are just about mentioned (CEYLON TRAVELLER 1974, 1983: 123).

SITUATION: In »eastern Sri Lanka« (DERANIYAGALA 1998) at one Wilgam Vihara (not to be confused with Velgam Vihara) near the Seruwawila, or Sairuwawilla, Seruvila, and Seruvilla (772).

FORBES (1840, 1841.ii: 222) locates »Sairuwawilla in a remote part of a little-frequented district, Cotiar, and between the two branches into which the Mahawelli-ganga separates before reaching the sea« (773).

APPROACH (after CEYLON TRAVELLER 1974, 1983: 123): In the 1980s, Seruwawila was accessible along a sandy track from Trincomalee (N08°34': E081°14') approximately south to south-east along the A15 but at Palattadichchenai (N08°23': E081°17') off to the east (left-hand side) and the north-east side of the Allai Tank in the Seruvila Allai Sanctuary (N08°22': E081°18').

CULTURAL HISTORY - archaeology: DERANIYAGALA (1998): »... the only major source of copper ore south of Madhya Pradesh in central India is located at Seruvila [sic] in eastern Sri Lanka« (SENEVIRATNE 1994: 261-280 in: KENOYER 1994).

771 Abu Zeid al Hasan-i-Siraff (in: KERR 1811, part 1, section 4) on the »Account of India and China, by a Mahomedan Traveller of the Ninth Century« (edited 1718 in French by Eusebius RENAUDOT and 1733 (London) in English translated from Renaudot).

772 »Seruvila« (SENEVIRATNE 1994) or »Seruvilla« and »Sairuwawilla« (FORBES 1840, 1841. ii: 222) is positioned also as »Seruwawila« near N08°22': E081°19' (WGS84).

773 »Mahawelli-ganga« (FORBES 1840, 1841) is the river Mahaveli, Mahawela Ganga, Mahaweli Ganga which reaches the sea near N08°27'31": E081°13'55" <www.nima.mil/geonames> accessed 16.11.2003.

SEVEN CAVES

A group of unexplored and unmapped modified natural troglodyte rock shelter.

LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Lee, Samuel 1829; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

A group of (literally seven?) unspecified »caves« (774) is said to be situated (775) beyond »a place called "The Old Woman's Hut" which is the end of the inhabited part« on a route from »Kunakar« (see: Cave of →Ustad Mahmud the Lur) via the »Lake of Monkeys« and across a certain »Pass of Iskandar« on the way to the »Mountain of Sarandip« (Adam's Peak WGS84 N06°48'30": E080°29'53": 2134 m asl).

SEVEN VIRGINS, cave of the

Chiropterologically investigated but speleologically unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Maskeliya Oya valley.

POSITION: (If at the village of Norton's Bridge itself), Everest 1830 coordinates (estimated EPE ±1 km) N06°52'20": E080°30'50" / N06.87222222°: E080.51388889° (M. Eckrich 1984 personal communication).

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

A large entrance leads to a single cave chamber with another two cave entrances, which are smaller and in the far back opposite across each other (Michael Eckrich 1984, personal communication).

ETYMOLOGY: This is a »cave called by the intriguing name of 'Cave of the Seven Virgins'« (COORAY 1967: 97; CEYLON TRAVELLER 1974: 244; 1983: 246).

SITUATION: About 2.5 km in a direct line south of Norton Bridge (N06°54'01": E080°31'04" WGS84) and again about 2.5 km in a direct line south-east of the Laksapana Falls / Laxapana Falls (776), above the south-west (orographically right) bank of the Maskeliya Oya (777) and in the Elfindale estate (N06°53': E080°31').

Michael Eckrich, München, Zoologisches Institut (1984, pers. comm.) indicated the position of the Cave of the Seven Virgins about 200 or 250 m ESE from the final "E" of the ELFINDALE indicated on a partial photocopy of the Survey of Sri Lanka (<1984) sheet "Hatton" (One Inch series).

Eckrich, M. (1984 Mss: Bat cave distribution map) indicates »Cave of the Seven Virgins« south-west of »Powerstation Cave«

SITUATION 1967: COORAY (1967: 97) mentions from the »Norton Bridge area ... two other caves« (778) of which the »Cave of the Seven Virgins ... can be seen from the road to Maskeliya [779] occupying a small cliff face overlooking the valley of the Maskeliya Oya.«

SITUATION 1974: CEYLON TRAVELLER (1974: 244; 1983: 246) has »Beyond the peak« (780) and in the »Norton Bridge area two caves worth exploring. They are vividly described by P. G. Cooray.

CAVE LIFE: Bats (Chiroptera) appear to be found in the »Cave of the Seven Virgins« (Eckrich, M. 1984 Mss: Bat cave distribution map).

774 GIBB (in: BATTUTA 1929, 1998: 258): »A number of grottoes.«

775 [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354) edited by

GIBB & BECKINGHAM (1994: 853): From the Cave of →Baba Khuzi »... we continued our journey to the seven caves, then to the pass of Iskandar...«

LEE (1829: 189): »We next came to a place called the seven caves, and after this to the ridge of Alexander ...«

LEICHT (1999: 200): »Nach den Sieben Grotten kamen wir zum Alexanderhügel, dann zur Grotte des el-Isfahani ...«

776 Laksapana Falls (Survey of Ceylon, One Inch series, sheet Hatton) or Laxapana Falls (COORAY 1967) near N06°54': E080°30' <www.nima.mil/geonames> accessed 16.11.2003.

777 There is one Maskeliya Oya N06°58'47": E080°27'10" (WGS84) and another Maskeliya Oya N06°45': E080°26' <www.nima.mil/geonames> accessed 16.11.2003.

778 The second cave in the »Norton Bridge area« is the "cave" at →Laxapana Falls (COORAY 1967) or Laksapana Falls (Survey of Ceylon, One Inch series, sheet Hatton) while the non-other caves, which are (also?) in crystalline limestone, include Nitre Cave in the Rangala area or »are found at Ella (Ravana's Cave), Maturata (near Padiyapelella), Wellawaya, Hakgala, Istripura (near Welimada), Padanwela (near Wilson's Bungalow), Patanagedera (near Laggala), and Kudawa (near Gilimale).«

779 The »road to Maskeliya« (COORAY 1967: 97; CEYLON TRAVELLER 1974: 244; 1983: 246) means the road from Norton Bridge (N06°54'01": E080°31'04" WGS84) initially (2 km) north and west but generally south-east to Maskeliya (N06°50'09": E080°34'13" WGS84).

780 The »peak« (CEYLON TRAVELLER 1974: 244; 1983: 246) is Adam's Peak (LONELY PLANET 2003: 187-188; Survey Department 1977: Road map of Sri Lanka) near N06°48'30": E080°29'53" (WGS84 <www.nima.mil/geonames> 16.11.2003) culminating at »7360 feet« (Survey Department 1977: Road map of Sri Lanka) corresponding to 2243 m asl (LONELY PLANET 2003: 187).

SHAIM, cave of

or: cave of Scheim, Shisham, Shaith, Sheth

Unexplored and unmapped modified natural troglodyte rock shelter.

LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Lee, Samuel 1829).

An inhabitable »cave« (or so) lies on the »Mama track« (see: Khidr, cave of) on the north-western flank of the »Mountain of Sarandip« (Adam's Peak WGS84 N06°48'30": E080°29'53").

GIBB & BECKINGHAM (1994: 855, note 24): »... we halted at the cave of Shaim, that is Shaith, son of Adam (I.B. confuses Shem, the son of Noah, with Seth, the son of Adam).«
LEE (1829: 190): »... we came down to the cave of Shisham, who is Sheth, the son of Adam.«

SHAITH, cave of

see: Shaim, cave of

[Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354), edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994: 855.

SHAITH, cave of

see: Shaim, cave of

Lee, Samuel 1829 edition of Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 190, edited by Leicht, Hans 1999: 202.

SHAITH, cave of

see: Shaim, cave of

Lee, Samuel 1829 edition of Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 190.

SHIVA (Trincomalee), cave of

or: Eiswara Chasm

Unexplored and unmapped natural sacred sacrificial pit (cave temple).

LOCATION: Eastern province: Trincomalee district: Trincomalee promontory: Konesar Malai (Swami Rock): Koneswaram kovil.

POSITION: WGS84 N08°35': E081°15' / N08.5833333°: E081.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Trincomalee (=ne-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841.

A sacrifice pit or »chasm in the rock« (temple cave) dedicated to Shiva (781) is found at the Koneswaram kovil on the Konesar Malai or Swami Rock and Swamy Rock (782): »... the giddy height of the farthest rock that rises over the dark and fathomless ocean« (FORBES 1840, 1841. ii: 44) at the base of the »precipice of Trinkomalee« (783).

SITUATION 1: LONELY PLANET (2003: 259): »At the end of the road veering left up through the fort is Swami Rock, also known as 'lovers leap' [784], which drops sharply about 130 m to the sea below. A Hindu temple, the Koneswaram Kovil, occupies the end of the spit; you must leave your shoes at the foot of the steps leading to the temple itself.«

SITUATION 2: FORBES (1840, 1841.ii: 44): »... on the precipice of Trinkomalee« and »on the giddy height of the farthest rock that rises over the dark and fathomless ocean.«

CAVE DESCRIPTION (FORBES (1840, 1841.ii: 45): »... a chasm in the rock, which is believed to be the residence of the spirit ...« (i.e. Shiva, the Hindu god).

CULTURAL HISTORY: FORBES (1840, 1841.ii: 44-45): »The priest (a Brahmin), having his head encircled by a string of large beads, and a yellow cloth bound round his loins, placed himself a few minutes before sunset on the giddy

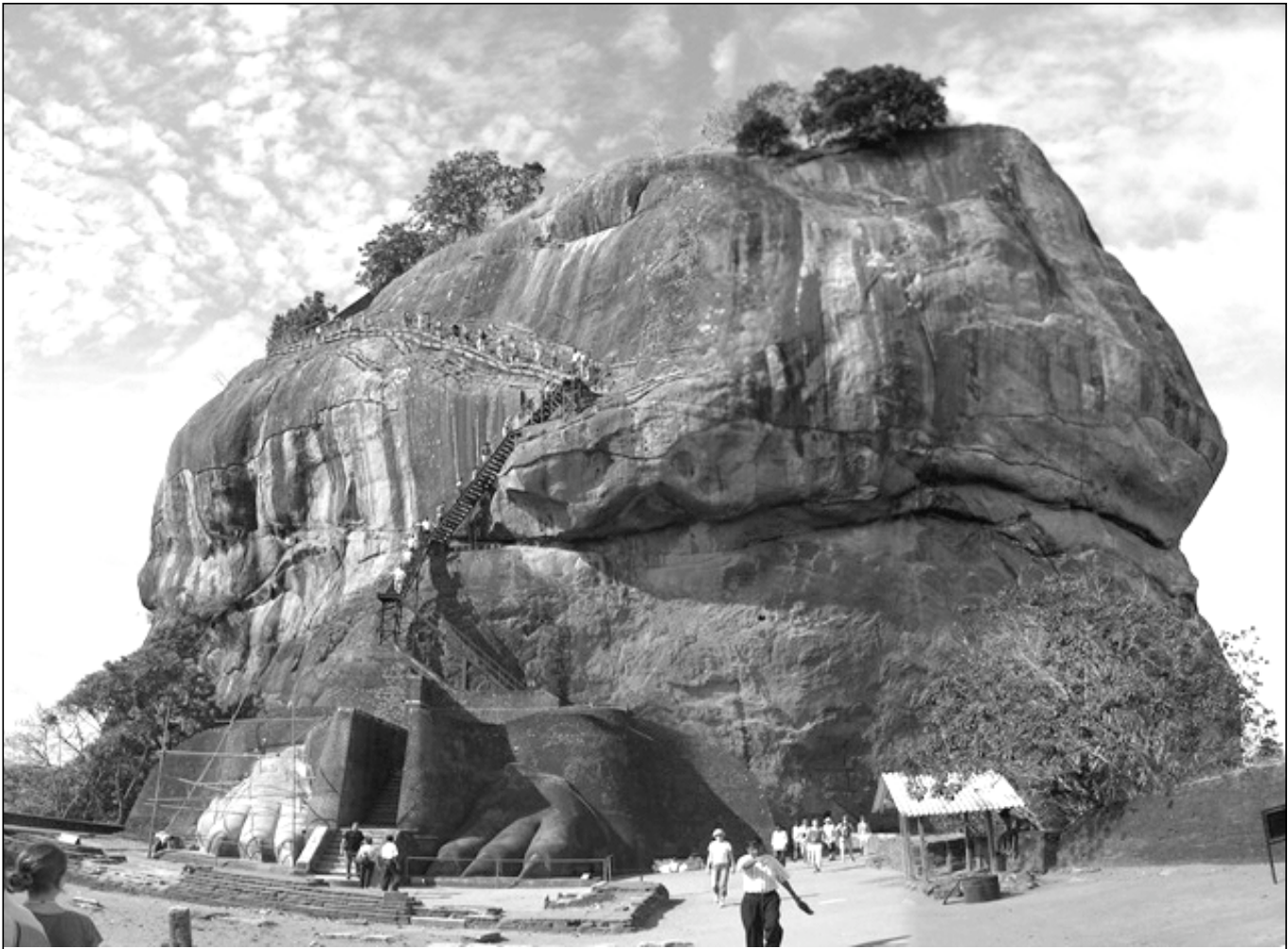
781 »The rocky promontory occupied by the fort of Trinkomalee is by the natives appropriately dedicated to Siva (the destroyer), in his ancient name of Eiswara [Ishwara], and is regarded with great veneration by his votaries. They believe that, in the earliest wars of the gods, three of the peaks of Mahameru were thrown down, and driven to different parts of the world; one of these is Koneiswara-parwatia, or Trinkomalee, which thenceforth became, equally with Kailasa, the abode of Siva [Shiva]« (FORBES 1840, 1841. ii: 43).

782 Konesar Malai or Swami Rock (Sami Rock, Samy Rock, Swamy Rock) N08°35': E081°15' <www.nima.mil/geonames> accessed 16.11.2003.

783 »Trinkomalee« (FORBES 1840, 1841. ii: 44) is the town of Trincomalee N08°34': E081°14' <www.nima.mil/geonames> accessed 16.11.2003.

784 FORBES (1840, 1841.ii: 45-47): »The summit of the promontory is considerably higher, and close above the perilous situation on which the priest had been officiating; it is formed of a huge loose mass of rock; and this primeval altar of Pagan superstition now bears the monument of a Christian suicide: A pillar, of a form alternately square and octagonal, commemorates the unhappy fate and dreadful death of a young and beautiful woman. The inscription is nearly obliterated ... Francina van Rhede 1687. 24 April ... Her mangled remains were rescued from the rocky fragments that project through the waves at the base of the precipice ...«

LONELY PLANET (2003: 260): »... eight years after her supposed romantic demise she married.«



SIGIRIYA GALA Final ascent of Sigiriya Rock

height of the farthest rock that rises over the dark and fathomless ocean: Of the votaries, some were perched amongst the dangerous crags; while the more timid or less devout knelt, prostrated themselves, or reclined in safety, on the short grass which clothes the promontory. The priest, after performing his ablutions, placed himself in various picturesque attitudes; and occasionally, as he dropped some betel-leaves or rice into the sea, bowed himself with great apparent reverence towards a chasm in the rock, which is believed to be the residence of the spirit, the object of his worship. After the sun had gone down, the Brahmin gracefully waved a censer, then held it at the full stretch of his arm above his head, while the incense flamed up, flickered, and disappeared; then, as the perfume spread around, he concluded his incantations by casting a cocoa-nut into the ocean, and receiving the offerings on behalf of Eiswara« (785).

785 FORBES (1840, 1841.ii: 45): » The oblations consisted of copper coins of the smallest denominations, cocoa-nuts, rice, and betel-leaves -- assuredly, although he had a numerous congregation, the priest was but poorly remunerated for his ministrations on such a dangerous altar.

At the time I saw these ancient rites, the scene was unpolluted in Pagan eyes, and the effect to me rendered more interesting and unique from the absence of the wan visages and formal dresses of the European soldiers; they had seen these ceremonies too often to notice them now.«

SIBAK, cave of

see: Sabik, cave of al-

Lee, Samuel 1829 edition of Ibn →Battuta, Muhammad Ibn-Abdallah Awamiri (circa 1355 for 1325-1354): 188; Skeen, William 1870: 196, 1997.

SIBERIYA MANDAPAM, krasové kaverny

see: Periya Mandapam

Mitter, Pavol 1979a: 154-155, 1978: 147.

SIBIYERIA MANDAPAN

see: Periya Mandapam

Mitter, Pavol 1979a: 154-155.

SIEBEN GROTTEN

see: Seven Caves

[Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, ca. 1355 for 1325-1354, edited by Leicht, Hans 1999: 200.

SIGHIRI FELSENHÖHLEN

see: Sigiriya Rock Shelter

Drinneberg, Erwin 1926: 32-33.

SIGIRIYA ROCK SHELTER

Frequently visited but speleologically unexplored and unmapped modified natural, painted rock shelter in granite.

LOCATION: Central province: Matale district: Sigiriya rock.

POSITION: WGS84 (estimated EPE ±2.5 km) N07°57': E080°45' / N07.95°: E080.75° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Polonnaruwa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHICAL REFERENCES: Ceylon Traveller 1974, 1983; Courbon, Paul; & Chabert, Claude 1986; Drinneberg, Erwin 1926; Forbes, Jonathan 1840, 1841; Irani, Gustap 2004; Kusch, Heinrich 1973a, 1973c; Lonely Planet, Sri Lanka 2003; Reichenbach, Kurt & Kiedrowski, Rainer 1995; Trimmel, Hubert 1998; Wilson, Jane M 1988. NOT SEEN BIBLIOGRAPHY: Bandaranayake, Senake & Mogren, M 1994a; Bhadanta, Sorate Thera 1953; Coomaraswamy, A K 1927a, 1927b; Deraniyagala, Paulus Edward Pieries a.i.; Deraniyagala, Siran Upendra 1992; Dhanapala, D B 1957a, 1957b, 1964a, 1964b; Goetz, H 1959a, 1959b, 1965; Khan, Bahabodur San Ulla a.i.; Leclercq, Jules 1896; Lee, Yu Kit 1994; Manjusri, L T P a.i.; Mauri, Manuela 1974; Mode, H 1979; Paranavitana, S 1950, 1956, 1970, 1983; Paranavitana, S & Archer, W G 1957a, 1957b; Rau, H 1987; Reynolds, C 1981; Silva, Raja H de 1976; Vann, Lindley 1987.

A sun protected but daylight-lit, and »long, sheltered gallery in the sheer rock face« (LONELY PLANET 2003: 229), contains spectacular frescoes (rock art) dated to the 5th-century (Kasyapa, ruled 18 years between 459 and 477 A.D.), which are the only non-religious old paintings to be seen in Sri Lanka (786) and show beautiful women or *apsaras* (787).

ETYMOLOGY: FORBES (1840, 1841.ii: 2 footnote): »Sikhari signifies a mountain-stronghold or hill-fort, hut so simple a derivation and so appropriate a designation is rejected; and the learned natives derive its name from Siha or Singha, (a lion), and giri (a rock), and assert that it was so called from the number of lions sculptured on different parts of the fortress. Their derivations, always fanciful and often absurd, are not supported in this instance by any remains which we discovered; it is one of the very few places of consequence in which I have not found lions sculptured in various attitudes.«

SITUATION: Close to the geographical centre of Sri Lanka and halfway up the Sigiriya Rock (788), an isolated hillock, which lies 10 km east of Inamaluwa (N07°55'57": E080°41'06" WGS84), the turn-off point on the A6 road (789).

CULTURAL HISTORY - rock art: FORBES (1840, 1841.ii: 12) mentions »... copies of Nagara inscriptions which appear on the rock of Sigiri, and on the neighbouring hill ... the rock-temple of Pedurugalla ...« (Piduragala).

LONELY PLANET (2003: 229): »About halfway up the rock is a modern spiral stairway that leads up from the main route to a long, sheltered gallery in the sheer rock face. In this niche there is a series of paintings of beautiful women, believed to represent *apsaras* (celestial nymphs). They are similar in style to the rock paintings at Ajanta in India, but have specific character in their classical realist style. Although there may have been as many as 500 portraits at one time, only 22 remain today ... Protected from the sun in the sheltered gallery, the paintings remain in remarkably good condition, their colours still glowing. They are at their best in the late afternoon light« (790).

CEYLON TRAVELLER (1974, 1983: 114): »... beautiful women painted on the rock face ... These frescoes are similar in style to those of the contemporary Ajanta cave paintings in India. They are also believed to be the oldest examples of figure-painting in this island. Only 21 of these bewitching

788 Sigiriya, Sigiriya Gala, Lion Rock, or simply Sigiri, is »... an enormous 600 feet [183 m] high rock« (CEYLON TRAVELLER 1973: ?, 1984: 112) or a »200 m high rock (377 m above sea level)« (LONELY PLANET 2003: 228) near N07°57': E080°45' <www.nima.mil/geonames> accessed 16.11.2003.

789 Inamaluwa (N07°55'57": E080°41'06" WGS84) lies at travelling distances of 159 km north-west from Colombo (N06°55'55": E079°50'52" WGS84), 82 km north of Kandy (N07°17'47": E080°38'06" WGS84), 12 km north of Dambulla (N07°51'36": E080°39'06" WGS84), 15 km south-west from Habarana (N08°02': E080°45'), and 150 km south-west from Trincomalee (N08°34': E081°14').

790 LONELY PLANET (2003: 229) draws attention to the »Mirror Wall with Graffiti ... Beyond the fresco gallery, the pathway clings to the sheer side of the rock and is protected on the outside by a 3 m high wall. This wall was coated with a mirror-smooth glaze upon visitors of 1000 years ago felled impelled to note their impressions of the women in the gallery above. The graffiti were inscribed between the 6th and 14th centuries, and 685 of them have been deciphered and published in a two-volume edition, *Sigiriya Graffiti*, by Dr. S. Paranavitana (Oxford University Press). They are of great interest to scholars for their evidence of the development of the Sinhala language and script, and because they demonstrate and appreciation of art and beauty. You'll have to look hard beyond the modern mess to see the ancient messages.

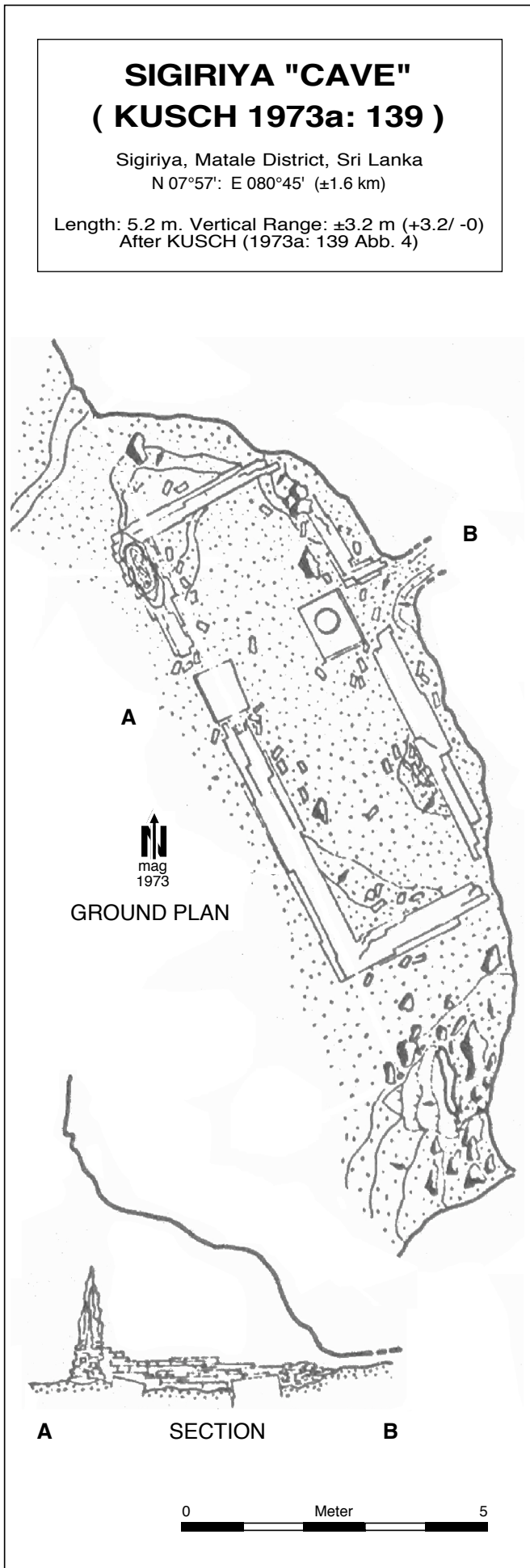
One typical graffiti reads: *The ladies who wears golden chains on their breasts beckon me. As I have seen the resplendent ladies, heaven appears to me as not good. Another, by a female scribbler, reads: A deer-eyed young woman of the mountain side arouses my anger in mind. In her hand she had taken a string of pearls and in her looks she has assumed rivalry with us.*«

CEYLON TRAVELLER (1974, 1983: 114) confirms that of the Sigiriya graffiti »nearly 700 verses have been deciphered and published by Dr. Paranavitana ...«

786 »Sigiriya Cave« and »Sigiriya Caves« is also met to designate not only the man-made rock chambers →Piduragala »Caves« but also the »Shelter« (rock shelter) →Aligala Galge and the →Cobra Hood Cave.

787 The Sanskrit "apsara" is a »celestial nymph« (LONELY PLANET 2003). I did not care much but found the Sigiriya *apsaras* classified as

cloud maidens	CEYLON TRAVELLER (1983: 114)
lightning princesses	CEYLON TRAVELLER (1983: 114)
pin ups	LONELY PLANET (2003: 229)
Wolkenmädchen	REICHENBACH et al. (1995: 71).



figures have survived to this day. Their sensual beauty is most striking. Some have golden complexions and some dark. They are graceful, be-jewelled and lotus-decked. Some are bare-bosomed while others are clad in diaphanous clothes.«

KUSCH (1973a) gives a description (in German) and reviews aspects of cultural and art history. The site is just about mentioned by CEYLON TRAVELLER (1974: 249; 1983: 251) and WILSON (1988: 22) but much advertised in cheap tourist "wordings", e.g. IRANI (2004).

DRINNEBERG (1926: 32) tells traveller's tales (791).

REICHENBACH et al. (1995: 71, photograph on page 66): wants the frescoes painted on polished limestone (792).

EXPLORATION HISTORY: 1833: Major Jonathan FORBES (1840, 1841.ii: 1-13, 17-18), Captain H. and Mr. B. had visited the ruins of »Sigiri« in the year 1831 (page 18) for the first time (793) but only when FORBES (1840, 1841.ii) »... returned to Sigiri in 1833 ...« for a second visit, he »... remarked that the projecting rock above the gallery, at least so much of it as is within reach, had been painted in bright colours, fragments of which may still be perceived in those places most sheltered from the heavy rains.«

791 DRINNEBERG (1926: 32): »In Sighiri [sic!], welches in südwestlicher Richtung von Anuradhapura liegt, sehen wir die monumentalen Reste einer gewaltigen Felsen-feste. Ihr Anblick ist düster und drohend, und wie eine Insel ragen die gigantischen Felsblöcke über den Urwald, der sich wie ein grünes Meer rings um den Fuss dieser Felsen zieht. In seinem harten Schoß sind buddhistische Sakralien aus der ältesten Zeit versenkt. Tief in dem kühlen Gestein liegen riesige Aushöhlungen begraben, in denen Heiligtümer und Gemächer mit reichem Bildschmuck verborgen sind. [...] Durch ausgehöhlte Gänge und Treppen führt der Weg in düstere Felsenhöhlen hinab. Es sind katakombenähnliche Verliese mit unendlich feinen und reichen Verzierungen, die unter großer Mühe dort aus dem Stein herausgemeißelt oder in bunten Fresken auf die Oberfläche der Felswände gemalt sind. [...] Über unseren Köpfen wölbt sich die Felsenwand zu einer niederen Decke, die mit ihrer gewaltigen Last die dumpfe Enge dieser unterirdischen Höhle zur Unerträglichkeit steigert.«

792 REICHENBACH et al. (1995: 71, photograph on page 66): »... die 17 Mädchenfresken (von ursprünglich etwa 500) in einer Art Höhle auf halber Höhe. ... Schönheit und Grazie der 1500 Jahre alten "Wolkenmädchen" [ohne Unterleib] haben schon vor vor Jahrhunderten die Besucher entzückt. Ihre poetischen Jubelverse aus dem 7. bis 11. Jahrhundert sind in einer sogenannten Spiegelgalerie unterhalb der Fresken zu bewundern: Auf 20 x 3 m poliertem Kalkstein stehen Elogen wie "Du mit den Mandelaugen, alle hast Du verzaubert ..." Wer zu den Ruinen auf das Bergplateau in 200 m Höhe steigen will, muß trittsicher und schwindelfrei sein.«

793 FORBES (1840, 1841.ii: 10): »We crept along the narrow grooves from whence portions of the building had fallen; and Captain H, followed by Mr. B, after clambering up the loose bricks which formed the termination, succeeded in entering the gallery, and proceeded along it for about one hundred yards: in this distance they occasionally ascended a few steps, but were unable to reach the upper terrace, as at an angle of the rock the gallery had slipped from its scanty foundations. I felt so giddy from the heat as to be unable to accompany my friends; and was sincerely glad to see them descend in safety.«

SINHARAJA FOREST CAVE

or: Kudave Cave, Kuduwe Cave

Archaeologically investigated but speleologically unexplored and unmapped natural cave in gneiss (Brooks 1995 Mss, item 18).

LOCATION: Sabaragamuwa province: Ratnapura district: Sinharaja Forest area: Kudawe (Kudave, Kuduwe) village.

POSITION: (If at the Sinharaja Forest itself), WGS84 N06°24'00": E080°30'32" / N06.4°: E080.50888889° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: MAP: Survey of Ceylon / Sri Lanka: "Rakwana" (One-Inch series).

SPELEOMETRY: Length: Estimated 5 m. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 18.

An about 3 m wide and 2.4 m high entrance leads to an estimated 5 m long single chamber in gneiss (Brooks 1995 Mss, item 18).

SITUATION: At the »heart of the island's wet zone« (LONELY PLANET 2005: 215) or in the »wet lowland zone« (DERANIYAGALA 1980: 172) and somewhere in the vicinity of Kudawe or »Kudave« and »Kuduwe« (794), a village and the north-western point of entry for the Sinharaja Forest (N06°24'00": E080°30'32" WGS84), the last major, undisturbed area of rain forest in Sri Lanka (since 1989 a UNESCO World Heritage site).

ARCHAEOLOGY: Excavations in 1939 and 1968 were fruitless (DERANIYAGALA 1980: 172).

EXPLORATION HISTORY: 1939: A first attempt of archaeological investigation was fruitless (DERANIYAGALA 1980: 172).

1968: A second attempt of archaeological investigation was also fruitless (DERANIYAGALA 1980: 172).

SINN A PERYA MANDAPAN

see: Periya Mandapam

see: Sinna Mandapam

Sasvari, Tibor & Terek, Jozef 1984: 108.

SINN A PERYA MANDAPAN

see: Periya Mandapam

see: Sinna Mandapam

Sasvari, Tibor 1978: 49.

SINNA MANDAPAM

Unexplored and unmapped natural cave and fabulous tunnel in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Kankesanturai (Kankesanturay) area: Kerudavil (Kerudawill) village.

POSITION: (If within a kilometre from Periya Mandapam), Representative WGS84 or Everest 1830 (approximate EPE ±1 km) N09°48'50": E080°08'40" / N09.81388889°: E080.14444444° (mere guesswork after Ceylon One Inch sheet "Point Pedro" revised 1959 edition reprinted 1971).

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Liska, Milan 1980; Mitter, Pavol 1978; Sasvári, Tibor 1978.

Either a shallow pothole or collapse doline (closed depression). Compare →Periya Mandapam.

ETYMOLOGY: The Tamil "sinna mandapam" translates into »little shelter« (CEYLON TRAVELLER 1974: 248; 1983: 250) or lower, minor, smaller, etc. public shelter for all pilgrims, travellers and the like (795).

SITUATION (CEYLON TRAVELLER 1974: 248; 1983: 250): Not far from the village of Kankesanturai (N09°49': E080°02'), well over 400 m (796) or almost 800 m (797) in an unspecified direction from →Periya Mandapam (798), and in a prominent ridge of rock »near« Kerudavil (799).

POSITION: Unidentified (800).

ACCESS (CEYLON TRAVELLER 1974: 248; 1983: 250): »The entrance to Sinna Mandapam lies in private property and entry is discouraged.«

795 MITTER (1978: 147) calls it »*krasové kaverny Sibériya Mandapam pri Kerudavil*« (karst cave of »Sibériya Mandapam« near Kerudavil) and SASVARI (1978: 49-50) calls the pair »*Sinna és Parya Mandapan*« (Sinna »Mandapan« instead of Mandapam and »Parya« instead of →Periya Mandapam).

796 CEYLON TRAVELLER (1974: 248; 1983: 250): »... the caverns locally called Sinna and Periya Mandapam ... not far from Kankesanturay ... are well over a quarter of a mile [402 m] apart, but until recently it was possible to pass by subterranean passages [a fabulous tunnel?] all the way from one to the other.«

797 CEYLON TRAVELLER (1974, 1983: 131): »The limestone caverns at Sinna and Periya Mandapam [are] exceeding by close on a half mile, showing glimpses of the limestone shelf on which Jaffna stands.«

798 Periya Mandapam N09°48'48": E080°08'18" (±100 m, Everest 1830, Survey Department sheet Point Pedro, revised 1959 edition reprinted 1971).

799 »Kerudawill« (LISKA 1980, MITTER 1979) or Kerudavil N09°49': E080°09' (www.nima.mil/geonames accessed 16.11.2003) and Kerudavil Wasama (N09°40': E080°08'30" ±2.5 km, Ceylon One Inch sheet "Point Pedro", revised 1959 edition reprinted 1971) is reached by a 1.2 km long minor road turning inland off the main road from Kankesanturai to Point Pedro by a temple near milepost »5 3/4« (5.75 miles = 9.3 km, CEYLON TRAVELLER 1974: 249-250; 1983: 250-251).

800 Paying a preliminary visit to the Kerudavil Wasama area in the vicinity of →Periya Mandapam (N09°48'48": E080°08'39" ±100 m, Everest 1830) in January 1979, I marked on my copy of the One Inch sheet "Point Pedro" (Survey Department 1959 reprinted 1971) two dolines near N09°48'23": E080°08'18" (about 1 km SW from Periya Mandapam) and near N09°48'06": E080°08'18" (about 1.4 km SSW from Periya Mandapam).

794 Neither »Kudave« (Brooks 1995 Mss) nor »Kuduwe« (Brooks 1995 Mss) is listed on <www.nima.mil/geonames> (accessed 16.11.2003) but there is a village of Kudawe N06°26': E080°25' (WGS84) about 10 km in a direct line approximately WNW from the position of Sinharaja Forest N06°24'00": E080°30'32" <www.nima.mil/geonames> accessed 16.11.2003.

CAVE DESCRIPTION: None reported.

CAVE POTENTIAL - fabulous tunnel (CEYLON TRAVELLER 1974: 248; 1983: 250): Sinna Mandapam and Periya Mandapam »are well over quarter of a mile [402.3 m] apart, but until recently it was possible to pass by subterranean passages all the way from one to the other.«

SITA GALGE, Avissawella

Speleologically unexplored and unmapped natural or modified natural cave or rock shelter.

LOCATION: Western province: Colombo district: Avissawella town: Rest House.

POSITION: WGS84 N06°57'11": E080°13'06" / N06.95305556°: E080.21833333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Avissawella" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

Sita Galge or Sitavaka (**801**) is an »... interesting cave with a fine view from its opening« (CEYLON TRAVELLER 1974: 249; 1983: 251).

SITUATION: »Within a few hundred yards of the Avissawella Resthouse« (**802**).

APPROACH: »Walk down [south-east] the railway line towards Ratnapura, and the cave is on a hillock to your right.«

SITA KOTUWA, cave at

or: Seetakotuwa Cave, Sitakotuwa Limestone Cave

Unexplored and unmapped natural cave in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Central province: Kandy district: Hasalaka: Gurulupota bazar: Sita Kotuwa (Seetakotuwa, Sitakotuwa) ruins.

POSITION: WGS84 N07°20': E080°56' / N07.333333°: E080.933334° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

WEBSITE: <www.srilankatrekking.com> accessed 2009.08.17.

»A little but perfect cave in miniature –stalactites and stalagmites [speleothems] and all« (CEYLON TRAVELLER 1974: 241; 1983: 243) in limestone (**803**).

SITUATION: At the foot of the eastern escarpment of the Kandyan table-land and at a spot »overhanging the quite famous ruin of Sita Kotuwa« or Sitakotuwa and Seetakotuwa (N07°21': E080°56').

APPROACH: CEYLON TRAVELLER 1974: 241; 1983: 243) suggests to »find a guide to this cave at Gurulupota bazar [N07°20': E080°56'] just below the series of [eighteen] hairpin bends ...« on the road (highway A5) from Kandy (N07°17'47": E080°38'06" WGS84) generally eastwards to Mahiyangana (N07°19'00": E080°58'58" WGS84).

SITA KUND , Hakgala

or: Seeta Koonda

Unexplored and unmapped natural cave, sink and spring.

LOCATION: Central province: Kandy district: Hakgala Natural Reserve: Sita Talewa (Seeta Talawa) area: Sita Kund (Seeta Koonda).

POSITION: WGS84 (assumed EPE ±10 km) N06°55': E080°48' / N06.916667°: E080.8° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Nuwara Eliya" (OneInch series).

SPELEOMETRY: Length: Allegedly 49 m. Vertical range: Not known.

BIBLIOGRAPHY: Duncan, Jonathan 1799 edited 1807; Forbes, Jonathan 1840, 1841.

After an underground course of »fifty yards« (48.5 m), the stream known as »Seeta-ella« (FORBES 1840, 1841.ii: 131) or Sita Ela (N07°31': E080°19') resurges at a Sita's Pool or »Seeta Koonda« (Sita Kund), where whirlpools or »round holes formed by the eddying stream« (FORBES 1840, 1841.ii: 131-132): A karst surface with scallops?

SITUATION: At an unidentified location somewhere on a »plain« (or plateau) called »Seeta Talawa« or Sita Talewa (**804**), which appears lie somewhere on the way from Hakgala Peak (N06°54'36": E080°47'22" WGS84) generally north towards »Nuwara-ellia« (**805**) or Nuwara Eliya (N06°58'11": E080°46'12" WGS84) and, perhaps, within the Hakgala Strict Natural Reserve or within the Kandapola Sitaeliya Forest Reserve (**806**).

CULTURAL HISTORY - legend: The »round holes formed by the eddying stream ... are pointed out as the marks of the

804 FORBES (1840, 1841. vol. 2: 130): »After passing through a swampy jungle, in which I remarked fern-trees of thirty feet [9.25 m] in height, and turning round the northern end of Hakgalla [Hakgala] mountain, we reached an open valley fringed with barberry-bushes, and diversified by groups and single trees of the superb rhododendron arboreum: The dell was surrounded by hoary forests, whose rich but sombre colouring was unable to counteract that sullen gloom which shade and silence threw over the scene between Hakgalla and the massive Pedro. This is the Seeta Talawa (plain of Seeta), where it is believed the goddess was concealed together with Trisida, the niece of Rawana, who was her sole companion.«

801 »Sita Galge« (CEYLON TRAVELLER 1974: 249; 1983: 251) seems to be the »Sitavaka« marked as »ancient site« (three red dots) on the Nelles (München) map & APA (Singapur) map "Sri Lanka" (circa 1984 undated, scale 1: 450,000).

802 Avissawella (N06°57'11": E080°13'06" WGS84) lies about 40 km in a direct line east from Colombo city (Fort Railroad Station N06°56'01": E079°51'01" WGS84) on the road and railway line to Ratnapura (N06°40'58": E080°23'57" WGS84).

803 <www.srilankatrekking.com> (accessed 2009.08.17) advertises unspecified »... traditional villages of the Knuckles foothills with so much of treks and short walks such as Last King of Kandy, Sri Wikrama Rajasinhe's (1798-1815) hideout place, Rathna water fall trek, Sitakotuwa limestone cave and waterfall trek, etc.«

804 FORBES (1840, 1841. vol. 2: 130): »After passing through a swampy jungle, in which I remarked fern-trees of thirty feet [9.25 m] in height, and turning round the northern end of Hakgalla [Hakgala] mountain, we reached an open valley fringed with barberry-bushes, and diversified by groups and single trees of the superb rhododendron arboreum: The dell was surrounded by hoary forests, whose rich but sombre colouring was unable to counteract that sullen gloom which shade and silence threw over the scene between Hakgalla and the massive Pedro. This is the Seeta Talawa (plain of Seeta), where it is believed the goddess was concealed together with Trisida, the niece of Rawana, who was her sole companion.«

805 FORBES (1840, 1841. vol. 2: 132): »Ascending from the Seeta Talawa, and passing through a broad belt of jungle, I reached the plain of Nuwara-ellia.«

806 Kandapola Sitaeliya Forest Reserve N06°57': E080°49' (www.nima.mil/geonames accessed 16.11.2003).

feet of the elephant ridden by Rawana, when Seeta [807] vanished and re-appeared where the stream now does, in her exertions to escape from the persecution of the demon King« (Rawana).

CAVE POTENTIAL: Also found in the vicinity of Sita Kund (Hakgala): AA Cave (Baker), Istripura Cave (Welimada), the caves at →Hakgala, →Luckyland Estate, and →Padanwela (near Wilson's Bungalow).

SITAKOTUWA LIMESTONE CAVE

see: Sita Kotuwa, cave at

<www.srilankatrekking.com> accessed 2009.08.17.

SNAKE CAVE, Kirimalai

see: Keerimalai Snake Cave

Mitter, Pavol 1978: 147.

STRIPURA (Batatoa), grotte de

see: Batatota Lena

Silhavy, Vladimir 1974b: 26.

STRIPURA CAVE

see: Batatota Lena

Aellen V, Sket B & Strinati P 2001: 1977, 1978; Silhavy V 1974b: 25; Strinati P & Aellen V 1981: 459.

One of the five caves of Sri Lanka, which are indicated on the limestone and cave distribution »*Karst and caves in Ceylon*« (AELLEN et al. 2001: 1977 fig. 1) is »*Stripura Cave*« (808).

STRIPURA (Kuruwita), grotte de

see: Batatota Lena

Pages, Jean 1977: 687; Silhavy, Vladimir 1974b: 25, 26.

STRIPURA (Kuruwita), caverne

see: Batatota Lena

Szymczakowski, Waclaw 1972: 170.

STRIPURA (Kuruwita), grotta di

see: Batatota Lena

Brignoli, Paolo Marcello 1972: 908, 927.

STRIPURA (Kuruwita), grotte de

see: Batatota Lena

Silhavy, Vladimir 1974a: 805.

SULTAN, cave of the

or: Alexander, Iskandar Cave, Sultansgrotte

Unexplored and unmapped modified natural troglodyte rock shelter. LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R and Beckingham, Charles F 1994; edited by Lee, Samuel 1829; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999); Skeen, William 1870, 1997.

Associated with a Sultan or Iskandar (Alexander the Macedonian / the Great) is a kind of inhabitable but otherwise unspecified »*cave*« (LEE 1829: 189; LEICHT 1999: 200-201) or a »*number of grottoes*« (GIBB 1929, 1998: 258).

ETYMOLOGY: In the concretes sense, the post-classical Arabic "sultan" is a »*prince, monarch*« (809). CROOKE (1903, editor of YULE & BURNELL: Hobson-Jobson, page 864): »*In Arabia it [sultan] is a not uncommon proper name; and as a title it is taken by a host of petty kinglets*« (810).

SITUATION: In one way or another "near" the Grotto of al →Isfahani, which lies beyond (probably west or north-west) the »*pass of Iskandar*« on a route from a place called »*Kunakar*« (see: Cave of →Ustad Mahmud the Lur) via the »*Lake of Monkeys*« and across a certain »*Pass of Iskandar*« on the way to the »*Mountain of Sarandip*« (Adam's Peak).

SITUATION 1829 (Ibn BATTUTA 1829 edited by LEE: 189): »... and after this [→Seven Caves] to the ridge of Alexander, in which there is a cave and a well of water. At this place is the entrance to the mountain.«

SITUATION 1994 (Ibn BATTUTA 1994 edited by GIBB & BECKINGHAM: 853): »*At the same place [as the Grotto of al →Isfahani] is the Cave of the Bitter Orange and the Cave of the Sultan and close by is the darwaza [Persian for: gate] of*

807 FORBES (1840, 1841. vol. 2: 131 footnote): »*Cingalese traditions mention the route by which Seeta, accompanied by the young Trisida, was removed from Rawana's fort of Sri Lankapoor (which existed far to the westward of the present island, and was afterwards submerged) to the forests where it was intended to detain her in concealment. The places mentioned in her journey still retain nearly the same names; yet, as her route passed twice near Anuradhapoor without its being mentioned, we may conjecture that the tradition is of a prior date to the foundation of that ancient city, B.B. 500. Route of Seeta: From Lankapoor, Manar, Trinkomalee, Parawaha forest (in Nuwarakalavvia), Naya-coombura, Nalande, Wahakotta, Gongawelle, Yattawarra-ella, Malgamadennia, Katie.*«

808 The five caves of Ceylon indicated as dots (about 5 km in diameter) on »*Karst and caves in Ceylon*« (AELLEN et al. 2001: 1977 fig. 1) are

- 1 = Lunuge cave →Lunuge Cave
- 2 = Istripura →Istripura Cave (Welimada)
- 3 = Stripura cave →Batatota Lena
- 4 = Istri-gal-lena →Istripura Cave (Pannala)
- 5 = Rawanaella cave →Ravana Ella Cave.

809 YULE & BURNELL (1886, edited 1903: 864): »*The classical sense is abstract 'dominion.' The corresponding words in Hebrew and Aramaic have have, as usual, sh or s. Thus sholtan in Daniel (e.g. vi. 26 -- "in the whole dominion of my kingdom") is exactly the same word. The concrete word, corresponding to sultan in its post-classical sense, is shallit, which is applied to Joseph in Gen. clii.6: "governor" ...*«

810 BURTON, Richard F. (1894, edited by L C Smithers): The book of the thousand nights and a night.- vol. 1: 188 footnote: »*The Abbaside Caliphs (as al-Wasik ...) formerly created these Sultans as their regents. Al Táí bi'llah (A.D. 974) invested the famous Sabuktagin with the office ... Sabuktagin's son, the famous Mahmúd of the Ghaznavite dynasty in 1002, was the first to adopt 'Sultán' as an independent title some 200 years after the death of Harún-al-Rashid.*«

the mountain, that is the place of access to it. [The cave is] ... ascribed also to Iskandar.»

SITUATION 1999 (Ibn BATTUTA 1999 edited by LEICHT: 200, 201): »... *oberhalb des Teiches "Taufplatz der Heiligen" liegt ... auch die Orangengrotte und die Sultansgrotte, die den Zugang zum Berg darstellt. [...] ... am Fuß des Serendip, wo sich die Sultansgrotte befindet.»*

SUNDARI, cave of Queen

Archaeologically investigated but speleologically unexplored and unmapped modified natural, sacred and painted, troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Polonnaruwa district: Dimbulagala (Gunner's Quoin).

MAP: Survey of Ceylon / Sri Lanka sheet: Rukam (One-Inch).

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983: 112.

One of the »*Brahmi inscriptions over drip-ledges*« of the »*caves*« on →Dimbulagala (Gunner's Quoin) »*shows that the caves were prepared by Queen Sundari, wife of Vikramabahu, son of Vijayabahu I of Polonnaruwa*« (CEYLON TRAVELLER 1974, 1983: 112).

SWARNA GIRIGUHAYA

see: Dambulla Galge

A modified natural, sacred and painted, troglodyte rock shelter (temple cave).

LOCATION: Central province: Matale district: Dambulla (Dambul) village: Dambullugala.

MAP: Survey of Ceylon / Sri Lanka sheet: Nalanda (One-Inch).

BIBLIOGRAPHY: Forbes, Jonathan 1840, 1841 vol. 2: 352.

Part of rock inscription (1200 AD) at Dambulla galge, translates FORBES (1840, 1841.ii: 352-353 inscription 5) into: »*The sovereign lord of Lanka, Praakramabahoo Chakkrawarti, of the dynasty of Kaalinga ... caused ... caused to be made seventy-two statues of Budha in the recumbent, the sitting, and the standing posture ; and having caused them to be gilt, celebrated a great puja at the cost of seven lacks of money ; and, as is thus recorded upon this stone, gave (to this cave) the name of Swarna Giriguhaya.*«

ETYMOLOGY: FORBES (1840, 1841.ii: 353 footnote) translates "swarna giriguhaya" into »*Cave of the golden mountain.*«

According to LONELY PLANET (2003: 225), however, it had been »*King Nissanka Malla who had the caves' interiors gilded, earning the place the name Ran Giri (Golden Rock).*«

TAHIR, cave of Baba

Unexplored and unmapped modified natural troglodyte rock shelter. LOCATION: Sabaragamuwa province: Unidentified (Kegalla or Ratnapura) district: Adam's Peak area.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet "Hatton" or "Ratnapura" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton A R. and Beckingham, Charles F. 1994; edited by Lee, Samuel 1829); Skeen, William 1870, 1997.

A troglodyte (inhabitable) »*cave of Baba Tahir*« (LEE 1829: 188), »*Grotte des Baba Tahir*« (LEICHT 1999: 199), or a »*number of grottoes*« (GIBB 1929, 1998: 258) had been noticed, visited and recorded by the Arab traveller Ibn Battuta some time between 1335-1354 AD.

ETYMOLOGY: Baba, literally 'grandfather', is an affectionate appellation for a male person of any age (**811**).

SITUATION: On the western (Ratnapura) side of the ascent to Adam's Peak (WGS84 N06°48'30": E080°29'53": 2134 m asl) and somewhere beyond »*a place called "The Old Woman's Hut" which is the end of the inhabited part*« (**812**) on the way from a place called »*Kunakar*« (see: Cave of →Ustad Mahmud the Lur) via one »*Lake of Monkeys*« on a route to the »*Mountain of Sarandip*« (Adam's Peak).

TALAGURUHELA GALGE

or: Talaguruhela "rock caves"

Speleologically unexplored and unmapped natural or modified natural cave or rock shelter.

LOCATION: Sri Lanka: unidentified (Southern or Uva) province: Unidentified (Hambantota or Monaragala) district: Kumbukkan Oya basin: Yala National Park area: Talaguruhela.

POSITION: WGS84 N06°34': E081°29' / N6.5.6667°: E081.48333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

WEBSITES: <www.nima.mil/geonames> accessed 16.11.2003; <www.wayhoo.com> accessed 25.05.2004).

In addition to »*five caves*« (CEYLON TRAVELLER 1974, 1983: 172) or modified natural rock shelters used for troglodyte religious purposes »*near the summit*« of the Talaguruhela, there is, at it's base, a vague »*number of caves with inscriptions*« including one containing an »*18-foot recumbent image of the Buddha, partly damaged*« (**813**).

ETYMOLOGY: The »*caves*« (CEYLON TRAVELLER 1983: 172) or »*rock caves*« (www.nima.mil/geonames accessed 16.11.2003) seems to be an attempt to translate the Sinhala "galge" compounded of "gala" (rock) and "ge" (house, home, dwelling, etc.). The "tala" bit possibly means something »*head*« while "guru" is a teacher and "hela" the same as in English, a hill.

POSITION: »*Talaguruhela rock caves*« is one of the eight Sri Lanka "CAVE" (**814**) entries (**815**) listed on <www.nima.mil/geonames> (accessed 16.11.2003) and <www.wayhoo.com> (accessed 25.05.2004).

811 LEE (1829: 188), editor of BATTUTA (circa 1355 for 1325-1354) calls Baba Tahir »*one of the pious*« and GIBB & BECKINGHAM (1994: 852) »*a devotee.*«

812 GIBB & BECKINGHAM (1994: 852): »... *we continued our journey to a place called 'The Old Woman's Hut', which is the end of the inhabited part, and went to the cave of Baba Tahir, who was a devotee, and then to the cave of al- Sabik ...*«

813 Personally, I am tempted to surmise that the »*18-foot recumbent image*« features less than eighteen feet but, in the end, is about 18 feet (5.6 m) long.

814 <ftp://ftp.nga.mil/pub/gns_data/Designations.html> (accessed 28.05.2004): »*cave(s): An underground passageway or chamber, or cavity on the side of a cliff.*«

815 <www.nima.mil/geonames> (accessed 16.11.2003) and <www.wayhoo.com> (accessed 25.05.2004) list Dagaba Caves (N06°36': E081°23'), Henanegala Cave (N07°35': E081°17'), Itikala Caves (N06°34': E081°44'), Lunuatalgalge Cave (N06°31': E081°30'), Lunuhinda Cave (N07°40': E080°39'), Mulagama Cave (N07°15': E081°29'), Talaguruhela Rock Caves (N06°34': E081°29'), and Viharegala Rock Cave (N06°39': E081°39').

SITUATION (CEYLON TRAVELLER 1983: 172): »Nestling in a cluster of rocky hills, Talaguruhela at 894 feet [273.6 m] is the highest peak in the range. Seventy six rock-cut steps lead to the summit where one finds the remains of a stupa and a pre-Christian inscription. There are five caves and 16 upright stone pillars near the summit. At the base of this hill is a number of caves with inscriptions ... A series of rock pillars and a mal asana (flat table top of rock where flowers are offered.«

In connection with the →Lunuatugalge (N06°31': E081°30'), CEYLON TRAVELLER (1983: 173) explains that »to the north are peaks of Talaguruhela and beyond it the striking Chimney Hill Rock (1.056 feet), aptly named ...«

On my issue of the "Road Map of Sri Lanka" (Survey Department 1977) the Talaguruhela position N06°34': E081°29' indicates a spot that lies on the border of the districts of Hambantota and Monaragala and close to the geographical centre of the →Yala National Park (816).

APPROACH (CEYLON TRAVELLER 1983: 172-173): »Talaguruhela is 4 miles« (6.4 km) from Kumbukkan oya or 18 miles [29 km] from Menik Ganga, along game trails through mostly unexplored area. The easier of these two routes is from the Kumbukkan oya through Kebilitta [817], where the jungle shrine of Pattini is found. An offering is usually made to appease the goddess when entering her domain to ensure safe journey. From her Talaguruhela can be reached in a few hours.«

TANTIRIMALAI "CAVES"

Unexplored and unmapped modified natural sacred troglodyte caves or rock shelters (temple caves).

LOCATION: Northern Central province: Anuradhapura district: Malwatu Oya basin: Wilpattu National Park area: Tantirimalai Archaeological Reserve.

POSITION: WGS84 N08°34': E080°15' / N08.5667°: E080.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Marichchukkaddi.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c.

Unspecified "caves" at Tantirimalai contain "paintings" (rock art) in red colour (KUSCH 1973c: 22). Compare the →Ochappu Kallu Rock Shelters.

SITUATION: KUSCH (1973c: 22) places »Tantirimalai« (818) at a distance of »20 miles« (about 32 km along a couple of roads) "north" (more likely: north-west) of Anuradhapura (N08°21': E080°23') and two miles west of the »Mawatu Oya« (sic! qua: Malwatu Oya).

SURVEY DEPARTMENT (1977: Sri Lanka road map) indicates »Tantirimalai« at the north-eastern edge of the

Wilpattu National Park and above the south-western (orographically left) bank of the Malwatu Oya (819).

CULTURAL HISTORY - rock art: According to KUSCH (1973c: 22), an unacknowledged bibliographical source (820) mentions "drawings" (sic) similar to the "paintings" at Tantirimalai, which have been discovered in "caves" at →Madagala, →Mahalenama, and at →Kadurupoluna.

TELLIPALAI CAVE

Unexplored and unmapped natural cave and perennial spring in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Tellipallai (Tellipalai, Tellippalai, Tillipalli, Tillipally) village.

POSITION: WGS84 N09°47': E080°02' / N09.78333333°: E080.03333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: ±14.3 m (+0m / -14m).

BIBLIOGRAPHY: Tennent, James Emerson 1859, 1860.

The sinking of a well at the village of Tellipalai or Tellipallai, Tellipalai, »Tillipalli« and »Tillipally« (821) resulted at a depth of 4.3 m in an artificial (man-made) entrance to cave of unknown extension, drowned in more than 10 m of water (TENNENT 1859, 1860.i: 21), which is »... entirely unaffected as to its level by any rains, and exhibits no alteration of its depths on either monsoon« (TENNENT 1859, 1860.i: 23) while the water level in →Tidal Well (Puttur) and →Tidal Well (Navakkeeri) rises and falls in accordance with the tide.

CAVE DESCRIPTION (TENNENT 1859, 1860.i: 21, 23): Workers sinking a wall shaft came at a depth of »fourteen feet« [4.3 m] »... to the ubiquitous coral, the crust of which gave way, and showed a cavern below containing the water they were in search of, with a depth of more than thirty-three feet [10 m]. It is remarkable that the well at Tillipalli preserves its depth at all seasons alike, uninfluenced by rains or drought. ... the well at Tillipalli is entirely unaffected as to its level by any rains, and exhibits no alteration of its depths on either monsoon.«

CAVE POTENTIAL: Perhaps a diving spot worth checking out.

TEULLA CAVE (Brooks 1995 Mss)

see: Demeliya Galge

Brooks, Simon J 1995.04 Mss "The speleology of Sri Lanka" no 6: Telulla Cave / Telulla Lena Cave.

TEULLA LENA CAVE (Brooks 1995 Mss)

see: Demeliya Galge

Brooks, Simon J 1995.04 Mss "The speleology of Sri Lanka" no 6: Telulla Cave / Telulla Lena Cave.

816 <www.nima.mil/geonames> (accessed 16.11.2003) positions the »PRK« (park: an area, often of forested land, maintained as a place of beauty, or for recreation) Yala National Park not only at N06°25': E081°30' and at N06°32': E081°41' but also at N06°35': E081°33' and the »RFS« (forest reserve: A forested area set aside for preservation or controlled use of species or products) Yala National Park N06°37': E081°23' (WGS84).

817 »Kebilitta« (CEYLON TRAVELLER 1983: 173) is not identified unless it is the same as the religious site (an ancient site of significant religious importance) of Kebilitta Dewale N06°36': E081°32' (www.nima.mil/geonames accessed 16.11.2003).

818 Tantirimalai Archaeological Reserve, Tantirimali, or Tanthirimala N08°34': E080°15' <www.nima.mil/geonames> accessed 16.11.2003.

819 Malwatu Oya N08°41': E080°14' <www.nima.mil/geonames> (accessed 16.11.2003) is a tributary to the Aruvi Aru. Not to be confused with the other Malwatu Oya N08°14': E080°34' (www.nima.mil/geonames accessed 16.11.2003).

820 KUSCH (1973c: 23) based his literary research on Kukla, Jiri (1958), Lajta, Hans (1972), Manjusri, L T P (a.i.), Mauri, Manuela (a.i.), Trimmel, Hubert (1968), and »Ceylon« (i.e. Dhanapala, D.B. 1957b).

821 »Tillipalli« (TENNENT 1859, 1860, 1: 21, 23) or »Tillipally« (TENNENT 1859, 1860, 1: 138), Tellipalai, Tellipallai and Tellippalai East N09°47': E080°02' <www.nima.mil/geonames> accessed 16.11.2003.

TENNEHENA, mine near

Chiropterologically investigated but speleologically unexplored and unmapped man-made mine excavated for plumbago / graphite.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area: Tennehena (Tennahena) junction.

POSITION: (assumed EPE ±5 km) N06°26': E080°39' / N06.4333°: E080.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

One of two tiny plumbago (graphite) mines (compare: Ereporuwa, Wijiriya), which lie about 6 km north of Kolonne (N06°24': E080°41'), is reached by proceeding from a junction at »*Tennehenna*« (Eckrich 1984, personal communication) or Tennahenna (822) to a small temple and then by walking about 400 m uphill.

CAVE LIFE: Eckrich, Michael (1984 personal communication) had surveyed bats here (Chiroptera).

TIDAL SHAFTS (BROOKS et al. 2002)

see: Tidal Well, Puttur

Brooks, Simon J. et al. 2002: 19.

BROOKS et al. (2002: 19): »*On the northern tip of the island, the barren Jaffna peninsula has a low-level doline karst containing ... shafts ... caves ... while tidal shafts [823] have been explored by Czech divers ...*« (824).

822 <www.nima.mil/geonames> (accessed 16.11.2003) lists the villages of Tennahena (N06°27': E080°39'), Tennehena (N06°26': E080°39'), and Tennehena (N06°32': E080°41').

823 In the speleological sense of the word, a shaft is »*vertical or steeply inclined sections of a cave passage*« (LOWE & WALTHAM 1995: 32). The »*tidal shaft*« (BROOKS et al. 2002) seems to be unique.

According to FOWLER & FOWLER (1964: Concise Oxford dictionary of current English), page 1166, a "shaft" is a ...

1. (Slender pole of) lance or spear.
2. Long-bow arrow ...
3. Ray of light, bolt or stroke (of lightning).
4. Stem, stalk, column between base & capital, one of group of clustered columns, spire, part of chimney above roof, rib of feather, part more or less long & narrow & straight supporting or connecting part(s) of greater thickness etc.
5. Large axle, revolving bar transferring force by belts or cogs.
6. Handle of tool etc.
7. One pair of bars between which horse of vehicle is harnessed.
8. Vertical or inclined excavation giving access to mine; tunnel of blast-furnace; (also ventilating shaft) upward vent for smoke or bad air from tunnel, drain, etc.

824 Little doubt remains that the whole lot of »*tidal shafts*« is one and known as the Tidal Well (Puttur), while all of the »*Czech divers*« came from Slovakia.

TIDAL WELL (COOK 1931: 137)

see: Tidal Well, Navakkeeri

see: Tidal Well, Puttur

Cook, Elsie Kathleen 1931: 137.

TIDAL WELL, Navakeery

see: Tidal Well, Navakkeeri

Pridham, Charles 1849, 2: 515.

TIDAL WELL, Navakkeeri

Hydrologically investigated but speleologically unexplored and unmapped natural cenote (pothole cave and well with pool) and freshwater spring in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: »*Walligamme district*« (PRIDHAM 1849): Mayiliddi or »*Majlittie*« (PRIDHAM 1849) area: Navakkeeri (Navakeery, Navarkiri, Navokeiry, Navakiri) village.

POSITION: WGS84 N09°46': E080°05' / N09.76667°: E080.08333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series). SPELEOMETRY: Length: Not known. Vertical range: ±44 m (+0m / -44m).

BIBLIOGRAPHY: Arumugan, S 1970; Pridham, Charles 1849; Tennent, James Emerson 1859, 1860, 1861.

A closed depression (collapse sinkhole), which contains an about 9 or 10 m wide and more than 40 m deep pool, is one of the cenotes (825) or drowned pothole caves of the Jaffna Peninsula whose water table rises and falls in accordance with the tides (826).

ETYMOLOGY: No locally known name has been identified for this natural well which is called after the village of »*Navakeery*« (PRIDHAM 1849, ii: 515) or »*Navokeiry*«

825 Cenote: Steep or vertical sided collapse doline [A] floored by a lake whose surface is at the regional water table [B]. The term originates from the many cenotes in the low karst plateau of Mexico's Yucatan, but has been applied to flooded dolines in Florida and elsewhere (LOWE & WALTHAM 1995: 9).

A Doline: Circular closed depression, either saucer-shaped, conical or in some cases cylindrical. The name originates from the Slovene term for a valley, where in the Classical Karst there are no true valleys but only closed basins. Dolines may form by dissolution, collapse, or a combination of these, keyed to a central sinkhole or intercepted cave passage. They are ubiquitous features of limestone karst, but can form in or above any soluble rock; subsidence dolines are developed in insoluble sediment leached or collapsed into an underlying cavernous limestone (LOWE & WALTHAM 1995: 13).

B Water table: Top surface of a body of slowly moving groundwater that fills the pore spaces within a rock mass. Above it lies the freely draining vadose zone, and below it lies the permanently saturated phreatic zone. In uniform aquifers, such as sandstone, the water table is a smoothly contoured surface intersecting the ground at rivers and lakes, but in limestone it is more complex. The water table slope (hydraulic gradient) is low in limestone due to the high permeability, and the level is controlled by outlet springs or local geological features. High flows create steeper hydraulic gradients and hence the water table rises away from the spring (LOWE & WALTHAM 1995: 38-39).

826 Not seen: ARUMUGAN, S. (1970)

(TENNENT 1859, 1860.i: 23), Navakiri, and Navakkeeri (827) where "nava" (or so) probably means »new« while the "Dravidian" (Konkani, Malayalam, Tamil, Telugu, etc.) "keri" (kere, keeri, kiri, querem, etc.) is a »tank« (water reservoir), pool, lake, etc.

SITUATION 1: PRIDHAM (1849, 2: 515) places the well at the village of »Navakeery« near »Majlittle« (828) in one »Walligamme district« (obsolete, unidentified) of »Jaffnapatam« (Jaffna Town).

SITUATION 2: TENNENT (1859, 1860 vol. 1: 23) places the well at »Navokeiry a short distance« from the tidal »well of Potoor« (829).

WELL DESCRIPTION 1849 (PRIDHAM 1849, ii: 515): »24 fathoms [44 m] deep, and 165 [30 m] in circumference. Of the 24 fathoms, fourteen [25.5 m] are quite fresh, but at sixteen [29.3 m], the water is salt with a nauseous sulphury smell. It is thought to have some subterranean communication with the sea at Keerimale [830], and the rise and fall of the tide in the well is about six inches [15 cm] in twenty four hours.«

TENNENT (1859, 1860 vol. 1.: 23) describes not only the »well of Potoor [i.e. →Tidal Well, Puttur], the phenomena of which indicate its direct connection with the sea, by means of a fissure or a channel beneath the arch of magnesian limestone, rises and falls a few inches in the course of every twelve hours« but also refers to »Another well at Navokeiry, a short distance from it, does the same, whilst the well at Tillipalli ...« or Tellipallai, Tellipalai, and Tellippalai (831) »... is entirely unaffected as to its level by any rains, and exhibits no alteration of its depths on either monsoon.«

TIDAL WELL, Navokeiry

see: Tidal Well, Navakkeeri

Tennent, James Emerson 1859, 1860 vol. 1: 23.

TIDAL WELL, Nilaverey

see: Tidal Well, Puttur

Mitter, Pavol 1978: 147.

TIDAL WELL, Potur

see: Tidal Well, Puttur

Balfour, Edward 1885, 1967-1968, 3: 274.

827 »Navakeery« (PRIDHAM 1849) or »Navokeiry« (TENNENT 1859, 1860) is Navakiri, Navakkeeri (N09°46': E080°05').

828 »Majlittle« (PRIDHAM 1849, ii: 515) is not identified unless it is the same as the village of Mayiliddi which comes in two parts: Mayiliddi North (N09°48': E080°03') and Mayiliddi South (N09°47': E080°03').

829 »Well of Potoor« (TENNENT 1859, 1860), the →Tidal Well (Puttur N09°44': E080°06'), lies about 4 km in a direct line approximately SSE from Tidal Well (Navakkeeri).

830 »Keerimale« (PRIDHAM 1849) means the →Keerimalai Spring at the village of Keerimalai or Kirimalai (N09°49': E080°00'), which lies about 10 km in a direct line approximately WNW (5.5 km north and -8.5 km east) from Navakkeeri (N09°46': E080°05').

831 »Tillipalli« (TENNENT 1859, 1860) is the village of Tellipallai, Tellippalai (N09°47': E080°02').

TIDAL WELL, Puttur

Partly explored and partly mapped natural cenote / pothole cave and well with pool and spring in upper Lower Miocene (Burdigalian) Jaffna limestone.

LOCATION: Northern province: Jaffna district: Puttur (Putur, Putturu, Potoor, Potur) village.

POSITION: Estimated WGS84 coordinates N09°43'40": E080°06'35" / N09.727778°: E080.109722° (or so): 5.37 m asl (KUKLA 1958: 168 cave plan).

MAP: Survey of Ceylon / Sri Lanka sheet "Jaffna" (One-Inch series).

SPELEOMETRY: Length: More than 58 m. Vertical range: More than ±58 m (+0m / -58m).

BIBLIOGRAPHICAL REFERENCES: Arumugan, S 1970; Balfour, Edward 1885 reprinted 1967-1968; Ceylon Traveller 1974, 1983; Cook, Elsie K 1931; Cooray, P Gerald 1967; Courbon, Paul & Chabert, Claude 1986, 1989; Kukla, Jiri 1958; Liska, Milan 1980; Mitter, Pavol 1979a, 1979b; Sasvári, Tibor 1978; Sasvári, Tibor & Terek, Jozef 1984; Sirimane, C H L 1952; Tennent, James Emerson 1859, 1860, 1861.

An oval shaped, 11 m by 14 m wide (SASVARI 1978) closed depression with a surficial, up to 5 m deep incised tributary channel on the on it's western side (832) descends some 5 m down to the surface of a pool, which gives access to a drowned, estimated 65 m deep (833) »sinkhole type of cave« (KUKLA 1958: 169), »flooded abyss« (LISKA 1980: 65) or »bottomless Well« (CEYLON TRAVELLER 1983: 131), where the »... water level in the natural well is only 0.5 m above the sea level, although the distance from the sea is more than 6 km« (KUKLA 1958: 169).

Quite a peculiar features of the Tidal Well are a) an oscillating water level, which rises and falls in accordance with the tide, and b) two distinct layers of water represented by fresh water near the surface, brackish water part way down, and salt water in its bottom part (834).

The »natural well« (KUKLA 1958) was interpreted to represent a water-filled collapse sinkhole, which forms part of a submerged karst system communicating with the sea (835).

832 On the land surface adjacent to the cenote, a tributary channel or trench appears to be visible

a) in the back ground on the photograph »A Tidal Well karsztakna nyugati oldala / The western rim of the Tidal Well« (SASVARI 1978: 52)

b) indicated on the cave plan »A Tidal Well ...« (SASVARI 1978: 51) in a way resembling a subterranean lead not pushed to a conclusion; and

c) visible in the fore ground of the photograph »Zatopená priepast Tidal Well« (LISKA 1980: 68).

833 The 2nd Slovak Speleological Diving Expedition to India in 1977 reached a depth of 53 m in the estimated 65 m deep »flooded abyss« (LISKA 1980) or »subsided aven« (SASVARI 1978; SASVARI & TEREK 1984), which was interpreted to indicate »a remnant of an older karst at present subsided« (LISKA 1980: 71).

834 »Its surface is of fresh water; but deeper, it is brackish and salt; and on plunging a bottle to the extreme depth, the water it brings up is highly fetid, and gives off bubbles of sulphuretted hydrogen gas« (BALFOUR 1885 reprinted 1968, 3: 274).

835 TENNENT (1859, 1860 vol. 1: 21): »These phenomena occur at Jaffna, in consequence of the rocks being magnesian limestone and coral, overlying a bed of sand, and in some places, where the soil is light, the surface of the ground is a hollow arch, so that it resounds as if a horse's weight were sufficient to crush it inwards. This is strikingly perceptible in the vicinity of the remarkable well at Potoor.«

TIDAL WELL, PUTTUR

has been spelled, transcribed or romanised and edited as

remarkable well at Potoor	TENNENT (1859, 1860 vol.1 p. 21)
well at Potur	BALFOUR (1885 edited 1968. 3: 274)
fresh water well	COORAY (1976)
Putturu nebo Tidal Well	KUKLA (1958: 166)
propast Tidal Well u Putturu	KUKLA (1958: 168)
Chasm Tidal Well near Puttur	KUKLA (1958: 168)
tidal Well near Puttur	CEYLON TRAVELLER (1974 249; 1983: 131, 250)
bottomless well at Puttur	CEYLON TRAVELLER (1974 1983: 131); COORAY (1967: 71)
bottomless well near Puttur	COOK (1931: 137)
Tidal Well	SASVÁRI (1978: 50)
Tidal Well Shaft	SASVÁRI (1978: 51)
Tidal Well, pri Puttur	MITTER (1979a: 155)
Tidal Well, pri Putur	LISKA (1980: 61, 64, 67), MITTER (1979b: 178)
zatopena priepast Tidal Well	LISKA (1980: 68 Obr. 4)
prilivova studna pri Putturu	SASVÁRI & TEREK (1984)
Tidal Well, Puttur	COOK (1931: 137); SASVÁRI & TEREK (1984: 115)
Tidal Well, Putu	LISKA (1980: 65)
flooded abyss Tidal Well	LISKA (1980: 71, 72)
puit noyé près de Jaffna	COURBON & CHABERT (1986: 81)
flooded pit near Jaffna	BOSTED & LINDSLAY (ed. of COURBON & CHABERT 1989: 138)
tidal shafts, Jaffna	BROOKS et al. (2002: 19)

ETYMOLOGY: No locally known name has been identified for this drowned pothole cave, which is more often than not called after the village of Puttur (836).

CAVE DESCRIPTION 1859 (TENNETT 1859, 1860.i: 21): »Wells in the Coral Rock. These phenomena occur at Jaffna, in consequence of the rocks being magnesian limestone and coral, overlying a bed of sand, and in some places, where the soil is light, the surface of the ground is a hollow arch, so that it resounds as if a horse's weight were sufficient to crush it inwards. This is strikingly perceptible in the vicinity of the remarkable well at Potoor, on the west side of the road leading from Jaffna [N09°40': E080°00'] to Point Pedro [N09°49': E080°14'], where the surface of the surrounding country is only about fifteen feet above the sea-level. The well, however, is upwards of 140 feet [42.7 m] in depth; the water fresh at the surface, brackish lower down, and intensely salt below. According to the universal belief of the inhabitants, it is an underground pool, which communicates with the sea by a subterranean channel bubbling out on the

shore near Kangesentorre [837], about seven miles [11 km] to the north-west. ... It is remarkable that ... a steam-engine erected at Potoor, with the intention of irrigating the surrounding lands, failed to lower it in any perceptible degree«

TENNENT (1859, 1860 vol. 2: 536) is part of »the Chap. on Jaffna, Vol. II« and said to provide »particulars of this singular well« (TENNETT 1859, 1860.i: 21 footnote) but I have not seen Tennent's 2nd volume.

CAVE DESCRIPTION 1885 (BALFOUR 1885 edited 1968, 3: 274): »Potur, a well at Jafna in Ceylon, about 30 feet [9.1 m] in diameter, and sunk to a depth of 144 feet« (43.9 m). »Its level rises and falls a few inches once in every twelve hours, but it overflows its banks, and is never reduced below a certain level, however much water is abstracted. The natives believe that the well communicates with the sea at Kieremalie near Kangsentorre, a distance of 7 miles, from which they affirm that a subterranean stream flows inwards.«

CAVE DESCRIPTION 1924-25 (COOK 1931: 137): »The Jaffna Peninsula is ... very flat and low-lying, and the limestone bed is evidently fairly level; as it extends under the sea, salt water enters the holes [in the sense of conduits] and is drawn into the underground circulation. It is not surprising, therefore, that the wells of this region exhibit great peculiarities. Near Puttur, for instance, we hear of a bottomless well, whose depth has never been fathomed; there is also a tidal well« (838).

CAVE DESCRIPTION 1952 (SIRIMANE 1952) needs to be traced.

CAVE DESCRIPTION 1958 (KUKLA 1958: 169 summary): »Propast Tidal Well u Putturu / Chasm Tidal Well near Puttur« (cave plan on page 168) is »... sinkhole type of cave ... 60 m deep, filled with saltish water at the bottom and with fresh water in the upper part of the cave. Two drilling holes, one 38 m, the next 27 m deep, were sunk close to the well. The second broke into the water-filled cave, the bottom of which has not been possible to reach. The water level in the natural well is only 0.5 m above the sea level, although the distance from the sea is more than 6 km. A pumping station is now built at the well, using its water for irrigation.«

CAVE DESCRIPTION 1967 (COORAY 1967: 71): »There is no surface drainage in the Jaffna Peninsula, all the water which falls on the surface passing downwards along fissures formed by solution of the limestone and flowing in underground channels [cave passages, conduits]. The 'bottomless well' at Puttur and the fresh-water spring at Keerimalai are both parts of this subterranean drainage system.«

837 »Kangesentorre« (1859, 1860 vol. 1: 21) appears to be the village of Kankasanturai (Survey of Ceylon, "Jaffna" one inch sheet 1959 edited 1971) or Kankesanthurai N09°49': E080°02' <www.nima.mil/geonames> accessed 16.11.2003.

838 Unless the expression »near Puttur ... there is also a tidal well« (COOK 1931: 137) stands for "this is also a tidal well" (associated with an unidentified village), the »tidal well« (COOK 1931: 137) could be the →Tidal Well at Navakkeeri (Navakeery, Navakiri, Navokeiry, Navakiri), a village not mentioned anywhere in the "Geography of Ceylon" (COOK 1931).

836 Puttur (Chiruppiddi, Chiruppiddy) N09°44': E080°06' (www.nima.mil/geonames accessed 16.11.2003).

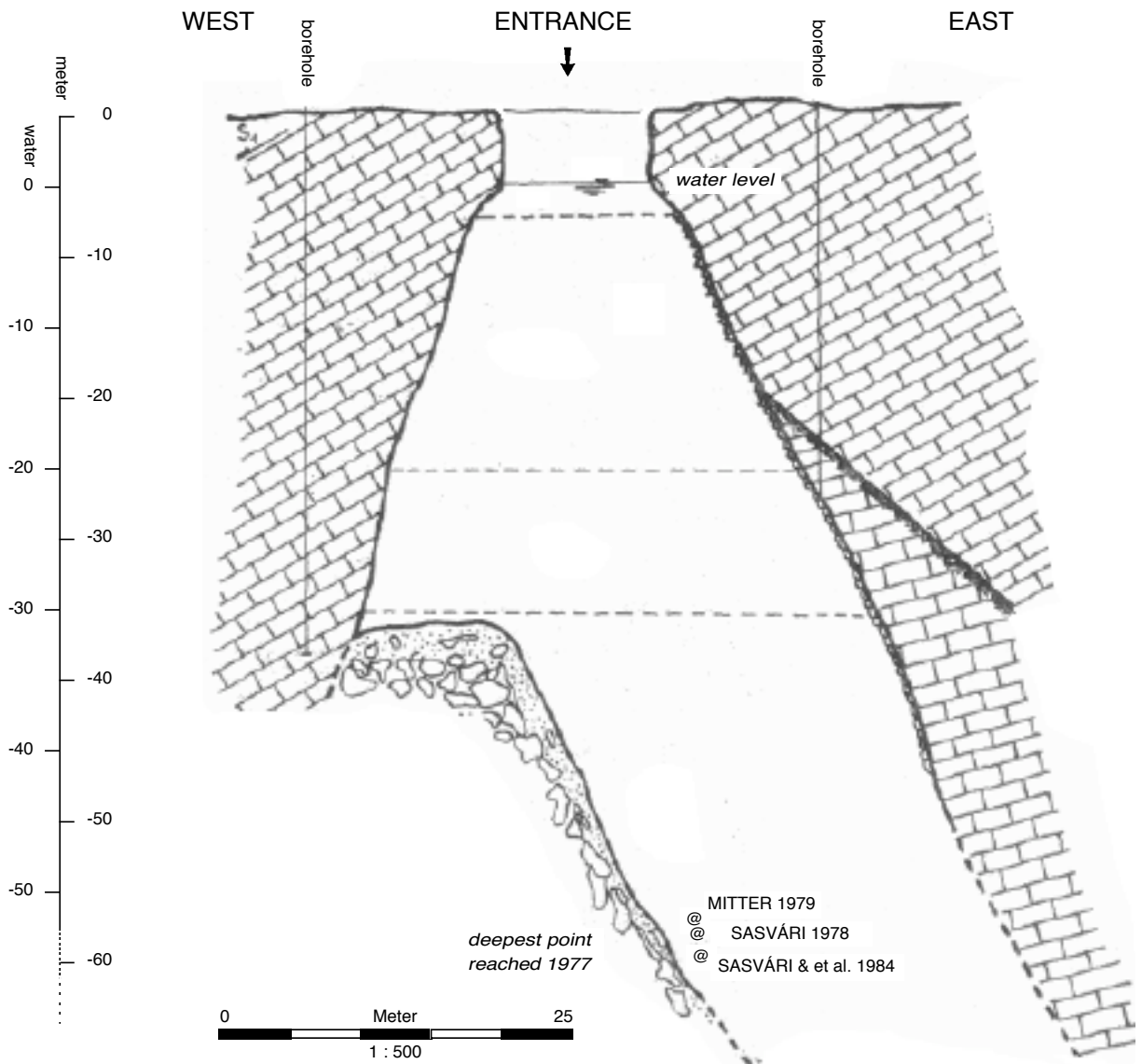
TIDAL WELL (Puttur)

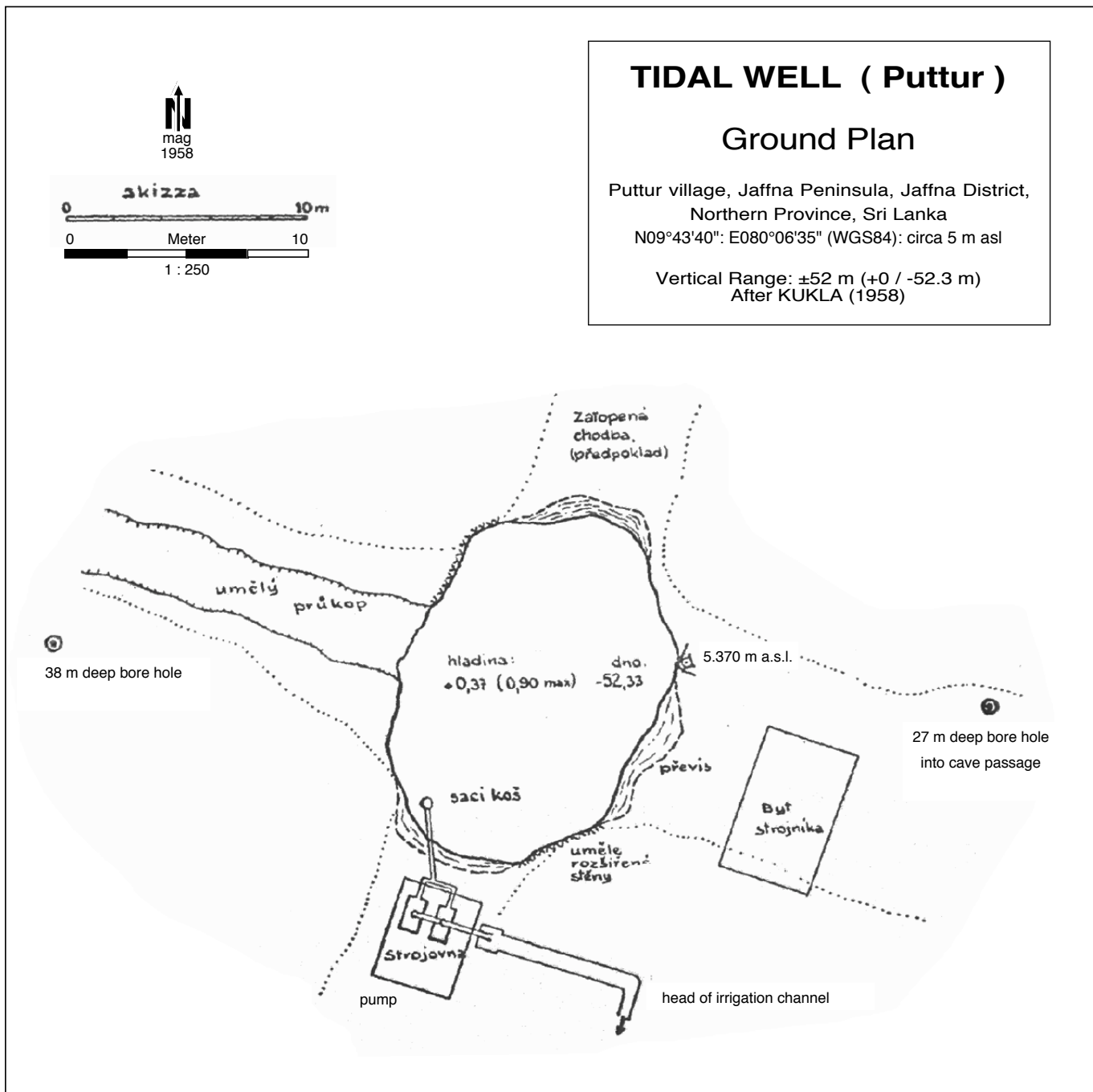
Section

Puttur village, Jaffna Peninsula, Jaffna District,
Northern Province, Sri Lanka

N09°43'40": E080°06'35" (WGS84): circa 5 m asl

Vertical Range: ±58 m (+0m / -58m)
After SASVÁRI (1978), SASVÁRI et al. (1984)





CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974, 1983: 131): »The so-called bottomless well near Puttur is some 145 feet [44 m] deep.«

CEYLON TRAVELLER (1974: 248; 1983: 250): »Far north ... the Jaffna Peninsula --one vast shelf of limestone-- has a subterranean structure like a sponge. But, strangely enough, although it abounds in curiosities such as the Tidal Well near Pottur and the Sink Hole at Manipay, few caverns are actually known.«

CAVE DESCRIPTION 1978 (SASVARI 1978, with cave plan and cross section): 11 by 14 m, 65 m deep. SASVARI (1978: 52 summary): The »Tidal Well« is a case of »oceanic karst« represented by a »precipice« (sic! qua: abyss, chasm, pit, pot, pothole, shaft, etc.) filled with water reaching a depth of 65 m.

CAVE DESCRIPTION 1979 (MITTER 1979a: 155-156): 15 by 13 m wide, 52 m deep.

CAVE DESCRIPTION 1980 (LISKA 1980: 64): »Zatopená priepast Tidal Well pri Putur [sic] predstavuje ojedinelú formu

na polostrove Jaffna. Priepast je hlboká viac ako 65 m. Potápaci zostúpili do hĺbky 52 m. Na tomto mieste polostrova sa zistila doteraz najnižšia hranica krasovatenia. Nachádza sa viac ako 50 m pod hladinou more, ale aj pod hladinou podzemnej vody. Priepast je vyplnená vrstvami sladkej, brakickej a slanej vody. Vrstva sladkej voda na povrchu sa počas roka mení, a to majú v závislosti od monúnových dažďov. Pod nou sa nachádza vrstva brakickej vody. Väčšia spodná časť priepasti je vyplnená slanou vodou.«

LISKA (1980: 71 English summary): »An unusual form of the peninsul is the flooded abyss Tidal Well near the settlement Puttur [sic], deep more than 65 m. In its lower part it is filled by salt and brackish water, which means it is a remnant of an older karst at present subsided.«

CAVE DESCRIPTION 1984, in Czech by SASVARI & TEREK (1984, with cave plan and cross section) dived to a depth of 53 m.

CAVE DESCRIPTION 2002: Brooks (in: BROOKS et al. 2002: 21) introduced several interesting »tidal shafts« (sic!)

that »have been explored by Czech [sic!] divers to a depth of 56 m [sic!] without reaching a floor« (839).

KARST HYDROLOGY: The »bottomless well« at Puttur is part of a subterranean drainage system in the karst of the Jaffna peninsula (TENNENT 1859, 1860.i: 21; COOK 1931: 137; COORAY 1967: 71, 263 fig. 93).

CULTURAL HISTORY - cave legend: According to CEYLON TRAVELLER (1983: 131), it was Rama, the hero of the Ramayana, who stopped here and plunged his arrow into the soil, whence water came spurring out and he quenched his thirst from this spring that never dries (840).

TACKLE: SASVARI (1978: 52): »At present this underwater karst system can be explored only by means of the diving technique.«

SPELEOMETRY: The vertical section of »Tidal Well« (SASVARI 1978: 51) shows a 5 m drop from the land surface to the surface of the ground water level. The latter had been dived to a depth of 52 m or 53 m (corresponding to 58 m below the land surface) without reaching the bottom.

Over the years, the depth of the Tidal Well at Puttur had been reported as if it were increasing

metres source

> 42,7 TENNENT (1859, 1860.1: 23): »upwards of 140 feet«

43,9 BALFOUR (1885, 1968.3: 274): »sunk to ... 144 feet«

44,2 CEYLON TRAVELLER (1974, 1983: 131): »... some 145 feet deep«

52 dived depth (MITTER 1979a: 155-156; LISKA 1980: 64)

52,33 »dno.« (KUKLA 1958: 168 cave plan)

53 SASVÁRI & TEREK (1984: 111, 114, 115)

60 KUKLA (1958: 169)

65 SASVÁRI (1978: 52)

> 65 LISKA (1980: 64, 71)

CAVE CLIMATE: KUKLA (1958: 166) reports a temperature of 26°C in the water but SASVÁRI & TEREK (1984) 30.5°C (page 111) and 30.6°C (page 112).

CAVE LIFE: SASVÁRI (1978: 49): »Foraminiféat, lamelli-branchiatot, gastropodát, echinoideát, briozoát, antozoát.«

SASVÁRI & TEREK (1984: 114): »Plumatella sp. (Gemmules), Ranatra sp., Ostracoda g. sp., Keratella tropica, Anuraeopsis sp., Brachionus plicatilis, Alona juv. copepodit.«

839 A shaft is »vertical or steeply inclined sections of a cave passage« (LOWE & WALTHAM 1995: 32) but a »tidal shaft« (BROOKS et al. 2002) seems to be unique.

The so-called »Czech divers« (BROOKS et al. 2002) came from Slovakia (LISKA 1980; MITTER 1979; SASVARI 1978; SASVARI & TEREK 1984).

The Tidal Well (Puttur) was dived to a depth of 52.33 m (KUKLA 1958: 168 cave plan) and estimated to be 60 m (KUKLA 1958: 169), 65 m (SASVÁRI 1978: 52), or more than 65 m (LISKA 1980: 64, 71) deep.

840 It is Arjuna who is the master bowman (long-range missile technician) of the Ramayana. No wonder he is responsible for the collapse sinkhole giving access to the Arjun Kund in Madhya Pradesh (India) while Arjun's brother Bhim, the strongman, is known to have used his all-smithing club to open the collapse sinkhole giving access to the Bhimkund cave and spring near Bajna village (Chhatarpur district, again in Madhya Pradesh state, India) -- of course not to quench his own thirst but to refresh Sita, the abducted housewife, who allegedly caused the struggles and wars which the Ramayana epic trades.

TIDAL WELL, Puttur

see: Tidal Well, Puttur

Liska, Milan 1980: 61, 64, 67, 71.

TIRIYAI " CAVE "

Frequently visited but speleologically unexplored and unmapped modified natural or man-made cave or rock shelter.

LOCATION: Eastern province: Trincomalee district: Tiriyai village: Hill.

POSITION: WGS84 N08°52': E081°01' / N08.8.6667°: E081.016667° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet Nilaveli or Padawiyi, or Kokkilai (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

In a »cave« (CEYLON TRAVELLER 1974, 1983: 119) or modified natural rock shelter »on the hill« at the village of Tiriyai is a »pre-Christian« inscription (rock art: epigraphy).

IDENTITY: Compare the »cave« at the →Pinnacle Rock (Tiriyai), the Vilattie Malai, Nachchiya Malai.

SITUATION: On an unidentified hill (no name mentioned) »west of the village« (CEYLON TRAVELLER (1974, 1983: 119) of Tiriyai (N08°52': E081°01').

TOPARE ROCK TEMPLE

see: Gal Vihara, Polonnaruwa

Baker, Samuel White 1855, chapter iv.

UDA VIHARA, Ridigama

see: Ridi Vihara: Uda Vihara

Lonely Planet, Sri Lanka 2003: 255.

UDAWELA CAVE TEMPLE

Frequently visited but speleologically unexplored and unmapped modified natural sacred rock shelter or cave (temple cave).

LOCATION: Central province: Kandy district: Talagune: Udawela.

POSITION: (If at Talagune itself), Representative WGS84 coordinates (approximate EPE ±10 km) N07°20': E080°50' / N07.33333°: E080.833334° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Hanguranketa or Rangala (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A Kandy period »cave temple« (841) containing a recumbent Buddha statue, several other standing statues and rock art (paintings).

ETYMOLOGY: The Sinhala adjective »uda« means »upper« (LONELY PLANET, Sri Lanka 2003: 255).

SITUATION: (CEYLON TRAVELLER 1974, 1984: 39-40) at Udawela (842), which lies on the Talagune road (N07°20': E080°53') off (north?) the road from Teldeniya (N07°17'49": E080°46'07" WGS84) generally east to Mahiyangana (N07°19'00": E080°58'58" WGS84).

CULTURAL HISTORY - rock art: The paintings in the cave been re-done, but the ancient paintings still be seen (CEYLON TRAVELLER (1974, 1984: 40).

841 A »cave temple« of the CEYLON TRAVELLER (1974, 1983) tends to be a modified natural, sacred rock shelter (or true temple cave) used for religious purposes).

842 Out of the 37 different "Udawela" entries in Sri Lanka, which are listed on <www.nima.mil/geonames> (accessed 16.11.2003), the three seemingly best fitting are possibly Udawela (N07°18': E080°46'), Udawela (N07°18': E080°49'), and Udawela (N07°21': E080°52').

UDUPIYAN GALGE

or: Balangoda Cave, the cave of chiefs Chula and Kasaba, sons of chief Utaba

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelter in Khondalite series of rock (DERANIYAGALA 1943: 101).

LOCATION: Sabaragamuwa province: Ratnapura district: Balangoda - Uggalkaltota (Ukgal Kaltota) area.

POSITION: Everest 1830 N06°31': E080°50' / N06.516667°: E080.833334° (DERANIYAGALA, P E P 1953: 125; DERANIYAGALA, S U 1980: 172).

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1940, 1943, 1953, 1965; Deraniyagala, Siran Upendra 1980; Stone Age Man in Ceylon 1941.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 19 Udupiyan Galge.

A so-called »cave« (DERANIYAGALA 1943: 99; 1953: 125) or »rock shelter« (DERANIYAGALA 1953: 126), which consists of a »small« rock shelter (Brooks 1995 Mss, item no. 19) but actually represents a great rock shelter, is the type location (843) of the Balangoda culture (DERANIYAGALA 1943: 99 1953: 125, 126).

The archaeologically relevant site is one of a series in the Balangoda area: →Bambaragala Shelter, →Budugala Caves, →Diyavinna Cave, →Kurugala Cave and →Lunu Galge.

SITUATION: Along the escarpment between the villages Diyavinna (844) and the »Ukgal Kaltota« escarpment (DERANIYAGALA 1953: 125) or »Uggalkaltota« (Survey Department 1977: Road map of Sri Lanka), which lie about 10 or 15 km south-south-west of Haputale (N06°46': E080°58') and some 20 to 25 km east-south-east of Balangoda (N06°38'57": E080°40'20" WGS84).

APPROACH (DERANIYAGALA 1943: 99): »The cave [sic!] is reached by ascending halfway up the Balangoda escarpment from the village Diyavinna and is in the fork of two tributaries to the stream Piyan äle [Piyan ella]. As the observer faces the rock, the tributary on the left is fordable but the one on the right forms a steep waterfall dropping sheer for about 300 m.«

POSITIONS: N06°31': E080°50' (DERANIYAGALA, P E P 1953: 125; DERANIYAGALA, S U 1980: 172) appears to replace the earlier position N06°35': E080°50' (DERANIYAGALA 1943: 99) where DERANIYAGALA (1943: 97 figure 2) indicates the village of Diyavinna.

CAVE DESCRIPTION: DERANIYAGALA (1943: 99): »... the cave proper is small [845].

Excavation of its floor was fruitless, but the dry dust under the long, overhanging ledge of rock to its right yielded interesting material. Here the usual large angular masses of

843 A »type location« is the location or collection point from where a specimen was first described (or is best described).

844 Diyavinna N06°35': E080°50' (DERANIYAGALA 1943: 97 figure 2) and thus at the very same spot where <www.nima.mil/geonames> (accessed 16.11.2003) positions another four villages, viz. Diyainna, Diyawinna, Kalupedigama, and Pubbarapota.

845 STONE AGE MAN ... (1941: 392-393 after DERANIYAGALA 1940): »The best prehistoric deposits occurred in caves notably difficult of access, but close to a stream which flowed down the rock near the entrance. Each cave possessed a sandy outer platform with a lookout rock, and lay under the shelter of a large overhanging shelf of rock.«

rock obstructed excavation and after reaching a depth of two metres in some places it was evident that further progress would ultimately lead into a smaller cave at a lower level in the escarpment.«

CULTURAL HISTORY - Archaeology: DERANIYAGALA (1943: 99-101) reviews results of archaeological excavation. DERANIYAGALA (1953: 126) reports from »Udupiyan galgé rock shelter (type station)« pebbles (usually pitted on two surfaces) and pitted anvil - cum - grindstones.

EXPLORATION HISTORY: -0250 (±50): The 3rd century BC Brahmi inscription »Cave of Chiefs Chula and Kasaba, sons of Chief Utaba« indicates that Sinhala chiefs had utilized this rock shelter (DERANIYAGALA 1943: 99).

1939: Paulus Edward Pieries DERANIYAGALA (1940, 1943: 106) recovered from a depth of 41 cm the type specimen of the Balangoda celts, a 128 mm long ellipsoid pebble, shown in DERANIYAGALA (1940 figure 3).

1940.09.23: Designated as the »type cave« of the Balangoda culture (DERANIYAGALA 1940, 1943: 99).

ULWALA GALGE

Speleologically unexplored and unmapped natural cave or rock shelter.

LOCATION: Uva province: Monaragala district: Kirindi Oya basin - Telulla (Tellulla, Tellulla) area: Radagama Wewa (Radgamawewa lake): Demeliya (Damaliya).

POSITION: WGS84 N06°30': E081°00' / N06.5°: E81° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Timbolketiya.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»... unmarked in most maps [and located] due east of Huratgamuwa [N06°33': E081°08'] on the main road between Tanamalvila [also: Tanamalwila N06°26': E081°08'] and Wellawaya [N06°39'43": E081°06'03" WGS84]. The Demaliya Galge and the Ulwala Galge [846] may be reached along a gravel road that takes off to the right of the main road at Huratgamuwa [N06°33': E081°08'], and beyond along a track« (CEYLON TRAVELLER 1974: 253; 1983: 255).

UNAWERUWA NITRE CAVE

or: Oonaweroowa Nitre Cave

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Central province: Matale district: Unaweruwa = »Oonaweroowa« (Davy 1821) village.

POSITION: WGS84 N07°32': E080°35' / N07.533333°: E080.58333333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Kurunegala" (One Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

The seemingly not yet re-discovered Nitre Cave 13 (DAVY 1821: 31 footnote) is said to be situated somewhere in the vicinity of »Oonaweroowa« which appears to be the village of Unaweruwa (N07°32': E080°35').

846 There is another village of Ulwala (N07°04': E080°17') falling on Survey of Ceylon / Sri Lanka one-inch sheet Avissawella.

URUMUTTA, "cave" (rock shelter) at

Archaeologically investigated but speleologically unexplored and unmapped natural painted rock shelter, probably in gravitationally dislocated boulders.

LOCATION: Southern province: Matara district: Gangoboda pattu: Urumutta village.

POSITION: (If at Urumutta village and Estate itself), WGS84 (approximate EPE ± 5 km) N06°10': E080°31' / N06.1.6667°: E080.516667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Matara" (One-Inch series).

SPELEOMETRY: Length: Approximately 4.3 m. Vertical range: Not known.

BIBLIOGRAPHY: Lewis, Frederick 1912.

An apparently sun-protected but daylight-lit »cave« (LEWIS 1912) or modified natural rock shelter in a precipitous mass of rocks.

SITUATION: In Matara district (Southern Province) and within the obsolete »Gangoboda pattu« (847), and below the trigonometrical station above the village and estate (oil palm plantation) of Urumutta (N06°10': E080°31'): »... after some very difficult climbing we at length reached the mouth of the cave itself. It is situated among a mass of rocks both above and below it, and faces the south« (LEWIS 1912: 143).

CAVE DESCRIPTION: »In section, taken vertically, it [the "cave" = daylight lit rock shelter] is shaped like the letter F. The wall, or back of the F, is nearly vertical for 20 feet [6.1 m], and the "roof" is nearly horizontal, projecting about 14 feet [4.3 m]. The cave may be said to form two parts, one to the east and the other to the west, divided by a fallen mass of stone. ... the floor of the cave, which, in consideration of the enormously rough and broken character of its surroundings, appeared to me artificially flat. I found on sweeping away a mass of fallen leaves that had been blown in from some trees immediately above and round the cave's mouth, that the floor appeared to be of mud. On scraping the surface (in the eastern section) with a twig, I discovered quartz fragments, that I venture to believe are arrowheads. Nearly side by side with these I found pottery, and less than a yard away were the bones ...« (LEWIS 1912: 143).

CULTURAL HISTORY (LEWIS 1912: 144): »... the cave has the reputation of being haunted. It is in forest, and nowhere within a reasonable distance to a road or path that would lead one to suppose that travellers came there and cooked food by the way and left their broken utensils behind. The nature of the country and the situation of the spot completely hides the cave, while it requires considerable agility to climb into its mouth. Lastly, it is a good long way from water, so it is not likely to be a place for a growing population to settle upon.«

EXPLORATION HISTORY: 1911 (circa): Frederick LEWIS (1912) and Lieut. Lindstrom visited and explored.

URUWELA "CAVE DWELLING"

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Western province: Colombo district: Uruwela village.

POSITION: WGS84 N06°54': E080°09' / N06.9°: E080.15° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka: "Avisawella" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»Cave dwellings are scattered throughout Sri Lanka« and the

one at Uruwela (848) is among the »caves worth visiting« (CEYLON TRAVELLER 1974: 249; 1983: 251).

USSURUMUNIYE

see: Isurumuniya rock temple

Eckrich, Michael 1984: Bat cave distribution map.

USTA MAHMUD THE LURI. cave of

Unexplored and unmapped modified natural troglodyte rock shelter.

LOCATION: North Western province: Kurunegala district.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: [Ibn] Battuta, Muhammad Ibn-Abdallah Awamiri, circa 1355 for 1325-1354 (edited by Defrémery, C & Sanguinetti, B R 1874-1879; edited by Gibb, Hamilton A R 1929 reproduced 1988; edited by Gibb, Hamilton AR. and Beckingham, Charles F. 1994; edited by Lee, Samuel 1829; edited by Leicht, Hans 1974a, 1974b, 1975, 1982, 1999).

A troglodyte hermit's »cave« (or so) of unspecified nature, dimensions or character is associated with the Muslim hermit »Usta Mahmud the Luri« (GIBB 1929, 1988: 257; LEICHT 1999: 198) or »Ista Mahmud the Lur« (LEE 1829: 187), a »pious man who dug out this cave« (GIBB & BECKINGHAM 1994: 851 after Ibn BATTUTA 1355).

SITUATION: The medieval Arab traveller Ibn Battuta (849) reported this hermitage from a difficult to reconstruct location at the »foot of a hill beside a small lake« (no names mentioned), which lies somewhere on a route from a place called »Kunakar« (GIBB & BECKINGHAM 1994) or »Kankar« (LEE 1829: 186) via a certain »Lake of Monkeys« (850) to »the mountain of Sarandip« (Adam's Peak WGS84 N06°48'30": E080°29'53": 2134 m asl).

GIBB (1929, 1998: 365 note 6) decided that »Kunakar is certainly Kornegalle (Kurunagala).«

LEE (1829: 186) refers to »Knox« (851) who is said to

848 Uruwela (N06°54': E080°09') lies at linear distances of about 33 km approximately east from the city of Colombo city (Fort Railroad Station N06°56'01": E079°51'01" WGS84) and some 9 or 10 km about southwest from Avisawella (N06°57'11": E080°13'06" WGS84) in Colombo district.

849 Muhammad Ibn-Abdallah Awamiri Ibn Battuta, a merchant born in Tanger (Marocco), undertook between 1325 and 1354 CE several journeys to various parts of the world between northern Africa and the East Indies.

850 This lake (or man-made water reservoir, tank?) of the Monkey's is, as far as I know, not identified but the monkeys are said by somebody (sorry, lost) to be Wanderoo monkeys, *Macacus silenus*.

TENNENT (1861, II. Quadrumania, 1. Monkeys): »To a stranger in the tropics, among the most attractive creatures in the forests are the troops of monkeys that career in ceaseless chase among the loftiest trees. In Ceylon there are five species, four of which belong to one group, the Wanderoos, and the other is the little graceful grimacing 'rilawa' (*Macacus pileatus*, Shaw and Desmarest). ... Of the four species found in Ceylon, the most numerous in the island, and the one best known in Europe, is the Wanderoo of the low country, the P. [Presbytes] cephalopterus of Zimmerman (*Leucopymnus Nestor*, Bennett). Although common in the southern and western provinces, it is never found at a higher elevation than 1300 feet« or 396 m asl.

851 KNOX 1681: An historical relation of the island of Ceylon in the East Indies. - London

847 The obsolete administrative subdivision »Gangoboda pattu« (LEWIS 1912) may have something to do with the village of Gangaboda (N06°50': E080°24').

assume that »Kankar« (Kunakar) is a corruption of Tattanour »... in which stands the royal and chief city Candi« (852) ... The district of Canducarre (which approaches nearer in sound to our word), might, indeed, have been the seat of royalty in his times.«

GIBB & BECKINGHAM (1994: 850 footnote 8) confirm that »the location of Kunakar is disputed. It is often identified with Kurunāgala [853], as by Gibb (Selections, p. 365, note 6) but I.B.'s [Ibn Battuta's] description requires somewhere closer to Adams Peak; The reference to rubies suggests Ratnapura, but the archaeologist Mr. Roland Silva objects that there was no route from Puttala [854] to Ratnapura« (855).

UWA NITRE CAVE, Lower

see: Wawul Galge, Wellaway

Brohier, Richard Leslie 1956.

VAVA PENA

see: Wavulpane, cave near the village of

Brooks, Simon J et al. (2002: 19): »Vava Pena (Bat Cave also known as Wavulpane) ... is a 300 m long stream cave ...«

VAVUL LENA CAVE, Kosgama Dodampé

see: Wavul Lena, Kosgama Dodampe

Deraniyagala, Paulus Edward Pieries 1965: 143, 144 fig. 21; Strinati, Pierre & Aellen, Villy 1981: 459.

VAVULPANE LIMESTONE GROTTO

see: Wavulpane, cave near the village of

Internet websites.

Among the three »Prehistoric caves in Sri Lanka« (856) is »Wavul Pane - Kolonna. This limestone grotto of Vavulpane. The grotos consist of at least 12 caves of varying sizes. This is a magnificent cavern lying isolated on the Eastern slope of the Bulutota Rakwana range, northwest of Embilipitiya. The cave is located in the Ratnapura District, in the Kolonne Korale, about 278 m (912 feet) above sea level. The caves are appropriately named; it means Cave of Bats after the 250,000 bats that inhabit it« (857).

852 »Candi« (LEE 1829: 186) is Kandy N07°17'47": E080°38'06"

853 »Kurunāgala« (GIBB & BECKINGHAM 1994), »Kornegalle« (DAVY 1821) is the modern town of Kurunegala (N07°29'12": E080°21'53" WGS84).

854 »Puttala« (GIBB 1929 edited by BECKINGHAM 1994: 850 footnote 8) is Puttalam N08°2': E079°49' WGS84).

855 Ratnapura (N06°40'58": E080°23'57" WGS84).

856 The other two »Prehistoric caves in Sri Lanka« are »Beli lina - Kitulgala« and »Pahiyangala ... at Yatagampitiya 5 km off from ulathsinhala [sic] qua: Bulatsinhala] where the pre-historic man lived 37,000 years ago. Valuable fossils of the pre-historic man have been found in this pit.«

857 <www.info.lk/srilanka/srilankatravelguide/ecotours/> accessed 2009.08.02.

VESSAGIRIYA CAVE MONASTERY

Unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Northern Central province: Anuradhapura district: Anuradhapura ruins: Tissa Wewa reservoir.

POSITION: WGS84 (assumed EPE ±2.5 km) N08°21': E080°23' / N08.35°: E080.3833333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka: "Anuradhapura" (One-Inch).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003.

About 500 m in a direct line due south of the →Isurumuniya Vihara (Anuradhapura) are extensive remains of the Vessagiriya cave monastery complex (LONELY PLANET 2003: 242 location map, 246), which dates much from the same time (3rd century BC).

VEVAGAMA BAMBARAGALA, "cave" on the

Frequently visited but speleologically unexplored and unmapped modified natural sacred rock shelter or cave (temple cave).

LOCATION: Central province: Kandy district: Teldeniya: Wewagama (Vevagama).

POSITION: (If at Teldeniya itself), Representative WGS84 coordinates (assumed EPE ±5 km) N07°17'49": E080°46'07" / N07.29694445°: E080.76861111° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: "Hanguranketa" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

A relatively »large« (without specified dimensions) »cave temple« (858) of the Kandy period contains a so-called »large« recumbent Buddha statue, a sedent statue, two other statues, and paintings (rock art) on plastered cave walls.

SITUATION (CEYLON TRAVELLER 1974, 1984: 40): On that mountain crag called Bambaragala (859) which rises at one of the places called »Vevagama« or Wewagama (860) that lies in one way or another »near« the town of Teldeniya (N07°17'49": E080°46'07" WGS84).

858 A »cave temple« (CEYLON TRAVELLER 1974, 1983) tends to be a modified natural, sacred rock shelter (or true temple cave) used for religious purposes).

859 The Sinhala "bambara" are cliff bees (Apis dorsata) and "gala" means rock but this »mountain crag« is not identified unless it is the same as one of the Bambaragala items at

position from Teldeniya in a direct line

N07°42': E080°28' 54 km NW

N07°29': E081°24' 67 km ENE

N07°17': E080°06' 67 km west

N07°08': E080°18' 61 km WSW

N06°32': E080°59' 88 km SSE

N06°27': E081°01' 98 km SSE

860 <www.nima.mil/geonames> (accessed 16.11.2003) lists no »Vevagama« but

Wewagama (N07°25': E080°06') about 69 km in a direct line north by west of Teldeniya and another

Wewagama N07°01': E080°56' (WGS84) about 35 km in a direct line SSE of Teldeniya.

VIHAREGALA "CAVE"

Archaeologically investigated but speleologically unexplored and unmapped modified natural troglodyte rock shelter in gneiss (DAVY 1821: 419).

LOCATION: Eastern province: Amparai district: Kumbukkan Oya basin: Yala National Park: Yala East area: Kumana (Kumanu): Mahawelatota: Viharegala (Wiharegala, Wihare Rock).

POSITION: WGS84 N06°39': E081°39' / N06.65°: E081.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of India sheets: Panama, Yala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

WEBSITES: <www.nima.mil/geonames> accessed 16.11.2003; <www.wayhoo.com> accessed 25.05.2004.

In addition to one of the »*second largest cave in Sri Lanka*« (without specified dimensions), there are »*seven other caves carry inscriptions*« (CEYLON TRAVELLER 1974, 1983: 172) at the Viharegala, which is one of the eight Sri Lanka "CAVE" (861) entries listed on some Internet websites (862).

SITUATION (CEYLON TRAVELLER 1983: 172): »*On the northern boundary of the Yala East National Park in an extensive area of rocky outcrops ... This area is largely unexplored.*«

APPROACH (CEYLON TRAVELLER 1983: 172): Along a »*16 miles*« (26 km) long jeep track from Kumana (863) and then »*five miles*« (8 km) along the banks of the Kumbukkan oya to Mahawelatota (864).

VIJEYA (FORBES 1840), cave of

see: Saega Lenna (Sri-Wasta-Poora)

Forbes, Jonathan 1840, 1841 vol. 2: 79-82; Turnour, George 1837.

WADINGAPALLAMA NITRE CAVE

Unexplored and unmapped natural cave, probably in crystalline Precambrian (Khondalite series) limestone.

LOCATION: Northern Central province: Anuradhapura district: »*Neurakalawa district*« (Davy 1821), »*Naganpahay korle*« (Davy 1821) area: »*Wadingapallama*« (Davy 1821).

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 10 (DAVY 1821: 31 footnote) is situated near a place called »*Wadingapallama*« (865) in one administrative subdivision »*Naganpahay korle*« (866) in the likewise obsolete »*Neurakalawa district*« which corresponds, more or less to the Anuradhapura district (867).

WALUPANA CAVE

see: Wavulpane, cave near the village of

Wilson, Jane M 1988: 23.

WARANA "CAVE DWELLING"

Speleologically unexplored and unmapped modified natural troglodyte cave or rock shelter.

LOCATION: Unidentified province: Unidentified district: Warana village.

POSITION: Not known.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

»*Cave dwellings are scattered throughout Sri Lanka*« and there is a »*cave dwelling*« or one of the »*caves worth visiting*« (CEYLON TRAVELLER 1974: 249; 1983: 251) especially at Warana (868).

WAUL GAL-GE

see: Wawul Galge, Wellawaya

Brohier, Richard Leslie 1956.

861 <ftp://ftp.nga.mil/pub/gns_data/Designations.html> (accessed 28.05.2004): »*cave(s): An underground passageway or chamber, or cavity on the side of a cliff.*«

862 <www.nima.mil/geonames> (accessed 16.11.2003) and <www.wayhoo.com> (accessed 25.05.2004) list Dagaba Caves (N06°36': E081°23'), Henanegala Cave (N07°35': E081°17'), Itikala Caves (N06°34': E081°44'), Lunuatugalge Cave (N06°31': E081°30'), Lunuhinda Cave (N07°40': E080°39'), Mulagama Cave (N07°15': E081°29'), Talaguruhela Rock Caves (N06°34': E081°29'), and Viharegala Rock Cave (N06°39': E081°39').

863 Kumana N06°31': E081°42' <www.nima.mil/geonames> accessed 16.11.2003.

864 Mahawelatota N06°37': E081°35' <www.nima.mil/geonames> accessed 16.11.2003.

865 »*Wadingapallama*« (DAVY 1821) is not identified.

866 The obsolete »*Naganpahay korle*« (DAVY 1821: 31) is not identified but there is the village of Negampaha N07°59'14": E080°27'35" <www.nima.mil/geonames> accessed 16.11.2003

867 »*Neurakalawa district*« (DAVY 1821: 31 footnote) is shown on the accompanying »*Map of the island of Ceylon*« to correspond, at least more or less, to the Anuradhapura district, which covers the area between N07°45': E080°00' and N08°55': E080°50' on my "Road Map of Sri Lanka" (Survey Department 1977).

868 »*Warana*« (CEYLON TRAVELLER 1974: 249; 1983: 251) is not identified unless it is the same as

position from Colombo city (*)

Warahena N06°24': E080°00' 62 km SSE

Wiharahena N06°22': E080°35' 100 km ESE

Wirahena N07°24': E079°51' 52 km north.

* Fort Railroad Station N06°56'01": E079°51'01" WGS84.

WAULA KANDA, cave on the

Explored and mapped (grade 2b) natural cave and seasonal sink in granite (KELLER 1982).

LOCATION: Unidentified (Sabaragamuwa or Western) province: Unidentified (Colombo or Ratnapura) district: Kalatuwawa: Waula Kanda.

POSITION: WGS84 N06°51': E080°12' / N06.85°: E080.2° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet "Avisawella" or "Horana" (One-Inch series).

SPELEOMETRY: Length: Approximately 15 m. Vertical range: Not known.

BIBLIOGRAPHY: Keller, Peter 1982.

Out of altogether three cave entrances, an approximately south facing cave entrance takes a seasonal stream and give access to a single chamber cave (up to 6 by 10 m wide) formed in what looks like granite (KELLER 1982: 22-23). The wide, second entrance lies high up on the eastern side of the chamber, and the third entrance (in the north, opposite across the first) is reached by a 3 m long rift passage: A true tunnel cave.

ETYMOLOGY: No locally known name has been identified for what has been called »Waula Kanda« (KELLER 1982) but this means Bats' Hill / Bats' Mountain while the cave itself is probably known as Waula Lena or Waula Galge, and Waulakanda Lena or Waulakanda Galge, etc. (869).

SITUATION: KELLER (1982: 22) locates the cave on Waul Kanda (870) in one way or another about 35 km approximately east of Colombo (871) and on a »Granitkuppe« (hum or hillock of granite), which rises near one of the villages on the island of Sri Lanka, which are called Kalatuwawa (872).

CAVE DESCRIPTION (after KELLER 1982: 22): One entrance lies in a medium-sized, mostly dry stream bed leading into the cave. During rains, the cave drains the stream that disappears in a pool and probably resurges from a »Spalte« (gap, cleft, rift) below the cave. Formerly, the stream probably took the third entrance. The second is a rift (873).

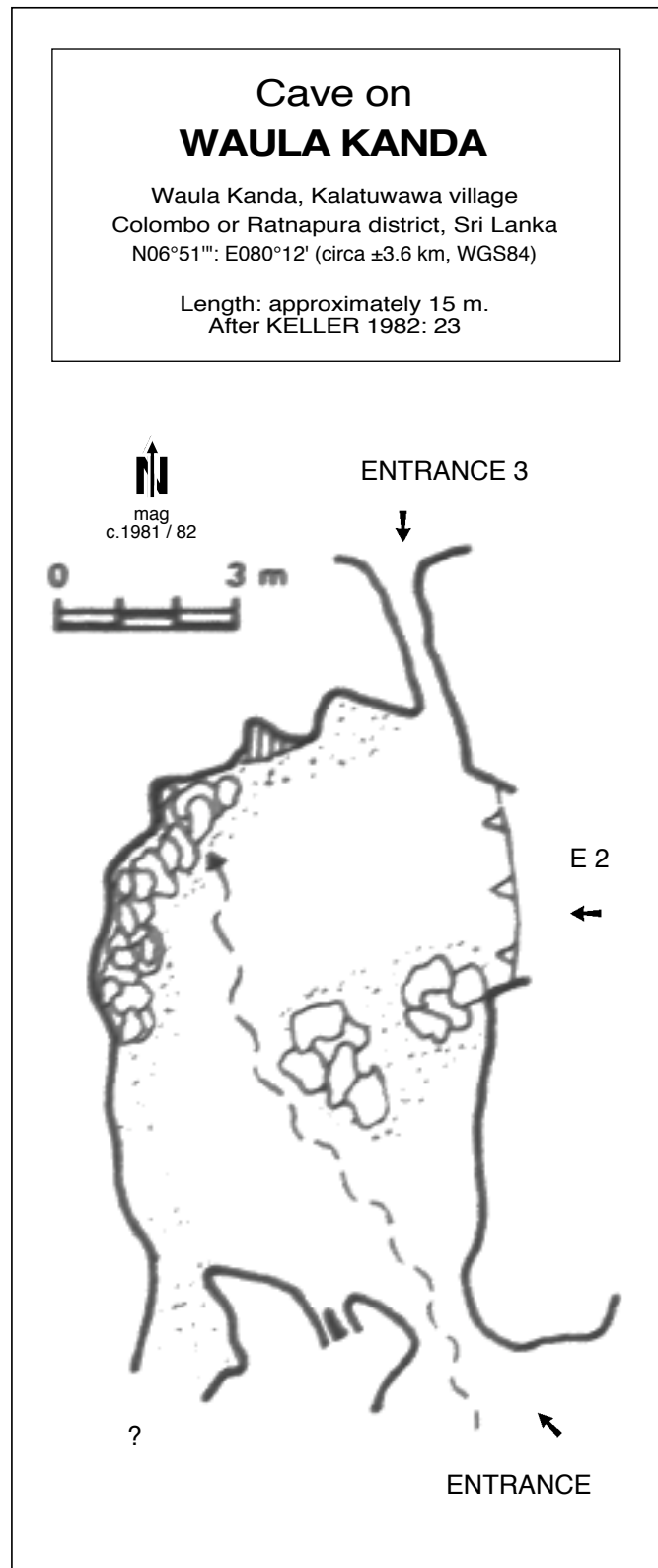
869 The Sinhala "waul" is a short form of "wavul" and translates into bat (Chiroptera) while "kanda" or "kande" is a mountain.

870 There is a trigonometric station (probably a prominent hill) Waulgalakanda N06°01': E080°42' <www.nima.mil/geonames> accessed 16.11.2003.

871 Colombo city (Fort Railroad Station N06°56'01": E079°51'01" WGS84

872 The village of »Kalatuwawa« (KELLER 1982), which is said to lie at what appears to represent a travelling distance of "about 35 km east of Colombo" (KELLER 1982: 22), appears to be that village of Kalatuwawa (N06°51': E080°12'), which lies at a linear distance of about 23 km approximately ESE of Colombo in the area where the districts of Colombo and Ratnapura meet—not the other villages of Kalatuwawa N07°10': E080°07' (28 km NNE of Colombo) or Kalatuwawa N07°38': E080°22' (85 km NNE of Colombo).

873 KELLER (1982: 22): »Der Einstieg liegt an einem mittelgrossen, meist trockenen Bachbett, das in den Höhleneingang mündet. Wenn der Monsun einbricht, führt die Höhle einen Bach, dieser aber verschwindet in einem Tümpel und tritt wahrscheinlich durch die unterhalb der Höhle liegende Spalte wieder an die Oberfläche. Früher floss der Bach wahrscheinlich durch den dritten Eingang ab, der zweite ist nur eine Kluft.«



EXPLORATION HISTORY: circa 1981 or 1982: Sometime before October 1982, Peter KELLER (1982: 22) was guided by members, relatives and friends of the Weligama family, who were equipped with an electric torch, from the village of Kalatuwawa to a cave on the hill called Waula Kanda (874).

874 KELLER (1982: 22): »Die am Bergfuss wohnende Familie Dedigama führte mich zu dieser Höhle.«

WAULPANE

see: Wavulpane, cave near the village of Siffre, Michel 1975: 16, 17, 22-26, 39-42.

WAUPANE RIVER CAVE

see: Wavulpane, cave near the village of Middleton, John R. & Waltham, Anthony "Tony" C. 1986a: 182, 1986b: 182, 1992: 182.

In an attempt to refer to the cave, which is generally called after a nearby village, which is named after the hill known as Wavulpane, it were MIDDLETON & WALTHAM (1986: 182) who created six blunders within one effective 14-word sentence: »Close to Ratnapura is a 200m-long cave formed in conglomerate, the Waupane River Cave« (875).

WAUWUWELA GALGE

Unexplored and unmapped natural rock shelter.
 LOCATION: Unidentified (Eastern or Uva) province: Unidentified (Amparai or Monaragala) district: Maha Oya basin area: Wauwuwela.
 POSITION: Representative WGS84 or Everest 1830 (estimated EPE ±25 km) N07°25': E081°30' / N07.416667°: E081.5° (or so).
 MAP: Survey of Ceylon / Sri Lanka sheet "Maha Oya" (One-Inch series).
 SPELEOMETRY: Length: Not known. Vertical range: Not known.
 BIBLIOGRAPHY: Sarasin, Fritz & Sarasin, Paul 1908.

A rock shelter (SARASIN & SARASIN 1908) or true cave with an inhabitable entrance area (used as a shelter).
SITUATION: Somewhere south-east of the town of Maha Oya (N07°32': E081°21') at »Wauwuwela« (?) and at a walking distance of 20 minutes from →Kanaátawela Galge. Compare the nearby →Nuwaragala Caves (N07°29': E081°26').

WAVUL GALGE , Wellawaya

or: Great Cave in Lower Ouva (Wellaway), Lower Uva Nitre Cave, Nitre Cave

Frequently visited but speleologically unexplored and unmapped natural cave, probably in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Uva province: Badulla district: Wellaway (Weleway, Wellawaya) town area: Gampaha village: Kolongastenne hamlet.
 POSITION: (If 5 km in a direct line south-west of the village of Gampaha), Estimated WGS84 coordinates (assumed EPE ±1 km) N06°41': E081°00' / N06.6833°: E81.0° (Ceylon Road Map 1977 1: 506880).

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" (One-Inch).
 SPELEOMETRY: Length: Estimated 215 m. Vertical range: Estimated ±25 m (+0m / -25m).
 BIBLIOGRAPHY: Brohier, Richard Leslie 1956; Ceylon Traveller 1974, 1983; Cooray, P Gerald 1967; Daniel, Joseph A 1908; Davy, John 1821; Pridham, Charles 1849.
 COMMUNICATOR: Michael Eckrich, München: Zoologisches Institut, 1984 personal communication.

This "bat cave" is obviously a good cave as it is inhabited by bats to such a degree that a »regiment of troops« had been stationed during the Welessa rebellion (1818) to prevent rebels from preparing nitrate for explosives from the accumulated bat guano.

ETYMOLOGY: The Sinhala "wavul galge" translates literally into »bats' home« or »bats' shelter« but, in this case, means Bat Cave. BROHIER (1956) confirms that »... the village folk to this day call the place Waul-gal-ge, which means "the rock-cave of the bats.«

More often than not, however, Wavul Galge was called after town of Wellawaya (N06°44': E081°06'), which, being more than 15 km in a direct line away, is said to be »near« (876).

SITUATION 1821: DAVY (1821: 429) located this »... nitre-cave ... about half-way between Weleway [877] and Boulatwellegoddé [878], from both of which it is about five miles [8 km] distant. ... [The entrance itself is] ... situated in thick jungle, in the side of a hill, it is difficult of discovery and of access.«

SITUATION 1849: PRIDHAM (1849, 2: 579): »Half way between Weleway and Boulatwellegoddé, is a nitre cave, situate in a thick jungle, in the side of a hill of difficult discovery and access.«

876 So far, I saw this Wavul Galge called cave near Wellawaya (COORAY 1967; DOMRÖS 1976) great cave in Lower Ouva, near Wellaway (PRIDHAM 1849)

Nitre Cave no. 17 at Wellaway, Ouva district (DAVY 1821) Nitre Cave, Weleway (DAVY 1821; PRIDHAM 1849) Nitre Cave, Wellaway (DAVY 1821) Nitre Cave, Wellawaya, Uva (BROHIER 1956; DANIEL 1908)

Waul-gal-ge (BROHIER 1956) Wavul Galge (CEYLON TRAVELLER 1974: 247; 1983: 249).

877 »Weleway« (DAVY 1821: 31, 396, 429; PRIDHAM 1849, ii: 579), »Wellaway« (PRIDHAM 1849, ii: 709), and »Wellawaya« (DANIEL 1908) is the town of Wellawaya (Survey Department 1977: Road Map of Sri Lanka) near N06°44': E081°06' (www.nima.mil/geonames accessed 16.11.2003).

878 »Boulatwellegoddé« (DAVY 1821: 429) or »Boulatwellegoddé« (PRIDHAM 1849, ii: 579) is the village of Bulatwelgoda (N06°43': E081°02').

875 What MIDDLETON & WALTHAM (1986: 182) called »Waupane River Cave«

1. is a cave draining a stream with a mean annual flow of 26 liter per second --the UK rivers must be tiny,
2. is not a »Waupane River Cave« as it drains not a "Waupane River" (not existing) but the Halwinne Oya (Halwinna Dola),
3. is not a »Waupane Cave« as it lies 3 km from the village of Wavulpane (Waulpane),
4. is not »formed in conglomerate« but in brecciated calc-granulites of the Khondalite series,
5. is not 200 m long but not mapped and estimated to be »about a quarter of a mile« (400 m) long, and
6. does not lie »close to Ratnapura« but 80 or 100 km along the road (45 km in a direct line) from the town of Ratnapura (N06°40'58": E080°23'57" WGS84).

Already on the approach, PRIDHAM (1849, 2: 579) describes the landscape as if it were a typical karst scenery: *»From Welaway to Boolatwellegodde, in the district of Gampaha, distant about six miles, the road traverses a hilly, but not difficult country, presenting a striking contrast with the monotonous jungle behind. This country was sadly laid waste during the rebellion: the villages were deserted, and the fields suffered to become a desert.«*

SITUATION 1908 (DANIEL 1908: 107) puts the cave in the heart of the forest and about 4 km from the Koslanda - Wellawaya road. It is formed in a band of limestone running across the hill in a SW and NE direction (south-west / north-east) and dipping by about 45° to the west. The limestone collected from the sides of the cave is made up of fairly pure good-sized crystals of limestone. It is very probable that this cave was formed before the surface features of the surrounding district were fully developed.

SITUATION 1942 (BROHIER 1956): *»On the way down [from »Upper Uva« or Badulla district], a little beyond Koslanda [879], five contiguous, but at the present time rather desolate villages, give the name Gampaha (880) to this district. The nitre cave is situated on the side of a hill, in the jungle, about five miles [8 km] off the road, and not far from a hamlet called Kolongastenne« (881).*

SITUATION 1974 (CEYLON TRAVELLER 1974: 247; 1983: 249): In an elevated area about *»five miles«* (8 km) south or south-west of the village of Gampaha (N06°43': E081°02'), which itself lies about *»five miles«* (8 km) west of Wellawaya (N06°44': E081°06') and on *»the road«* (highway A4) to Koslanda (N06°44': E081°01') and Beragala (882).

SITUATION 1984: Michael Eckrich (1984, personal communication) told me that the entrance to a bat cave south-west of Wellawaya (N06°44': E081°06') is reached by travelling west along the highway A4 towards Koslanda (N06°44': E081°01') and by turning off south about 3 km short of (east of) Diyaluma (N06°43': E081°02') and the Diyaluma Falls (N06°44': E081°02').

POSITION 1 (after DAVY 1821: 429): N06°43'30": E081°04' (±2.5 km, WGS84) indicates a spot at about half the way between Wellawaya (N06°44': E081°06') and Bulatwelgoda (N06°43': E081°02').

POSITION 2 (after CEYLON TRAVELLER 1974: 247; 1983: 249): A spot about 5 km in a direct line (presumably

equalling a travelling distance of *»five miles«* on foot or horse back) about south or south-west of the village of Gampaha (N06°43': E081°02') should lie in the vicinity of N06°41': E081°00' (Everest 1830 or WGS84).

APPROACH (CEYLON TRAVELLER 1974: 247; 1983: 249): *»Since the area is still a wilderness, directions should be sought from people in the village.«*

CAVE DESCRIPTION 1821: DAVY (1821: 429) literally repeated by PRIDHAM (1849, 2: 579-580): *»Its mouth is comparatively small —hardly twelve feet [3.7 m] wide, and where highest, hardly high enough for a man to stand erect [perhaps 1.8 m]. The entrance is irregularly arched, and has the appearance of having been cut through the solid rock by which it is surrounded and overhung. Looking down into the cave, nothing can be more gloomy and dismal; the eye can penetrate but a little way into its dark recesses, from which a loathsome smell issues, and a dull, confused noise [of exited bats], like that of a subterranean torrent.*

As soon as light could be procured [883], we commenced the descent, each of us bearing a candle, and our people carrying either candles or torches. Having descended, through a steep, narrow, and slippery passage, about thirty feet [9 m], we found ourselves in a cave of vast size, and of such a very irregular form, that it is impossible to retain any accurate notion of it. The rugged bottom, which descends about 50 feet [15 m] is covered with fragments of decomposing rock and a thick stratum of black earth. The roof in general is too high to be visible. The walls consist either of dolomitic rock or of granitic varieties, most of them in a state of decomposition, particularly those containing a portion of calcspar ... Like the nitre cave in Doombera [->Lunugala Lena], its excavation is perhaps more artificial than natural.«

CAVE DESCRIPTION 1907: DANIEL (1908: 107-108): *»The entrance into the cave was steep, and a loathsome smell emanated from it owing to, as we later found out, damp excreta of bats ... we heard a sound like that of gushing water, and I thought there was a stream flowing through the cave. But this was a delusion ... The gushing sound was caused by the fluttering of thousands of bats. After descending about 30 feet [9 m] we found ourselves at the entrance of a huge hall. The sides were rugged, but the roof at this place had apparently a smooth surface. Where the bats had settled on the roof from time to time little white patches were left, which gave one the impression of a curiously patterned ceiling. There were similar patches on the sides of the cave. The roof dipped towards west, evidently along a certain weak foliation, or maybe along the junction plane of limestone and gneiss, which I could not ascertain. Huge blocks of rock had fallen down and were scattered on the floor. At other places the roof was irregular and rugged, but covered with white patches. Fine blackish dust and bats' dung lay evenly over the blocks lying on the floor, and so we had to move very cautiously. The dust in several places I found more than five feet thick and lying so loose that one might have sunk through it if one had walked unwarily. In some places it was thicker than 5 feet. It was easily disturbed, and our walking had raised quite a large amount; but it was stifling when we started digging. The number of bats here was enormous. Like*

883 *»It was struck by a native, by means of a bit of rock-crystal and a small piece of iron. He received the sparks on a piece of rotten cloth, and kindled a flame by whirling the tinder round, enveloped in dry leaves« (DAVY 1821: 429 footnote).*

879 Koslanda (N06°44': E081°01') in Badulla district.

880 Gampaha (N06°43': E081°02'), the village in Badulla district on SoC / SoSL sheet Haputale, is not to be confused with the other village of Gampaha (N07°05'30": E079°59'39" WGS84) near the estate Gampaha (N06°59': E080°56') in Colombo district on SoC / SoSL sheet Gampaha

881 *»Kolongastenne«* (BROHIER 1956) is not listed on <www.nima.mil/geonames> accessed 16.11.2003).

882 *»Beragala«* (CEYLON TRAVELLER 1974: 247; 1983: 249) appears to correspond to the town of *»Beragala«* indicated on the "Road Map of Sri Lanka" (Survey Department 1977) as the T-junction where the highway A16 intersects the highway A4 about 10 km (or so) approximately south-west of Haputale (N06°46': E080°58').

<www.nima.mil/geonames> (accessed 16.11.2003), however, positions only a estate called Berragalla or Berragalle near N06°46': E080°55' (WGS84).

a whirlwind they hovered around us. They constantly dashed against us, settling on us, one even clinging to the mouth of a cooly. Very high in the roof of some parts of the cave were funnel shaped openings communicating with the surface. Light streamed in and dimly lit up the rugged sides of these openings and the part of the cave immediately below. It gave one an impression of a deep dark dungeon only lit up from a side window from a tower high above. This, with the bats flitting aimlessly in the sombre light, made a most melancholy and gloomy impression. We crossed the hall, which I believe is more than 200 yards [183 m] long and more than 150 yards [137 m] broad, for the further end. Here we had to climb on all fours about 20 feet [18 m], when we found ourselves at the entrance of small tunnels which opened into chambers. These appear to have been worked by man. Here the stench was overpowering. We worked up a small tunnel. It was very low and narrow, so that only one person can pass at a time in a stooping posture. The bats having perhaps no other egress from the passage dashed against us in a continuous stream. We dug in one of the chambers. By this time we finished it was simply stifling, also the heat was tremendous. So we returned to the entrance of the cave.«

CAVE DESCRIPTION 1942 (BROHIER 1956): »Descending about thirty feet into this subterranean mystery, we find ourselves in a huge hall about two hundred feet long, and more than one hundred and fifty feet broad. The sides are rugged, water worn into strange fantastic forms, with caves, columns and grottos innumerable. The roof nevertheless, appears to have a smooth surface, except where large rocks have fallen and lie scattered on the floor. Very high, in the roof of some parts of the cave, there are funnel shaped openings communicating with the surface. Through these openings the cave apparently breathes — but breathes very little.

The atmosphere is stifling, the heat tremendous. In the vaulted chamber these openings appear merely as a very faint glimmer, sufficient only to light up the part of the cave immediately below it. In its unlit and abandoned state the cave presents rather a melancholy picture and invites eerie sensations. Nevertheless, making up our minds we proceed a little further. Our lights create fantastic patterns and fitfully illuminate the awful dark spaces all round. A pregnant silence assails us. Yes, it is a silence pregnant and full of menace, for suddenly it is broken by a low, rumbling, hollow noise, weird and unreal, sufficient to make even the boldest of us feel a funny creeping sensation all up our backbone, to the very roots of our hair.

In a moment more all is pandemonium. The gushing noise increases in volume. Out of the darkness there come hundreds, much more, thousands of winged shadows. They loom large and ghostly in the candle lights, and hover like a whirlwind around us, whipping us as they pass. When confidence returns we realize the cause of this delusion. We have penetrated deep enough to disturb the bats which in vast armies have made these gloomy recesses their abode. In token of this the village folk to this day call the place Waul-gal-ge, which means "the rock-cave of the bats."

As we cross the hall we notice that the roof dips lower and lower and the ceiling takes to-itself beautiful patterns woven by nature, in white, in an infinite variety of forms. Layers of fine black dust, and bats' dung lie evenly over the floor. However, we must tread warily for this dust, in several places, fills crevice and socket more than five feet deep, and lies loose enough for a person to sink through. Penetrating further, we find on the sides of the wall there are numerous tunnels which open into the main chamber. They are low and narrow, and

only one person can pass into them at a time in a .stooping posture. There is sufficient to show that these tunnels must have been worked by men.

With many more mysteries in these depths left unexplored, we retrace our steps, following the thread we have left loose behind us, and return to the entrance.«

CAVE DESCRIPTION 1974 (CEYLON TRAVELLER 1974; 1983): None.

CULTURAL HISTORY - Human use: The cave sediment was exploited for nitre (saltpetre, NaNO₃). DAVY (1821: 33), repeated by PRIDHAM (1849, 2: 709), gives a chemical composition of the »nitre-earth from the great cave in Lower Ouva, near Wellaway: 3.3 nitrat of potash with traces of common salt and sulphat of lime, 3.5 nitrat of lime, 15.3 water, 25.7 animal matter of difficult solubility, 1.0 animal matter easily soluble in water, 51.2 carbonat of lime and earthy matter.«

DAVY (1821: 430) suspects the cave is perhaps more artificially than naturally excavated because »... it has been worked for many years by the natives, a party of whom come annually from the neighbourhood of Passera [884] for the purpose« of obtaining saltpetre.

According to CEYLON TRAVELLER (1974: 247; 1983: 249), »the cave was, at one time, so rich in deposits of [bat] guano ... that the British stationed a regiment of troops there during the Uva rebellion, to prevent the rebels from collecting nitrate for the production of explosives.«

CULTURAL HISTORY - show cave: BROHIER (1956) pledges for counter-conservational cave & wildlife treatment and wonders »... what of the draw the Waul-gal-ge will have on tourist and visitor, if brought within the range of a motor car, and if it is artificially purified and lit? It is not suggested that the cave will achieve the celebrity of Jenolan, in the Blue Mountains of Australia! But doubtless it will favourably compare with some of the limestone and other scenic caves the tourist is enticed to visit in many another country.«

CAVE LIFE: CEYLON TRAVELLER (1974: 247; 1983: 249) hints to bats (Chiroptera) and points out that the name of »Wavul Galge (Home of Bats ... indicates, it is inhabited by more than a few bats« and, quite likely, by associated guano dwellers.

Michael Eckrich (München: Zoologisches Institut, 1984, personal communication) confirmed that this is a large cave inhabited by plenty of bats (Chiroptera: Rhinolophus).

EXPLORATION HISTORY: 1819 March or April: Dr. John DAVY (1821: 397) visited and explored a »nitre-cave« at a place called, spelled, transcribed (romanised), or edited as »Wellaway« (DAVY 1821: 429-430) and »Wellaway« (DAVY 1821: 31, footnote, no. 17).

1885: The Sarasin brothers Fritz and Paul visited and explored »Wellaway Cave« (SARASIN 1939: 104, 151).

1907.09.12: Joseph A. DANIEL (1908) visited and explored »Wellaway Cave«

1942: Richard Leslie BROHIER (1956) traced the entrance of the nitre cave »Waul Gal-ge« and entered, explored and »... disclosed that Davy's account from a descriptive standpoint, had lost little despite the time which had elapsed since his visit. In fact, it is hardly possible that it could have changed at all with the mantle of jungle which protects. The jungle tide has perhaps encroached on its environs a little more, from the evidence that lands which not long ago must have been paddy field have been surrendered to the merciless onrush.«

884 Passara N06°56': E081°09' <www.nima.mil/geonames> accessed 16.11.2003.

1984: Michael Eckrich (München: Zoologisches Institut, 1984 personal communication) had rediscovered this cave and kept on returning to it to study the bats there.

WAVUL LENA, Kosgama Dodampe

Unexplored and unmapped natural cave.

LOCATION: Sabaragamuwa province: Ratnapura district: Kuruwita area: Kosgama Dodampe.

POSITION: WGS84 N06°44': E080°20' / N06.7333°: E080.3333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Horana or Ratnapura.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965; Strinati, Pierre & Aellen, Villy 1981.

A »cave« that might repay investigation (DERANIYAGALA 1965: 143) count STRINATI & AELLEN (1981: 459) among the less important caves or rock shelters, which consists either of rift caves or of half dark overhangs (885).

ETYMOLOGY: The Sinhala "wavul-lena" means bat cave.

SITUATION 1: DERANIYAGALA (1965: 143) places »Vavul-lena at Kosgama Dodampé« (886).

SITUATION 2: DERANIYAGALA (1965: 144 figure 21) indicates the location of »Vavul lena cave« on the not exactly precise »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galgé)« (without coordinates, drawn by J. B. Delair) about 8 km in a direct line approximately north-west from Ratnapura (N06°40'58": E080°23'57" WGS84) and some 18 or 20 km in a direct line approximately ESE from »Kuruwita« (Kuruwita N06°46'45": E080°22'07" WGS84).

CAVE LIFE: The cave name hints to bats (Chiroptera), bat guano, etc., and STRINATI & AELLEN (1981) count »Vavul-lena« among the four caves or rock shelters from which they collected bats.

EXPLORATION HISTORY: 1965: Paulus Edward Pieries DERANIYAGALA (1965) draws attention to »Vavul-lena at Kosgama Dodampé« (page 143) or »Vavul lena cave« (page 144: Figure 21).

1970 January: Pierre STRINATI and Villy AELLEN (1981: 459) visited »Vavul-lena« and collected unspecified bats.

WAVULAGALA LENA

see: Lunugala Lena

Uragoda, C G 1973: 39.

WAVULPANE, cave near the village of

or: Limestone Cave, Oldest Cave

Frequently visited but speleologically unexplored and unmapped natural cave, sink and spring in Precambrian (COORAY 1967) to Cambrian (DOMRÖS 1976) calcareous granulite (LEITER 1948) or metamorphosed, crystalline and dolomitic limestone / marble (COORAY 1967: 97) of the Khondalite series.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Kolonnagam Pattuwa: Rakwana range (Rakwana - Bulutota range): Halwinne dola / Halwinna stream basin area: Rakwana: Pallabeda, Werawatta and Wavulpane (Vavulpane, Waulpane) villages.

POSITION: WGS84 N06°25'30": E080°43'50" / N06.425°: E080.73055556° (<www.nima.mil/geonames> accessed 16.11.2003): 278 m asl (or 912 feet, FERNANDO 2000) 250 m asl (WILSON 1988: 22), or 300 m asl (CEYLON TRAVELLER 1974: 245; 1983: 247).

MAP: Survey of Ceylon / Sri Lanka sheet: Timbolketiya.

SPELEOMETRY: Length: Estimated 400 m. Vertical range: Allegedly ±40 m (+0m / -40m).

BIBLIOGRAPHY: Brooks, Simon J, Gebauer, H D & Waltham, Anthony "Tony" 2002; Ceylon Traveller 1974, 1983; Fernando, Dimitri s.a. circa 2000; Middleton, John R & Waltham, Anthony "Tony" C 1986a, 1986b, 1992; Oldest Cave Found 1968.08.04, 1968b, 1969; Siffre, Michel 1975; Wilson, Jane M 1988.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

Two streams, which arrive arriving from two different catchment areas, flow onto exposed limestone (887) where they disappear from the surface and sink into two insurgences to join underground and form an estimated 475 m of stream cave passages magnificently decorated with speleothems and draining towards a resurgence.

The two insurgences of the three entrances (7.8 m and 5.6 m wide and 7.5 m and 4.2 m high) are connected by a more or less horizontal tunnel cave passage, which is up to 15 m high (SIFFRE 1975: 24) and drains a small stream (26 ltr/sec mean annual flow) not only called »Halwini Oya« (FERNANDO s.a., circa 2000) but also »Kalmina Ganga« (SIFFRE 1975: 26) and Halwinna Dola (888).

The second stream enters the cave from high above and falls 40 m in three steps before joining the stream flowing through the master cave passage where lateral passages, not suitable for casual visitors, are reputed to house »snakes« or so (889).

The third entrance and resurgence remains without descriptions.

885 The (other, less important caves) of STRINATI & AELLEN (1981) are represented either by »abris semi-obscures« (half dark overhangs or rock shelters) or by »réseau de fissures« (rift cave systems).

The four (or three?) »grottes peu importantes« are Mahakande Cave, »Vavul-lena« (Wavul Lena, Kosgama Dodampé), »Rajagiri-lena« (Rajagiri Lena, one of the →Mihintale rock shelters), and »Mihintale Caves« (Mihintale Rock Shelters).

886 »Kosgama Dodampé« (DERANIYAGALA 1965: 143) appears to be the village of Kosgama Dodampe (N06°44': E080°20'), which lies about 10 km in a direct line approximately north-west of Ratnapura (N06°40'58": E080°23'57" WGS84).

887 It is difficult to decide if COOK (1931: 137) had actually seen or only had been told about an unidentified »feature« at an unspecified location »in the hill country« of »Ceylon« (Sri Lanka) where »a stream may suddenly disappear underground when it runs from the gneiss on to the limestone, or the limestone vein is worn by solution, etc., to a lower level and forms a valley. These interesting regions in the hill country await further study.«

888 The stream »Halwinne« (SURVEY OF CEYLON, One-Inch sheet Timbolketiya, edition 1966, 1969) or »Halwini Oya« (FERNANDO s.a., circa 2000), which had been corrupted into a »Kalmina Ganga« (SIFFRE 1975: 26), appears to be the Halwinna Dola N06°24': E080°43' on <www.nima.mil/> accessed 16.11.2003.

889 FERNANDO <www.lankalibrary.com/heritage> (accessed 15.11.2003).

ETYMOLOGY: »Wavulpane has been appropriately named: it means Cave of Bats, after the thousands of these creatures that inhabit it« (CEYLON TRAVELLER 1974, 1983: 247).

The strange thing is that the Sinhala noun "wavul" (wavul, wavul, wawul) does mean »bat« (Zoologically: Chiroptera) but no other cave on the island of Sri Lanka is "pane" (or so). On the Survey of Ceylon one-inch sheet "Timbolketiya" (1966, 1969), it is indicated as »Limestone Cave« north-west of the trigonometrical station »Wavulpane« (N06°25': E080°45') and between the villages of »Wavulpane« (N06°26'30": E080°44') and Werawatta (N06°26': E080°43'30").

So far, I saw cave's name called, spelled, or edited as

Bat Cave	BROOKS et al. (2002: 19)
Cave of Bats	CEYLON TRAVELLER (1974: 245, 1983: 247); WILSON (1988: 23)
Limestone Cave	SURVEY of CEYLON (1969): Timbolketiya (One-Inch series) and
Oldest Cave	OLDEST CAVE ... (1968.08.04, 1968, 1969)
Vava Pena	BROOKS et al. (2002: 19)
Vavul Pena	WILSON (1988: 23)
Wavulpane	FERNANDO (2000)
Walupana	WILSON (1988: 23)
Waulpane	SIFFRE (1975: 16, 17, 2, 39, 40)
Waupane	MIDDLETON & WALTHAM (1986: 182)
Wavul Pane	<www.info.lk/srilanka/srilankatravelguide> (accessed 2009.08.03)
Wavulpane	CEYLON TRAVELLER (1974: 245, 1983: 247); BROOKS et al. (2002: 19)
Wawulpane	Eckrich, M. (1984 Bat cave distribution map).

SITUATION: About 5 km in a direct line south-west of the highway A18 from Pelmadulla (890) generally south-east to Hambantota and at linear distances of about 7 km WNW from Timbolketiya (891) and about 4 km WSW from Colombage-ara (N06°26': E080°46') in the Kamburagamuwa Reserved Forest on the stream Halwinne, and between the villages of Werawatta (N06°26': E080°43'30") in the south-west and Wavulpane (N06°26'30": E080°44') in the north-east.

SITUATION 1968: OLDEST CAVE FOUND (1969 quoting 1968b after 1968.08.04) places »a cave« (no name mentioned) »... in the rich rubber-growing district about 12 miles [19.3 km] from the Uda Walawe River [892], in south-central Ceylon [893], about 60 miles [100 km along the road generally east and] south-east of Colombo.«

SITUATION 1974: CEYLON TRAVELLER (1974: 245-246; 1983: 247-248) locates »Wavulpane« in a limestone formation on the eastern slope of the Rakwana range (894) and above the right bank of the Halwinne Dola, a tributary to the Andolu Ganga. The entrance may be reached by four different approaches (895):

APPROACH 1: Embilipitiya - Colombage ara (Colombage ganga) route: Starting from Ratnapura, take the highway A4 east-southeast to Pelmadulla and continue along the A18 south-east via Embilipitiya (896) towards Nonagama (897) but turn off on a gravel track just past the village of »Colombageganga« (898).

Keep trekking along the right bank of the river. The path carries on to the village of Katukumbura (899), past the confluence of a little stream, the Halwinne dola (900), with the Andolu Ganga (901). The path crosses the stream twice.

894 »Rakwana range« (CEYLON TRAVELLER 1974: 245-246; 1983: 247-248) are the hills above the town of Rakwana N06°28'18": E080°36'42" WGS84).

895 In 1961, Michel SIFFRE (1975: 22) and his guide Caldera reached the cave by having their jeep driven up to the village of »Waulpane« (Wavulpane N06°26': E080°44') where they spent the night. The following day, they marched »25 km« (read 2.5 km there and back again) through jungle and a vast extension of paddy fields (leeches) to the top of a mountain from where they descended to a valley where a two or even three metres wide »rivière« (stream) sinks into a »vaste porche de grotte« (huge cave entrance) without identified dimensions: »Un soir, tardivement, nous arrivons en jeep dans le village de Waulpane où nous trouvons seulement pour gîte les bancs d'une école communale [Wavulpane Vidyalaya]. ... Je la comprendai ce soir, après vingt-cinq kilomètres [sic] qua: 2.5 km] de march dans la jungle, sous un soleil torride ... Avant d'aborder les premiers contreforts de la montagne, il nous faut traverser une vaste étendue de rizières où, à nouveau, j'apprends à me "familiarsier" avec le morsure des sangues. Plus de trois heures sont nécessaires pour trouver, perdue au milieu d'un bosquet de palmes, une petite hutte qui nous a été signalée. ... Du sommet de la montagne, nous commençons une s'vère descente vers le fond de la vallée couverte de jungle ... une zone de bosquets clairsemés, le "scrub" que nous appelons brousse ... une zone brûlée récemment ... Soudain, le sentier débouche dans un endroit découvert et longe un précipice ... Lorsque nous arrivons au niveau de la rivière, plusieurs autochtones se joignent à notre caravane. Maintenant, nous longeons la rivière large de deux ou trois mètres qui, bientôt, au milieu d'une végétation exubérante, pénètre dans un vaste porche de grotte.«

890 Pelmadulla (N06°37'28": E080°33'07" WGS84) lies about 15 km ESE from Ratnapura (N06°40'58": E080°23'57" WGS84)

891 Timbolketiya (N06°24'58": E080°47'28" WGS84)

892 The so-called »Uda Walawe River« (OLDEST CAVE FOUND 1969) is a concoction of the Uda Walawe Reservoir (N06°19': E080°54') and the river called Walawe Oya (in Sinhala) and Walawe Ganga (in Tamil), which debauches near N06°06': E081°01' (www.nima.mil/geonames accessed 16.11.2003) into the Indian Ocean. It is the reservoir, which lies about 19 km in a direct line due east from the village of Wavulpane and the cave there.

893 »South-central Ceylon« (OLDEST CAVE FOUND 1969) seems to be a translation of Sabaragamuwa Province into Australian newspaper speak.

896 Embilipitiya (N06°20'38": E080°50'56" WGS84)

897 Nonagama (N06°07': E080°59')

898 »Colombageganga« (CEYLON TRAVELLER 1974: 245-246; 1983) is indicated as Colombage-ara (N06°26': E080°46') on the Survey of Ceylon (later: Survey of Sri Lanka) One-Inch sheet "Timbolketiya" (1966, 1969) in the »grassland« (an area dominated by grass vegetation) of Colombage Ara (N06°26': E080°47' <www.nima.mil/geonames> accessed 16.11.2003).

899 Katukumbura (N06°24': E080°44')

900 Halwinne dola (N06°24': E080°43')

901 Andolu Ganga (N06°24': E080°48').

The cave lies to the left of, and a few hundred metres beyond, the point where the path emerges to the left of the stream. This route is just about 8 km on foot.

APPROACH 2: Palebadda - Halwinna route: Turn off near the 18th mile post (close to kilometre 29) on the road from Pelmadulla to Embilipitiya just beyond the Palebadda police station (902). Proceed through the villages Halwinna (903) and south to Welenawatta (904). The cave lies a little more than 1.5 km beyond. The distance from the main road is about 8 km; this route involves a tedious climb to an elevation of about 300 m.

APPROACH 3: Palamcotta (N06°27': E080°40') route: Turn off to the »left« (east) near the commencement (northern side) of the hairpin bends at the Bulutota Pass (905) and follow the road generally east via the Palamcotta to the El Chico estate. The road ends at El Chico (906) and is succeeded by a track and path that winds through the hills at elevations between 300 and 600 m. The footpath eventually reaches the village of Halwinna (N06°26': E080°43'), from where the route is as stated in Approach 2: Turn right at Halwinna and proceed south. A good section of this route is jeepable but a 5 km walk cannot be avoided.

APPROACH 4: The cave lies about 6.5 km from Kolonne (N06°24': E080°41') on the Embilipitiya - Panamure - Suriyakande - Rakwana road, along a footpath via the villages of Kitalabokka (N06°25': E080°42') and Dambemada (N06°25': E080°43').

SITUATION 1975: SIFFRE (1975: 24) locates »la rivière souterraine de Waulpane« in the south (of the island) and at a walking distance of »25 km« (sic) from the village of »Waulpane« (Wavulpane).

On the way back, SIFFRE (1975: 26) walked along the »Kalmína Ganga« (sic! qua: Halwinna Dola N06°24': E080°43') and past an unidentified populated place (Halwinna N06°26': E080°43') to the confluence of a certain »Dolota Ganga« (sic! qua: Andolu Ganga) where SIFFRE (1975: 26) found eating canned remains of dead animals suitable. Eventually, the vehicle was reached after having crossed an unidentified banana plantation (907).

SITUATION 1988: WILSON (1988: 23) places »Vavul Pena ... just over 2 miles [3.3 km] as the crow flies SWS [south-west-south] of Pallabeda [Palebadda / Pallebedda N06°27': E080°44'] on the Embilipitiya - Pelmadulla road, but driving there along the very poor circuitous road takes about half an hour. A jeepable unmetalled track from the Pelmadulla - Kolonne road (the Waulpane —also spelled Wavulpane— Development Road) goes within a kilometre of the cave. From the end of the road a pleasant track along the Halwinna River (a tributary of the Andolu Ganga) goes to the attractive upstream entrance where the river plunges into the cave.

The local geology comprises mainly metamorphics but the cave seems to be in a thin band of calcareous sandstone and limestone. Ochre deposits are evident at the nearest washing place to the cave.

SITUATION 2002: BROOKS et al. (2002: 19) locate »Vava Pena (Bat Cave also known as Wavulpane) near to Pallebada.«

FERNANDO (2002) explains that »Vavulpane« is a village in the Ratnapura District and »in the Kolonne Korale, about 278 m (912 feet) above sea level ... On reaching Ratnapura town, proceed on the Embilipitiya road up to Pallebadde junction. Turn off there and proceed along the Bulutota road about 10 km and you will reach the Vavulpane Sanwardhana Mawatha. It is approximately 2 km on foot from there to the Vavulpane school. [...] We parked our van at the top of the road and had a 2.5 km walk downhill as the route was not negotiable for a light van such as ours. If you wish to avoid this long hike, the only suitable vehicle is a jeep or similar four-wheel drive vehicle. We came to Vavulpane Vidyalaya [school], where we met the Principal Michael Pathirana who took us along the 500 m footpath to the caves.«

SITUATION 2007: An Internet website (908) advertises generously error spiced the »Wavul Pane - Kolonna [909] ... limestone grotto of Vavulpane« (sic) or »magnificent cavern lying isolated on the Eastern slope of the Bulutota Rakwana range [910] northwest of Embilipitiya. The cave is located in the Ratnapura District, in the Kolonne Korale, about 278 m (912 feet) above sea level.«

GEOLOGICAL SITUATION: WILSON (1988: 23) simply projects some geological aspects of the Mendip Hills (United Kingdom of Great Britain) onto Sri Lanka and surmises that »Vavul Pena ... seems to be in a thin band of calcareous sandstone and limestone.«

CAVE DESCRIPTION 1961: SIFFRE (1975: 16) gives two photographs, of which the top one is titled »C'est dague en main que j'explorais les eaux putrides de la rivière souterraine de Waulpane« (me on the right-hand side exploring the putrid waters of Waulpane's underground river) and shows an informally dressed French caver standing knee-deep in water in what looks like an about 3 m high and wide stream cave passage fringed with floating driftwood.

The second photograph, titled »Le siphon« (the sump), shows »equipment« (toys of a big caving boy) worn by a person standing of kneeling in water.

SIFFRE (1975: 22-26) narrates a first visit to the »rivière souterraine« (911) of »Waulpane« where a two or three metre

902 Palebadda / Pallebedda N06°27': E080°44')

903 Halwinna (N06°26': E080°43')

904 Welenawatta (N06°26': E080°43')

905 Bulutota Pass (N06°28': E080°38')

906 El Chico (N06°27': E080°41')

907 SIFFRE (1975: 26): »Sorti de la grotte ... une marche interminable d'une dizaine de kilomètres le long du Kalmína Ganga pour rejoindre les premières habitations. Au confluent avec le Dolota Ganga, nous mangeons avec les doigts une boîte du corned beef, du poisson et du thé. ... trous circulaires ... gemmifères ... gemmes ... gemmes ... Nous rejoignons la jeep après avoir traversé une grande plantation de bananiers ...«

908 <www.info.lk/srilanka/srilankatravelguide/ecotours> (accessed 2009.08.02).

909 »Kolonna« (sic) is indicated »Kolonne« (Survey Department 1977: Road Map of Sri Lanka) indicated on my issue of the "Road Map of Sri Lanka" (Survey Department 1977) and positioned both as Kolonna and as Kolonne N06°24': E080°41' <www.nima.mil/geonames> accessed 16.11.2003.

910 The »Bulutota Rakwana range« is named after the populated places Bulutota (N06°26': E080°39') and Rakwana (N06°28'18": E080°36'42" WGS84) but indicated on the "Road Map of Sri Lanka" (Survey Department 1977) as »Bulutota Pass« N06°28': E080°38' <www.nima.mil/geonames> accessed 16.11.2003.

911 The »rivière souterraine« (SIFFRE 1975: 22-26, 39-42) is not an underground river but a relatively small stream (26 ltr/sec mean annual flow), the »Halwinna (Halwini, Halwinne) Oya« (FERNANDO s.a., circa 2000).

wide stream (or stream bed) sinks into a »*vaste porche de grotte*« (huge cave entrance) without identified dimensions gives access to an ante-chamber from where a slippery descend across bat guano leads into a cave passage where bats cover the ceiling at a height of 15 m above the head of a French adventure caver dressed in tough cotton trousers and a shirt, and wearing a helmet-mounted »*lampe à acétylène*« (carbide lamp) in addition to an electric torch-light warding off ubiquitously imagined leopards and bears. Following the passage downstream past a spot where a small waterfall tumbles from the ceiling, one gets not only more and more brown due to guano but also reaches a putrid sump spiced with guano and decorated with dead bats (912).

SIFFRE (1975: 39-42) narrates a second visit for diving the »*eau glauque et putride*« of the »*siphon*« (sump) or »*voûte mouillante*« (duck) without airspace. In spite of diving the driftwood obstructed exurgence against the current, the dive is »*rapide*« (quick, short) and takes only a few seconds (913).

912 SIFFRE (1975: 24-25): »... la rivière large de deux ou trois mètres qui, bientôt, au milieu d'une végétation exubérante, pénètre dans une vaste porche de grotte ... la salle d'entrée ... J'évite le passage où le torrent se jette en grondant et je descends avec précaution une pente rendue glissante par une couche de guano. Je ne tarde d'ailleurs pas à percevoir des chauve-souris qui tapissent le plafond, quinze mètres au-dessus de ma tête. ... La rivière gronde sur ma droite et je la rejoins bientôt. Le courant est trop fort pour suivre son cours. Je me contente de longer les berges lorsque tout à coup me sens violemment aspergé: je viens de passer sous le jet d'une cascatelle qui tombe du plafond et a éteint ma lampe à acétylène.

Il y a de plus en plus de guano sur le sol et bientôt ne forme plus qu'une vague statue brunâtre.

Puits brusquement le plafond s'abaisse au ras de l'eau et à nouveau me voilà bloqué par l'inévitable siphon. Celui-ci est répugnant. La surface de la large vasque liquid est recouverte par une mince pellicule de guano et de nombreuses chauve-souris mortes pourrissent dans ce lieu d'où s'élève une odeur pestilentielle. Quittant l'endroit, je remonte le cours de la rivière souterraine barrée de petits rapides, difficiles à franchir quand on ne veut pas de mettre à l'eau. Enfin, je regagne la partie de la caverne faiblement éclairée par le jour et, après l'escalade d'une tronc d'arbre énorme. Celui-ci fait plus d'un mètre de diamètre. Derrière lui s'est formé un petit lac ...«

913 SIFFRE (1975: 41-42): »La rivière était encombrée d'un amoncellement de branchages pourris dans lesquels mes jambes s'enfonçaient profondément. C'était d'autant plus impressionnant qu'il n'était pas question de nager avant d'aborder le court siphon ... La plongée fut rapide, émotionnante certes, mais pas plus que la progression dans les branchages immergés qui dégageaient de grosses bulles de gaz à chaque pas. Je franchis la voûte mouillante en quelques secondes, débouchai dans l'horrible vasque amont, reconnus la grande salle, ne m'attardai pas et replongeai en sens inverse où je me retrouvai dans les branchages, éclairé par Caldera qui m'attendait, anxieux, et qui fut soulagé.«

CAVE DESCRIPTION 1968: OLDEST CAVE FOUND (1969 after OLDEST ...1968 quoting 1968.08.04): »A cave millions of years old with giant 50 ft [15.24 m] stalactites has been discovered in central Ceylon. Its discoverers believe the large natural underground palace may be the oldest cave known to man. It is about a quarter of a mile [400 m] long, reaching a height of more than 70 ft [21.3 m] within, and contains a 70 ft [21.3 m] waterfall. With its great natural beauty, the cave could become a major tourist attraction.«

CAVE DESCRIPTION 1974: CEYLON TRAVELLER (1974: 245; 1983: 247): »Wavulpane, a magnificent cavern ... is a veritable museum of natural sculpture and contains large numbers of stalagmites and stalactites that give its inner regions an out-of-this-world appearance.

The age of the cavern is estimated at approximately 500 million years« (914).

CEYLON TRAVELLER (1974: 246; 1983: 248): »The interior of the cave presents a veritable cathedral carved out by nature. Suspended from the high domed roof of the cavern is an enormous stalactitic formation that resembles a chandelier. ... fantastic limestone draperies strewn about in sweet disorder. Pillars and columns of precipitated calcareous substances are everywhere while high up, at the left side of the cave, balconies carved out of the stone disappear into the earth. The cave also contains an unusual geological phenomenon—that of trans-basin diversion. This consists of a stream that flows on the hillside by the cave diving through a hole in the hillside—and the hole is in the roof of the cave. The result is a subterranean waterfall as well as a lake in the cavern.«

CAVE DESCRIPTION 1986: MIDDLETON & WALTHAM (1986: 182) pack six major blunders into the effective 14-word sentence: »Close to Ratnapura is a 200m-long cave formed in conglomerate, the Waupane River Cave« (915).

CAVE DESCRIPTION 1988 (WILSON 1988: 23) »... large, by Sri Lankan standards. The upstream entrance chamber is at least 100 m long, 20 m wide and 30 m high. ... [Bat] guano coats walls and floor ... The river resurges from the cave after less than 300 m and a through trip (swimming in deep and quite turbulent water) is possible if an immersion in dilute bat guano appeals.«

CAVE DESCRIPTION 2000 (FERNANDO s.a., circa 2000; www.lankalibrary.com/heritage/vavulpane.htm> accessed 15.11.2003) reports a spring of water (26 ltr/sec), which is rich in calcium carbonate and iron hydroxide giving the water a rust orange coloured pallor. At a distance of about 100 m from the spring, and 50 vertical metres lower, the stream enters a penetrable sinkhole (insurgence) and falls 40 m in a series of three steps. »Pathirana told us that once, he had gone down into the hole using ropes and had seen an exquisite cave, through which one could crawl, within which could be seen, pure white stalactites and stalagmites.«

Avoiding this topmost entrance via a steep descend in the open air »along natural steps, slippery and green, overgrown with rock moss« for the main entrance that takes a small stream, the Halwinna (Halwini, Halwinne) Oya. »We cautiously felt our way along the rock face, to avoid falling

914 This is the only cave description in the CEYLON TRAVELLER (1974, 1983) that shouts with Journalese wordings. Little doubt remains that this blunder has been grafted by an editor onto somebody else's contribution.

915 For details, see →Waupane River Cave

into the stream which flowed several feet below us ... We had only one torch and a firebrand lit from a coconut husk ... Rising in a dome-like shape, the main cave has a hole through which the water falls, in a soft cool curtain ...»

CAVE DESCRIPTION **www**: Among several similar Internet websites, www.srilankaecotourism.com/caving (accessed 2009.06.27) considers »Waulpane Cave« to be »... an isolated cavern set against the eastern slopes of the Rakwana Range. It contains a large number of stalactites and stalagmites ... You will enter and walk through this 100 feet [30.5 m] high cave ... The stream, which runs through the cave, occupies half the ground space inside it and at the centre meets an eighty foot waterfall that falls on to it from close to the top of the cave ... You may encounter a few water monitors, Amphibians and thousands of Bats in this fully dark cave.«

<www.info.lk/srilanka/srilankatravelguide/ecotours/prehistoriccavesinsrilanka.htm> (accessed 2009.08.03): »Wavul Pane [sic], Kolonna: This limestone grotto of Vavulpane [sic]. The grotos [sic] consist of at least 12 caves of varying sizes. This is a magnificent cavern lying isolated on the Eastern slope of the Bulutota Rakwana range, northwest of Embilipitiya. The cave is located in the Ratnapura District, in the Kolonne Korale, about 278 m (912 feet) above sea level. The caves are appropriately named; it means Cave of Bats after the 250,000 bats that inhabit it.«

SPELEOMETRY: Unknown (not surveyed).

OLDEST CAVE FOUND (1969, 1968, 1968.10.04): »It is about a quarter of a mile [400 m] long, reaching a height of more than 70 ft [21.3 m] within.«

MIDDLETON & WALTHAM (1986: 182): »... a 200 m long cave ..., the Waupane [sic!] River Cave.«

WILSON (1988: 23) »... large, by Sri Lankan standards. The upstream entrance chamber is at least 100 m long, 20 m wide and 30 m high.«

FERNANDO, Dimitri (s.a., circa 2000 on <www.lankalibrary.com/heritage/vavulpane.htm> accessed 15.11.2003) has the waterfall on the »Halwinna (Halwini, Halwinne) Oya« (Halwinna Dola) falling 40 m down into the cave.

BROOKS et al. (2002: 19) decided that »Vava Pena (Bat Cave also known as Wavulpane) ... is a 300 m long stream cave ...«

CAVE LIFE: **SIFFRE** (1975: 18) noticed in February 1961 pale, about 10 cm long »crevettes« (Crustacea: conf. Palaemonidae) or shrimps with two small eyes reflecting light. Frightened, they hide (916).

SIFFRE (1975: 41) caught in March 1961 a fish, which »M. Deranyagala« (perhaps Paulus Edward Pieries Deraniyagala, Colombo National Museum) suggested to resemble a Brown Snake-Head (Ophiocephalus gachua).

WILSON (1988: 23) notes at least three Chiroptera species, including a Horseshoe bat, possibly *Rhinolophus luctus*, and two Vespertilionids, probably *Pipistrellus coromandra* and *Hesperotenus tickelly*.

The bats produce large quantities of guano which supports an abundance of cockroaches (Dictyoptera) and other guanophiles. Toads and a few tree frogs find the threshold zones of the cave good hunting grounds.

FERNANDO (2000) reported »millions and millions of cockroaches of innumerable varieties« in addition to an estimated number of 250,000 bats [Chiroptera, five species of Microchiroptera, one Megachiroptera species] and was »told that in the stream dwell unique species of fish that are similar to eels, and can be seen even with the total absence of light.«

EXPLORATION HISTORY: 1961, February or early March: Michel SIFFRE (1975: 22) and one Caldera (servant), an unacknowledged »guide local« (without recognised name) and »deux porteurs, jeune gens d'une vingtaine d'années« (two porters, young men in their twenties) walked »25 km« (sic! qua: 2.5 km) through jungle and leech infested paddy fields to a stream sinking into a perennially active cave.

1961, March: Michel SIFFRE (1975: 39-40), still assisted by Caldera, returned by another route and equipped with diving equipment to attempt the »voute mouillante« (sump) blocked with driftwood.

1968.08.04: The newspaper article **OLDEST CAVE FOUND** (1968.08.04, 1968b, 1969) reports the discovery of »a cave« (no name mentioned), which is »about a quarter of a mile long, reaching a height of more than 70 feet within, and containing a 70 ft. underground waterfall ... in the rich rubber-growing district about 12 miles from the Uda Walawe River, in south-central Ceylon, about 60 miles south-east of Colombo.«

2000, circa: Principal Michael Pathirana of the Vavulpane Vidyalaya (Vavulpane school) guided Dimitri FERNANDO (s.a. circa 2000) and at least one light vehicle load of unrecognised partners, though the cave, using »only one torch and a firebrand lit from a coconut husk« for illumination.

WEHERAHENA "CAVE"

Frequently visited but speleologically unexplored and unmapped modified natural, painted cave or rock shelter (temple cave).

LOCATION: Southern province: Matara district: Gangoboda pattu: Matara town: Weherahena Kovil.

POSITION: (If at Urumutta village and Estate itself), WGS84 (approximate EPE ±5 km) N06°10': E080°31' / N06.16667°: E080.516667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Matara" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Kusch, Heinrich 1973c; Lonely Planet, Sri Lanka 2003.

A sacred »cave« (temple cave) »decorated with about 200 comic-book-like scenes from the Buddha's life« is situated at the Weherahena Temple (admission by donation) and represents a »superb example of what one visitor labelled 'neo-Buddhist kitsch' « (917).

KUSCH (1973c: 20) was lead to believe that there are "very interesting, partly subterranean rock temples" near the town of Matara.

APPROACH: This collector's item is reached by leaving the outskirts of Matara (N05°56'55": E080°32'34" WGS84) and turning inland: »You can get here from Matara on bus No. 349, or a three-wheeler will charge Rs 200 from Matara's bus stand« (LONELY PLANET, Sri Lanka 2003: 151).

916 **SIFFRE** (1975: 18): »En arrivant à un petit élargissement de la galerie où l'eau es assez profonde, mon attention est attirée par un magnifique crevette blanche, d'au moins dix centimètres de long. ... Sous la lumière de ma lampe frontale, je distingue ses deux petits yeux qui luisent comme de brillants. Effrayée, elle s'enfuit sous une aspérité de la roche.«

917 **LONELY PLANET**, Sri Lanka (2003: 151): Marvel Comics meets Lord Buddha.

CULTURAL HISTORY - human use: LONELY PLANET 2003: 151): The site is exploited as a religious show cave promoted with regular sacred entertainment events: »*At the time of the late November / early December poya [puja], a perahera (procession) is held at the temple to celebrate the anniversary of its founding. During the evening there's a big procession of dancers and elephants. Foreigners at the 2002 perahera were charged Rs 1000 for tickets.*«

WELEWAY, cave at

see: Wavul Galge, Wellawaya

Davy, J 1821: 31 footnote, item no. 17; Pridham, C 1849, 2: 579.

WELEWAY NITRE CAVE

see: Wavul Galge, Wellawaya

Davy, John 1821: 429-430.

WELLAWAY CAVE

see: Wavul Galge, Wellawaya

Pridham, Charles 1849: 709.

WELLAWAYA CAVE

see: Wavul Galge, Wellawaya

Ceylon Traveller 1974: 247, 1983: 249; Cooray, P Gerald 1967: 97; Daniel, Joseph A 1908: 107; Davy, John 1821: 31, footnote, no. 17; Davy, John 1821 map: N06°27': E081°15'.

WELLAWAYA CAVE (SARASIN 1939)

or, perhaps: Galaboda Kandé galgé

Archaeologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Uva province: Unidentified (Badulla or Monaragala) district: Wellaway (Weleway, Wellawaya) town area.

POSITION: Representative WGS84 coordinates (assumed EPE ±5 km) N06°40': E081°05' / N06.6667°: E081.08333333° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Haputale" (One-Inch).

SPELEOMETRY: Length: Estimated 215 m. Vertical range: Estimated ±25 m (+0m / -25m).

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1965; Sarasin, Fritz 1939.

A »wide« cave entrance gives access to a »large cave« (Eckrich 1984, personal communication), where 50 paces of walking sized, calcite lined cave passage lead to a blowing constriction or rift, which emitted in 1885 such a strong air draught (air current) that candles and »fire brands« (torches) were extinguished (SARASIN 1939: 104).

IDENTITY: Compare →Galaboda Kandé galgé and the apparently distinct →Wavul Galge (Wellawaya).

SITUATION 1885: SARASIN (1939: 104) reports this allegedly anonymous cave from an unspecified location somewhere »nahe« (near) Wellawaya and narrates how Fritz Sarasin and Paul Sarasin were guided along a slightly ascending path through forest and high grass to the entrance of a cave.

CAVE DESCRIPTION (after SARASIN 1939: 104): A wide entrance gives access to 50 paces of walking sized cave passage with calcite lined walls, which lead to a "crack" (rift) just wide enough to allow access, but it was not possible to set the torches on fire because of the »emitting gas« (rather a strong air current than bad air).

CAVE POTENTIAL: An unidentified »guide« (no name mention), who paved the way for SARASIN (1939: 104), reported to have heard that the passages widens up again to lead after a long distance to a door behind which seven kings are buried.

CULTURAL HISTORY: SARASIN (1939: 104) regards »a cave« (no name mentioned) »nahe« (near) Wellawaya not suitable for archaeological excavation (918).

EXPLORATION HISTORY: 1885: In search of inhabitable caves and rock shelters, the brothers Fritz and Paul Sarasin were guided to what they decided to call simply »Wellawaya Cave« (SARASIN 1939: 104, 151). They visited and looked around, sorry: surveyed! -- but were not happy.

WERENGODDE NITRE CAVE

Unexplored and unmapped natural cave.

LOCATION: North Western province: Kurunegala district: »Seven Korles district« (Davy 1821): »Demoole pattoo« (Davy 1821) area: »Werengodde« (Davy 1821) or, perhaps, Waragoda, Weragoda, Wiragoda village.

POSITION: Not known.

MAPS: Survey of Ceylon / Sri Lanka sheets: Dandagamuwa, Gampaha, Kandy, Nalanda, Wariyapola.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Davy, John 1821.

Nitre Cave no. 1 (DAVY 1821: 31 footnote) is situated somewhere in the vicinity of an inhabited place called »Werengodde« (919) in the administrative subdivision »Demoole pattoo« (920) in the likewise obsolete »Seven Korles district« (921).

WESTMINSTER ABBEY RIDGE, cave in the

see: Govinda Hela Cave 1 & 2

Ceylon Traveller 1974: 252; 1983: 254.

918 SARASIN (1939: 104): »Der uns angegebene Pfad führte zunächst durch Wald, in dem von den Bäumen herabhängende, wie Hyazinthen duftende Blütenähren einer Orchidee erfreuten. ... leicht ansteigend durch Wald und Hochgras zu einem weiten Höhleneingang in einem Felsen. Etwa 50 Schritte weit konnte man aufrecht hineingehen zwischen den mit Kalksinter überkrusteten Felswänden; am Ende dieses Ganges führte eine Spalte, gerade noch weit genug, um einem Menschen den Durchgang zu gestatten, in die Tiefe. Allein hier erloschen trotz mehrfachen Versuchen unsere Feuerbrände infolge eines ausströmenden Gases, so dass wir nicht weiter konnten. Der Führer erzählte, er habe gehört, dass die Höhle weiterhin wieder geräumig werde und man zu einer verschlossenen Türe komme, dahinter sieben Könige begraben seien. Ihre Geister seien es, die die Lichter der Eindringenden auslöschten. Wir konnten das Geheimnis nicht ergründen.«

919 »Werengodde« (DAVY 1821) is not identified unless it is the same as

Waragoda N07°15': E080°24' on sheet Gampaha or Kandy,

Weragoda N07°17': E080°17' on sheet Gampaha or

Wiragoda N07°34': E080°07' on sheet Dandagamuwa.

920 The obsolete administrative subdivision »Demoole pattoo« (DAVY 1821) is not identified.

921 The »district of the seven Korles« (DAVY 1821), as it is shown on the »Map of the Island of Ceylon« accompanying DAVY (1821), appears to correspond more or less to the Kurunegala district between circa N07°15': E079°50' and N08°20': E080°35' indicated on the "Road Map of Sri Lanka" (Survey Department 1977).

WIJAYO, cave of

see: Saega Lenna

Tennent, James Emerson 1859, 1860, 1861.

WIJERIYA, mine near

Chiropterologically investigated but speleologically unexplored and unmapped man-made mine excavated for plumbago / graphite.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area: Wijeriya village.

POSITION: Approximate WGS coordinates (assumed EPE ±5 km) N06°26': E080°39' / N06.433°: E80.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

One of two tiny plumbago (graphite) mines (compare: Ereporuwa mine, Tenehena mine) north of Kolonne (922) is reached from the village of Wijeriya (923) where a small track leads initially west to a temple and then in a northerly direction across paddy fields and past pools of water to a hill with a »short mine« (Eckrich 1984).

CAVE LIFE: Eckrich, Michael (1984, personal communication) had surveyed bats here (Chiroptera).

WILGAM VIHARA LENA

see: Seruwawila "Caves"

Ceylon Traveller 1974, 1983.

WIRIWALLA CAVE

Chiropterologically investigated but speleologically unexplored and unmapped natural cave.

LOCATION: Sabaragamuwa province: Ratnapura district: Kolonna Korale: Bulutota Pass: Kolonne area: Tenehena (Tennahena) junction.

POSITION: Approximate WGS84 coordinates (±5 km) N06°26': E080°39' / N06.433°: E80.65° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Rakwana (One-Inch).

SPELEOMETRY: Length: Estimated 10 m. Vertical range: Not known.

COMMUNICATOR: Eckrich M 1984, personal communication.

A cave called »Wiriwalla« (or so) is "tunnel-shaped" in cross-section and an estimated 8 or 10 m long (Eckrich 1984, personal communication).

SITUATION (Eckrich 1984): The entrance opens in a south-facing, steep, and grass-covered hillside two miles (about 3 km) north of Kolonne (N06°24': E080°41').

CAVE LIFE: Eckrich, Michael (1984, personal communication) had surveyed bats here (Chiroptera).

YAKDEHIMULLA, cave at

or: Cave at Una Vatuna, Unawatuna

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred troglodyte cave or rock shelter (temple cave).

LOCATION: Southern province: Galle district: Unawatuna (Una Vatuna).

POSITION: WGS84 (estimated EPE ±1 km) N06°00': E080°15' / N6°: E080.25° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet "Galle" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

MANUSCRIPT REFERENCE: Eckrich, Michael 1984: Bat cave distribution map.

COMMUNICATOR: Eckrich, Michael 1984, personal communication.

There are two entrances to this cave in the south-west facing cliff at Yakdehimulla: One from the sea with caves thundering into it, and another in the back of the beach, which requires a bit of climbing down. The entrance I mean.

SITUATION: In the back of the beach at Unawatuna (N06°01': E080°15'), the "beach of Galle" (924), which lies about 2 to 3 miles or 5 km along the road from Galle city (N06°03'13": E080°12'42" WGS84) initially south-east to Unawatuna (N06°01': E080°15') and then south-west towards Unawatuna Point (N06°00': E080°15').

Beyond the western end of the beach (925), the cave itself pierces the south-west facing cliff where the SoC / SoSL sheet "Galle" (One-Inch series) indicates with »Yakdehimulla« the spot where »Una Vatuna Cave« (Eckrich 1984 Mss: Bat cave distribution map) is found.

CAVE POTENTIAL: Also found in the vicinity of Unawatuna (Una Vatuna) is the cave of the →Imprisoned Sea Serpent (at Velle Kovila) and the temple cave of the →Yatagala Raja Maha Viharaya.

922 Kolonne (N06°24': E080°41')

923 <www.nima.mil/geonames> (accessed 16.11.2003) positions not only Wijeriya but also the villages of Bulutota, Imbulhitenna, Moragoda, Tenehena, and Udawela at one and the same spot (N06°26': E080°39').

924 LONELY PLANET, Sri Lanka (2005: 141): »... a wide, curving bay with a picturesque sweep of golden beach.«

925 LONELY PLANET, Sri Lanka (2005: 142): »You can take some interesting walks over the rocks rising from the west end of the beach ... known as Rumassala ... The temple right on the promontory is fenced off, but you can stroll up to the dagoba on top of the hill and to Jungle Beach on the other side.«

YAKGIRI LENA

or: Matugama cave, Yak Giri Rockshelter

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelter.

LOCATION: Sri Lanka: Western province: Kalutara district: Matugama area.

POSITION: Unspecified map datum probably Everest 1830 N06°32': E080°08' / N06.5333°: E080.1333° (DERANIYAGALA S U 1992).

MAPS: Survey of Ceylon / Sri Lanka sheet: Alutgama.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Paulus Edward Pieries 1953, 1965; Deraniyagala, Siran Upendra 1980, 1992.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 23.

The »*Yak giri lena*« (DERANIYAGALA 1965), »*Yak giri lena rock shelter*« (Brooks 1995 Mss, no. 23), or »*Matugama cave*« (DERANIYAGALA 1965: 144 figure 21) yielded the first recognised stone tool (stone celt, adze) of Ceylon (Sri Lanka).

ETYMOLOGY: "Yak" is a demon, "giri" a hill, "lena" means cave, and "galge" (rock home) tends to mean a rock shelter.

SITUATION: In the »*lowland wet zone*« (DERANIYAGALA 1990, 1992) of Western Province (DERANIYAGALA 1953: 127) and in the somewhere in the vicinity of one of the places called Matugama (926).

CULTURAL HISTORY - archaeology: DERANIYAGALA (1953: 127) reports from »*Yak giri lena rock shelter*« pebbles (stone tools), which are usually larger than elsewhere and pitted on one side only.

YAKKAS, cave of the

see: Ritigala Caves

Pridham, Charles 1849: 536.

YAKUNNEHELA GALGE

or: Yakunne Hela Cave

Archaeologically investigated but speleologically unexplored and unmapped natural rock shelter in gravitationally dislocated gneiss boulders.

LOCATION: Uva province: Badulla district: Nilgala range area: Yakunnehela mountain.

POSITION: Representative WGS84 coordinates (assumed EPE ±10 km) N07°15': E081°15' / N07.25°: E081.25° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Nilgala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Deraniyagala, Siran Upendra 1980; Sarasin, Fritz 1931; Sarasin, Fritz 1939.

MANUSCRIPT REFERENCE: Brooks, Simon J 1995.04 "The speleology of Sri Lanka" no 10.

No dimensions are known of a »*large*« (Brooks 1995 Mss, no. 10) rock shelter in dislocated gneiss boulders.

ETYMOLOGY: SARASIN (1931: 47; 1939: 163) translates "Yakunnehela" or "Yakunne Hela" into »*Demon's Mountain*« and Brooks, S J (1995 Mss, no. 10) renders Yakunnehela Galge a »*Yakunne-Hela Cave (?)*«

SITUATION: At an unspecified location somewhere in the vicinity of →Gangodedeniya Galge on Yakunnehela / Yakunne Hela near one of the villages called Nilgala.

CAVE DESCRIPTION (Brooks 1995 Mss, no. 10): »*Large*.«

CULTURAL HISTORY - archaeology: None. SARASIN (1931: 47; 1939: 163) reports to have excavated 0.3 m of archaeologically barren cave sediment.

CAVE LIFE: So-called "sleeping nests" (SARASIN 1931: 47; 1939: 163) indicate the periodical presence of bears, probably sloth bears (*Melursus ursinus inornatus*).

YAN LENA

Unexplored and unmapped natural cave or rock shelter.

LOCATION: North Western province: Kurunegala district: Galagedera village.

POSITION: WGS84 N07°32': E080°08' / N07.5333°: E080.1333° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter called »*Yanlena*« (Yan Lena) is situated somewhere near Galagedera (N07°32': E080°08') in Kurunegala district (CEYLON TRAVELLER 1974: 254; 1983: 256).

YAPAHUWA FORT 'CAVE TEMPLE'

Frequently visited but speleologically unexplored and unmapped modified natural sacred rock shelter (temple cave).

LOCATION: North Western province: Kurunegala district: »Seven Korles« (FORBES 1840 ed. 1841) area: Maho town: Yapahuwa (Yapahoo, Yapahuva) Fort (Subhapabbata, Subba Pubattoo, Subha's Rock).

POSITION: (At the village of Yapahuwa), WGS84 N07°49': E080°19' / N07.81667°: E080.31667° <www.nima.mil/geonames> accessed 16.11.2003.

MAP: Survey of Ceylon / Sri Lanka sheet: Unidentified.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1984; Lonely Planet, Sri Lanka 2003.

An unspecified »*cave temple*« containing »*statues of the Buddha*« and paintings of the Kandy period (rock art).

ETYMOLOGY: Yapahuwa (927) or Yapahoo (928), pronounced »*yaa-pow-a*« is also known as Fire Rock (LONELY PLANET 2003: 253).

CEYLON TRAVELLER (1983: 151): Yapahuwa Fort is also known as Subhapabbata (Subha's Rock).

FORBES (1840, 1841.ii: 320 explanatory notes): »*Almost all Pali proper names, whether geographical, or of persons, have some specific signification. In the translation of these names into vernacular dialects, their meaning, and not their sound, has been generally preserved. Thus, ... Subba Pubattoo is Yapahoo in the Seven Korles; which European authors, guided by the sound only, have converted into (Yapana) Jaffna, and thereby made that place one of the ancient capitals of the island.*«

FORBES (1840, 1841.ii: 220): »*Yapahoo, the ruins of which capital may still be seen in the Seven Korles.*«

926 From the relevant area, <www.nima.mil/geonames> (accessed 16.11.2003) lists not only the populated places Matugama (N06°25': E080°08') and Matugama (N06°31'20": E080°06'52" WGS84) but also the rubber plantation Matugama (N06°31': E080°07').

927 »*Yapahuwa*« (CEYLON TRAVELLER 1983: 151; LONELY PLANET 2003: 253) near N07°49': E080°19' (www.nima.mil/geonames accessed 16.11.2003) is indicated as »*Yapahuva*« on my issue of the "Road Map of Sri Lanka" (Survey Department 1977).

928 FORBES (1840, 1841.ii: 220 footnote): »*Yapahoo, the ruins of which capital may still be seen in the Seven Korles.*«

SITUATION 1 (CEYLON TRAVELLER 1983: 151): In the vicinity of the town of Maho and within the fortifications of Yapahuwa Fort, which is also known as Subhapabbata (Subha's Rock).

SITUATION 2 (LONELY PLANET 2003: 253): The rock fortress of Yapahuwa rising 100 m from the plain is similar in concept to →Sigiriya: »*The view from the top of the staircase is wonderful. Climbing right up to the top of the rock is not really feasible as it's very overgrown.*«

APPROACH 1 (CEYLON TRAVELLER 1983: 151): The turn off to the village of Yapahuwa (N07°49': E080°19'), from which the fortress is 1.5 miles (2.5 km) is only »two miles« (about 3 km) by bus from Maho (929).

APPROACH 2 (LONELY PLANET 2003: 254): Yapahuwa is 4 km along the road from Maho railway station, where the Trincomalee line splits from the Colombo - Anuradhapura line, and about 5 km from the Anuradhapura - Kurunegala road. It's possible to take a three-wheeler from the Anuradhapura - Kurunegala road to the site, although occasional buses do travel from here to Maho and back.

CAVE DESCRIPTION (LONELY PLANET 2003: 253-254): Behind the museum is »... a cave temple that contains some 13th-century frescoes. The repetition of images across a geometric grid also appears in ancient Buddhist sites in India, such as Ajanta [930], inland from Mumbai, and Alchi [931] in Ladakh.

Also in the temple are wooden Buddha images and, interestingly, one image made of bronze. The temple is usually locked but a monk will open it for you if you ask, although you are expected to make a donation.«

YATAGALA RAJA MAHA VIHARAYA

Frequently visited but speleologically unexplored and unmapped modified natural sacred troglodyte rock shelter (temple cave).

LOCATION: Southern province: Galle district: Unawatuna (Una Vatuna): Kottawa: Yatagala.

POSITION: (If at Unawatuna itself), Estimated WGS84 or Everest 1830 (approximate EPE ±5 km) N06°01': E080°15' / N06.016667°: E080.25° (or so).

MAP: Survey of Ceylon / Sri Lanka sheet "Galle" (One-Inch series).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Lonely Planet, Sri Lanka 2003.

A quiet »rock temple« (LONELY PLANET, Sri Lanka 2003: 141), cave temple (man-made rock chamber), or temple cave (modified natural cave or rock shelter) without specified nature or character is used for religious purposes.

SITUATION (LONELY PLANET, Sri Lanka 2003: 141): Yatagala (932) lies »just 4 km« without orientation (north?) »from Unawatuna« (N06°01': E080°15') or »Una Vatuna« (Eckrich 1984 Mss), which itself lies about 5 km (LONELY PLANET, Sri Lanka 2003: 141) along the road south-east of Galle (N06°3'13": E080°12'42" WGS84).

CULTURAL HISTORY - rock art: The »Great Monastery [of the] King [at the] Yata Rock« (in Sinhala: Yatagala Raja Maha Viharaya) contains not only air and dust but also a 9 m long statue of the reclining (recumbent) Buddha and Kandyan period mural paintings.

CAVE POTENTIAL: Also found in the vicinity of Unawatuna (Una Vatuna) is the cave of the →Imprisoned Sea Serpent and the so-called →Una Vatuna cave.

YATAHA LENA

Unexplored and unmapped natural cave or rock shelter.

LOCATION: Sabaragamuwa province: Kegalle (Kegalla) district.

POSITION: Representative WGS84 coordinates N07°15': E080°20' / N07.25°: E080.33333° (or so).

MAPS: Survey of Ceylon / Sri Lanka sheet: Unidentified (Dandagamuwa, Gampaha, Kandy, or Kurunegala).

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983.

An unspecified cave or rock shelter (CEYLON TRAVELLER 1974: 254; 1983: 256) is situated somewhere near Kegalla (N07°15'11": E080°21'02" WGS84).

YUDAGANAWA, cave at

or: Buttala Cave; or: Meminnahela Galge

Archaeologically investigated but speleologically unexplored and unmapped modified natural sacred rock shelter or cave (temple cave) in gravitationally dislocated gneiss boulders.

LOCATION: Uva province: Monaragala district: Buttala village: Meminnahela ridge: Yudaganawa.

POSITION: WGS84 N06°46': E081°14' / N06.76667°: E081.23333° <www.nima.mil/geonames> accessed 16.11.2003.

MAPS: Survey of Ceylon / Sri Lanka sheet: Buttala.

SPELEOMETRY: Length: Not known. Vertical range: Not known.

BIBLIOGRAPHY: Ceylon Traveller 1974, 1983; Deraniyagala, Siran Upendra 1980; Sarasin, Fritz 1939.

MANUSCRIPT REFERENCE: Simon J. Brooks 1995.

An unspecified sacred cave or rock shelter of historical interest (SARASIN 1939: 160-161; DERANIYAGALA, S U 1980: 155).

SITUATION: SURVEY OF SRI LANKA (a.i. before 1984) toposheet "Buttala" indicates »Yudaganawa« (N06°46': E081°14') about 1 km north along a minor off to the north from a T-junction, which lies on the highway A4 and about half a kilometre west of Buttala (933).

CULTURAL HISTORY - human use: Both the cave »near the ancient site of Yudaganawa« and the →Katugahagalge »have historical and religious associations« (CEYLON TRAVELLER 1974: 242; 1983: 244).

EXPLORATION HISTORY: 1908: Fritz and Paul Sarasin excavated (SARASIN 1939; DERANIYAGALA 1980: 155).

929 Maho N07°49'22": E080°16'40" (WGS84) is said to lie 82 miles (132 km, probably along the road) from Colombo (N06°55'55": E079°50'52" WGS84) and 29 miles (47 km) from Kurunegala (N07°29'12": E080°21'53" WGS84 <www.nima.mil/geonames> accessed 16.11.2003).

930 Ajanta Caves (N20°33': E075°42'), Maharashtra.

931 Alchi Gompa (N34°13': E077°10'), Jammu & Kashmir.

932 There is one Yatagala (N06°20': E080°06') almost 40 km in a direct line north-west from Unawatuna (N06°01': E080°15') or »Una Vatuna« (Eckrich 1984 Mss: Bat cave distribution map).

933 Buttala (N06°45': E081°14') lies on the highway A4 and about 10 km along the road approximately east from Wellawaya (N06°44': E081°06') and some 15 or 18 km along the road approximately south-west from Monaragala (N06°52': E081°21').

GLOSSARY

ABBREVIATIONS

AD	(anno domini) synonym of CE (Christian Era)
AMS	American Military Service
asl	above sea level
BC	before the common era (literally: before Christ); an origin of a chronological datum
BP	before present (practically before the year 1956)
CE	common era; literally: Christian era
CT	CEYLON TRAVELLER (1974, 1983)
EPE	estimated (horizontal) precision error
ltr/sec	litres per second
SoC	Survey of Ceylon, re-named Survey of Sri Lanka
SoSL	Survey of Sri Lanka (Survey of Ceylon)
sqkm	square kilometres
WGS84	World Geodetic System 1984 (map datum)

alu. Sinhala. Ash, ashes (DERANIYAGALA 1955b: 295).

alut. Sinhala; 1. new (FORBES 1840, 1841. i: 375). 2. refuge, hide-out; hermitage, retreat; as: Alutnuwara (alut nuwara, which »derives its appellation nuwara (city) from having been the place of refuge of a fugitive King« (FORBES 1840, 1841. ii: 120).

aru. Tamil; stream, small river.

bambara. Sinhala. Cliff bees; Zoologically: Apis dorsata (DERANIYAGALA, P E P 1943: 101).

»Bambas are described as not very different from angels: not omnipotent, yet possessing supernatural powers; pure as compared to mortals, yet not perfect, being liable to err. The Cingalese [Sinhalese] believe that the small detached rocks which are to be found scattered on the surface of many of the rocky mountains are Bambas, who in former eras were thus transformed« (FORBES 1840, 1841.ii: 251 footnote).

beli. Sinhala; snail (DERANIYAGALA 1998, 2002: 4).

bubule. Sinhala; a »large perennial spring« (COORAY 1967: 256), source of water. Compare pila, ulpotha.

cabook. laterite (COORAY 1967: 176). Also romanised into »kabouk« (COOK 1931: 78).

cave. English; a permanently aphotic (lightless) subterranean space of natural origin; a »natural hole in the ground, large enough for human entry. This covers the enormous variety of caves that do occur but eliminates the many artificial tunnels and rock temples incorrectly called caves. The size criterion is arbitrary and subjective, but practical, as it eliminates narrow openings irrelevant to explorers but very significant hydrologically, that may be better referred to as proto-caves, sub-conduits or fissures. A cave may be a single, short length

of accessible passage, or an extensive and complex network ... Marginal candidates for the use of the name cave include riverbank undercuts and rock shelters of various origins« (LOWE & WALTHAM 1995: 8).

cenote. Mexican Spanish (ex Cechua); »Steep or vertical sided collapse doline floored by a lake whose surface is at the regional water table. The term originates from the many cenotes in the low karst plateau of Mexico's Yucatan, but has been applied to flooded dolines in Florida and elsewhere« (LOWE & WALTHAM 1995: 9).

CEYLON (Sailan, Seilan, Silan; Serendip; Ratnadvipa; Taprobane; later Sri Lanka, Eelam, Ilam) »This name, as applied to the great island which hangs from India like a dependent jewel, becomes usual about the 13th century. But it can be traced much earlier. For it appears undoubtedly to be formed from Sinhala or Sihala, 'lions' abode', the name adopted in the island itself at an early date. This, with the addition of 'Island', Sihala-dvipa, comes down to us in Cosmas as Sielediba. There was a Pali form Sihalana, which, at an early date, must have been colloquially shortened to Silan, as appears from the old Tamil name Ilam [better: Eelam] (the Tamil having no sibilant) and probably from this was formed the Sarandip and Sarandib which was long the name in use by mariners of the Persian Gulf.

It has been suggested by Mr. Van der Tunk, that the name Sailan or Silan was really of Javanese origin, as sela (from Sanskrit sila, a rock, a stone) in Javanese (and in Malay) means 'a precious stone'. hence Pulo Selan would be 'Isle of Gems' [934].

The island was really called anciently Ratnadvipa, 'Isle of Gems', and is termed by an Arab historian of the 9th century Jazirat-al-yakut, 'Isle of Rubies'. So that there is considerable plausibility in Mr. Tuuk's suggestion ... through the predominance of Malay navigation in the Middle ages« (YULE & BURNELL 1903: 181).

363 (circa) »Unde nationibus Indicis certatim cim donis optimates mittentibus ante tempus, ab usque Divis et Serendivis« (Ammianus Marcellinius, XXI.vii).

430 (circa): »The island of Lanka was called **Sihala** after the Lion; listen ye to the narration of the island which I (am going to) tell: 'The daughter of the Vanga King cohabited in the forest with a lion...« (in: »Dipavanso IX.i.2« = OLDENBERG 1879: Dipavanso).

545 (circa): »This is the great island in the ocean, lying in the Indian Sea. By the Indians it is called **Sielediba**, but by the Greeks Taprobane« (Cosmas, book xi).

851: »Near **Sarandib** is the pearl-fishery. Sarandib is is entirely surrounded by the sea« (REINAUD 1845.i: 5).

940 (circa): »Mas'udi proceeds: In the Island of **Sarandib**, I myself witnessed that when the king was dead, he was placed on a chariot with low wheels so that his hair dragged upon the ground« (in: GILDEMEISTER 1838).

934 Crooke (in: YULE & BURNELL 1903: 181): » This, writes Mr. Skeat, is possibly but it remains to be proved that the gem was not named after the island (i.e. 'Ceylon stone'. The full phrase in standard Malay is batu Selan, where batu means 'stone'. Klinkert merely marks Sailan (Ceylon) as Persian.«

1020 (circa): »There you enter the country of Laran, where is Jaimur, then Malia, then Kanji, then Darud, where there is a great gulf in which is the Sinkaldip or the island of Sarandip« (Al Biruni, as given by Rashiduddin in ELLIOT i: 66).

1275: »The island of **Sailan** is a vast island between China and India ...« (Kazvini in: GILDEMEISTER 203).

1298: »You come to the island of Sailan, which is in good sooth the best island of its size in the world« (POLO 1298, book 3, chapter XIV in YULE (1871, 1903, 2004).

1300 (circa): »There are two courses ... from this place (Ma'bar); one leads by sea to Chin and Machin, passing by the island of **Silán**« (Rashiduddin in ELLIOT 1867-1877.i: 66).

1330: »... insulam vocatam **Ceilan**, quae habet in ambitu plusquam duo millia miliaria« (ODORICUS Pordenoni 1330 online <www.adelaide.e-books> accessed 2009.10.14).

»... another island called Sylan ... there is an huge mountaine, whereupon the inhabitants of that region do report that Adam mourned for his son Abel the space of 500. yer« (HAKLUYT 1807.ii online <www.adelaide.e-books> access 2009.10.14).

»There is another island called **Sylan** ... In this ... there is an exceeding great mountain, of which the folk relate that it was upon it that Adam mourned for his son one hundred years« (YULE 1866.i: 98).

1350 (circa): »I proceeded by sea to **Seyllan**, a glorious mounatin opposite to Paradise« (Marginoli in YULE 1866.ii: 346).

1420 (circa): »In the middle of the Gulf there is a very noble island called **Zeilam** ... on which they find by digging rubies, saffires, garnets, and those stones which are called cats'-eyes.« (Nicolo dei PONTI in: MAJOR 1857: 7).

1514: »Passando avanti intra la terra e il mare si trouva l'isola di **Zolan** dove asce la canella ...« (EMPOLI, Giovanni da 1530).

1516: »Leaving these islands of Mahaldiva ... there is a very large and beautiful island which the Moors, Arabs, and Persians call **Ceylam**, and the Indians call it Ylinarim« (BARBOSA 1516: 166).

1586: »This **Ceylon** is a brave Iland, very fruitful and fair« (HAKLUYT 1586.ii: 397).

1605: »Heare you shall buie theis Comodities followinge of the Inhabitants of **Selland**« (BIRDWOOD & FOSTER 1893: 84).

1615: »40 tons of cinnamon of **Celand**« (DANVERS & FOSTER 1896-1900.iii: 227).

1615: »Here is arrived a ship out of Holland ... at present turning under **Silon**« (DANVERS & FOSTER 1896-1900.iv: 34).

1662: »... having run 35 miles North without seeing **Zeilon**« (HEDGES 1886, July 7th).

1727: »**Zeloan**« (HAMILTON 1727.i: 340).

1781: »We explored the whole coast of **Zelone**, from Pt. Pedro to the Little Basses, looked into every port and spoke to every vessel we saw, without hearing of French vessels« (PRIZE 1783.i: 9).

1821: »**Ceylon**« (DAVY 1821).

1828: »**Ceylon (Sinhala)**« (HAMILTON 1828.i: 381-387).

chetiya. Buddhist shrine (LONELY PLANET 2003: 292).

dagoba (dagaba, stupa). Pali, Sinhala; Buddhist monument composed of a solid hemisphere containing relics of the Buddha or of a Buddhist saint; a »great pile of honour« (FORBES 1840, 1841.ii: 222).

Eelam, Ilam. Tamil; Precious Land; in Sinhala: Sri Lanka.

ella. Sinhala; stream, river. Also spelled »**älla**« and »**ela**«

eliya. Sinhala; a plain; a common space; a clear space; as: Maha Eliya or »**Mahaellia**, the great common or clear space« (FORBES 1840, 1841. ii: 146); Gaura-elliya, »the Gaura field, the Gaura flat, etc.« (FORBES 1840, 1841.ii: 159).

drip ledge. (English), katdra (Sinhala); Incised on the brow of the entrance to modified natural rock shelters and the inhabitable entrance area of true caves, to prevent rain from running down the face of the rock into the troglodyte dwelling area. To catch the water of slanting rain fall, the drip

ledge (in German: Traufkante) is set back for a short distance "cavewards" from the drip line (Tropflinie).

»A deep cut, termed a **katdra**, was also made along the rock, above the front of the cave [935], and for a short distance below this the face of the stone was cut away, as is usual in nearly all such cases, in order to prevent the rain-water that trickled down the front of the upper part of the rock from entering the room« (PARKER 1909: 418-419).

1908: Another roomy rock shelter (936) nearby became apparent as a former hermitage dwelling by a notch cut into the rock to drain rainwater (SARASIN 1931: 46; SARASIN & SARASIN 1939: 160-161): »Eine zweite geräumige, in der Näher befindliche Halbhöhle gab sich durch eine zum Abfluss des Regens in den Fels gehauene Rinne als frühere Einsiedlerwohnung kund.«

1973: »The dwelling [937] is about 11 m long and averages 2 m in depth from the **drip line** to the back wall ...« (KOPPER 1973: 36).

1983: »All the cave inscriptions [938] are incised on the dressed brow of the entrance to the cave below the **drip ledge**, which was cut to prevent rain from running down the face of the rock into the cave; it also gave the inscription some protection from water erosion« (McALPINE & ROBSON 1983: 361).

EVEREST 1830. An obsolete, topocentric →geodetic datum along with a polyconic projection system, which the Survey of India used till 2005 as a reference datum with its origin at Kalyanpur (N24°07'11.26": E77°39'17.57" Everest 1830) in Madhya Pradesh, Central India (939).

gala. Sinhala; 1. stone, rock; 2. hill, mountain.

galge. Sinhala; rock shelter (DERANIYAGALA 1955b: 295). Literally "rock home"; rock cave (BROHIER 1956). A contraction of "galage" (gala = rock; ge = home).

ganga. Sanskrit, Pali, Sinhala, Tamil, etc.; river.

ge. Sinhala; 1. (noun) home; house (as: Wavul Galge = bat rock home; Bat Cave). 2 (suffix) equivalent of an English apostrophe indicating possession; as "Lunuge Lena" is Lunu's Cave.

geodetic datum. English. The geodetic datum (also: map datum) facilitates the mapping of an area by mathematical representation of complex and irregular earth surface. Relevant for the subcontinent of South Asia (Bharat or "India" and its adjacent countries except China) are the modern WGS84 and the dying out →Everest 1830 (the "India / Bangladesh" of cheap GPS receivers).

GHOSH & DUBEY (940): To establish the relationship between coordinates in two different data, mathematical models have been developed, among which »... the *Molodensky & Badekas and Bursa & Wolf models are the most popular* [941].

935 Jambu Well Hill (Northern province: Mannar district)

936 Meminnahela galge 2 (Uva province: Monaragala district)

937 Pihilegoda Galge (Sri Lanka)

938 Ritigala (North Central province, Anuradhapura district).

939 NAGARAJAN, B (2001): Need for introduction of a regular projection and grid system for cadastral mapping.- (Indian National Cartographic Association) vol. 21.

940 GHOSH, Jayanta Kumar & DUBEY, Abhishek (2008): India's new map policy: Utility of civil users.- *Current Science* ISSN 0011-3891 (Bangalore: Indian Academy of Sciences), vol. 94, (no. 3, February 10): 332-337. 6 figures, 2 tables, 7 bibliographical references.

941 SINGH, S K (2002): Coordinate transformation between Everest and WGS84 datums.- *GIS Development*, November 2002.

These models require transformation parameters to be developed from the position of known points on local geodetic networks to a uniform regional datum. The simplest transformation to implement involves shifts (translation) to the three geocentric coordinates, with the assumption that the axes of the source and target systems are parallel to each other [942]. For higher accuracies, seven-parameter transformations can be applied (three translational, three rotational and one scale factor), but it is found that consequent errors are generally less than the observational accuracy of the data.»

guha (plural: guhava). Sanskrit, Pali, etc. Literally: secret; a cave, especially in the sense of a hiding place, a retreat.

hak. Sinhala; jaw; as: hakgala, the jaw rock (LONELY PLANET 2003: 196).

hela. Sinhala; mountain.

hill. English; »*a rounded elevation of limited extent rising above the surrounding land with local relief of less than 300 m*« (ftp://ftp.nga.mil/pub/gns_data/Designations.html accessed 28.05.2004).

kabouk. laterite (COOK 1931: 78); compare: cabook.

kanda. Sinhala; hill, mountain.

kele, kelle. Sinhala; forest.

kivul. Sinhala; hard; as: kiwul watura means hard water (COORAY 1967: 256).

kulam. Tamil; artificial lake, reservoir, tank.

kupaka. Sanskrit, Pali; pit, well (943)

lena (leyna). Sinhala; a cave.

lunu. Sinhala; white salt. Hence nitre, saltpetre (CEYLON TRAVELLER 1974: 243, 1983: 245), potassium nitrate. According to PEET (1946: 94) after one »*Ponniah*« (a guide), the Sinhala »*lunugala*» means limestone.

malai. Tamil; a hill.

map datum →Geodetic datum.

menik. Sinhala; jewel, ruby (944). Compare →ratna, a gem.

mountain. English; »*elevation standing high above the surrounding area with small summit area, steep slopes and local relief of 300 m or more*«
<ftp://ftp.nga.mil/pub/gns_data/Designations.html> (28.05.2004).

nirvana. (Sanskrit), nibbana (Pali); literally 'blown out' (like a candle); technical term in the philosophy of the Buddhists for the condition to which they aspire as the crown and goal of virtue, viz. the cessation of sentient existence (YULE & BURNELL 1886, edited 1903: 627).

oya. Sinhala; stream, small river.

odai. inlet; a narrow waterway extending into the land, or connecting a bay or lagoon with a larger body of water.

Pali. One of the Indian dialects used in the 2nd half of the 1st century BC; differs from the "noble" Sanskrit with a more simple grammar and the assimilation of consonant groups (e.g. Sankrist "dharma" – Pali "dhamma"); considered by orthodox Hindus and especially by Brahmins a language of the common people and Buddhists.

pila. Sinhala; spring, source of water. Compare bubula; ulpotha.

pokuna. Sinhala; artificial pond.

ratna. Sinhala; gem (945). Compare →menik, a jewel.

Ratnadvipa; see: Ceylon.

reservoir. English (ex French); artificial lake, tank (colonial English).

rock shelter. English; any natural rock alcove, overhang, undercut, coping rock or very short cave, where the horizontal extension from the drip line (entrance) to the furthest interior point (back wall) is smaller than the entrance width or height. A rock shelter is partly lit by daylight and lacks a fully aphotic zone but is protected from vertically falling rain.

Serendip, Sarandib, Sarandip. Arabic. See: Ceylon.

serendipity. Poetical English; the faculty of making happy chance finds. The word was coined by Horace Walpole from the title of the fairytale "The Three Princes of Serendip" whose heroes were always making discoveries by accident of things they were not in quest of (946).

tank. colonial English; artificial lake, water reservoir.

tenne. Sinhala; a flat; as »*Malegawatenne, the palace-flat*« (FORBES 1840, 1841. ii: 187).

tota. Sinhala, ford (COOK 1931: 347).

uda. Sinhala; upper (LONELY PLANET 2003: 255).

ulpotha. Sinhala; a »*large perennial spring*« (COORAY 1967: 256), source of water. Compare: bubule, pila.

vallam. Tamil; dug-out canoe (FERNANDO 2003).

942 LLIFE, J C (2002): Datums and map projections for remote sensing.- *GIS and surveying* (London: University College)

943 <www.hindunet.org/hindu_history/sarasvati/dictionary> (accessed 22.08.2004).

944 TENNENT (1861 Natural History): »*One curious tradition in Ceylon embodies the popular legend, that the stomach of the cobra de capello occasionally contains a precious stone of such unapproachable brilliancy as to surpass all known jewels. This inestimable stone is called the naganmanik-kya; but not one snake in thousands is supposed to possess such a treasure.*«

945 »... *the abundance of gems in Saffragam has given to the capital of the district the name of Ratnapoora, which means literally "the city of rubies"* [TENNENT 1860.i].«

946 <www.dutchburgherunion.org/journals> (accessed 2009.06.27), vol. 21, Colombo: Frewin & Co. / Dutch Burgher Union of Ceylon Buildings Co., Ltd., Reid Avenue, Colombo.

Vedas. Sanskrit; the sacred books of the Hindus; a collection of hymns composed in pre-classical Sanskrit during the 2nd millennium BC and divided into four books: Rig Veda, Yajur Veda, Sama Veda, and Atharva Veda.

Veddahs. or Wanniyala-aetto. Sinhala; name of the original people inhabiting the island of Sri Lanka prior to the arrival of the Sinhalese. The Tamil verb "vedu" means »*hunting*« (YULE & BURNELL 1886, ed. 1903: 963).

Beda RAYNAL (1770, 1776, i: 90): »*The Bedas ... go almost naked, and, upon the whole, their manners and government are the same with that of the Highlanders of Scotland.*«

Bedda VAN GOENS (1675, iii: 208)

Vadda DERANIYAGALA, S U (2000, 2002)

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Vedda ALLCHIN & ALLCHIN (1968, 1993); BAKER (1875); DERANIYAGALA, P E P (1941); HARRIGAN (1993 on <www.vedda.org/> accessed 2009.08.02); KEMPE (1988: 177-179); KOPPER (1973); LE MESURIER (1885-1886); STEVENS (1886)

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Waedda PARKER, H (1909)

Wedda DESCHAMPS (1891); HAECKEL (1922); HARTSHORNE (1876); MOSZKOWSKI (1908); RÜTIMEYER (1903a, 1903b); SARASIN & SARASIN (1892-1893, 1907a); SCHMIDT (1894); SELIGMANN & SELIGMANN (1908c).

vihara. Pali, Sinhala; a Buddhist complex, including a shrine containing a statue of the Buddha, a congregational hall and a monk's house (LONELY PLANET 2003: 295).

vila, villu. Sinhala; marsh: a flat wetland area dominated by grass-like vegetation.

waterfall, water fall, falls. English; a perpendicular or very steep descent of the water of a stream.

watura. Sinhala; water.

wavul. Sinhala; a bat (zoologically: Chiroptera; in Sanskrit: jadukata, the skin-winged), plural: wavula (waula, etc). In cases transcribed (romanised) and spalled or mis-spelled as

vavul DERANIYAGALA, P E P (1965: 143, 144 fig. 21), STRINATI & AELLEN (1981: 459)

walu WILSON (1988: 23: Walupane village)

wau MIDDLETON & WALTHAM (1986a: 182, 1986b: 182, 1992: 182: »*Waupane*« River Cave)

waul BROHIER (1956: Waul-gal-ge, rock-cave of the bats), KELLER (1982: Waula Kanda, the Bats' Hill), SIFFRE (1975: 16, 17, 22-26, 39-42: riviere souterraine de Waulpane)

wauwu SARASIN & SARASIN (1908: Wauwuwela Galge)

wavul CEYLON TRAVELLER (1974: 245, 1983: 247) explains that: »*Wavulpane ... means Cave of Bats*«

wawul URAGODA (1973: 39), Eckrich (1984 Mss "Bat cave distribution map": Wawulpane)

wewa. Sinhala; water reservoir, artificial lake.

WGS84. or World Geodetic System (1984), is currently standard global →geodetic datum.

yala. Sinhala; the south-west monsoon.

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Indicates the approximate locations of	
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<i>Esterepure Cave</i>	Istripura Cave (Welimada)
<i>Istripura Cave</i>	Istripura Cave (Pannala)
<i>Komarikagala</i>	Komarikagala "rock cave"
<i>Kutugahugalge</i>	Katugaha Galge
<i>Mihintale Caves</i>	Mihintale
<i>Nitre Cave</i>	Lunugala Lena
<i>Plumbago Mine</i>	unidentified (Ereporuwa or Kolonne)
<i>Powerstation Cave</i>	unidentified (near N06°55'30": E080°28'15")
<i>Ravana Cave</i>	Ravana Ella Cave
<i>Ritigala Cave</i>	Ritigala
<i>Seven Virgins</i>	Seven Virgins, cave of the
<i>Sigiriya</i>	Sigiriya
<i>Una Vatuna Cave</i>	Yakdehimulla, cave at
<i>Ussurumuniye</i>	Ussurumuniya rock temple
<i>Wawulpane</i>	Wawulpane, cave near the village of

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AA auctor anonymus (nameless author)
 a.i. annum ignotum (unknown date, not dated)
 f.i. faber ignotus (unknown publisher)
 l.i. locus ignotus (unknown place of publication)
 UCO unidentified caving object; unconfirmed caving object

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A selection of some biospeleological aspects. On a tiny maplet with the great title »Karst and caves in Ceylon« (page 1977 fig. 1), each and every of the five caves of Sri Lanka are indicated as numbered discs (about 5 km in diameter):

- 1 = Lunuge cave →Lunuge Cave
- 2 = Istripura Cave →Istripura Cave (Pannala)
- 3 = Stripura cave →Batatota Lena
- 4 = Istri-gal-lena →Istripura Cave (Welimada)
- 5 = Rawanaella cave →Ravana Ella Cave.

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Delhi). Reproduction of the 1929 edition. 324 pages. Drawings by Kathleen Murdoch and E J Lewis. ISBN 10: 81-206-1274-4; ISBN 13: 978-81-206-1274-7 325 pages. Reproduction of the 1934 edition.

BATES, Paul J J & **HARRISON**, David L. (1997): Bats of the Indian Subcontinent.- *Harrison Zoological Museum Publications*. ISBN 0-9517313-1-9 (Harrison Zoological Museum, Bowerwood House, St. Botolphs Road, Sevenoaks, Kent TN 13 3AQ). VI [1] + 258 pages, nearly 200 maps, 8 plates, 271 neatly drawn sketches, line drawings, glossary, bibliography.

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1325 - 1354): Tuhfat an-nuzzar fi garaib al-amsar wa-agaib al-asfar.- (Tanger, Marocco).

Not seen. In Arabic. Edited by DEFREMERY, C & SANGUINETTI, B R (1874-1879); Ali al - Muntasir al-KATTANI (Bairut: Muassasat ar-Risala); Abdal Hadi TAZI / 'Abd al-Hádi al-Tázi (Rabat: Royal Morocean Academy, 5 volumes).

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1829, edited and translated by LEE, Samuel): The travels of Ibn Batuta translated from the abridged Arabic manuscript copies, preserved in the Public Library of Cambridge with notes, illustrative of the history, geography, botany, antiquities, &c., occurring throughout the work.- (London: Oriental Translation Committee). IX + 243 pages.

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1874-1879, edited and translated by DEFREMERY, C & SANGUINETTI, B R): Voyages d'Ibn Batoutah: Texte arabe, accompagné d'une traduction / Tuhfat an-nuzzar fi garaib al-amsar wa-agaib al-asfar.-

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1911, edited and translated by MZIK, Hans von): Die Reise des Arabers Ibn Batuta durch Indien und China, 14. Jahrhundert.- *Bibliothek denkwürdiger Reisen* (Hamburg: Gutenberg Verlag), vol. 5. III + 489 pages, 2 maps.

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1929 translated by GIBB, Hamilton A R): The travels of Ibn Battuta A.D. 1325 - 1354.- *The Broadway Travellers* (London: George Routledge & Sons).

Selections from the Arabic text edited by DEFREMERY, C & SANGUINETTI, B R (1874-1879) translated into English..

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1974 translated by LEICHT, Hans D): Reisen ans Ende der Welt: Das größte Abenteuer des Mittelalters, 1325 - 1353.- (Gütersloh: Bertelsmann). 302 pages, 2 maps, 29 illustrations.

In German: (Selections from) The travels of Ibn Battuta.- The chapter on »Ceylon« mentions »Usta Mahmud el- Luri Grotte« (Cave of Usta Mahmud the Lur), »Höhle des Baba Chuzi« (Cave of Baba Khuzi), »Sieben Grotten« (Seven Caves), »Grotte des el-Isfahani« (Cave of al- Isfahani), »Orangengrotte« (Cave of the Bitter Orange), »Sultansgrotte« (Cave of the Sultan, Iskandar); »Grotte des Sebik« (Sabik, Sibak), »Chidr Grotte« (Cave of Khidr / Khizr), »Grotte des Schaim, des Seth« (Sheim, Sheth).

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1975 translated by LEICHT, Hans D): Reisen ans Ende der Welt: Das größte Abenteuer des Mittelalters, 1325 - 1353.- *Alte abenteuerliche Reise- und Entdeckungsberichte*. ISBN 3-7711-0181-6 (Tübingen: Wissenschaftliche Buchgesellschaft & Basel: Erdmann Verlag). 302 pages, 2 maps, 29 illustrations.

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1994, edited by BECKINGHAM, Charles F): The travels of Ibn Battuta A.D. 1325 - 1354.-*Works issued by the Hakluyt Society* . ISBN 0-904180-37-9, ISSN 0072-9396 (London: Hakluyt Society), New Series 2, (no. 178). XVI + pages 773 to 983, bibliography on pages 979-983.

Revised translation of GIBB (1929 from DEFREMERY & SANGUINETTI 1874-1879).

Chapter 18 (pages 847-856 »Ceylon« on ascending the »Mountain of Sarandip« = Adam's Peak / Sri Pada / Pidurutulagala), page 851: The cave of Usta Mahmud the Lur. Page 852: The cave of Baba Tahir, the cave of al - Sabik (Sibak). Page 853: Cave of Baba Khuzi, the "Seven Caves", grotto of Al - Isfahani, Hollow of Gah- i- Arifan, Cave of the Bitter Orange = Cave of the Sultan = Cave of Iskandar. Pages 853-855: Cave of Khidr. Page 855: Cave of Shaim / Shaith. Page 870, 872: The cave of Shaikh Jalal al- Din (page 902: of Tabriz) of Sylhet (Bangladesh: Sylhet zone or Bharat / India: Meghalaya state).

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1998 translated by GIBB, Hamilton A R): The travels of Ibn Battuta A.D. 1325 - 1354.- (Delhi: Pilgrims Book Pvt. Ltd.). V-VII + 398 pages, 4 location maps (Persia, Anatolia, India, West Africa), 4 illustrations on plates, index..

Reprint of GIBB (1929 translation of selections from the Arabic text edited by DEFREMERY & SANGUINETTI 1874-1879).

Selections only. Page 196, 212: The cave of the imam Kamal ad-Din, »The Cave Man«, outside of Delhi. Pages 212, 362 footnote 16: The man-made underground dwelling of Shaykh Shihab ad- Din, outside of Delhi. Page 227: Man-made rock cut dungeons at the fortress »Duwagir« (Deogiri, Devagiri) at »Dawlat Abad« (Daulatabad / Amberkot town, Aurangabad district, Maharashtra). Pages 257, 365 footnote 6: The man-made »cave« (rock chamber) of Usta Mahmud the Luri near »Kunakar« (Kornegalle, Kurunagala = Kurunegala, Sri Lanka). Pages 258-259: The Grotto of Khidr on the Kuruvita side of the »Mountain of Sarandip« (Adam's Peak / Sri Pada / Pidurutulagala, Sri Lanka). Pages 268, 366 footnotes 6, 9: Cave of Shaykh Jalal ad-Din of Tabriz (Sylhet zone, Bangladesh or Meghalaya state, India).

Ibn **BATTUTA**, Muhammad Ibn-Abdallah Awamiri, Ahmad al- (1999 translated by LEICHT, Hans D): Reisen ans Ende der Welt 1325 - 1353.- Alte abenteuerliche Reiseberichte. ISBN 3-522-60050-9 (Stuttgart, Wien, Bern: Edition Erdmann), no. 3678. 5th edition. 315 pages, 2 maps, 29 illustrations, bibliography on pages 308-309.

In German: (Selections from) The travels of Ibn Battuta.- Pages 194-203 on »Ceylon« (Sri Lanka) mentions on page 198 »Usta Mahmud el- Luri Grotte« (Cave of Usta Mahmud the Lur); page 200: »Höhle des Baba Chuzi« (Cave of Baba Khuzi), »Sieben Grotten« (Seven Caves), "Grotte des el- Isfahani" (Cave of al- Isfahani), "Orangengrotte" (Cave of the Bitter Orange), "Sultansgrotte" (Cave of the Sultan, Iskandar = Alexander); »Grotte des Sebik« (Sabik, Sibak); page 201: »Chidr Grotte« (Cave of Khidr / Khizr); page 202: »Grotte des Schaim, des Seth« (Sheim, Sheth). Pages 220 and 221 on Bengal (Bangladesh) mention the troglodyte retreat of »Scheich Jalal ed- Din et- Tibrizi« in the hills of »Kameru« (Kamrup / Kamarupa, the ancient name for Assam; Ibn Battuta confused the sheikh with the saint Jalal ed- Din of Sylhet, now Bangladesh).

BEAL, Samuel (1887): Some remarks on the narrative of Fahien.- *Journal of the Royal Asiatic Society of Great Britain and Ireland*. ISSN 0035-869X, 1356-1863 (London: Royal Asiatic Society of Great Britain and Ireland), New Series, vol. 19: 191-206.

BECKINGHAM, Charles F (1994): The travels of Ibn Battuta A.D. 1325 - 1354.-*Works issued by the Hakluyt Society* . ISBN 0-904180-37-9, ISSN 0072-9396 (London: Hakluyt Society), New Series 2, (no. 178). XVI + pages 773

to 983, bibliography on pages 979-983.

Revised translation and notes of GIBB, Hamilton A R (1929) from the Arabic text edited by DEFREMERY, C & SANGUINETTI, B R. (1874-1879).

BEGLEY, V; LUKACS J R & KENNEDY, Kenneth A R (1981): Excavations of Iron Age burials at Pomparippu.- *Ancient Ceylon: Journal of the Archaeological Survey of Ceylon*. ISSN 0258-9257 (Colombo: Archaeological Survey of Ceylon), vol. 4: 51-132.

Not seen. Source: DERANIYAGALA S U (1998).

BELL, H C P (1901 published 1907): Tisavewa ruins.- *Archaeological Survey of Ceylon Annual Report* (Colombo: H. C. Cottle, Government Printer, Ceylon), Issue 1901: 5; Location map, line drawing.

www.lakdiva.org/sakwala/sakwala.html (accessed 2009.09.17).

Describes a circular »sakvala« (map of the world) engraved on a rock face of one »Cave 2« near the Isurumuniya monastery above the »Tisaveva« (Tissa Wewa) reservoir at Anuradhapura.

BHADANTA, Sorate Thera (1953): Sittarahu sita rasayan manahara vana sittam ruvak se.- (Colombo: Butsarana).

Not seen. In Sinhala. Sigiriya on page 246 [Kusch, H. 1994].

BIRDWOOD, George & FOSTER, William (1893): The first letter book of the East India Company.- (London).

Not seen (YULE & BURNELL 1896, 1903: xxviii; 182). Page 86: »Selland« (Ceylon, Sri Lanka).

BRIGNOLI, Paolo Marcello (1972): Ragni di Ceylan, 1: Missione biospeleologica Aellen - Strinati (1970): Arachnida, Aranaea.- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Geneve* ISSN 0035-418x (Genève: Kundig), Tome 79, (no. 2): 907-929.

In Italian. Taxonomical descriptions of spiders (Aranea: Arachnidae) collected in five caves (Rawanaella, Istri-gal-lena, Istripura, Stripura, Lunuge) of Sri Lanka and description of three new species of different families: Andasta genevensis (Theridiosomatidae, from Lunuge Cave near Nalanda), Nesticus aelleni (Nesticidae, from »Stripura Cave, Kuruvita« = Batatotalena) and Mimetus strinati (Mimetidae, from the Rawanaella Cave near Ella) are determined. Taxonomical problems concerning oriental Theridiosomitidae and Mimetidae and the composition of the spider fauna of tropical caves are considered.

BROHIER, Richard Leslie (1956): The nitre caves of Ceylon.- *Journal of the Dutch Burgher Union* (Colombo: Dutch Burgher Union), vol. 46 (no. 4, October): 111-114.

www.dutchburgherunion.org/journals/vol_41 (accessed 2009.08.17)

Recalls a visit to what »the village folk to this day call Waul-gal-ge, the rock-cave of the bats« (Wavul Lena, Gampaha) and compares his own observations with those of DAVY (1821) and DANIEL (1908). Also mentions »several small nitre caves in the North Western Province: one in Nuwarakalawiya, and at least two large ones in the Central Province [947]. As a fairly well-known feature one of the latter lends itself to distinguish the country off Rangala, known as the Nitre Cave district.«

947 The »latter« of the two large nitre caves in the Central Province is Lunugala Lena (Ceylon's Nitre Cave per se) but I have no clues which "the former" could be. Perhaps, but this is mere guesswork, the Maturata Nitre Cave (Padiyapelella).

BROOKS, Simon James (1995): *Caving in Sri Lanka-Orpheus Caving Club Newsletter* (Ashbourne, Derbyshire, UK: Simon J. Brooks), vol. 31, (nos. 5-6, May-June): 22.

Within three weeks (last week of March and the first two of April 1995), the »important Archaeological cave called Batadomba-Lena Cave« (Batadomba Lena), which lies at an »impressive location on the mountainside above Kuruwita« and another cave »known as Batatota Subterranean Cavern ... some 5 km away from the first« were »photographed and surveyed« lengthwise to sports caving standards. Both are said to be »formed in Gneiss« while an unspecified »Kandy area is potentially the richest cave area in Sri Lanka as it has significant areas of limestone.«

BROOKS, Simon James; **GEBAUER**, H. Daniel & **WALTHAM**, Anthony "Tony" (2002): *The Indian Subcontinent: An overview of the karst and caves.-International Caver Magazine* (Swindon: Aven International Publications), Issue 2002: 15-19. Colour photographs, eight bibliographical references.

With one stray reference to »Vava Pena« (cave near Wavulpane).

BRÜCKNER, Helmut & **BRUHN**, Norbert (1992): *Aspects of weathering and peneplanation in southern India.-Zeitschrift für Geomorphologie, Neue Folge / Annals of Geomorphology / Annales de Géomorphologie* ISBN 3-443-21091-0 (Berlin & Stuttgart: Gebrüder Borntraeger), Supplement Band 91: *Geomorphology of the tropics* / edited by Jörg Grunert: 43-66. Geological map, 11 figures, 3 photographs, 1 table, 58 bibliographical references.

A climatic sequence of soils and saprolites in southern India (Kerala, Tamil Nadu, Pondicherry) shows an intense deep weathering only in areas with an annual precipitation of more than 2000 mm and 4 to 5 humid months. Below this limit, deep weathering is strongly reduced and the soils have some of their properties inherited from a former, more humid climate. For the formation of an extended peneplain, many cycles of deep weathering in a humid tropical climate and subsequent areal denudation in a (semi-) arid climate is necessary. This is exemplified by the Tamilnadu Peneplain [Tamil Nadu peneplain] as a prototype of a tropical peneplain. It proves to be a palygenetic compensation plain, both spatially and temporally. Shelf profiles, Neogene marine limestones, paleosols, alluvial fans and the last interglacial marine terrace help to decipher its Cenozoic morpho- and tectonogenesis. The comparison with the western side of the Deccan Peninsula shows that in the alternating tropical climate no peneplanation, but rather intense deep weathering takes place [AUTHOR].

Page 54: A low degree of karstification of the Kudankulam (also: Kudangulam) and Panamparai Limestones (Miocene-Pliocene, possibly Burdigalian = Lower Miocene) in southern Tamil Nadu.

CAVE, Henry W (1900): *The ruined cities of Ceylon.* (London: Sampson Low). VI + 165 pages octavo, photographs.

Contents: 1. The golden age of Lanka. 2. The journey to Anuradhapura. 3. Mihintale: the cradle of Buddhism in Ceylon. 4. The city of Anuradhapura. 5. The rock fortress of Sigiri. 6. The lake of minneria. 7. The city of Polonnaruwa. 8. The rock temples of Dambulla and »Aluwihari« (Aluvihara).

CAVE, Henry W (1908): *The book of Ceylon, being a guide to its railway system and an account of its varied attractions for the visitor and tourist: Illustrated from photographs by the author.* (London: Cassell & Company). XII + [2] + 664 pages, folded map + 7 maps, plans, coloured frontispiece, 756 monochrome photographs on plates, index.

CAVE, Henry W (1921): *The ruined cities of Ceylon: Illustrated with photographs taken by the author in the year 1896, abridged and translated by the Department of Education, Ceylon.* (Colombo: H.W. Cave & Co). [VIII] + frontispiece + 100 pages + [42 pages plates + 10 pages

glossary] octavo, monochrome photographs.

AA - CEYLON TRAVELLER (1974): *Handbook for the Ceylon traveller.* (Colombo: Studio Times Ltd.). 1st edition; 354 pages + 14 leaves of plates, 21 by 14 cm, map, illustrations, index.

Chapter 15 (pages: 237-254) is entirely devoted to »caves« and »cave dwellings« being true caves and rock shelters (948). All in all, 123 distinct caves and rock shelters are mentioned.

AA - CEYLON TRAVELLER (1983): *Handbook for the Ceylon traveller.* (Colombo: Studio Times Limited). Revised 2nd edition, XXVI unpaginated + 437 + IX unpaginated pages 21 by 14 cm, 7 maps (one on page XIV and six, including a folded one, in back), 39 text figures (including one tiny cave plan on page 355), 26 monochrome photographs on frontispiece + 12 monochrome photographs on unpaginated plates, advertisements, index.

Chapter 15 (pages 239-256) on »Caves and caverns« is entirely devoted to natural caves and rock shelters, including »cave dwellings« or »temple caves« (modified natural rock shelters used as troglodyte hermitage retreats), which, however, are occasionally confused with »cave temples« (man-made, rock-cut chambers). All in all, 123 distinct caves and rock shelters are mentioned and, in parts, described in detail:

AA caves, Belihul Oya (244), Alugalge, Tellula (249-250), Alugalgekande caves (243), Andiyakanda cave (361), Askiriya cave dwelling (251), Attanagalla vihara cave dwelling (251), Aukana »cave dwelling« caves (115-116, 251), Bagavalena (256), »Bambarabotuwa cave« = Beli Galge, Bambarabotuwa (246), Bambaragastalawa caves (171-172), Batadombalena (245), Batatotalena (245, 246), Beli Galge, Bambarabotuwa (246), Belilena at Kitulgala (383), Bottomless Well at Puttur (131), Bovattagala Galge (172), Bovattagala Lena (172), Buddamahela rock cave (254), Buddhanagehela »cave dwelling« cave (251), Budugala (Okkampitiya) »cave temple« (154, 247, 255), Budugalge (255), Dambulla cavern / caves (251, 351-353, 387), Danigala caves (175), Degaldoruwa »cave temple« or temple cave (35), Demaliyagalge (255), Dimbulagala caves (111-112, 235), Diulanagoda [Diulanegoda] cave 1 (172), Diulanagoda [Diulanegoda] cave 2 (172), Diyainna cave (247), Ella Cave (145, 214), »Eratne / Batatota cave« = Batadomba Lena (154), Gal Vihara (Polonnaruwa) »partly artificial cave« (110), Galapitagala »monastic cave« (355), Galgirilena caves (106), Galgiriya »cave dwelling« caves (251, 252), Gampaha cave (251), Godawaya vihara caves (69), Godegedara vihara »cave temple« or temple cave (349), Habessa rock cave (255), Hamangala caves (254), Handagala »cave dwelling« caves (251), Handagiriya caves (247, 256), Henanegala cave (253), »Henebadda caves« = Bendiya galge (176), »Henebedda caves« = Bendiya galge (175), Hindagala vihara cave temple (36), Hituwa Lena or »Kurugala cavern« (154), Hoom-Mane blow-hole (66-67), Istripura cave, Kosgolla (243), Istripura cave, Pannala (242-243), Istripura cave, Welimada (242), Istripura caverns, Welimada (145, 155), Istripura caves, Welimada (154), Kabara Galge (250), Kalukoladeniya cave (256), Kamarikagala rock cave (255), Kanabisunge galge (174), Karambagala cave, caves (69, 255), Katugahalge cave (244), Kiripokunahela caves (171), Kiwuleya rock cave (254), Kongala caves (172), Koratota cave dwelling and rock temple (251), Kosgalla caves (154), Kosgolla cave (243), Kotiyagala »cave temple« or temple cave (350), »Kotmale caves, Gonagolla« = Kuttemalai shelter 1 + 2 (177), Kudimbaga caves (171), Kumanu villu caves (168), Kumbukkan Oya caves (168), Kumburulena caves (256), Kurugala »cave, cavern« = Hituwa Lena (154, 247), Kuttemalai shelter 1 or »Kotmale caves, Gonagolla« (177), Kuttemalai shelter 2 or »Kotmale caves, Gonagolla« (177),

948 **FERNANDO**, Kishanie S (2003): »Nihal Fernando in his book the Ceylon Traveler says ...« Compare J C WILLIS (1907).

Laxapana Falls cave (246), LunuatuGalge (173), Maharaksahela rock cave (253), Malayadi caves (177, 254), Maliga Vihara cave temple (37), Mandagala caves (174), Manipay Sink Hole (250), Maravidya caves at Dimbulagala (111-112), Menik Lena (245), Mihintale »cave dwelling« caves (251), Mutugala / Mutugalla cave monastery (253), Na-ulpota cave (361), Na-maluwa cave (252), Nagala temple cave (150), Niso-lena (256), Nissangala Lena (245), »Nitre Cave« Lunugala Lena (245), Nuwaragala cave (236, 253-254), Ochappu Kallu, Ochayappu Kallu ledges and little caves (161), Paramakanda »cave dwelling« caves (251), Periya Mandapam limestone cavern (131, 250), Piduragala cave (114, 251, 253), Piduragala, long cave east of the summit (114, 251, 253), Pilikuttuwa cave dwelling (251), Pinnacle Rock / Vilatti Malai cave (119), Pinnacle Rock / Vilatti Malai niche (119), Pinnacle Rock / Vilatti Malai tufa stream Matti Aru (119-120), Puttur Tidal Well (131), Rajagala caves (177), Rasnakawewa Vihara »built inside a cave« (106), Ravana Ella cave (243-244), Ritigala »cave dwelling« caves (251, 389-390), Ritigala rock and cave complex (252), Sasseruwa »cave dwelling« caves (116, 251-252), [imprisoned] seaperwante cave (61), Seruwawila, Wilgam Vihara caves (123), Seven Virgins' cave (246), Sigiriya caves (251), Sigiriya rock art, Mirror Wall (112-114), Sink Hole, Manipay (250), Sinna Mandapam limestone cavern (131, 250-251), Sita Galge (251), Sita Kotuwa cave (243), [Queen] Sundari caves, Dimbulagala (111-112), Talaguruwela caves (172-173), Tidal Well, Puttur (131, 250), Tiriya cave (119), Udawela cave temple (39-40), Uruwela cave dwelling (251), Ulwalagalge (255), Vevagama Bambaragala cave temple (40), Viharagala caves (172), Warana cave dwelling (251), Wavul Galge, Gampaha (249), Wavulpane cavern (247-249), Westminster Abbey cave, enormous (254), Westminster Abbey cave, smaller (254), Wilgam Vihara caves, Seruwawila (123), Yanlena (256), Yapahuwa (Subhapabbata, Subha's Rock) cave temple (151), Yudaganawa cave (244).

CHOPARD, L (1916): Diagnoses d'Orthoptères cavernicoles nouveaux (Stenopelmatidae).- *Bulletin de la Société entomologique de France* (Paris: Société entomologique de France): 113-116. Volume 21 (?)

Title in French, text in Latin: Diagnosis of new cavernicolous Orthoptera (Stenopelmatidae).- Taxonomical description of the raphidophorid cricket »*Diestrarmena brevifons*« [Eutachycines brevifons frieli] collected from »*Maosmai Cave*« (Krem Mawsmi, Sohra / Cherrapunjee, Meghalaya, India). Also described are *Diestrammena* gravely (Lengong Caves, Perak, West Malaysia); *Diestrammena* gravely ceylonica (Minneryia, Sri Lanka); *Raphidophora cavernicola* collected from an anonymous cave on »*Lung Kawi*« (Langkawi island, West Malaysia); *Raphidophora acutelaminata* (Sukli, Myanmar / Burma), and *Raphidophora mulmeinensis* from »*Farm Caves*« (Mulmein, Burma / Myanmar).

COATES, J S (1935): The geology of Ceylon.- *Ceylon Journal of Science* ISSN 0366-8479 (Colombo: Colombo University), Section B, vol. 19: 101-187.

Not seen. Source: COORAY (1967: 302 item 13)

COOK, Elsie Kathleen (1931): A geography of Ceylon.- (MacMillan & Co.: London, Bombay, Calcutta, Madras, Melbourne). XI + 360 pages 210 by 165 mm, maps, 122 monochrome »illustrations« (maps and diagrams drawn by Maurice Weightman), monochrome photographs, index.

»This book owes its existence to a year's visit (1924-5) ...« (preface) and »... is intended for the use of teachers and scholars in secondary schools, to whom no scientific study of the geography of Ceylon has yet been available« (introduction).

Pages 78-79: Laterite is known as "kabouk" in Ceylon.

135-137: »Karst country« (karst, carso) is »... usually full of holes underground, and practically all the water runs away from the surface and circulates in these holes, gradually enlarging them. Caverns and underground rivers are common ...«

137: Bottomless well near Puttur; Kirimalai fresh water springs.

351: The Knuckles and »... Nitre Cave [i.e. Lunugala Lena], a large natural cavern inhabited by thousands of bats, whose droppings

have created a deposit on the floor of the cave.«

COOK, Elsie Kathleen (1953 edited by K. KULARATNAM): A geography of Ceylon.- (MacMillan & Co.: Madras etc.)

Not seen. K. Kularatnam (1953 editor): »A new edition of A geography of Ceylon revised and brought up to date«

URAGODA (1973: 37): Page 349 relates to »Nitre Cave« (Lunugala Lena) near the village of Mimure.

COOMARASWAMY, A K (1927a): History of Indian and Indonesian art.- (London)

Not seen (Heinrich Kusch 1986, personal correspondence).

COOMARASWAMY, A K (1927b): Geschichte der Indischen und Indonesischen Kunst.- (Leipzig).

Not seen (Heinrich Kusch 1986, personal correspondence).

COOMARASWAMY, Ananda K (1902): The Point-de-Galle group (Ceylon): wollastonite - scapolite gneisses.- *Quarterly Journal of the Geological Society* (London: Geological Society), vol. 58: 680-689.

Not seen (COORAY 1967: 302 item 17).

COOMARASWAMY, Ananda K (1906): [unknown title: subsidence near Manipay, Jaffna peninsula].- Administrative Report of the Ceylon Mineral Survey for 1905 (Colombo ?).

Not seen (COORAY 1967: 71, 302 item 7).

COORAY, P Gerald (1956): The Knuckles expedition.- *Bulletin of the Ceylon Geographical Society* (Colombo: Ceylon Geographical Society), vol. 10, (nos. 3/4): 46-69. Location map, 12 monochrome photographs.

On the months-long planning and eventual performance (August 1956) of a much organised excursion to »Nitre Cave« (Lunugala Lena).

COORAY, P Gerald (1961a): The geology of the country around Rangala.- *Memoirs of the Ceylon Department of Mineralogy*, no. 2.

Not seen (COORAY 1967).

COORAY, P Gerald (1961b): Geographical aspects of the Rangala area.- *The Ceylon Geographer*, vol. 15, (nos. 1-4).

Not seen. Page 11: Nitre cave, Mimure (URAGODA 1973: 39)

COORAY, P Gerald (1965): The geology of the area around Alutgama, Ceylon.- *Memoirs of the Ceylon Geological Survey Department* ISSN 0577-4454 (Colombo ?), no. 3..

Not seen (COORAY 1967).

COORAY, P Gerald (1967, preface by SUTTON, John): An introduction to the geology of Ceylon.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon* ISBN 0081-3745 (Colombo: Government Press, National Museums Department), vol. 31, (part 1): I-XXVII + 1-324. Folded geological map (on scale 1: 506,880), 39 plates, 22 tables, 94 bibliographical references.

Nitre Cave (pages 66, 97, figure 24a); karst in Miocene limestone of the Jaffna peninsula (69, 85-86, 135-141); crystalline limestone (80, 90, 95-97, 102-103, 113).

Page 71: Manipay subsidence. 73 (opposite: plate 10, fig. B): A small cave in laterite at Beruwela. 96-97: »Solution caves reaching up to 10 or 20 feet in height are sometimes found in crystalline limestone bands.« There is »Nitre Cave in the Rangala area« and DERANIYAGALA (1958) relates to caves in crystalline limestone at Ella (Ravana's Cave), Maturata (near Pedyapalle), Wellawaya, Hakgala, Istripura (Welimada), Padanwela (Wilson's Bungalow), Patanagedera (Laggala), and Kudawa (Gilimale). 97: Cave of the Seven Virgins and cave at Laxapana Falls (Norton Bridge). 139: Sea caves. 182: »Travertine« (calcareous tufa) occurrences.

COORAY, P Gerald (1978): Geology of Sri Lanka Precambrian.- *Proceedings of the third regional conference on geology mineral resources of Southeast Asia*, Bangkok, 14-18 November, 1978. ISBN 0-471-2769-0 (Bangkok, Thailand: Asian Institute of Technology): 701-710. Maps, photograph, line drawing, table, table, 52 bibliographical references.

No reference to karst or caves. Jaffna Peninsula and the surrounding islands are underlain by the Jaffna Limestone of Burdigalian (Upper Lower Miocene) age. It is exposed southwards as a gradually narrowing formation along the northwestern coast up to the vicinity of Puttalam.

CORDINER, [Reverend] James A.M. (1807): A description of Ceylon.- (London). 2 volumes quarto.

Not seen (SARASIN 1939: 183 no. 8; TENNENT 1859, 1860 vol. 1: XXXI footnote; YULE & BURNELL 1886, 1996: xxxi).

COURBON, Paul (1972): Atlas des Grands Gouffres du Monde.- (s.l. = Toulon: Paul Courbon). 54 pages + 57 plates + 4 unpaginated pages, numerous cave surveys (ground plans, sections), 7 monochrome photographs showing an alcoholic and the application of rope rigging tools and techniques..

Page 26: Asia is comprised of Iran, »Liban« (Libanon), »Chine« (China), »Inde« (India), and »Japon« (Japan) but nothing is known about »Ceylan« (Ceylon, Sri Lanka).

COURBON, Paul (1979): Atlas des Grands Gouffres du Monde.- (Marseille: Jeanne Laffitte). 203 pages.

Half a sentence admits to know "nothing noteworthy" about India but actually relates to Sri Lanka.

COURBON, Paul; CHABERT, Claude (1986): Atlas des Grands Cavités mondiales.- (Toulon & Paris). 256 pages, maps, surveys, elevations, illustrations.

Page 81: Sigiriya, »Istripura« (Istripura Cave, Pannala), »Istri-gal-lena« (Istripura Cave, Welimada), and »un puits noyé près de Jaffna« (a drowned pothole cave near Jaffna) without recognised name (Tidal Well, Puttur).

COURBON, Paul; CHABERT, Claude (1989 edited by BOSTED, Peter & LINDSLEY, Karen): Atlas of the Great Caves of the World.- (St. Louis: Cave Books). 369 pages, over 200 cave surveys / profiles, index.

Page 138: Four entries for Sri Lanka: A nameless »cave of historical interest« at Sigiriya, a nameless »flooded pit near Jaffna« (Tidal Well, Puttur), the »Istripura Cave (in Pannala)« and »Istri-gal-lena (in Welimada)« (Istripura Cave, Welimada).

CURRAN, Charles F (1967): Cave-dwelling birds.- *St. Louis University Grotto Newsletter* (St. Louis, USA), 6, (no. 1): 1-6.

Not seen. Is said to review NOVICK (1959) on the echolocation of the cave roosting *Collocalia brevirostris* from Sri Lanka.

CURRAN, Charles F (1974): Cave-dwelling birds.- *Speleo Digest* (Huntsville, Alabama, USA: National Speleological Society), Section 2 (Cave Science): 2/100-2/105.

Some aspects (mostly behavior) of the oilbird *Steatornis caripensis*, and of the echolocatory ability of the Oriental Swiftlet *Collocalia species*. The cave roosting *Collocalia brevirostris* roosts in unspecified caves of »Ceylon« (Sri Lanka). Review of NOVICK 1959 on the echolocation of the cave roosting *Collocalia brevirostris* in Sri Lanka (Ceylon).

DAHANAYAKE, Kapila (1978): Red earth occurrences on Miocene limestones of Sri Lanka.- *Proceedings of the third regional conference on geology mineral resources of Southeast Asia*, Bangkok, 14-18 November, 1978 ISBN 0-471-2769-0 (Bangkok, Thailand: Asian Institute of Technology): 43-46. Geological map (without coordinates, ca. N07°50': E079°40' to N08°20': E079°50'), 2 stratigraphic columns (Puttalam, Aruvakalu), 5 bibliographical references.

Pedological study on Quaternary sediments of both fluvial and eolian origin occurring unconformably on the Miocene limestones at the Puttalam Lagoon, Jaffna Peninsula, northwest Sri Lanka.

Abstract: »Quaternary sediments of both fluvial and eolian origin occur unconformably on the Miocene limestones of northwest Sri Lanka. Brown unsorted fluvial sediments (brown earth) are found within limestones as fillings in primary loose and secondary consolidated states.«

Buried karst (not mentioned by name) of post-Miocene age (apparently dated by conclusion) has been noticed as »former erosion [sic! qua: corrosion] cavities about 1 m deep« in the shape of »limestone with numerous fillings of sands, gravels and pebbles cemented with calcite and dolomite« in addition to »limestone with numerous cavities filled with ilmenite, magnetite, mica and clay in parallel layers, all cemented with calcite and dolomite.«

DAMASKOWA, Alena (1977.08.31): Spoznávali Krásu Krasu.- Vecernik (Bratislava).

In Czech. A newspaper report on a socialist caving excursion (overland) to Sri Lanka.

DANIEL, Joseph A (1908): A visit to the Nitre Cave at Wellawaya, Uva.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), vol. 5, (Note no. 12, January 4th, 1908): 107-108.

Situation, approach and description of the »Nitre Cave of Wellawaya« (visited 1907 Sept. 12), the bats and guano deposits.

DANVERS, F C & FOSTER, William (1896-1900): Letters received by the East India Company from its servants in the East.- (London). 4 volumes.

Not seen (YULE & BURNELL 1896, 1903: xxvii; 182). Vol. 3: 277 »Celand« (Ceylon). Vol. 3: 34 »Silon« (Ceylon).

DAVY, John (1821): An account of the interior of Ceylon and its inhabitants with travels in that island.- (London: Longman, Hurst, Rees, Orne & Brown). 530 pages 4to, »Map of the Island of Ceylon« (folded), numerous vignettes and text figures (line drawings).

Page 31: Footnote lists 22 place names with »nitre-caves« exploited for nitre (potassium nitrate, saltpetre, NaNO₃, niter). Pages 265-270 describe the procedure itself. Pages 379-380: »Nitre Cave« (Lunugala Lena) near »Memoora« (Memora) in »Doombera« (Knuckles / Rangala range, Kandy district). Page 419 mentions »capacious caverns« (Ranagiri "caves"), which afford good shelter to the traveller at »Gallegay« (Galgay, Galge village) or »Kimegallee« (Monaragala district). Pages 429-430: Nitre cave at »Weleway« (Wellaway, Wellawaya, Monaragala district). Pages 439-440: Nitre cave at »Maturatta« (Maturata, Nuwara Eliya district). Page 467 gives a cute little cross-section of the sacred »Dambooloo« temple cave (Dambulla, Matale district).

DAVY, John (1821b): On the geology and mineralogy of Ceylon.- *Transactions of the Geological Society* (London: Longman, Brow, Green, and Longmans), Series 1, vol. 5: 311-327. DOI: 10.1144/transgsla.5.311.

Not seen. <www.trn.lyellcollection.org/cgi/content/abstract/s1-5/0/311> (accessed 2009.08.18): »This 250-word extract was created in the absence of an abstract.

My dear Sir, I do not know how I can better assure you, that I have not forgotten the desire you expressed in the last letter you honoured me with, than by communicating to you the results of my inquiries respecting the geology and mineralogy of this interesting island, hitherto so little investigated.

In a geological point of view, the most general idea that can be formed of the island, according to the best of our knowledge, is, that it is one mass of primitive rock; and unconnected with any other rocky formation, excepting in a slight degree, with one of the newest kind.

The primitive mass of which the island consists rises in the Kandian country, and in the southern part of the island, to a

considerable height above the level of the sea, varying from 500 to nearly 7000 feet; an elevation which Adam's Peak, the highest mountain in the island, does not exceed, as I have ascertained by barometrical admeasurement: other parts of the mass, particularly the northern division of the island, are low and plain; and, with the exception of one spot, as far as my knowledge extends, the island in general is surrounded by shelving shores.

The forms of the hills and mountains are not very uniform; most commonly conical and peaked; occasionally craggy and tabular. The direction, too, of the mountain chains, is various.

Every appearance points to great antiquity of formation: few of the mountains exhibit naked rock; the majority of them are ...«

DAVY, John (1822): Reise im Inneren der Insel Ceylon: Nach dem englischen des Dr. John Davy, aus dem Ethnographischen Archiv besonders abgedruckt.- (Jena: Bran'sche Buchhandlung). 180 pages.

In German: Travels into the interior of Ceylon: Carefully reprinted from the English of Dr. John Davy of the Ethnographic Institute.- Drastically abbreviated version of DAVY (1821). Pages 159-162 narrate visiting the »Salpeterhöhle in der Nähe des Dorfes Memoor« (Lunugala Galge, the nitre cave near the village of Mimura, Mimure; Rangala range, Kandy district).

DAVY, John (1990): An account of the interior of Ceylon and it's inhabitants with travels in that island.- (Asian Educational Services: New Delhi). Reprint.

DEFRÉMERY, C & SANGUINETTI, B R (1874-1879): Voyages d'Ibn Batoutah: Texte arabe, accompagné d'une traduction.- (Paris). 4 volumes.

Not seen. Bilingual in Arabic and French: Travels of Ibn Battuta.- Sri Lanka: The cave of Usta Mahmud the Lur, cave of Baba Tahir, cave of al Sabik / Sibak, cave of Baba Khuzi, »Seven Caves«, grotto of Al - Isfahani, hollow of Gah- i- Arifan, cave of the Bitter Orange = Cave of the Sultan = Cave of Iskandar. Cave of Khidr. Cave of Shaim / Shaith.

DEJARDIN, Robert (1987a): Les peintures rupestres primitives de Ceylan et la philatélie.- *Collections* (1 i), vol. 17, (nos. 6/7, August). Illustrations.

Not seen. Apparently in French: The primitive rock engravings of Ceylon and their philately.- Post stamps issued between 1937 and 1973 [Ray Mansfield 1987.12.05].

DERANIYAGALA, P E P = Paulus Edward Pieries (a.i.): Siha Giri.- *Marg : A magazine of the arts = Pathway / National Centre for the Performing Arts.* (Bombay [?] re-named Mumbai: Marg Publications), vol. 5, (no. 3): 5.

Not seen. Source: Heinrich Kusch (1994 personal correspondence).

DERANIYAGALA, Paulus Edward Pieries (1940): The stone age and cave man of Ceylon.- *Journal of the Royal Asiatic Society, Ceylon Branch* ISSN 0304-2235 (Colombo: Royal Asiatic Society, Ceylon Branch), vol. 34, (no. 92, September 23): 351-373. 2 plates, 3 figures.

First report on the existence of large, polished »artefacts« (artifacts, macroliths, stone age tools) associated with vertebrate fossils, assigned to Upper Pleistocene, and recovered from caves at Kelaniya (Western Province) and Udapiyan Galgé (Balangoda district). Discusses results of studies in paleontology and archaeology (1949).

AA - DERANIYAGALA, Paulus Edward Pieries (1941): Stone age man of Ceylon.- *Nature* (London), 147, (no. 3726, March 29th): 392-393. Review of DERANIYAGALA (1940).

Keywords: Artefacts, Balangoda, calcined bones, cave, fire, man, neolithic, palaeoliths, pebble artefacts, Pleistocene, pottery, Ratnapura culture, rock shelter, stone age, stone implements, Veddas.

»The best prehistoric deposits occurred in caves notably difficult of access, but close to a stream which flowed down the rock near the entrance. Each cave possessed a sandy outer platform with a lookout rock, and lay under the shelter of a large overhanging shelf of rock.«

DERANIYAGALA, Paulus Edward Pieries (1943): Some aspects of the Prehistory of Ceylon, part 1.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: University of Colombo), vol. 23, (part 2): 95-115, plates vi-x. 9 text figures (including 2 location maps), 5 plates, 42 bibliographical references.

Description, location, approach and archaeology of Udapiyan Galge, Bambara Gala / Bambaragala, Batadomba Lena, and the Beli Galge at Bambarakotuva.

DERANIYAGALA, Paulus Edward Pieries (1945): [unknown title: Homo sapiens balangodensis].- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: University of Colombo), vol. 24, (part 2).

Not seen. Source: DERANIYAGALA (1953: 127).

DERANIYAGALA, Paulus Edward Pieries (a.i., circa 1949): Some aspects of the Prehistory of Ceylon, part 2.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: Government Press).

Not seen, apparently nowhere referred to. Since there is a part 1 in addition to parts 3, 4, and 5, I am tempted to expect a part 2. This is not found in Spolia Zelaniya vol. 24 (1950-51).

DERANIYAGALA, Paulus Edward Pieries (1953): Some aspects of the Prehistory of Ceylon, part 3: The Balangoda culture.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: Government Press), vol. 27, (part 1): 125-132, 13 plates.

Pages 125, 126: Udapiyan cave / Udapiyan galge rock shelter in the Ukgal Kaltota escarpment, Uva province. Page 125: Manda Galge rock shelter in Eastern province, rock shelters near Bagure and Okanda in Eastern province. Pages 127-130: Ravan älle cave (Ravan Ella). Page 129: Bata doma lena (Batadomba Lena) in the mountains of Sri Padhe (Sri Padda) massif near Kuruvita.

DERANIYAGALA, Paulus Edward Pieries (1955): Some aspects of the Prehistory of Ceylon, part 4: Some skeletal remains, implements and food of Balangoda Man.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: Government Press), vol. 27, (part 2): 295-303. 8 plates.

Pages 295-300: Alu Galge near Telulla, Monaragala district, Eastern Central province. 300-301: Kabara Galge above »Käkulé« (Kekule) village near Hangamuwa. 301: Istripura galgé near »Mulhalkälé« (Mulhalkale), Nuwara Eliya district.

DERANIYAGALA, P E P = Paulus Edward Pieries (1956): Some aspects of the prehistory of Ceylon, part 5: The Balangoda culture.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon.* ISBN 0081-3745 (Colombo: Government Press), vol. 28: 117-120. Location map, 2 plates.

Results of archaeological excavation of Istripura cave (Aruk vätta) above the banks of the Kurunda oya (i.e. Istripura Cave, Pannala).

DERANIYAGALA, Paulus Edward Pieries (1958): The Pleistocene of Ceylon.- *Ceylon National Museums Publications: Natural History series* (Colombo: Govt. Press,

949 Review: Stone Age Man in Ceylon (1941): →title.- *Nature* (London), vol. 147, no. 3726, pp. 392-393.

Ceylon, later: Sri Lanka). VIII + 164 pages, 58 plates, bibliographical references.

Not seen! (950)

DERANIYAGALA, Paulus Edward Pieries (circa 1961): The amphitheatres of Minihagal Kanda, their possible origin and some of the fossils and stone artefacts collected from them.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), vol. 29: 149-163.

Not seen [COORAY 1967: 302].

DERANIYAGALA, Paulus Edward Pieries (1965): Some present day problems of cave research in Ceylon.- *Studies in Speleology*. ISSN 0585-718X (Plymouth: William Pengelly Cave Studies Trust), vol. 1, (parts 2-3): 143-147. Location map (without coordinates, drawn by J B Delair), line drawing, 5 bibliographical references.

Many caves and rock shelters in Ceylon contain important scientific material. With the rapid spread of man and accompanying deforestation, the removal of guano, and the use of caves as dwelling places, the time available for their investigation is limited. The writer describes briefly the location of some of the more important caves in Ceylon and features of zoological and archaeological interest to be found in them. Mentioned by name are Batota lena, Vavul lena at Kosgama Dodampé, »Istri-gal-lena beyond Vālimada« (Istripura Cave, Welimada), »Istripura-gal-lena« (Istripura Cave, Pannala). Rock shelters containing the earliest Sinhala fresco paintings (rock art) are at the Kudimbi gala crag and in the Gal Oya valley.

The not exactly precise »Map of the southern part of Ceylon, showing the location of caves (lena) and rock shelters (galgé)« (Figure 21, without coordinates, drawn by J. B. Delair) shows the approximate whereabouts of

<i>Batadomba cave</i>	Batadomba Lena
<i>Batatota cave</i>	Batatota Lena
<i>Beli galgé</i>	Beli Galge (Bambarabotuwa)
<i>Bellan Bāndi Pālāssa</i>	Bellan Bandi Pelessa
<i>Galaboda Kandé galgé</i>	Galaboda Kande Galge
<i>Istri gal-lena (cave)</i>	Istripura Cave (Welimada)
<i>Istripura gal-lena (cave)</i>	Istripura Cave (Pannala)
<i>Kegalla caves</i>	unidentified (951)
<i>Kudimbi gala (crag)</i>	Kudimbi Gala rock shelter(s)
<i>Matugama cave</i>	Yakgiri lena
<i>Mina dapu galgé (rock-shelter)</i>	Mullagama Galge, Mulagama Cave
<i>Nuvara gala rock-shelter</i>	Nuwaragala cave 1, cave 2
<i>Pal Hora galgé</i>	unidentified (952)
<i>Ravan ella cave</i>	Ravana Ella Cave, Ravanalla Cave
<i>Tellula alu galgé</i>	Alu Lena (Telulla)
<i>Tun Modera</i>	Tunmodera village
<i>Udupiyan galgé</i>	Udupiyan Galge
<i>Vavul lena cave</i>	Wavul Lena (Kosgama Dodampe)

950 Referred to by CEYLON TRAVELLER (1983: 242); COORAY (1967: 302 item 15); DERANIYAGALA, P E P (1965a: 147); DERANIYAGALA, S U (1985); DERANIYAGALA, S U (1987: 108).

951 Some archaeologically important "caves" in Kegalla district are Beli Lena (Kitulgala), Doravak Lena, and Alu Lena (Attanagoda) but there is also Helapitha Lena, Lenagala, Pilima Lena, and Yataha Lena.

952 »Pal Hora galgé« is possibly another name for Beli Lena, Athula (N06°56': E080°14'), Koratota "cave dwelling" (N06°55': E080°00'), Sita Galge, Avissawella (N06°57'11": E080°13'06"), Uruwela "cave dwelling" (N06°54': E080°09'), or the cave on Waula Kanda (N06°51': E080°12').

DERANIYAGALA, Siran Upendra (1980): Prehistoric research in Sri Lanka 1885-1980.- In: GUNAWARDANA, Thelma T P (1980): P E P Deraniyagala Commemoration Volume (Colombo: Kale (Lake?) House Investments).

Not seen. Source: DERANIYAGALA, S U (1985, 1987: 108).

DERANIYAGALA, Siran Upendra (1985): The prehistory of Sri Lanka: An outline.- In: AMERASINGHE, A R B & SUMANSEKERA BANDA, S J (1985, editors): Festschrift James Rutnam (Colombo: UNESCO): 14-21.

An early version of DERANIYAGALA, S U (1987).

DERANIYAGALA, Siran Upendra (1987): The prehistory of Sri Lanka: An outline.- *Man and Environment: Journal of the Indian Society for Prehistoric and Quarternary Studies*. ISSN 0258-0446 (Pune / Poona: Indian Society for Prehistoric and Quarternary Studies), vol. 10: 99-108. 16 bibliographical references.

Environment, chronology, palaeo-environment, technology, subsidence and settlement, ritual and mortuary practice, and biological anthropology as indicated by finds (geometric microliths, tree snail *Acavus rosealabiatu*s, breadfruit *Artocarpus nobilis*) excavated from sediments of the caves »Batadomba cave« (Batadomba Lena), »Beli-galge« (Beli Galge, Bambarabotuwa), »Beli-lena Maniyangama« (Beli Lena, Maniyangama), »Kitulgala Belilena« (Beli Lena, Kitulgala), »Kitulgala Cave« (Beli Lena, Kitulgala), »Nilgala cave« (Gangodedeniya Galge), »Ravanalla cave« (Ravana Ella cave).

DERANIYAGALA, Siran Upendra (1988): Prehistory of Sri Lanka: An ecological perspective.- (Harvard University, Anthropology Department / Michigan: University Microfilms, Ann Arbor publication). Ph.D. dissertation = 1st edition.

Not seen. Source: DERANIYAGALA, S U (2001b).

DERANIYAGALA, Siran Upendra (1991): Man and environment during the Pleistocene in Sri Lanka.- *Bulletin of the Indo-Pacific Prehistory Association* (Poona [Pune]: Department of Archaeology), vol. 10: 12-22.

Not seen. Source: DERANIYAGALA S U (1998.).

DERANIYAGALA, Siran Upendra (1992): Prehistory of Sri Lanka: An ecological perspective.- *Memoirs of the Archaeological Survey of Sri Lanka*. ISBN 9559159003 (Colombo: Government of Sri Lanka, Department of Archaeological Survey), vol. 8, (parts 1 + 2). XV + XXXVI + 813 pages. Location map, illustrations, bibliography.

If I am not mistaken, this is the standard working document on the prehistory of Sri Lanka. Key words: Aligala shelter (Sigiriya, pages 709-729); Alu Lena (Kegalla: Attana Goda); Batadomba Lena (Kuruwita, Ratnapura district); Beli- Lena (Athula, Maniyangama); Beli- Lena (Kitulgala); Fa Hien Cave (Bulathsinhala, Kalutara district); Kalukola Deniya (Akiriyagala); Yakgiri Lena.

DERANIYAGALA, Siran Upendra (1998): Pre- and protohistoric settlement in Sri Lanka.- *Proceedings of the 13th Congress of the International Union of prehistoric and protohistoric Sciences, Forli, 8 – 14 September 1996* (Forli [Italia]: A.B.A.C.O. s.r.l.), vol. 5, (section 16: Prehistory of Asia and Oceania): 277-285. 30 bibliographical references. Online: www.lankalibrary.com/geo/dera1.html accessed 18.11.2003, 02.09.2009.

Prehistorical interpretation of archaeological investigations. Results from archaeological investigations based on excavations of caves and rock shelters, e.g. Aligala shelter in Sigiriya, Alu-lena (Attanagoda, Kegalle), Batadomba-lena (Kuruwita), Beli-lena (Kitulgala), »cave of Dorawaka-kanda near Kegalle« (Doravakalena), »Fa Hien-lena« (Bulathsinhala), and »Ravanalla cave« (or, perhaps, Ravana Ella Cave).

DERANIYAGALA, Siran Upendra (2000): The Prehistory of Sri Lanka, parts 1, 2.- *Administration report of the Director-General of Archaeology* (Colombo: Archaeological Survey Department), Report for the year 1992.

Not seen [DERANIYAGALA, S U 1998, 2003a].

DERANIYAGALA, Siran Upendra (2001a): The prehistory of Sri Lanka, addendum 1: The prehistoric chronology of Sri Lanka.- Online: <www.the-prehistory-of-sri-lanka.de> accessed 2003.11.17.

DERANIYAGALA, Siran Upendra (2001b): Early man and the rise of civilisation in Sri Lanka: The archaeological evidence.- <www.lankalibrary.com/geo/dera2.html> accessed 2003.11.14.

Results from archaeological excavations of caves and rock shelters, e.g. Aligala shelter (Sigiriya), Alu-lena (Attanagoda near Kegalle), Batadomba-lena (Kuruwita), Beli-lena (Kitulgala), Doravak-lena shelter, Fa Hien-lena (Bulathsinhala), »Ravanalla cave« (or, perhaps, Ravana Ella cave).

DERANIYAGALA, Siran Upendra (2002): The prehistory and protohistory of Sri Lanka, a synthesis: Chapter 7 revised.- <www.the-prehistory-of-sri-lanka.de/chapter7.htm> accessed 2003.11.17.

A synthesis of the four chapters 3-6 (prehistoric chronology, palaeo-environment, prehistoric culture and hunter-gatherer ethnography of Sri Lanka) of DERANIYAGALA 1992.

Relates to the archaeologically investigated caves and rock shelters Aligala (Sigiriya), Alu-lena (Attanagoda), Batadomba-lena (Kuruwita), Batatota Dahayya-lena (Kuruwita), Maniyangama Beli-lena (Athula), Beli-lena (Kitulgala), Doravak-lena, Fa Hien-lena (Yatampitiya), Nilgala cave, Potana Shelter (Sigiriya), and Ravanalla cave.

DEVENDRA, Don Titus (1937): Guharamaya: A cave of stone age man.- <www.lankalibrary.com/geo/cave.htm> (accessed 15.11.2003).

Some aspects of Maliyadeva Guharamaya, a megalithic structure (dolmen) regarded as the troglodyte dwelling of the last great initiate of Buddhism in the village of »Padavigampola« (Padawigampola) »four miles« (6.4 km) north of »Rambukkana« (Rambukkana Bazaar).

DEVENDRA, Don Titus (1949): Cave dwelling monks.- *Ceylon Daily News* (Colombo), Vesak number: 394-396. 7 illustrations.

Not seen (953).

DHANAPALA, D B (1957a, introduction by Peter BELLEW): Buddhist paintings from shrines and temples in Ceylon.- (New York: United Nations Educational, Scientific and Cultural Organisation UNESCO). 24 pages text, 28 pages illustrations.

Mostly on the rock art (paintings) at Sigiriya but also at Hindagala (Kandy), Mahinyangana Dagoba (Alutnuvara, Uva), Tivamka shrine, Gal Vihara (both Pollonaruva), Pulligda Galge (Dimbulagala, Tamankaduwa), Dagaldoruva rock temple (Kandy), Dambulla (Matale), Pahalavihara (Mulgirigala, Hambantota) are also shown.

DHANAPALA, D B (1957b, introduction by Peter BELLEW): Tempelbilder und Felsmalereien aus Ceylon.- *UNESCO Sammlung der Wltkunst* (München: R. Piper & Co). 24 pages, 28 plates.

Not seen. Apparently in German and relating to a selection of most striking pictures painted in »Ceylon« on rock surfaces in selected temples [KUSCH 1973a].

DHANAPALA, D B (1964a, introduction by Peter BELLEW): Buddhist paintings from shrines and temples in Ceylon.- *Fontana UNESCO Art Books* (London: Collins). Reprint. 24 pages text, 28 pages illustrations.

Not seen [Claude Chabert 1986 personal correspondence after Michel Siffre 1986 Mss filing card].

DHANAPALA, D B (1964b, introduction by Peter BELLEW): Tempelbilder und Felsmalereien aus Ceylon.- *Fontana UNESCO Art Books* (München: R. Piper & Co). Reprint.

DOMRÖS, Manfred (1976): Sri Lanka: Die Tropeninsel Ceylon.- *Wissenschaftliche Länderkunden* (Darmstadt: Wissenschaftliche Buchgesellschaft), no. 12. 298 pages, 37 illustrations, 28 photographs, bibliography.

In German. General geography. Almost no reference to karst (not mentioned by name). Geological aspects after FERNANDO (1948) and COORAY (1967). Page 53: Parts of the Precambrian to Cambrian Khondalites consists of easily weathering crystalline limestone and calcareous granulite, which forms caves, for example at Ella, Wellawaya, Hakgala and Istripura (near Welimada).

Page 54: About one eighth of the islands surface is covered by Miocene limestones occurring on the Jaffna peninsula and the north-western coastal region, the Kalpitiya lagoon and Puttalam.

Page 54, 56: Following a long time span of corrosion (Silurian, Devonian, Carboniferous, Permian, Triassic), sedimentation took place during upper Jurassic in western Ceylon but only in two basins at Tabbowa (954) and Andigama (955), the latter buried beneath younger sediments and not exposed on the surface.

DOMRÖS, Manfred (1977): Sri Lanka: Die Tropeninsel Ceylon.- *Fischer Taschenbuch* (l.i.), Band 2.

Not seen (ARNBERGER & ARNBERGER 1993: 368).

DRINNEBERG, Erwin (1926): Von Ceylon zum Himalaya: Ein Reisehandbuch.- (Berlin: Wegweiser Verlag / Volksverband der Bücherfreunde). 390 pages 8° = 135 x 185 mm, location map, 41 monochrome photographs.

In German. From Sri Lanka to the Himalaya: A journey handbook.- Concerning »Ceylon« (Sri Lanka), page 32: »Sighiri« (Sigiriya) is sunken in the bosom of hard rock and a Buddhist cult spots of the oldest time. Buried deep in the cool rock lie giant caverns with rich pictorial treasures hidden in their sanctuaries and chambers.

953 I have neither seen not attempted to identify and trace this item, which is said to relate to troglodyte hermitages in "caves" [Manfred Moser, Regensburg 1998.08.10, personal correspondence].

»Vesak« (Moser 1998.08.10) looks like a version of Vaisakha, Vaishak, etc., the lunar month during April and May.

954 There is one Tabbowa (N08°05': E079°56' in Puttalam district, falling on sheet Puttalam) and another Tabbowa (N07°25': E079°53' in Kurunegala district, sheet Chilaw).

955 In Puttalam district, there is one Andigama (N07°46'39": E079°57'10" WGS84 falling on sheet Batulu Oya) in addition to Andigama (N07°56': E080°18') and Andigama (N07°55': E080°02' falling on sheet Puttalam).

DULLING, L A (1926): The Ella caves and Doweivharaya rock temple.- *L. A. D. C. Ob. Chr. N.* (1 i), (December 1926): 27-31. 4 illustrations.

Not seen [Manfred Moser 1998.08.10 personal correspondence]. Possibly relevant for →Ravana Ella Cave and the »Doweivharaya rock temple« (956).

DUNCAN, Jonathan (1798 reprinted 1799): An account of two fakery with their portraits.- *Asiatick Researches: Transactions of the Society instituted in Bengal for inquiring into the History and Antiquities, the Arts, Sciences and Literature of Asia*. ISSN 0970-5457 (Calcutta: Asiatic Society of Bengal), vol. 5, (article no. 2): 37-48, 2 plates. 1st edition. 2nd edition (Calcutta) 1799, 5th edition (London) 1807.

Page 39: According to an interview with the »saddhu« (religious worker) Purana Poori of »Benaras« (Varanasi N25°20': E083°00', Uttar Pradesh, India), there is an »extensive miry cavity« on the island »Silan« (Ceylon, Sri Lanka). The unspecified "cavish object" is called »Bhoput Tank«, also: »Ravan« or »Raban Tank«, lies at the side of the mountain »Sreepud, or The Divine Foot« (Sripadda, Sri Pada, Shri Padda, Adam's Peak), and was approached from »Catlgong« (Kataragama) on the river »Manic Gunga« (Manik Ganga) where there is the temple sacred to »Cartica / Carticeya« (Kartikay, Kartikkay).

ELLIOT, Sir H M (1867-1877, edited from the posthumous papers by) **DOWSON**, John): The history of India as told by its own historians.- 8 volumes.

Vol. 1, page 66: »Al Biruni [Alberuni] as given by Rashiduddin« (YULE & BURNELL 1886, 1903: 182) on »Sinkaldip or the island of Sarandip« (Ceylon, Sri Lanka).

EMERSON TENNENT see: TENNENT, James Emerson

EMPOLI, Giovanni da (1530 edited 1846): Lettere di Giov. da Empoli, e lat vita die esso, scritta da suo zio.- *Archivio Storico Italiano*, Tome 3.

Not seen (YULE & BURNELL 1896, 1903: xxxvii). Apparently in Italian: The letters of Giovanni da Empoli and his life described by his son.- Appendix 79: »Isola di Zolan« (Ceylon, Sri Lanka).

FA-HIAN (circa 415) see: LAIDLEY (1848 etc.)

FA-HIEN (circa 415) see: BEAL (1887), LEGGE (1886 etc.)

FA-HSIEN (circa 415) see: GILES (1956).

FAXIAN (circa 415 for 399-414): Foe Koue Ki.-

See: ABEL REMUSAT (1836), BEAL (1887), GILES (1923, 1965), LAIDLEY (1848), LEGGE (1886, 1899, 1965, 1991, 1998, 2005), LI YUNG HSI (1957).

FERGUSON, A M (1859): Planting gazetteer.- (l.i.).

Not seen. URAGODA (1973: 37 footnote 4): »The gazetteer of Fergusson« relates either to »the Knuckles« (Rangala range) or to »Nitre Cave district« (Dombera, Doombera).

FERNANDO, Kishanie S (2003.06.25): Travelling into the hidden heart of Lanka.- *Daily Mirror* (Colombo), 25th June 2003).

Online <www.dailymirror.lk/2003/06/25/feat/3.html> (accessed 2005.08.17). Narrative of an excursion past security checkpoints and along a gravel road via Nilaweli, past Pinnacle Rock and across the Salope Aru by ferry to Kuchchaveli: It is said that near the summit of Pinnacle Rock (called Vilatti Malai in Tamil and Nachchiya malai) is an ancient cave hermitage dating back to very early Buddhist times.

FORBES, [Major] Jonathan (1840): Eleven years in Ceylon: Comprising sketches of the field sports and natural history of that colony, and an account of its history and antiquities.- (London: Richard Bentley). 2 volumes. XII + [2] + 423, VIII + 356 pages 8vo, engravings

www.archive.org/stream/elevenyearsince00unkngoog/elevenyearsince00unkngoog_djvu.txt (accessed 2009.09.02).

The frontispiece of volume 2 shows the interior of one of the sanctuaries in the modified natural sared temple cave Dambulla »striking but inaccurate« (James Burgess in RHYS DAVIDS 1872: 139 note †).

TENNENT (1860.i): »Major FORBES, who in 1826 and for some years afterwards held a civil appointment in the Kandyan country, published an interesting account of his observations and his work derives value from the attention which the author had paid to the ancient records of the island, whose contents were then undergoing investigation by the erudite and indefatigable TURNOUR.«

FORBES, [Major] Jonathan (1841): Eleven years in Ceylon: Comprising sketches of the field sports and natural history of that colony, and an account of its history and antiquities.- (London: Richard Bentley). 2 volumes. 2nd »revised and corrected« edition

<www.archive.org/stream/elevenyearsincey01forb> (2009.08.19)

<www.archive.org/stream/elevenyearsincey02forb> (2009.08.19).

Page 12: »I was furnished with copies of Nagara inscriptions which appear on the rock of Sigiri, and on the neighbouring hill, by an old and intelligent priest, the incumbent of the rock-temple of Pedurugalla [Piduragala] ... The priest informed me that his cave-temple had been long in a state of ruin and choked up with rubbish; that its length is one hundred and twenty cubits, its breadth twelve cubits, and that two of the statues which it contained were cut from the solid rock.«

Page 121: »Dombara mountains«

Page 131: »Limestone is found about fifteen hundred feet below the level of Nuwara-ellia, at no great distance, in a straight line.«

FURKOTA, Pavel (1977.05.05): Do jaskyn tekuteho ticha.- *Zivot Bratislava* (Bratislava), 5th May 1977: 14-17. Map, illustrations.

Not seen [Siffre, Michel 1986 Mss filing card]. Apparently a Czech newspaper report on a socialist caving excursion from Europe overland via India to Sri Lanka.

GAMAGE, Anjana (2005.08.06): Heritage expediciones goes unique places.- Online <www.dailynews.lk/2005/08/06/fea10.htm> (accessed 2009.10.02).

GAMINI, S A de (1993): Souvenirs of a forgotten heritage.- September.

Not seen. Apparently some aspects of Wanniyala-Aetto rock art [www.vedda.org/cave_drawings.htm] accessed 2009.08.02].

GERHARDS, Hannelore & SCHREIBER, Bernhard (1985): Die Höhlen der Buddhas.- *Jahresbericht 1984 der Höhlenforschergruppe Rhein-Main* (Frankfurt / Main): 7-11.

In German: The caves of the Buddhas.- Contrary to the all-encompassing title, however, not the final report on each and every Buddhist cave of the whole world but a narrative of a journey to Sri Lanka with a description of Dambulla Galge, a modified natural sacred »cave« or rock shelter (undercut) used as a Buddhist temple.

956)»About 6 km east from Bandarawela [A] on the [28 km long] road to Badulla [B], the little Dowa Temple is pleasantly situated close to a stream on the right-hand [south] side of the road, with a beautiful 4 m-high standing Buddha cut in low relief into the rock face below the road« (LONELY PLANET, Sri Lanka (1980: 206).

A Bandarawela (N06°50'13": E080°59'08" WGS84).

B Badulla (N06°59': E081°03') not the other Badulla (N06°01': E080°32').

GIBB, Hamilton A R (1929): The travels of Ibn Battuta A.D. 1325 - 1354.- *The Broadway Travellers* (London: George Routledge & Sons).

Not seen. Compare: →BATTUTA, →GIBB 1998. Selections from the Arabic text edited by DEFREMERY, C & SANGUINETTI, B R (1874-1879) translated into English..

GIBB, Hamilton A R (1998): The travels of Ibn Battuta A.D. 1325 - 1354.- (Delhi: Pilgrims Book Pvt. Ltd.). V-VII + 398 pages, 4 location maps (Persia, Anatolia, India, West Africa), 4 illustrations on plates, index.

Reprint of GIBB (1929). Page 196, 212: The cave of the imam Kamal ad-Din, »*The Cave Man*«, outside of Delhi. Pages 212, 362 footnote 16: The man-made underground dwelling of Shaykh Shihab ad- Din, outside of Delhi. Page 227: Man-made rock cut dungeons at the fortress »*Duwagir*« (Deogiri, Devagiri) at »*Dawlat Abad*« (Daulatabad / Amberkot town, Aurangabad district, Maharashtra). Pages 257, 365 footnote 6: The man-made »*cave*« (rock chamber) of Usta Mahmud the Luri near »*Kunakar*« (Kornegalle, Kurunagala = Kurunegala, Sri Lanka). Pages 258-259: The Grotto of Khidr on the Kuruvita side of the »*Mountain of Sarandip*« (Adam's Peak / Sri Pada / Pidurutulagala, Sri Lanka). Pages 268, 366 footnotes 6, 9: Cave of Shaykh Jalal ad-Din of Tabriz (Sylhet zone, Bangladesh or Meghalaya state, India).

GILDEMEISTER (1838): Scriptorum arabum de rebus Indicis loci et opuscula inedita.- (Bonn).

In Latin: The scriptures and unpublished works of the Arabs on India.- Not seen (source: YULE & BURNELL 1903: XXXV).

Page 154: MAS'UDI (945) relating to the island of »*Sarandib*« (Sri Lanka).

Page 203: KAZVINI (1275): »*The island of Sialan is a vast island between China and India ...*«

GILES, Herbert A (1923): The travels of Fa-hsien (399-414 AD), or: A record of the Buddhistic kingdoms.- (Cambridge: Cambridge University Press).

Not seen. Source: <www.billbuxton.com/climbing.html> accessed 05.06.2004. Compare: FAXIAN.

GILES, Herbert A (1956): The travels of Fa-hsien (399-414 AD), or: A record of the Buddhistic kingdoms.- (London).

2nd edition. Not seen: <www.billbuxton.com/climbing.html> accessed 05.06.2004.

GLENNIE, Edward Aubrey (1947a): Excursus 1: On prehistory in India.- *British Caver: A by annual of the netherworld* (New Milton: Gerard Platten), no. 16: 41-46. Five pages 227 by circa 190 mm.

Page 42 mentions »*a great, natural overhang of rock protected in front by a wall*« (no name mentioned, apparently: Dambulla Galge) and narrates a traveller's tale according to which »*a passage said to lead on for 10 miles or more*« is said to have been entered and allegedly turned out to be »*a natural passage about 5 ft. wide and 15 ft. long, which, turning at right angles, continued for about 5 ft in a narrow joint.*«

GOETZ, Hermann (1959): Indien.- *Kunst der Welt* (Baden Baden).

Not seen. Apparently a picture book with German text and titled along the lines of a Complete Book of All the Art in the World: India.- Pages 115-116 are said to relate to Sigiriya [Heinrich Kusch 1994, personal correspondence]. Seemingly identical with the following

GOETZ, Hermann (1959): Indien: Fünf Jahrtausende indischer Kunst.- (Baden Baden)

Not seen [CHAKRAVARTY, Kalyan Kumar 1984].

GOETZ, Hermann (1965): Indien: Fünf Jahrtausende indischer Kunst (Baden Baden). 6th edition.

Not seen. [Heinrich Kusch 1994, personal correspondence].

GOLDBERG, E S & KATZ, N (1986a): The golden rock temples of Dambulla.- *Arts of Asia* (Hongkong), vol. 16, (no. 4): 69-76.

GOSH, Ashok K (1974): Perspectives in paleoanthropology: Prof. D. Sen Festschrift.- (Calcutta: Firma K. L. Mukhopadhyay).

Not seen: Pages 95-113: KENNEDY, K A R (1974): The Paleodemography of Ceylon: A study of the biological continuum of a population from Prehistoric to Historic times.- [DERANIYAGALA, S U 1998].

GUNASEKERA, W M (1957.02.27): Sri Pada, a cathedral of earth.- *Ceylon Daily News* (Colombo). 7 illustrations.

Not seen [KUKLA 1958: 168]. This item is possibly the source of the »*mysterious Stripura Cave in Battatota Mountain near Adamspeak*« which is said to be »*probably the biggest*« of the »*pseudokarst abris in Ceylon used as Buddhist sanctuaries.*«

GUNAWARDANA, Thelma T P (1980): P E P Deraniyagala Commemoration Volume.- (Colombo: Kale (Lake?) House Investments). V + 392 pages, location map, illustrations.

Not seen. Is said to contain DERANIYAGALA, Siran Upendra (1980): Prehistoric research in Sri Lanka 1885-1980.- [DERANIYAGALA, S U 1985, 1987: 108].

HAAFNER, Jacob Godfried (1806, MDCCCVI): [Mijne] Lotgevallen op eene reize van Madras over Tranquebaar naar het eiland Ceilon. Door Jacob Haafner. Met platen.- (Haarlem: A. Loosjes).

In Dutch: My adventures during a journey from Madras through Tranebar to the island of Ceylon.- No reference to karst or caves.

HAAFNER, Jacob Godfried (1810, edited by Christian Mathias Haafner; engravings by Rainier Vinkeles): Reize te voet door het eiland Ceilon.- (Amsterdam: Allart). 1st edition, engravings.

In Dutch: Journey on foot through the island of Ceylon.- (Sri Lanka). Chapter 16 mentions a rock shelter or cave in the dry lowland zone, probably somewhere in the Seven Korles (Kurunegala district) and in the region of the ruins of Panduwas Nuwara (Panduvas Nuwara, Panduvasnuwara N07°36': E080°07').

HAAFNER, Jacob Godfried (1816 edited and translated by Johann Christian Ludwig Haaken, alias "Verfasser der Grauen Mapped"): Fußreise durch die Insel Ceilon. Nach dem Holländischen frei bearbeitet vom Verfasser der grauen Mapped.- (Magdeburg: Wilhelm Heinrichshofen). 1st Germn edition, VI + 336 pages 8°.

HAAFNER, Jacob Godfried (1821a): Travels on foot through the island of Ceylon.- (London: Richard Phillips). 1st English edition, abridged; engravings.

HAAFNER, Jacob Godfried (2004, translated and edited by Thomas Kohl): Reise zu Fuss durch die Insel Ceylon.- (Mainz: Verlag der Gutenberg Buchhandlung). 375 pages 210 by 145 mm, 47 illustrations (including engravings, monochrome photographs, 5 maps), glossary, bibliographical references, index.

HAECKEL, Ernst (1883): Indische Reisebriefe 1881-1882.- (Leipzig: K.F. Köhler).

Stray references to »*Kaduwella Felsentempel*« (rock temple above the village of Kaduwella) and bats (Chiroptera, unspecified). Microchiroptera taste like musk but a curry prepared from »*Flederfuchs*« (Chiroptera: Megachiroptera: Pterops; flying fox) is less appetizing.

HAECKEL, Ernst (1922): Indische Reisebriefe 1881-1882.- (Leipzig: K.F. Köhler). 6th, abridged edition of the 1882

edition, 186 pages 220 by 175 mm, 4 water-colour paintings on plates.

Abridged reprint of the 1882 edition, lacking the chapters »*Unterwegs nach Indien*« (On the way to India), »*Der Adams-Pik*« (Adam's Peak) and the »*Wedda*« (Vedda) people.

HALLIDAY, William R (1994a): Cave control marks on Ceylon Stamps.- *Speleophilately International* [formerly: Speleo Stamp Collector] (Schimmert, Netherlands: J.P. van der Paas), no. 44, (August 1994): 7. figures.

HALLIDAY, William R (1994b): Cave control marks on Ceylon Stamps.- *Speleophilately International* [formerly: Speleo Stamp Collector] (Schimmert, Netherlands: J.P. van der Paas), no. 45, (December 1994): 14-15. figures.

HAMILTON, Alexander (1727): A new account of the East Indies.- (Edinburgh). 2 volumes octavo.

Vol. 1: 340: »*Zeloan*« (Ceylon).

HAMILTON, Walter (1820): A geographical, statistical and historical description of Hindoostan and the adjacent countries.- (London). 2 volumes quarto.

Not seen.

HAMILTON, Walter (1828): East-India Gazetteer: Containing particular descriptions of the empires, kingdoms, principalities, provinces, cities, towns, districts, fortresses, harbours, rivers, lakes, etc. of Hindustan and the adjacent countries, India beyond the Ganges, and the eastern archipelago; together with sketches of the manners, customs, institutions, agriculture, commerce, manufactures, revenues, population, castes, religion, history, etc. of their inhabitants.- (Calcutta). 2 volumes. V-XV + 684 + 770 pages, location map, index.

Concerning »*Ceylon*« (Sri Lanka), Vol. 1: 381: »*Dambooloo*« (Dambulla rock temple). Vol. 1: 385: »*Nitre caves*« (not mentioned my name); Vol 2: 18:»... limestone is mostly confined to *Jaffnapatam*« or »*Jafnapatam*« (Jaffna town).

HARRIS, David R & **HILLMAN**, Gordon C (1989): Foraging and farming: The evolution of plant exploitation.- *One World Archeology*. ISBN 0-04-445025-7 (London: Unwin Hyman), no. 13: XXXIII + 733.

Pages 169-281: KAJALE, Mukund D.: Mesolithic exploitation of wild plants in Sri Lanka: Archaeobotanical study at the cave site of Beli- Lena (Kitulgala).

HARTLEY, C (1911): An exploration of the Beligal-ge near Balangoda.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), vol. 7: 197-200.

Some results of an archaeological excavation (three trial trenches in three days) and a brief description of »Beligal-ge« (Beli Galge, Snail Rock House) close to the Dikmukalana Tea Estate, 19 km north of Balangoda, Ratnapura district.

HARTLEY, C (1913): The stone implements of Ceylon.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), Issue 34, vol. 9: 117.

Not seen. Source: DERANIYAGALA, P E P (1943: 113).

HARTLEY, C (1914): On the occurrence of pygmy implements in Ceylon.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), Issue 36, vol. 10: 54-67.

Not seen. Sources: DERANIYAGALA, P E P (1943: 113); DERANIYAGALA, S U (1985, 1987: 108).

HARTWIG, Georg (1871a): Die Unterwelt mit ihren Schätzen und Wundern: Eine Darstellung für Gebildete aller Stände.- (Wiesbaden: M. Bischoff). XII + 475 pages, engravings.

In German: The subterranean world with their treasures and wonders: A description for the educated of all classes.- Chapter XV, pages 176-187 on »*Höhletempel*« (cave temples = man-made rock chambers) in India, Afghanistan, and »*Ceylon*« (Sri Lanka): The natural sacred Dambulla Galge. [Forwarded 1997 by Harald Kirsamer, later Scherzer].

HARTWIG, George (1871b): The subterranean world.- (London: Longmans, Green & Co).

HARTWIG, George (1871c): The subterranean world.- (New York: Scribner, Welford & Co). XIX + 522 pages, 3 colour maps, 78 steel engravings.

Much modified English edition of HARTWIG (1871a). Chapter XVI (pages 178-191) on »*Hermit Caves, Rock Temples, Rock Churches*« relates between pages 181-183 to »*rock temples*« (man made rock chambers). Concerning »*Ceylon*« (Sri Lanka), page 183 mentions »*Dambool, Ceylon*« (Dambulla Galge).

HARTWIG, George (1885): The subterranean world.- (New York: Scribner, Welford & Co). XIX + 522 pages, 3 colour maps, 78 steel engravings.

Not seen. [Tony Oldham <tonyoldham@hotmail.com> 2007.05.14, List May 1].

HARTWIG, George (1888): Marvels under our feet.- (London & New York: Longmans, Green & Co). 144 pages, engravings.

Not seen [Ray Mansfield, 1985.04.03 personal correspondence].

HAUSIG, Hans Wilhelm (1984): Götter und Mythen des Indischen Subkontinents.- *Die alten Kulturvölker*. ISBN 3-12-909850-X (Stuttgart: Klett - Cotta), Band 5.

In German: Gods and myths of the Indian subcontinent.- Not seen. According to Manfred Moser (Regensburg, 2006.09.10 Personal correspondence), "Grube" (pit) is mentioned on pages 700, 708, 720, 736, 743, 770 etc.) and "Höhle" (cave) on pages 83, 113, 201, 366, 398, 574, 581 etc, 638, 649, 795, 797, 886.

Page 398: »*Höhle des Berges Kurukulla*« (957) sacred to the four - armed love goddess »*Kurukulla*«

Page 574: Giri devi (hill goddess) hidden in a cave in »*Ceylon*«

Page 581: Devagiri or "Berg des Gottes" (god's hill).

Page 638: Diva guhava, the "Himmlische Höhle" (heavenly cave) on Adams Peak.

HAWKEY, D T (1998): Out of Asia: Dental evidence for affinities and microevolution of early populations from India and Sri Lanka.- Arizona State University Ph.D. dissertation (Michigan: University Microfilms, Ann Arbor publication), no. DA-9837698.

Not seen. Source: DERANIYAGALA, S U (2001b, 2003a).

HAWKEY, D T (2003): Out of Asia: Dental evidence for affinities and microevolution of early populations from India and Sri Lanka.- *Spolia Zeylanica: Bulletin of the National Museums of Sri Lanka*. ISBN 0081-3745 (Colombo: Department of National Museums), vol. 39.

Not seen. Source: DERANIYAGALA, S U (2003a).

957 The "Cave on Mount Kurukulla" seems to be Hituwa Lena / Hituwalena as »*Kurukulla*« seems to stand for the Kuragala / Kurugala rock above the village of Tanlantenna (N6°38'10": E080°51'13" WGS84) on the escarpment above the village of Uggalkaltota (N6°39'13": E080°52'32" WGS84).

HEDGES, William (1886): Diary of Mr. (afterwards Sir) William, in Bengal, &c. 1681-1688.- (London Hakluyt Society). 2 volumes.

Not seen (YULE & BURNELL 1896, 1903: xxxvi; 182). 1682 July 07: »Zeilon« (Ceylon).

HERATH, J W & PATTIARATCHI, D B (1963): Geology, composition and mineralogy of Ceylon laterites.- *Ceylon Geographer* vol. 17: 11-20.

Not seen. Source: COORAY (1967: 303 item 43).

HERATH, J W (1978): Sri Lanka mineral resources and industries: A review.- *Proceedings of the third regional conference on geology mineral resources of Southeast Asia, Bangkok, 14-18 November, 1978*. ISBN 0-471-2769-0 (Bangkok, Thailand: Asian Institute of Technology): 711-717. 2 maps, 2 tables.

Figure 2 (Geological Map of Sri Lanka on scale 1 to 2 mill) indicates limestone and dolomite occurrences. Mentions Precambrian limestone, Miocene Jaffna Limestone, Quaternary coral and shell deposits. The two cement factories at Puttalam (Jaffna) and near Galle produce about 500,000 tons per year.

HESSE, Hermann (1913): Aus Indien: Reisebuch.- (Berlin: S. Fischer). ii + 198 pages.

Narrates a visit (1911) to an unidentified »Felsentempel« (literally: rock temple) containing rock art (paintings in red and yellow; statue of reclining Buddha, »42 feet« or 12.8 m long) near »Kandi« (Kandy). No name mentioned, probably Degaldoruwa, Dagaldoruva.

HESSE, Hermann (1926): Bilderbuch.- (Berlin: S. Fischer). 320 pages.

In German: Picture book.-. The chapter »Spaziergang in Kandi« (stroll at Kandy) narrates visiting (1911) one »Felsentempel« (rock temple) with paintings and a statue of reclining Buddha, »42 feet« long) near »Kandi« (Kandy), probably Degaldoruwa / Dagaldoruva.

HESSE, Hermann (1968): Spaziergang in Kandi.- *Gesammelte Schriften* (Suhrkamp: Frankfurt / Main), Band 3: 835-839.

In German: Stroll at Kandy.-. Pages 838-839: »Felsentempel« (literally: rock temple) near »Kandi« (Kandy) with rock art (paintings in red and yellow; statue of reclining Buddha, »42 Fuß« (12.8 m) long). No name mentioned, probably Degaldoruwa / Dagaldoruva.

HILL, Carol A & FORTI, Paolo (1986): Cave minerals of the world.- (Huntsville, Alabama, USA: National Speleological Society). X + 238 pages 30 by 21.5 cm, 138 monochrome illustrations, 33 colour photographs, tables, glossary, circa 2000 bibliographical references, index.

Page 76: »Niter ... has been reported as efflorescent wall incrustations in the caves of Ceylon (Davy, 1821)« (958).

958 Page 204 (bibliography) refers, literally quoted, to one »DAVY, J. (1821): An account of the interior of Ceylon, Tisara Prakashayo: Ceylon Hist. Jour., v. 24, no. 5, p. 357-366.«

The original DAVY, John (1821): An Account of the Interior of Ceylon and it's Inhabitants with Travels in that Island.- (London: Longman, Hurst, Rees, Orne & Brown). does not mention »efflorescent wall incrustations« as such but explains (on pages 30-31) that »... nitre [potassium nitrate], nitrat of lime, sulphat of magnesia, alum ... have been found hitherto in the Interior [of the island of Ceylon] only, and in certain caves, where, not being liable to be washed away by the heavy tropical rains, they admit being detected. Nitre and nitrat of lime are of frequent occurrence. The names of twenty-two places may be enumerated, in which saltpetre is produced ... «

104: »Cristobalite (lutecite, opal) ... Cave opal was first decribed by Davy (1821), who reported "hyalite" (opal) encrusting granitic rock in a "nitre" cave in Doombera [i.e. →Lunugala Lena], Ceylon.«

152: »Potassium alum ... is known from ... a cave in Ceylon (Davy, 1821) ...« (959).

HUSSEIN, Asif (s.a. ≥2005): The Nittevo: Sri Lanka's lost tribe.- (Internet) Two monochrome photographs

www.lankalibrary.com/cul/nittevo.htm (accessed 2005.08.17)

www.lanka.net/ExploreSL/98feb/Nittevo.html (2005.08.17)

Unspecified »caves and crevices« are believed to have been used as homes by the Nittevo, an extinct or fabulous race of primates or dwarfish human beings who lived in the Mahalenama region (within the Yala East Intermediate Zone) and the Tamankaduva area.

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In English with translation into German by KARUNANADA, U.B. The natural sacred cave at Dambulla is one of the oldest Buddhist shrines of Sri Lanka. The earliest man-made modifications are ascribed to the 1st century B.C. King Vattagamini Abbaya.

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The prominent Sigiriya Rock is a »structure« (sic), the shallow rock shelter a »cave« (sic), and the daylight-lit rock art is »cave frescoes, ancient cave paintings« or »wall paintings« (sic).

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Volume 1 (1994, XII + 1 to 834), volume 2 (1998, VIII + 835 to 1373, systematic index), volume 3 (2001, VIII + 1381 to 2294, 2 colour photographs).

KAJALE, Mukund D (1989): Mesolithic exploitation of wild plants in Sri Lanka: Archaeobotanical study at the cave site of Beli-Lena.- In: HARRIS, David R. & HILLMAN, Gordon (1989): Foraging and farming (London: Unwin Hyman): 269-281. 12 photographs, table, 13 bibliographical references.

Charred remains of seed were excavated at Beli-Lena (Kitulgala) which have contributed to the diet of pre-agricultural hunter-gatherers of pre-Mesolithic (terminal Pleistocene) time. A general view of the entrance and the inside of Beli Lena is shown in figures 15.1 and 15.2.

959 DAVY (1821: 34): »Sulphate of Magnesia I have found in one place only, viz the nitre-cave of Memoora [i.e. →Lunugala Lena], in Doombera. In the same cave, and nowhere else, I discovered alum, in minute quantity.«

KAMLESH, K (undated, before 2009.08.11): Ritigala: Fetched by Hanuman, it's a haven of herbs.- *Free Press Journal* (1 i).

Online: www.indiavine.org/audarya/vedic-culture/187348-ritigala-fetched-hanuman-its-haven-herbs.html (accessed 2009.08.11).

Newspaper article on Ritigala Kanda, the highest mountain in the North Central Province (2,514 feet). Mentions not only a fabulous tunnel but also modified rock shelters or a »... large number of caves, broken Buddhist granite statues and inscriptions that corroborate the rich and ancient Buddhist culture that bloomed here in the ancient days. Almost seventy caves have been found till date. ... The king had also built an underground tunnel that lead to Anuradhapura. The entrance of the tunnel is visible even today.«

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KARUNARATNE, P & ADIKARI, G (1994): Excavations at Aligala prehistoric site.- In: BANDARANAYAKE, Senake & MOGREN, M. (1994): Further studies in the settlement archaeology of the Sigiriya- Dambulla region.- (University of Kelaniya, Postgraduate Institute of Archaeology): 55-64.

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In German: Karst in granite?- Description, survey (ground plan) and photograph of a cave (no name mentioned) in the granite hill of »Waula Kanda« above Kalatuwawa, a village about 35 km east of Colombo city.

KEMPE, David (1988): Living underground: A history of cave and cliff dwelling.- (London: Herbert Press). 256 pages, illustrations, photos, maps, plans, bibliography, index.

Pages 177-177 (after »Kopper 1977« = KOPPER 1973): »Veddass ... use cavves, which are rock shelters rather than deep caves ...«

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»Between 1978 and 1983 hominid skeletal remains were collected from the cave sites of Batadomba lena and Beli lena Kitulgala in Sri Lanka (formerly Ceylon). These are the most ancient specimens of anatomically modern Homo sapiens found thus far in South Asia, radiocarbon dates placing them in the Upper Pleistocene. Morphometric analysis of the remains of some 38 individuals from the two sites indicates that these populations were characterized by medium stature, moderate to pronounced cranial and postcranial robusticity, medium-size permanent tooth crown measurements, prognathic alveolar facial proportions, and low incidence of osseous and dental pathological conditions. Comparisons of these ancient Sri Lankans with other prehistoric skeletal series from South Asia and elsewhere support the hypothesis that muscular-skeletal robusticity was a significant physical adaptation of earlier hunting-foraging populations. A trend towards reduction of sexual dimorphism and development of more gracile body form and smaller teeth appears to have accelerated with the socioeconomic transition to food-production strategies involving agriculture and pastoralism and refinement of technologies for food procurement and preparation, as documented by morphometric studies of later prehistoric inhabitants of South Asia« [www.ncbi.nlm.nih.gov/pubmed/3111269 accessed 2009.09.01].

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Ethnographic models and brief details on the social organisation, kinship, living arrangements and demography for three contemporary troglodytic hunting and gathering groups dwelling in natural caves: The Tasaday (Philippines), the Toala (Sulawesi, Celebes) and the Veddas (Sri Lanka). No use of deep caves but rock shelters, e.g. Pihilegodagalge). Descriptions of these people's living arrangements show that orientation of the cave mouth is unimportant as a condition for occupancy. Only one group practices cave burial and cave painting. All three groups modify the interiors of their caves to make them more habitable. One of the groups erects shelters outside their caves to accommodate extra people at a given site. Cave occupation densities range from 0.6 square metres to 6 or even 8 square metres / person.

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An allegedly small »*Maturata cave*« (not visited) is in crystalline limestone and not only assumed to be filled with a »*hydromagnesite*« (sic!) deposit but also is decided to be »*the most interesting one.*« There are »*pseudokarst abris*« (modified natural, sacred rock shelters) »*used as buddhist monasteries*« (temple caves) represented by the »*rocky temple in Dambulle*« (Dambulla vihare) and »*Mihintale Cave.*« The allegedly »*mysterious Stripura Cave in Battatota Mountain near Adamspeak*« was not visited but is anyhow is »*most probably the biggest one*« (961).

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Rock art, rock paintings, rock shelter; Sigiriya.

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961 Apparently after GUNASEKERA, W.M. (1957.02.27): Sri Pada, a cathedral of earth.- *The Ceylon Daily News*.

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South of Dambulla, near Aluwihara, and in a region with many caves, is a series of »crevasses avec de naïves peintures, des escaliers dans le roc, et des cellules naturelles pour les prêtres; il n'y a rien non plus d'artificiel« (cracks / gaps with primitive paintings, rock cut flights of steps, and natural, only little modified cells for monks).

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LEGGE, James (1991): The travels of Fa-Hien: A record of Buddhist kingdoms, being an account by the Chinese Monk Fa-Hien of his travels in India and Ceylon (A.D. 399-414) in search of the Buddhist books of discipline.- (New Delhi, India: Munshiram Manoharlal Publishers Pvt. Ltd.). XVI + 184 pages, illustrations.

LEGGE, James (1998): The travels of Fa-Hien: A record of Buddhist kingdoms, being an account by the Chinese Monk Fa-Hien of his travels in India and Ceylon (A.D. 399-414) in search of the Buddhist books of discipline.- (New Delhi, India: Munshiram Manoharlal Publishers Pvt. Ltd.). XVI + 184 pages, illustrations.

LEGGE, James (2005): The travels of Fa-Hien: A record of Buddhist kingdoms, being an account by the Chinese Monk Fa-Hien of his travels in India and Ceylon (A.D. 399-414) in search of the Buddhist books of discipline.-

Online: <www.lakdiva.org/books/fahsin/contents.html> accessed 2009.09.02.

E-text of the 1886 edition prepared 2000 by John Bickers, jbickers@ihug.co.nz and Dagny, dagnyj@hotmail.com. Reformatted 2005 from plain text to HTML for LakdivaBooks.

LEICHT, Hans D (1974): Reisen ans Ende der Welt: Das größte Abenteuer des Mittelalters, 1325 - 1353.- (Gütersloh: Bertelsmann / Erdmann Verlag). 302 pp, 2 maps, 29 ill.

In German: (Selections from) The travels of Ibn Battuta.- The chapter on on »Ceylon« (Sri Lanka) mentions »Usta Mahmud el-Luri Grotte« (Cave of Usta Mahmud the Lur), »Höhle des Baba Chuzi« (Cave of Baba Khuzi), »Sieben Grotten« (Seven Caves), »Grotte des el- Isfahani« (Cave of al- Isfahani), »Orangengrotte« (Cave of the Bitter Orange), »Sultansgrotte« (Cave of the Sultan, Iskandar = Alexander); »Grotte des Sebik« (Sabik, Sibak), »Chidr Grotte« (Cave of Khidr / Khizr), »Grotte des Schaim, des Seth« (Sheim, Sheth).

LEICHT, Hans D (1975): Reisen ans Ende der Welt: Das größte Abenteuer des Mittelalters, 1325 - 1353.- *Alte abenteuerliche Reise- und Entdeckungsberichte*. ISBN 3-7711-0181-6 (Tübingen: Wissenschaftliche Buchgesellschaft & Basel: Erdmann Verlag). 302 pages, 2 maps, 29 illustrations.

Not seen. Apparently another publisher of LEICHT (1974).

LEICHT, Hans D (1999): Reisen ans Ende der Welt, 1325 - 1353.- *Alte abenteuerliche Reiseberichte* ISBN 3-522-60050-9 (Stuttgart, Wien, Bern: Edition Erdmann), no. 3678. 5th edition. 315 pages, 2 maps, 29 illustrations, bibliography on pages 308-309.

Not seen. Apparently a reprint of LEICHT (1974 or 1975).

LEITER, N (1947): *Bulletin of the Ceylon Geographical Society* (Colombo), 2, (3/4).

Not seen [LEITER 1948: 72]. »Description of the weather of St. Martin's Group« (Central Province, Kandy district, Rangala Range, upper Heen Ganga basin), the area in which the »Nitre Cave« (Lunugala Lena) is found.

LEITER, N (1948): Geographical study of the Nitre Cave District.- *Bulletin of the Ceylon Geographical Society* (Colombo), vol. 3, (nos. 3/4): 61-72. 2 maps, climatological charts, geological sections, 4 bibliographical references.

Introduces »Nitre Cave District« (pages 61-62) allegedly named Dr. John Davy but actually after Lunugala Lena, which colonialists knew as the Nitre Cave (Mimure). Page 63 mentions »a string of potholes« (whirlpools) above the tea factory of the St. Martin's Group.

Pages 64-65 relate to the lithology of the area: »The Nitre Cave District consists of rocks of the Khondalite Series, in places impregnated with the intrusive rocks of the Charnockite Series. ... Though the quartzite is the most dominant member in the Khondalite Series, the crystalline limestones and dolomites are the most consistent formations.... The quartzite bands are very prominent and these are intercalated with cal-magnesian granulitic strata in the form of lenticular pockets. These pockets vary in thickness from a few inches up to 20 feet [6.1 m]; they occur at varying elevations, from 1,540' to about 4,200' [469 m to 1280 m], but are very frequent along the 2,500' [762 m] contour line south of the Heen Ganga.«

Page 65: »Wherever the limestone has been dissolved out of these pockets the caves do occur. Of these, the Nitre Cave, that gives its name to the area, is the biggest and the best known. The nitre was obtained during the Sinhalese king's times from the bat guano that covers the floor of the cave.«

LEVY, Sylvain (1900): Ceylan et la Chine.- *Journal Asiatique: ou recueil de mémoires d'extraits et de notices relatifs à l'histoire, à la philosophie, aux sciences, à la littérature et aux langues des peuples orientaux* (Paris: Société Asiatique), Série 9, (part 3, Mai - Juin): 411 seqq.

Not seen. Source: YULE (1871, 1875: Marco Polo; edited 1903 by CORDIER) vol. 2, chapter XIV: »... Sylvain LÉvi, Ceylan et la Chine, J. As., Mai-juin, 1900, p. 411 seqq.«

LEWIS, Frederick (1912): Flints &c., from a cave at Urumutta.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), Issue 30, vol. 8, (Note no. 19): 142-144.

Description, location and approach to a rock shelter (artificially flat floor, quartz pieces or possibly arrowheads, pottery, bones) in gravitationally dislocated boulders near Urumutta, Gangoboda pattu, Matara district, Southern province.

AA - LIPTON's TEAS (1895.09): [->title].- *The Graphic* (London), 212, (September). Map (28 by 20 cm) of Ceylon.

Lipton's tea estate distribution map. »This is an advertisement ... with text on rear« (www.indianocanbooks.com/catalogues accessed 2009.10.15).

LI YUNG HSI (1957): Foe Koue Ki: A record of the Buddhist countries.- (Peking: San Shih Buddhist Institute).

An edition of →FAXIAN. Not seen. This English translation of Fa-hsien's Record of Buddhist Countries has been made to commemorate the 2500th anniversary of Buddha's Nirvana. Source: <www.mlucom6.urz.uni-halle.de/orientarch/ca/gand/gandhara.htm> (accessed 08.05.2004).

LISKA, Milan (1980): Kras polostrova Jaffna na Sri Lanke.- *Geograficky Casopis* (Bratislava), Rocnik 32, (Cislo 1): 62-72. Location map, 3 monochrome photographs, 2 bibliographical references.

In Slovene with English introduction and summary translated by A. Krajcic: Karst of the Jaffna Peninsula, Sri Lanka.- Results of karst research undertaken at the Jaffna peninsula, Sri Lanka, in the course of the 2nd Slovene Speleological Diving excursion to India in 1977. Sea caves on the coast originate from corrosion combined with surf

action. Young sinkholes and partly horizontal / vertical caves (e.g. Periya Mandapam) on the level surface of the peninsula result from recent uplift. The estimated 65 m deep »flooded abyss Tidal Well« near »Putur« (Puttur) was dived to a depth of 52 metres and is decided to represent a subsided aven indicating old but nowadays submerged karst flooded with »sweet water« (fresh water) above brackish and salt water.

LONELY PLANET, Sri Lanka (2003, edited by PLUNKETT, Richard & ELLEMOR, Brigitte): Sri Lanka: Includes coverage of Jaffna and the North.- ISBN 1-74059-423-1 (Melbourne, Auckland, London, Paris: Lonely Planet Publications). 9th edition (August 2003); 304 pages, numerous maps, colour photographs on unpaginated plates, index.

Page 141: Yatagala Raja Maha Viharaya rock temple near Unawatuna, Galle. 152: Ho-o-maniya blowhole. 155-156: Mulkirigala rock temple (Mulkirigala lena). 211: A cave on Ella Rock (Ravana Ella cave). 225-226: Dambulla »cave temples« and 227-231: Sigiriya.

LORBLANCHET, Michel (2001): Rock art of the old world: Papers presented in Symposium A of the AURA Congress, Darwin (Australia) 1988.- (New Delhi: Indira Gandhi National Centre for Arts INCA). XXXII + 538 pages, illustrations, tables.

Not seen [Internet]. Is said to contain NANADEVA, Bilinda D N (2001): Rock art of Sri Lanka.-

LÜBKE, Anton (1953): Geheimnisse des Unterirdischen.- (Bonn: Kurt Schröder). 263 pages, 130 illustrations on 80 plates, 2 colour plates, 2 maps.

In German: Secrets of the subterranean.- Mentions in the Indian chapter rock-temples and the talus-caves of Hampi. On the narratives concerning Sri Lanka some legendary and extremely deep fissure caves near Mihintale are mentioned.

LÜBKE, Anton (1955): L'homme dans les profondeurs de la terre: Les mystères du monde souterrain.- *Collection D'un monde à l'autre* (Paris: Plon). 327 pages.

Not seen [Claude Chabert 1984 Mss filing card].

LÜBKE, Anton (1958a, translated by BULLOCK, Michael): The world of caves.- (London: Weidenfeld & Nicholson). 295 pages, 24 plates.

Pages 162-163: Deep »fissure-caverns« near Mihintale.

LÜBKE, Anton (1958b, translated by BULLOCK, Michael): The world of caves.- (New York: Coward McCann). 295 pages, 24 illustrations.

Not seen [Dieter Zygowsky 1985 personal correspondence].

LÜBKE, Anton (1961, translated by PARAYOLS, Francisco; enlarged by CANDEL, Joaquina Comas de): Los misterios del mundo subterráneo.- (Barcelona, Madrid etc.). 386 pages, 52 illustrations, 10 maps.

Not seen [Dieter Zygowsky 1985 personal correspondence].

MAA, T C (1980): A preliminary revision of the genus *Myophthiria* Rondani (Diptera, Hippoboscidae).- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Genève*. ISSN 0035-418x (Genève: Kundig), 87, (no. 3): 835-861.

Abstract: »The genus *Myophthiria* Rondani is hereby divided into two subgenera, *Myophthiria* s. str. (Old World, 11 spp.) and *Brachypteromia* Wilson (New World, 2 spp.). In addition to a synoptic key, descriptions and re-descriptions, the host relationships, distribution pattern and evolutionary trends of various taxa of the genus are briefly discussed. New species described are *M. (M.) fijianum* (Fiji), *javanica* (Java), *malayana* (Malaya [Selangor]), *neocaledonica* (New Caledonia), *neohebudarum* (New Hebrides),

queenslandae (Queensland), *wilsoni* (New Guinea), and *zeylanica* (Ceylon = Sri Lanka). *B. nakamurai* Kishida is suppressed as a new synonym of *M. capsoides* Rondani which is, in turn, resurrected as a valid species.« (962).

McALPINE, W R & **ROBSON**, David (1983): Monastic splendor.- In: CEYLON TRAVELLER 1983 : 355-362. Line drawing.

Etymology, location, approach, topography, botany, and history (rock art: epigraphy) of »*Ritigala Kanda* (the *Ritigala mountain*)« and its »caves« (modified natural rock shelters) used for troglodyte monastic purposes. Mentions a »monastic cave« at Galapitagala (page 355), Andiyakanda cave (361), and Na-ulpota cave (361).

MAJOR, R H (1857): India in the XVth century. Being a collection of narratives of voyages to India, from Latin, Persian, Russian, and Italian sources.- (London: Hakluyt Society).

MAJOR, R H (1994): India in the XVth century. Being a collection of narratives of voyages to India, from Latin, Persian, Russian, and Italian sources.- (Frankfurt / Main: Johann Wolfgang Goethe Universität), *The Islamic World in Foreign Travel Accounts*, vol. 6. ISBN 3-8298-2005-4. Reprint of the London 1857 edition; 244 pages.

7: Nicolo dei CONTI (1420): »*Zeilam*« (Ceylon, Sri Lanka).

[**MALTHE BRUUN**, Konrad] »*MALTE BRUN, M*« (1834): A system of universal geography, or: A description of all the parts of the world on a new plan, according to the great natural divisions of the globe, accompanied with analytical, synoptical and elementary tables. With additions and corrections by James G. Percival.- (Boston: Samuel Walker). 3 volumes, maps, tables, engravings.

Online edition: <www.lakdiva.org> (2000) Pittsburgh.

Vol. 1, book XLIX (pages 498-512) relates to »*Ceylon*« (Sri Lanka) and mentions dolomitic rock, limestone confined to the province of »*Jaffnapatam*« (Jaffna) and is of the »shell kind ... mixed with coral rock«. The country contains several »nitre caves« (no names mentioned). Records »a remarkable natural cave, and two artificial caverns forming gloomy temples of Buddha, containing many statues and hieroglyphical paintings« from a situation »a little way from the top« of »the stupendous mountain of stone called by the Singalese *Mulgeereleenna*, and by the Dutch *Adam's Brecht*« (the black, 100 m high rock *Mulkirigala*, noted for *Mulkirilena*, a pair of modified natural rock shelters used for troglodyte purposes).

MARCO POLO, see: POLO, Marco (1298); YULE, Henry (1871, 1903, 2004).

MARSHALL, H (1840): Ceylon: A general description of the island and its inhabitants.- 287 pages.

Not seen. URAGODA (1973: 40 footnote 14): : »*Marshall, who arrived in Ceylon in 1808, writes that "natives manufacture tolerably good gun powder. Saltpetre is found in abundance in the island and the sulphur is procured by importation" (page 25).*«

962 The holotypes of *Myophthiria* (Diptera: Hippoboscidae; spelling variations: *Myiophthiria*, *Myiophtheria*) malaya are from Selangor. The paratypes *zeylanica* from »*Ceylon*« (re-named Sri Lanka).

The male holotype of *M. zeylanica*, which J. Bequaert had described as *M. lygaeoides*, collected E.E. Green in January 1898 from the nest of a swiftlet at an unspecified location somewhere in the vicinity of »*Pundaluoya*« (Pundaloya, Punduloya N07°00'53": E080°40'18" WGS84), a village in Nuwara Eliya district (Central province) falling on the Survey of Ceylon sheet Hatton (One Inch series).

MAURI, Manuela (1974): Sri Lanka: Ceylon.- (Buchenhain vor München: Volk und Heimat Verlag), *Mai's Weltführer* 16. 120 pages, illustrations.

Not seen [KUSCH 1973c: 23].

MAURIÈS, Jean-Paul (1981): Craspedosomida, Stemmiulida et Cambalida (Myriapoda, Diplopoda) de Sri Lanka (Ceylan).- *Entomologica Scandinavica* (Copenhagen / Kopenhagen), Supplementary volume 11: 33-62.

Not seen [AELLEN et al. 2001: 1980; Chabert, Claude 1984 Mss "Supplément" personal correspondence].

MIDDLETON, John R & **WALTHAM**, Anthony "Tony" C. (1986a): The underground atlas: A gazetteer of the world's cave regions.- (London: Robert Hale). 239 pages.

Sri Lanka is presented on pages: 181-182.

MIDDLETON, John R & **WALTHAM**, Anthony "Tony" C. (1986b): The underground atlas: A gazetteer of the world's cave regions.- (New York: St. Martin's Press). 239 pages.

Not seen Sri Lanka is possibly presented on pages: 181-182.

MIDDLETON, John R & **WALTHAM**, Anthony "Tony" C. (1992): The underground atlas: A gazetteer of the world's cave regions.- (Enderby, Leicester: Bookmart). 239 pages.

Sri Lanka is presented on pages: 181-182.

MITTER, Pavol (1978): II. Speleopotápacská Expedícia India - Srí Lanka 77.- *Ceskoslovensky Kras* (Praha: Academia), no. 30: 147-149. Two monochrome photographs.

In Czech: Second cave diving expedition to Sri Lanka 1977.- Brief summary of a cave diving expedition to India and Sri Lanka. Page 147: »*Siberiya Mandapam pri Kerudavil*« (Sinna Mandapam and Periya Mandapam), a certain »*Hadiu jaskynu*« (Kerimalai Snake Cave) and the Tidal Well near »*Nilaverey*« (Nilaveeri). Page 148: »*Jaskynu Amarnath, Kasmire*« (Amarnath Goffar, Kashmir) which is shown in a photograph opposite page 148.

MITTER, Pavol (1979a): Kras na Srí Lanke.- *Slovensky Kras / Acta carsologica slovacca* (Liptovsky Mikulas, Českoslovakia: Zbornik Museum), no. 17: 145-161. Geological map, cave plan.

In Slovene: The karst of Sri Lanka.- Results of the 1977 overland excursion. Relates to Sucha jaskyna pri Kerudawill / Dry Cave by Kerudawill, Bezodna studna pri Puttur / Tidal Well by Puttur, Hadia jaskyna pri Kirimalai / Snake Cave by Kirimalai.

MITTER, Pavol (1979b): Speleopotápacská Expedícia India - Srí Lanka 77.- *Slovensky Kras: Acta carsologica slovacca* (Liptovsky Mikulas, Českoslovakia: Zbornik Museum), no. 17: 171-183. Three monochrome photographs.

In Slovene: Cave diving expedition to Sri Lanka.- Travel log of the 5th March 1977 to 3rd July 1977 excursion to Sri Lanka (14 April to 20 May) via Iran, Afghanistan, Pakistan and India. Page 178 mentions the Tidal Well ("Putur" for: Puttur, Jaffna, Sri Lanka) and page 180 and illustration 4 (page 181) Amarnath cave, Kashmir.

MOGREN, M (1994): Excavations at Aligala prehistoric site.- In: BANDARANAYAKE, Senake & MOGREN, M (1994): Further studies in the settlement archaeology of the Sigiriya- Dambulla region.- (University of Kelaniya, Postgraduate Institute of Archaeology): 23-42.

Not seen [DERANIYAGALA S U 1998, 2001b].

MONEY, N J & **COORAY**, P Gerald (1966): Sedimentation in the Tabbowa Beds of Ceylon.- *Journal of the Geological Society of India*. ISSN 0016-7622 (Bangalore: BBD Power Pr.), vol. 7: 134-141.

Not seen [COORAY 1967: 302 item 22].

MONROE, Watson H (1970): A glossary of karst terminology.- *Contributions to the Hydrology of the United States* (Washington: United States Government Printing Office), Geological Survey Water-Supply Paper 1899-K. 26 pages, 11 bibliographical references.

Library of Congress catalog-card No. 75-607530

MORGAN, Robert (1943): Caves in world history with an index and bibliography.- *Journal of Cave and Karst Studies: National Speleological Society Bulletin*. ISSN 0146-9517 (Washington, DC: National Speleological Society), 5: 1-16.

A cave registry / directory. Page 13: Three entries for »Ceylon« (after BASSETT 1929): Adam's Peak Cave, Ella Cave (Ravana Ella cave), and Kurugala Cliff (Hituwa Lena, Kurugala).

MOSZKOWSKI, Maximilian (1908): Bei den letzten Weddas.- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 94, (no. 09, 03. Sept. 1908): 133-136. 7 monochrome photographs.

In German: At the last Weddas.- Stone tools have been excavated from inhabitable »caves« (rock shelters; not mentioned by name).

MOURET, Claude (1997): La spéléologie française: Sri Lanka.- *Spelunca Mémoires* (La Chaux-de-Fonds: Fédération Française de Spéléologie), no. 23 (N° spécial XII^e Congrès de l'Union Internationale de Spéléologie: La Chaux-de-Fonds, Suisse): 195.

In French. Apart from studies undertaken by →SIFFRE, Michel, a scarcely studied area [Roger Laurant].

MZIK, Hans von (1911): Die Reise des Arabers Ibn Batuta durch Indien und China, 14. Jahrhundert.- *Bibliothek denkwürdiger Reisen* (Hamburg: Gutenberg Verlag), Vol. 5. III + 489 pages, 2 maps.

Not seen. In German: The travels of Ibn →Battuta.

NEVILLE, Hugh (1886): The Nittaewo of Ceylon.- *Taprobanian*.

Not seen. CEYLON TRAVELLER (1983: 119): »Hugh Neville in Taprobanian suggests that this is one of the Island's most ancient places of worship and connects it interestingly with similar styles of worship in very far-flung places.»

NOONE, N A & **NOONE**, H V V (1940): The stone implements of Ceylon.- *Ceylon Journal of Science*. ISSN 0366-8479 (Colombo: Colombo University), Section G, vol. 3, (part 1, November 15).

Not seen. Source: DERANIYAGALA, P E P (1943: 113).

[Frère] **ODORIC** de Pordenone (1330, edited 1891 by **CORDIER**, Henri): Les voyages de en Asie au XIV^e siècle du bienheureux frère Odoric de Pordenone.- (Paris). Octavo.

Not seen. Apparently in French. Source: Henri Cordier in YULE (1903 Marco Polo).

[Frater] **ODORICUS** Pordenoni (1330): Itinerarium fratris Odorici fratrum minorum de mirabilibus Orientalium Tartarorum.- Online <www.adelaide.ebooks> (accessed 2009.10.14).

In Latin: Journal of Frier Odoric, a Monorite friar, on the wonders of the eastern Tartars.- Contains a paragraph concerning the the island of »Ceilan« (Ceylon, Sri Lanka) or, if you prefer, »De Insula Ceilan, et de monte vbi Adam planxit Abel filium suum. ... Transiui per aliam insulam vocatam Ceilan, quæ habet in ambitu plusquam duo millia miliaria, in qua sunt serpentes quasi infiniti, et maxima multitudo leonum, vrsarum, et omnium animalium rapacium, et siluestrium, et potissimè elephantum. In illa contrata est mons maximus, in quo dicunt gentes illius regionis quod Adam planxit Abel filium suum 500. annis. In medio illius montis est planicies pulcherrima, in qua est lacus paruus multum habens de aqua, et homines illi dicunt aquam illam fuisse de lachrymis Adæ et Eue, sed

probauit hoc falsum esse, quia vidi aquam in lacu scaturire: haec aqua plena est hirudinibus et sanguisugis, et lapidibus pretiosis; istos lapides rex non accepit sibi, sed semel vel bis in anno permittit pauperes sub aqua ire pro lapidibus, et omnes quot possunt colligere illis concedit, vt orent pro anima sua. Vt autem possint sub aqua ire accipiunt lymones, et cum illis vngunt se valdè benè, et sic nudos se in aquam submergunt, et sanguisugæ illis nocere non possunt. Ab isto lacu aqua exit et currit vsque ad mare, et in transitu quando retrahit se, fodiuntur Rubiæ, et adamantes, et margaritæ, et aliæ gemmæ pretiosæ: vndè opinio est quod rex ille magis abundat lapidibus pretiosis, quàm aliquis in mundo. In contrata illa sunt quasi omnia genera animalium et auium; et dixerunt mihi gentes illæ quod animalia illa nullum forensem inuadunt, nec offendunt, sed tantum homines illius regionis. Vidi in illa insula aues ita magnas sicut sunt hic anseres, habentes duo capita, et alia mirabilia quæ non scribo.«

[Friar] **ODORICUS** Pordenoni (1807): The iournal of Frier Odoricus, one of the order of the Minorites, concerning strange things which hee sawe among the Tartars of the East.- In →Hakluyt (1807): Yoyages, vol. 2.

<www.adelaide.ebooks> (accessed 2009.10.14): »I passed also by another island called Sylan, which conteineth in compasse aboue ii. M. miles: wherein are an infinit number of serpents, and great store of lions, beares, and al kinds of rauening and wild beasts, and especially of elephants. In the said country there is a huge mountaine, whereupon the inhabitants of that region do report that Adam mourned for his son Abel the space of 500. yeres. In the midst of this mountain there is a most beautiful plain, wherin is a litle lake conteining great plenty of water, which water the inhabitants report to haue proceeded from the teares of Adam and Eue: howbeit I proued that to be false, because I saw the water flow in the lake. This water is ful of hors-leeches, and blood-suckers, and of precious stones also: which precious stones the king taketh not vnto his owne vse, but once or twice euery yere he permitteth certaine poore people to diue vnder the water for the said stones, and al that they can get he bestoweth vpon them, to the end they may pray for his soule. But that they may with lesse danger diue vnder the water, they take limons which they pil, anointing themselues throughly with the iuice therof, and so they may diue naked vnder the water, the hors-leeches not being able to hurt them. From this lake the water runneth euen vnto the sea, and at a low ebbe the inhabitants dig rubies, diamonds, pearls, and other pretious stones out of the shore: wherupon it is thought, that the king of this island hath greater abundance of pretious stones, then any other monarch in the whole eard besides. In the said country there be al kinds of beasts and foules: and the people told me, that those beasts would not inuade nor hurt any stranger, but only the natural inhabitants. I saw in this island fouls as big as our countrey geese, hauing two heads, and other miraculous things, which I will not here write off.«

OLDENBERG, H (1879): The Dipavamso.- (London).

Not seen. »Dipavanso« (YULE & BURNELL 1903: XLIII).

AA - **OLDEST CAVE FOUND** (1968.08.04): Oldest cave found: A cave millions of years old with giant 50 ft. stalactites has been discovered in central Ceylon.- *Sunday Herald* (Australia), (Sunday, 4th August 1968).

Not seen. Source: OLDEST CAVE FOUND (1968)

AA - **OLDEST CAVE FOUND** (1968, signed L H): [->title].- Communications, published monthly by the Sydney Speleological Society (Sydney: Sydney Speleological Society), vol. 12, (no. 8): 125.

Newspaper report of »a cave« (no name mentioned), which is »a quarter of a mile long« (an estimated 400 m), contains a 21 m high waterfall and a 15 m long stalactite, and lies 100 km south-east of Colombo and 20 km from a certain »Uda Walawe river« (Uda Walawe reservoir on the river known as Walawe Oya / Walawe Ganga) in »south-central Ceylon« (Sabaragamuwa province). Clearly identical with the cave between the villages of →Wavulpane and Werawatta.

OLDEST CAVE FOUND (1969): Oldest cave found.- *British Caver : A by annual of the Netherworld* (New Milton: Gerard Platten), no. 51: 1.

Reprint of OLDEST CAVE FOUND (1969).

PAGÉS, Jean (1977): Dicellurata Genavensia III: Japygidés du Sud-Est asiatique n° 1.- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Geneve*. ISSN 0035-418x (Genève: Kundig), Tome 84, (no. 3): 687-698. 25 illustrations, 14 bibliographical references.

In French. Taxonomical description of two new species of cavernicolous cavernicolous Japygids (Insecta: Diplura: Japygidae), including *Parindjapyx aellani* Pages 1977, the »*first hypogean Japygid from Ceylan*« (Sri Lanka), which had been collected from »*grotte de Stripura*« (Batatolena, Sri Lanka), and *Burmjapyx inferus* Carpenter from Batu Caves, Malaysia.

PAPP, Lazlo (1984): Cavernicolous Milichiidae (Diptera): Three new species from Fiji and Sri Lanka.- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Geneve*. ISSN 0035-418x (Genève: Kundig), Tome 91, (no. 2): 241-247.

Taxonomical description of *Phyllomyza zeylanica* (Insecta: Diptera: Milichiidae) collected from one of the three caves known as »*Istripura Cave*«

PARANAVITANA, S (1950): Sigiri, the abode of a God-King.- *Journal of the Royal Asiatic Society, Ceylon Branch*. ISSN 0304-2235 (Colombo: Royal Asiatic Society, Ceylon Branch), New Series, vol. 1: 129-162.

Not seen. Source: Lost (sorry).

PARANAVITANA, S (1956): Sigiri Graffiti.- (Oxford: Oxford University Press).

Not seen: Source: LONELY PLANET, Sri Lanka (2003).

PARANAVITANA, S (1957a, preface by ARCHER, W G): Ceylon: Paintings from temple, shrine and rock.- UNESCO World Art Series (New York: New York Graphic Society), no. 8. 32 pages, 32 plates.

Not seen. Source: Lost (sorry).

PARANAVITANA, S (1957b, preface by ARCHER, W G): Ceylan: peinture de sanctuaires.- UNESCO World Art Series (New York: New York Graphic Society), no. 8. 32 pages, 32 plates.

Not seen. Source: Lost (sorry).

PARKER, H (1909): Ancient Ceylon: An account of the aborigines and part of the early civilisation.- (London: Luzac & Co.). 700 pages, 2 maps, 275 illustrations, plates.

<www.lakdiva.org/parker/parker.html> (accessed 2005.08.17)

Unspecified »*caves*« of dubious nature (no names mentioned) used as shelters by »*Waedda*« (Vedda, Veddah, Wedda) aborigines and contemporary hunters (pages 31-32, 38, 48, 49, 63, 97-98, 112), and so-called »*caves*« (rock temples: man-made rock chambers) and sacred »*cave shelters*« (rock shelters, temple caves) or »*cave temples*« used for religious purposes (cave temples, temple caves), some with inscriptions (rock art: epigraphy e.g. on pages 37, 98-99, 180, 226, 228, 253, 415-458) at »*Bowata*« (Buthawa, page 443): Culuttha cave (253), Dambulla cave temple (98-99, 266, 334 footnote 1, 450, 530), Kaccatkodi »*cave temple*« (434), Katuwannawa »*caves*« (258), Nikaewe Kanda »*caves*« (Nagala Rock?) 192, 205, 332-335, 344, 345, 537, 631) but Nikawaewa »*cave wihara*« (Nagala Rock? 536, 631), Niramulla dewala »*cave shelter*« (184, figure 43), Ranagiriyia caves, Kataragama (179-180), Ritigala cave monastery (179), Rock caves (218), Pallebaedda wihara cave (226), Peddawa »*cave shelter*« (253), Scarborough Estate »*cave*« (64), stone tools (chips, flakes, bivalves, etc., 63ff), »*temples in caves*« (181, 183, 426, 435), Waraka Wihara (Varaka

Wihara) »*cave temple*« (526), Wellangolla »*caves*« (230).

Review (by W. Broadfoot) in: *Geographical Journal* (London: Royal Geographical Society), 1910, vol. 35, no. 5 (May): 583-584.

PATTIARATCHI, D B; HERATH, J W & HAPUARACHCHI, D J A C (a.i., circa 1967 or 1968): The geology around the area of Gampaha.- *Memoirs of the Ceylon Geological Survey Department*. ISSN 0577-4454 (Colombo: Geological Survey of Ceylon), no. 4.

Not seen [COORAY 1967: 303].

PEET, Geoffrey A (1945): Nitre Cave, Ceylon: An innovative national park.- *British Caver* (New Milton: Gerard Platten), no. 13: 69-71.

»*Little information seems to be available concerning Nitre Cave [i.e. Lunugala Lena] itself, the cave to which the area owes its name. Apparently it lies, probably among many other caverns, in a stretch of limestone country ... It was from these caves that the old Sinhalese kings obtained nitre, hence the name, which was, and no doubt still is, produced by the oxidation by bacterial action of bat guano covering the floor. ... I hope soon to visit Nitre Cave ...*«

PEET, Geoffrey A (1946): The Nitre Cave expedition.- *British Caver* (New Milton: Gerard Platten), no. 14: 90-95. Cave plan.

Detailed description of a much organised journey from Kandy with 1 ton of commodities to St.Martins via Corbett's Gap where the base camp was put up. With detailed description of the cave and cave survey (ground plan) with elevation and six cross-sections at a scale of approximately 1: 500.

PERCIVAL, Robert (1803a): An account of the Island of Ceylon, containing its history, geography, natural history, with the manners and customs of its various inhabitants; to which is added, the journal of an embassy to the court of Candy. Illustrated by a map, charts, and engravings of some interesting scenes in the island.- (London). XII + 420 pages quarto, 4 maps, illustrations (engravings).

Not seen. Listed by Thomas Kohl in: HAAFNER (2004: 341) and by SARASIN & SARASIN (1939: 184).

Percival, a colonial officer, lived three years on Ceylon.

PERCIVAL, Robert (1803b, translated by BERGK, J A): *Beschreibung von der Insel Ceylon, enthaltend Nachrichten von ihrer Geschichte, Geographie, Naturbeschreibung und von den Sitten und Gebräuchen ihrer verschiedenen Einwohner. Nebst dem Tagebuche einer Gesandtschaftsreise an den Hof des Königs von Candy. Aus dem Englischen mit Anmerkungen und mit einem Zusatze über die Perlfischerey übersetzt von J.A. Bergk. Mit 1 Charte.*- (Leipzig: Rein). Location map.

In German: An account of the island of Ceylon between the years 1797 to 1800, containing its history and geography, description of the inhabitant's habits, and the countries natural products along with a report on a visit in 1800 to the king of Kandy.-

PERCIVAL, Robert (1803c, translated by HENRY, P F): *Voyage à l'île de Ceylon: fait dans les années 1797 à 1800, contenant l'histoire, la géographie et la description des moeurs des habitants, ainsi qu celle des productions naturelles du pays, suivi de la relation d'une ambassade envoyée en 1800 au roi de Candy.*- (Paris : Dentu).

Two volumes, folded map »*Carte de l'Île de Ceilan d'après un Plan particulier communiqué par les Commissionaires de la Compagnie des Indes, et Publiée par A. Arrowsmith*« (with coordinates).

PERCIVAL, [Captain] Robert (1805): An Account of the Island of Ceylon, Containing its History, Geography, Natural History, with the Manners and Customs of its various Inhabitants; to which is added, the Journal of an Embassy to

the Court of Candy. Illustrated by a Map, Charts, and Engravings of some interesting Scenes in the Island. With an Appendix; Containing some Particulars of the recent Hostilities with the King of Kandy.- (London). 4to; Location map, illustrations.

Not seen. Listed by Thomas Kohl in: HAAFNER (2004: 341), SARASIN & SARASIN (1939: 184 no. 29); TENNENT (1859, 1860 vol. 1: XXXI footnote 1).

PERERA, Deepal V (1966.11.13): Ritigala: Hanuman's piece from the Himalayas.- *Midweek Mirror* (Colombo). www.lankalibrary.com/heritage/ritigala1.htm (accessed 2009.08.12)

Newspaper article on Ritigala Kanda, the highest mountain in the North Central Province (2,514 feet). Mentions not only »a number of caves with broken granite Buddha statues and ancient inscriptions« but also a fabulous tunnel: »Next to the maligawa, the king had built an underground tunnel that leads to Anuradhapura. The entrance of the tunnel is still visible.«

PHILIPS, Derek (1990): Die Beleuchtung von Historischen Gebäuden.- *Internationale Licht Rundschau*. ISSN 0165-9863 (Amsterdam: Stichting Prometheus), no. 3: 108-113. Photographs, cave survey (ground plan, section).

In German: The illumination of historical buildings.- On the improved electrical illumination of the temple cave at Dambulla.

PHILLIPS, Geoffrey (1885): The seaports of India and Ceylon [part 1].- *Journal of the Royal Asiatic Society, China Branch* (London: Royal Asiatic Society), vol. 20: 209-226.

Not seen. Source: YULE (1903 edited by CORDIER) vol. 2, chapter XIV: »Mr. G. [also: »Geo.« as Geoffrey] Phillips, in the Jour. China B.R.A. Soc., XX. 1885, pp. 209-226; XXI. 1886, pp. 30-42, has given, under the title of "The Seaports of India and Ceylon", a translation of some parts of the *Ying-yai-sheng-lan*, a work of a Chinese Mahomedan, Ma-Huan, who was attached to the suite of Ch'ing-Ho, an envoy of the Emperor Yong-Lo (A.D. 1403-1425) to foreign countries. ... Ma-Huan arrived at Ceylon at Pieh-lo-li, on the 6th of the 11th moon (seventh year, S, an T'ih, end of 1432). Cf. Sylvain LÉvi, *Ceylan et la Chine, J. As.*, Mai-juin, 1900, p. 411 seqq.«

PHILLIPS, Geoffrey (1886): The seaports of India and Ceylon [part 2].- *Journal of the Royal Asiatic Society, China Branch* (London: Royal Asiatic Society), vol. 21: 30-42.

Not seen. YULE (1903 edited by CORDIER) vol. 2, chapter XIV: MA HUAN (transl. by PHILLIPS 1886: 213) recorded that »This mountain [Adam's Peak] abounds with rubies of all kinds and other precious stones. These gems are being continually washed out of the ground by heavy rains, and are sought for and found in the sand carried down the hill by the torrents. It is currently reported among the people, that these precious stones are the congealed tears of Buddha.«

PHILLIPS, W W A (1922): Notes on the habits of some Ceylon bats.- *Journal of the Bombay Natural History Society*. ISSN 0006-6982 (Bombay), 28: 448-453.

An Indian false vampire (*Megaderma lyra lyra*) ate a Pipistrelle (*Pipistrellus mimus mimus*). Nobody knows why and where.

PHILLIPS, W W A (1924): A guide to the mammals of Ceylon: Chiroptera.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), vol. 13: 1-63.

PIERIS, P E (1950): Sinhala and the patriots, 1815-1818.-

Page 276: During the days of the Sinhala rebellion of 1818, »gunpowder was prepared daily with saltpetre from Lunugala [963] and sulphur brought from ... from Hevahatta, bullets being made of native iron as no lead was available« [URAGODA 1973: 40].

PINTO, Jerry (2004): Divine art: Buddhist art has quite a following, with some spectacular sites including Colombo, Anuradhapura, Dambulla and Polannaruwa.- *Jetwings for the well informed traveller* (Mumbai (Bombay): Spenta Multimedia, (January 2004): 64-66. Five photographs.

Advertises Dambulla as »a cave monastery ... With its five sanctuaries it is the largest, best-preserved cave temple complex in Sri Lanka. The Buddhist paintings (covering an area of 2,100 sqm) are of particular importance, as there are 157 statues. ... the sense of awe is increased by sheer scale of the undertaking.«

PLUNKETT, Richard & ELLEMOR, Brigitte (2003): Sri Lanka: Includes coverage of Jaffna and the North.- ISBN 1-74059-423-1 (Melbourne, Auckland, London, Paris: Lonely Planet Publications). 304 pages, numerous maps, colour photographs on unpaginated plates, index.

Page 141: Yatagala Raja Maha Viharaya rock temple near Unawatuna, Galle. 152: Ho-o-maniya blowhole (also: Hoom-mane). 155-156: Mulkirigala rock temple (Mulkirigala lena). 211: A cave on Ella Rock (Ravana Ella cave). 225-226: Dambulla »cave temples« and 227-231: Sigiriya.

POCOCK, R I (1892): Report on two collections of Myriapoda sent from Celon by Mr. E.E. Green and from various parts of Southern India by Mr. Edgar Thurston of the Government Central Museum, Madras.- *Journal of the Bombay Natural History Society*. ISSN 0006-6982 (Bombay: Natural History Society), vol. 7: 131-174.

Not seen. Listed by TURK (1945a: 42; 1947: 78; 1949: 78).

POLE, John (1909.03.05): [unknown title: stone implements, cave, Scarborough Estate, Maskeliya; letter, dated].- *Ceylon Observer / Weekly edition* (Colombo: Associated Newspapers of Ceylon), (5th March 1909).

Not seen. Account of the discovery of stone age tools (flint implements, cores) in »a cave« on Scarborough Estate, Maskeliya [PARKER 1909: 64 footnote 1].

POLO, Marco (1298, compiled by Rusticello de Pisa) see: YULE, Henry (1871, 1903, 2004).

Book 3, chapter XIV: »Concerning the island of Seilan« [Ceylon, Sri Lanka]. Chapter XV: »The same continued ...«

POSSEHL, G L (1988): Radiocarbon dates from South Asia.- *Man and Environment: Journal of the Indian Society for Prehistoric and Quarternary Studies*. ISSN 0258-0446 (Pune / Poona), vol. 12: 169-196.

POSSEHL, G L (1990): Scientific dates for South Asian archaeology.- (Pennsylvania: University of Pennsylvania, University Museum, Asian Section), no. 1.

POULIER, R S V (1956): The Knuckles expedition August 1956.- *Loris: Journal of Ceylon Wild Life* (Namunkula), vol. 7, (no. 4): 300.

Not seen [URAGODA 1973: 42].

POZDANEIEFF [Pozdaneyef?], A M (1887): Buddhijskie monastiri.- (St. Petersburg). XVI + 492, illustrations, plates.

Not seen, not even identified [Manfred Moser, Regensburg, 1998.08.10 personal correspondence].

963 URAGODA (1973: 40): »There is hardly any doubt that Lunugala referred to here is Nitre Cave, for the local inhabitants still refer to it by this Sinhala name.«

PRIDHAM, Charles (1849): An historical, political and statistical account of Ceylon and its dependencies.- (London: T. & W. Boone). 2 volumes, 8vo, 888 pages.

»The author was never, I believe, in Ceylon, but his book is a laborious condensation of the principal English works relating to it. Its value would have been greatly increased had Mr. Pridham accompanied his excerpts by references to the respective authorities« (TENNETT 1860, 1 introduction).

Page 515: A well at Navakeery near Majlittie and »Keerimala« (Keerimalai Well, Jaffna district). 536: Caves and residences of the Yakkas on Ritigalla mountain (Caves of Ritigala); 574-575: Caverned glen of Bilhooloya; 578: Gallege / Kimegalle 16km north of Katragamme (Caves of Galge, Katragama); 579-580, 709: Nitre cave between Weleway and Boolatwellegodde (Lunugala Galge); 616-617: Bhawawa Lenna on Adam's Peak (Bagava Lena, Pidurutalagala / Sri Pada); 656: Two caves in the vicinity of Nalanda (Lunuge / Lunuhinda Cave and Nitre Cave of Nalanda, Matale district); 663, 708 - 709: Nitre Cave near Meemoorra / Meemora in the Doombera (Lunugala Lena, Mimure); 709: Nitre Cave near Wellaway, Ouva district (now: Wellaway Cave, Monaragala district, Eastern Central province). A theory concerning the origin of nitrate in caves (pages 708-709) is heavily leaning on →DAVY (1821).

RAMBUKWELLA, [Captain] A T (1963): The Nittaewo: The legendary pygmies of Ceylon.- *Journal of the Asiatic Society of Ceylon* (Colombo).

Not seen [HUSSEIN Asif].

RATNAJINENDRA, M R (1965): The caves of Buddhism.- *Ceylon Today* (Colombo), vol. 14, (no. 5, May 1965): 25-26, 30.

Not seen. Is said to relate to Aluvihara and to Mihintale [Manfred Moser, Regensburg, 1998.08.10 personal correspondence].

RAU, H (1987): Stilgeschichte der Indischen Kunst.- (Graz, Austria: Akademische Druck- und Verlagsanstalt). 2 volumes.

Not seen [Heinrich Kusch 1986 personal correspondence].

REICHENBACH, Kurt & **KIEDROWSKI**, Rainer (1995): Sri Lanka Malediven.- *HB Bildatlas*. ISBN 3-616-06434-1 (Hamburg: HB Verlags- und Vertriebs-Gesellschaft), no. 34. 116 pages (including front and back cover) 30 by 22 cm, location map, charts, colour photographs, advertisements.

REINAUD (1845): Relations des voyages faites par les Arabes et les Perseans ...- (Paris). 2 volumes.

Not seen. Apparently in French: Report on journeys undertaken by the Arabs and Persians ...- [Source: YULE & BURNELL 1903: XLIII, 181]. Vol. 1: 5 is said to relate to pearl fishery near »Sarandib« (Sri Lanka).

RENAUDOT, Eusebius (1718, on Abu Zeid al Hasan e Siraff): [unknown title] Account of India and China, by a Mahomedan Traveller of the Ninth Century.- (l.i. = Paris?)

Not seen (apparently in French): »In the mountains of Serendib, precious stones are found of various colours, red, green, and yellow, most of which are washed from caverns or crevices, by rains and torrents« (KERR 1811, part 1, section 4).

RENAUDOT, Eusebius (1733, on Abu Zeid al Hasan e Siraff): [unknown title] Account of India and China, by a Mahomedan Traveller of the Ninth Century.- (l.i. = London?)

Not seen (KERR 1811, part 1, section 4).

REYNOLDS, C (1981): Sri Lanka: Die heilige Insel des Buddhismus.- (Freiburg im Breisgau: Herder Verlag).

Not seen [Heinrich Kusch 1986 personal correspondence].

RHYS DAVIDS, Thomas W Rhys (1872): The cave of the golden rock, Dambula, Ceylon.- *Indian Antiquary: A journal*

of Oriental research in Archaeology, Epigraphy, etc., vol. 1, (no. 3, May 1872): 139-141.

Translation of a 1st century BC Pali inscription under a katāra (drip-ledge) half way up the precipice of a »200 feet« (60 m) high rock face at the modified natural sacred temple cave near Dambulla [after Heinrich Kusch 1986 personal correspondence].

ROSAYRO, R A de (1958): The climate and vegetation of the Knuckles region of Ceylon.- *The Ceylon Forester*, New Series, vol. 3, (nos. 3 & 4): circa 201.

Not seen [URAGODA 1973: 42]. Is said to relate to »Nitre Cave« (Lunugala Lena) near the village of Mimure / Meemora, etc.

ROSE, Paul & **HAYLLAR**, Tom (1960, edited by LANE, Ted & **NURSE**, Ben): Roving Boys Dept., India Section.- *Communications, published monthly by the Sydney Speleological Society* (Sydney: Sydney Speleological Society), vol. 4, (no. 11, November): 3.

Paul and Tom had heard of »some limestone regions in the northern section of the island« and that's it.

RÜTIMEYER, L (1903a): Die Nilgalaweddas in Ceylon [part 1].- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 83, (no. 13, 02 March 1903): 201-207. 4 monochrome photographs.

In German: The Wedda people of Nilgala, Ceylon.- Visiting foothills of the Nilgala hills resulted in anthropological details gained from »Wedda« (Veddah / Vedda / Weddah) people brought to the interviewer's camp. Illustration 2, page 206 shows »A previously inhabited Wedda Cave in the Nilgalas« (reproduced from →SARASIN 1893, 3, plate 26 ill. 48). The author presume that the Weddas from Danigala still live in makeshift huts and »caves« (in Singhala: galge) while the Weddas from Kolonggala and Hennebedda are believed to have given up living in huts provided by the government to dwell again primitive huts and »caves« (rock shelters).

RÜTIMEYER, L (1903b): Die Nilgalaweddas in Ceylon [part 2].- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 83, (no. 14, 09 April 1903): 221-223.

In German: The Wedda people of Nilgala, Ceylon.- Page 221: The »Wedda« (Veddah / Vedda / Weddah) people from Danigala still live in makeshift »Hütten« (huts, lean-ons) and »Höhlen« (literally "caves" but actually in rock shelters) while the Weddas from Kolonggala and Hennebedda have given up living in huts provided by the government to dwell again in primitive huts and beneath overhanging rocks.

SAHNI (1952): [unknown title].- *Man in Evolution*: 188-189. Not seen [DERANIYAGALA 1953: 127].

SARASIN, Fritz & **SARASIN**, Paul (1892-1893): Ergebnisse naturwissenschaftlicher Forschungen auf Ceylon: Zoologie / Die Weddas und die sie umgebenden Völkerschaften.- (Wiesbaden: C W Kreidel). Bände 1, 2: Zoologie.- Band 3 (with atlas): Die Weddas und die sie umgebenden Völkerschaften.-

In German: In German: Scientific results of explorations in Ceylon [Sri Lanka]: Zoology / The »Weddas« (Vedda, Veddah). General anthropo-geographical account resulting from intensive preliminary investigations into prehistoric and contemporary Stone Age people.

SARASIN, Fritz & **SARASIN**, Paul (1907a): Die Steinzeit der Weddas.- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 91, (no. 16, 7 March 1907): 255-256. Letter dated 1907.03.07, addressed to L. Rüttimeyer.

In German: Stone age of the Wedda / Veddah people.- Reports the excavation of »Magdalenian« (paleolithic) stone tools (knives, points, scrapers and bodkins) from unidentified »Höhlen« (inhabitable caves and rock shelters) in the Nilgala mountains.

SARASIN, Fritz & SARASIN, Paul (1907b): Stone implements in Veddah Caves.- *Ceylon Observer* (Colombo: Associated Newspapers of Ceylon), 22nd April 1907, (1907.04.19).

On »stone implements« (stone tools) recovered from »Vedda Caves« (inhabitable caves and rock shelters used by members of the Veddah people) near the villages of Nilgala, Kataragam and Kalodai. Results of a »recent scientific expedition« in the sense of »a lengthy journey into the Vedda country in the eastern low-country of Ceylon ... made for the express purpose of solving the problem as to whether there existed caves formerly as well as presently inhabited by Veddahs, any industry in the making of stone implements representing itself the Stone Age of the Veddahs, and that of Ceylon« (Sri Lanka). Dated »Kandy, April 19, 1907, F. and P. Sarasin.«

SARASIN, Fritz & SARASIN, Paul (1907c): Stone implements in Veddah Caves.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), Issue 16, vol. 4, (article no. 13): 188-190.

Republished from the *Ceylon Observer* (1907.04.22) and →SARASIN & SARASIN (1907a). »Stone implements« (stone tools) have been recovered from »Veddah Caves« (troglodyte rock shelters used by Veddah people) in the vicinities of the villages of Nilgala, Kataragam and Kalodai in the eastern lowlands of »Ceylon« (Sri Lanka).

SARASIN, Fritz & SARASIN, Paul (1908): Ergebnisse naturwissenschaftlicher Forschungen auf Ceylon, 4: Die Steinzeit auf Ceylon.- (Wiesbaden: C.W. Kreidel). VII + 93 pages, 11 plates.

In German: Scientific results of explorations in Ceylon: The Stone Age on Ceylon.- The 4th volume of SARASIN & SARASIN (1892-1893). Stone tools have been excavated from Galgé-type »Höhlen« (inhabitable caves and rock shelters) of which a large number is said to exist in Sri Lanka. Altogether 13 sites are mentioned in the first fifteen pages. Some of the »Höhlen« are still inhabited by members of the »Wedda« (Vedda, Veddah) people.

SARASIN, Fritz (1926): Etude critique sur l'Age de la Pierre à Ceylan.- *L'Anthropologie* (Paris), vol. 36.

Not seen [SARASIN 1939: 184 no. 37].

SARASIN, Fritz (1931): Aus den Tropen: Reiseerinnerungen aus Ceylon, Celebes, und Neu-Caledonien.- (Basel: Helbing & Lichtenhahn). 194 pages.

General recollections. Popular reading.

SARASIN, Fritz (1939): Reisen und Forschungen in Ceylon in den Jahren 1883-1886, 1890, 1902, 1907 und 1925.- (Basel: Helbing & Lichtenhahn). 185 pages, illustrations, 53 bibliographical references.

In German: Travels and explorations in Sri Lanka.- Mentions Omuna Galge, Demelia Galge, Gangodeniya Galge and a blowing cave (emitting an air current) near Wellawaya (Monaragala district, Uva province).

SASOWSKY, Ira D & WHEELAND, Keith D (1991): Speleo Digest 25 year cumulative index: 1965-1980.- *Speleo Digest* ISBN 0-9615093-8-4 (Huntsville, Alabama: National Speleological Society). II + 565.

Page 79: One entry for »Ceylon« refers to »Curran, C.F., Cave-Dwelling Birds, SD67: 2/100-2/105« (i.e. CURRAN 1974).

SASVÁRI, Tibor (1978): Óceánikus karszt Sri Lanka (Ceylon) szigetén.- *Karszt és Barlang: Különlenyomat a Földrajzi Közlemények* (Budapest), (nos. 1/2): 49-52. Location map, 2 cave surveys (ground plans and sections of Kerudavil cave; Tidal Well Shaft), photograph, two bibliographical references.

In Hungarian with Hungarian, English and Russian summaries: The oceanic karst of Sri Lanka.- on the Jaffna peninsula. Relates to

»Tidal Well Shaft« and »Kerudavil - barlang« or »Sinna ès Perya Mandapan« (Sinna Mandapam, Periya Mandapam).

SASVÁRI, Tibor & TEREK, Jozef (1984): Príspevok k poznaniu oceánického krasu na Srí Lanke.- *Ceskoslovenský Kras* (Praha: Academia), no. 34: 107-115. 2 cave plans with sections (Jaskyna Kerudavil; Beodná studna Tidal Well pri Putturu), monochrome photograph, 12 bibliographical references.

In Czech: Contribution to the knowledge of the oceanic karst of Sri Lanka.- English summary. Karst phenomena on the Jaffna peninsula are the result of erosion effects combined with karst and brackish corrosion. The Tidal Well near Puttur was dived to a depth of 53 m.

SCHMIDT, E (1894): Ein Besuch bei den Weddas.- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 65, (no. 16).

In German: A visit to the »Wedda« (Vedda, Veddah) people.- Not seen [SARASIN 1939: 185 no. 44].

SELIGMANN, C G & SELIGMANN, Brenda Z (1908a): Quartz implements from Ceylon.- *Man* (London), no. 63 (August 1908).

Not seen [DERANIYAGALA 1943: 114; SELIGMANN & SELIGMANN 1908d]. Stone tools are said to have been excavated at 1220 m asl from a cave used by the Veddah people.

SELIGMANN, C G & SELIGMANN, Brenda Z (1908b): The Veddahs.- *Nature* (London), 02 July 1908.

Preliminary results of investigations into the cultural history of the Veddah people. Mentions troglodytism, rock art, and unspecified »caves« (rock shelters). Reviewed in SELIGMANN ... (1908b).

AA - SELIGMANN, C G & SELIGMANN, Brenda Z (1908c): Seligmanns Forschungen über die Weddas.- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 94, (no. 10, 10. Sept. 1908): 158-159.

In German: Seligmann's research on Weddas.- Review of HADDON, A.C. reviewing SELIGMANN ... (1908a) on preliminary results of investigations in the cultural history of the Veddah people, »Ceylon« (Sri Lanka): Rock art, rock shelters, and Stone Age tools.

SELIGMANN, C G & SELIGMANN, Brenda Z (1908d): Ceylonische Quartzgeräte.- *Globus* (Braunschweig: Friedrich Vieweg & Sohn), Band 94, (no 11, Sept. 17): 180.

In German: Quartz tools from Ceylon.- Review of SELIGMANN (1908: *Man*, August 1908) on stone tools excavated from an unidentified »cave« site (rock shelter) at 1220 m asl, used by the Veddah people.

SELIGMANN, C G & SELIGMANN, Brenda Z (1911): The Veddahs.- (Cambridge: Cambridge University Press). More than 400 pages, 71 plates.

Not seen [964].

SENEVIRATNA, A (1971): Golden rock temple of Dambulla.- (Colombo: The Cultural Fund).

Not seen [Heinrich Kusch 1985 personal correspondence].

SENEVIRATNA, A (1983): Golden rock temple of Dambulla.- (Colombo: The Cultural Fund).

Not seen [Manfred Moser, 1994 personal correspondence].

964 Listed by DERANIYAGALA, P E P (1943: 114); DERANIYAGALA, S U (1985, 1987: 108); KOHL, Thomas in: HAAFNER (2004: 349); KOPPER (1973); SARASIN (1939: 185 no. 46).

SENEVIRATNE, S (1994): The ecology and archaeology of the Seruwila copper-magnetite prospect, northeast Sri Lanka.- *Wisconsin Archaeological Report* (Madison), no. 3:

KENOYER J M (1994): From Sumar to Meluhha: Contributions to the archaeology of South and West Asia in memory of George F Dales Jr.: 261-280.

Not seen. DERANIYAGALA S U (1998) »*The only major source of copper ore south of Madhya Pradesh in central India is located at Seruwila in eastern Sri Lanka*« (1998).

SENGUPTA, Tapan (1979): A new subfamily of Merophysiidae (Clavicornia: Coleoptera) and descriptions of the two new species of Gomya Dajoz and its larva.- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Genève*. ISSN 0035-418x (Genève: Kundig), 86, (no. 3): 691-698. 21 illustrations.

Some taxonomical aspects of Derolathiniinae, a new subfamily of Merophysiidae (Clavicornia: Coleoptera) for the genera Darolathrus Sharp and Gomya Dajoz with the species Gomya trogliphila and Gomya ceylonica collected from Fiji and Sri Lanka along with a taxonomical description of the larva of Gomya trogliphila. The specimens from Sri Lanka have been collected from »a cave« (no name mentioned) at an unidentified location.

SIFFRE, Michel (1972): Expériences hors du temps.- (Paris: Fayard). 464 pages, map.

Not seen. Apparently in French: Experiences beyond time.- Pages 13 - 18 recollect a 1961 excursion to Sri Lanka [Claude Chabert 1984 personal correspondence].

SIFFRE, Michel (1975): Dans les abîmes de la terre.- (Paris: Flammarion). 304 pages, photographs.

In French: In the caves of the earth.- Mainly on prolonged underground stays etc. The first part on »les cavernes de la jungle« (pages 1-42) relates to »Ceylan« (1966) and mention AA Cave (Siffre 1975: 12): »Grotte près d'Adam's Peak avec habitations troglodytiques« (page 12); AA Cave (Siffre 1975: 21): »Grotte près de Kuruwita« (p. 21); AA Cave (Siffre 1975: 34) no. 1: »Une grotte inexploree« (34); AA Cave (Siffre 1975: 34) no. 2: A large entrance leads to a »grotte-temple« (34) apparently identical with »Grotte utilisée comme habitation par un moine bouddhiste« (page 13 photograph); AA Cave (Siffre 1975: 35): »grotte réputée très profonde« (35); Allington Estate cave (12, 14-20); »grotte de Batatota« (36 = Batatota Lena); »Istripura Cave, Pamala« (36 = Istripura Cave, Pannala); »puits de Jaffna« (SIFFRE 1975: 41 photograph) and »grotte de Jaffna« (SIFFRE 1975: 42) = Periya Mandapam; »Lucky Land Estate Cave« (30, 31, Luckyland Estate Cave); »Ravan Ella Cave« (36 photograph); and »rivière souterraine de Waulpane« (16, 17, 22-26, 39-42 = Waulpane, cave near the village of).

SIFFRE, Michel (1977): Negli abissi della terra.- (Milano: Rusconi). 304 pages, illustrations. [in Italian]

SILHAVY, Vladimir (1974a): Ein neuer Höhlen-Weberknecht aus Ceylon (Arachnidae, Opiliones, Biantinae).- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Genève*. ISSN 0035-418x (Genève: Kundig), Tome 80, (no. 4, janvier 1974): 805-807. Four line drawings.

In German: A new cave daddy-long-leg from Sri Lanka (Arachnidae: Opiliones: Biantidae).- Taxonomy of Biantes aellani Silhavy 1974 collected by V. Aellen and P. Strinati (1970.01.22) from »grotte de Stripura près de Kuruwita« (Batatota Lena, Ratnapura district, Sabaragamuwa province).

SILHAVY, Vladimir (1974b): Some phalangids from Ceylon and Malaysia.- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Genève*. ISSN 0035-418x (Genève: Kundig), Tome 81, (no. 1, April): 25-28. Line drawings, five bibliographical references.

Taxonomy of phalangids (Arachnidae: Opiliones) collected by Vielly Aellan and Pierre Strinati (1970.01.22) from »grotte de Stripura près de Kuruwita« (Batatota Lena, Ratnapura district, Sabaragamuwa province, Sri Lanka).

Page 25 identifies a male specimen of Biantes aellani Silhavy (Biantidae) from »grotte de Stripura près de Kuruwita« itself. Page 26 identifies four male specimen of Strandia rubra Roewer (Leiobunidae: Gagrellinae) from »devant grotte de Stripura, sur tronc d'arbre« (tree trunk in front of Stripura Cave). Pages 26-28: Taxonomical description of Strandia strinati (Leiobunidae: Gagrellinae) from »same locality described in this paper« corresponding to »Batatoa [sic! qua: Batatota village] in front of Stripura cave, on the trunk of a tree, Ceylon.«

SILVA, Raja H de (1976): Sigiriya.- (Colombo: Department of Archaeology), no. 2. 27 pages, 29 plates, fold-out map.

Not seen [Heinrich Kusch 1986, Graz, personal correspondence; Manfred Moser 1998.08.10, Regensburg, personal correspondence].

SIMON, E (1906): Voyage de M. Maurice Maindron dans l'Inde méridionale: Arachnides (2ème Partie).- *Annales de la Société Entomologique de France* (Paris), vol. 75: 279-314.

In French: The journey of »M.« (Monsieur, Mister) Maurice Maindron to South India. Spiders, 2nd part.- Lists spiders from India (Malabar, Coromandel coast, Nilgiri hills, Palmi hills) and Sri Lanka. No reference to karst or caves.

SIRIMANE, C H L (1952): Geology for groundwater supply.- *Proceedings of the Ceylon Association of Advanced Sciences*, Session 8, (part 2).

Not seen [COORAY 1967: 304 item 68].

SKEEN, William (1868): The Knuckles and other poems.-

Not seen. URAGODA (1973: 37 footnote 4): Page 13 is said to quote from »FERGUSON, A. M. "Planting gazetteer", 1859« either on »the Knuckles« (Rangala range) or on the »Nitre Cave district« (Dombera, Doombera).

SKEEN, William (1870): Adam's Peak: Legendary traditional and historic notices of the Samanala and Sri-Páda with a descriptive account of the pilgrims' route from Colombo to the sacred foot-print.- (London).

Not seen. BECKINGHAM, C.F. (1994: 982): Page 176: The cave of Baba Tahir and the cave of al - Shibak (Sabik) at »The Old Women's Hut« on the way from Kunakar to »the mountain of Sarandip« (Adam's Peak, Sri Pada). Page 227: The pass of Iskandar between the »Seven Caves« and the Grotto of Al- Isfahani on the ascent of Adam's Peak. Page 228: The spring of Khidr near a cave.

SKEEN, William (1997): Adam's Peak: Legendary traditional and historic notices of the Samanala and Sri-Páda with a descriptive account of the pilgrims' route from Colombo to the sacred foot-print.- (Asian Educational Services: New Delhi).

965 »Seruvila« (SENEVIRATNE 1994), »Seruvilla« or »Sairuwawilla« (FORBES 1840 edited 1841, 2: 222) and »Seruwawila« (N08°22' E081°19' <www.nima.mil/geonames> accessed 16.11.2003).

966 STRINATI & AELLAN (1981: 459): »En 1961, le spéléologue français Siffre explore un certain nombre de grottes; le récit de son voyage ne sera publiée qu'en 1975« (In the year 1961, the French caver Siffre visited some caves. A narrative of this visit was published only in 1975).

SKET, Boris (1982): New Protojaniridae (Isopoda, Asellota) from Sri Lanka and some corrections of the taxonomy of the family.- *Biol. vestn.* (Ljubljana), vol. 30, (no. 1): 127-142.

Taxonomical descriptions of continental and marine Isopoda, mostly from interstitial habitats. *Anneckella srilankae* Sket 1992 (Isopoda: Protojaniridae) is said to have been collected in »*Istripura Cave near Hanguranketa*« (AELLEN, SKET & STRINATI 1980: 1977).

SOLHEIM, W G & DERANIYAGALA, Siran Upendra (1972): Archaeological Survey to investigate Southeast Asian prehistoric presence in Ceylon.- *Ancient Ceylon: Journal of the Archaeological Survey of Ceylon* (Colombo: Archaeological Survey of Ceylon), Occasional Paper no. 1.

Not seen [DERANIYAGALA S U 1998].

AA - SRI LANKA (1985): Sri Lanka / Ceylon.- (Hamburg: Merian), Merian Hefte, vol. 38, (no. 2). Location map.

In German. »*Hituwalena Höhle*« is indicated on the folded location map at the grid location L4.

STRINATI, Pierre & AELLEN, Villy (1981): Recherches biospéologiques dans l'île de Ceylan.- *Proceedings of the 8th International Congress of Speleology, Bowling Green, 1981* (Bowling Green), vol. 2: 459-460. Location map, 11 bibliographical references.

In French, English summary: Biospeleological research in the island of Sri Lanka.- »*Limestone is scarce in the island of Ceylon; karst phenomena are little developed and caves are generally small ...*« Between 16th and 22nd January 1970, cave fauna (Isopoda, Diplopoda, spiders, Opilionida, Amblypygida, pseudoscorpions, mites, Collembola, Diplura, Orthoptera, Hemiptera, Diptera, Coleoptera and bats) were collected in five caves: Rawana Ella Cave, »*Istri-gal-lena près de Welimada*« (Istripura Cave, Welimada), Istripura Cave (Pannala), Stripura Cave, and Lunuge Cave = Lunuhinda Cave.

Additionally, bats (Chiroptera) were also collected in four »*autres grottes peu importantes*« (other, less important caves) represented by »*abris semi-obscures*« (half dark overhangs or rock shelters) or »*réseau de fissures*« (rift cave systems), namely Mahakande Cave, »*Vavul-lena*« (Vavul Lena, Kosgama Dodampé), »*Rajagirilena*« (Rajagirilena, one of the Mihintale rock shelters), and »*Mihintale Caves*« (Mihintale rock shelters).

SZYMCZAKOWSKI, Waclaw (1972): Catopidae et Colonidae (Coleoptera) de Ceylan: Résultats du voyage entomologique du Muséum d'Histoire Naturelle de Genève en 1970.- *Acta Zoologica Cracoviensia; Zaklad Zoologii Systematycznej I Doswiadczalnej Polskiej Akademji Nauk* (Kraków), vol. 17, (no. 7): 163-191. 45 figures (line drawings), 16 bibliographical references.

In French: Catopidae and Colonidae (Coleoptera) of Sri Lanka. Results of the 1970 Geneva Natural History Museum exploration journey.- Review of the Sri Lanka Catopidae and Colonidae species with remarks on the little-known species. Description of the four new species *Ptomaphyginus mirabilis*, *P. major* (flavicornis auct., nec Motsch), *P. besucheli*, *P. loebli* and a new sub-species *Colonellus fleischeri ceylonicus*. Redescription of *Ptomaphyginus pallidicornis* (Port.) and description of *Ptomaphyginus longitarsis* (Port.), collected by Aellen and Strinati from the guano in »*caverne Stripura*« (Batatotalena, Kuruwita, Ratnapura district, Sabaragamuwa province).

TENNENT, [Sir] James Emerson (1859a): Ceylon: An account of the island, physical, historical and topographical with notices of its natural history, antiquities, and productions. Illustrated by maps, plans, and drawings.- (London: Longman, Green). 2 volumes.

1st edition. Not seen [Kohl, Thomas in: HAAFNER 2004: 343].

TENNENT, [Sir] James Emerson (1859b): Ceylon: An

account of the island, physical, historical and topographical with notices of its natural history, antiquities, and productions. Illustrated by maps, plans, and drawings.- (London: Longman, Green). 2 volumes, woodcuts.

2nd edition. Not seen [YULE & BURNELL 1886, 1996: xxxiv].>

TENNENT, [Sir] James Emerson (1860): Ceylon: An account of the island: Physical, historical and topographical with notices of its natural history, antiquities and productions.- (London: Longman, Green & Longman). 2 volumes 8vo (22 by 15 cm), XXXIX + 643 (6 maps, 7 plans and charts, 31 woodcuts) + XXVI + 669 pages; 7 bibliographical references (page XXI footnote).

4th & 5th edition. Vol. 1 online <www.lakdiva.org/tennent>

Vol.1, part 1 (Physical geography), page 21: Wells in the Coral Rock: Potoor Well (Tidal Well, Puttur), Navokeiry Well (Tidal Well, Keerimali), Tillipalli Well (Tellipallai, Tellipalai, Tellippalai). Vol. 1, part 1, page 31: »*Nitre ... In Saffragam alone there are upwards of sixty caverns known to the natives, from which it may be extracted, and others exist in various parts of the island, where the abundance of wood to assist in its lixiviation would render that process easy and profitable.*«

Vol.1, part 3, chapter 1, page 332: Cave of »*Kuveni*« (and »*Wijayo*« or Vijaya).

Vol.1, part 4, chapter 7, page 489: Cave temples of Ceylon: »*Aluwihara*« (Aluwihara), »*Dambool*« (Dambulla);

Vol.2, page 536: Wells at »*Potoor*« (Puttur) and »*Tillipalli*« (Tellipallai, Tellipalai, Tellippalai).

TENNENT, [Sir] James Emerson (1861): Sketches of the natural history of Ceylon with narratives and anecdotes illustrative of the habits and instincts of the mammalia, birds, reptiles, fishes, insects, &c., including a monograph of the elephant and a description of the modes of capturing and training it.- (London: Green & Longman). XXIII + 500, 10 wood engravings from original drawings, numerous figures, index.

Revised edition of TENNENT (1859, 1860) volume 2. Mentions »*Dambool*« (Dambulla) and (on page 248) unspecified »*inland caves*« situated »*within thirty-five miles of Caltura* [Kalutara], on the western coast, ... to which the Esculent Swift resorts.«

Bats (pages 13, 74): »*CHEIROPTERA* [sic! for Chiroptera]. *The multitude of bats is one of the features of the evening landscape; they abound in every cave and subterranean passage, in the tunnels on the highways, in the galleries of the fortifications, in the roofs of the bungalows, and the ruins of every temple and building. At sunset they are seen issuing from their diurnal retreats to roam through the twilight in search of crepuscular insects, and as night approaches and the lights in the rooms attract the night-flying lepidoptera, the bats sweep round the dinner-table and carry off their tiny prey within the glitter of the lamps. Including the frugivorous section about sixteen species have been identified in Ceylon; and remarkable varieties of two of these are peculiar to the island ...*«

TREKKING IN THE KNUCKLES FOREST (a.i.): A guide to Alugallena, Dekinda and Nitre cave nature trails.- (Colombo: IUCN = International Union for the Conservation of Nature and Natural Resources).

Not seen. Apparently a trekking guide book for the Alugallena, Dekinda and Nitre cave nature trails.

»*This guide seeks to provide vital information for the trekkers using Alugallena, Dekinda and nitre cave nature trails. The guide includes an introduction to the Knuckles forest range, useful tips and advice to trekkers and maps of the trails mentioned with lists of identified fauna and flora found along the trails*« [after <www.iucn.org/about/union/secretariat/offices/asia/asia_where_wor_k/srilanka/publication/> accessed 2009.08.17].

TRIMMEL, Hubert (1968): Höhlenkunde.- (Braunschweig: Vieweg). 300 pages 235 x 170 mm, 88 illustrations, including monochrome photographs, cave surveys (ground

plans, sections), 697 bibliographical references, index.

In German: Cave science.- Pages 265-266 cover South Asia, including »Ceylon« (Sri Lanka) and mentions »Dambulla Cave« (Dambulla Galle), »Höhlenportal bei Keerimalai« (Cave at Keerimalai), »Maturata Cave« (Cave at Maturata, Padiyapellela).

TRIMMEL, Hubert (1998): Karst- und höhlenkundlich bedeutsame Objekte in der Liste des Welterbes der UNESCO.- *Die Höhle: Organ des Verbandes österreichischer Höhlenforscher / Organ des Verbandes der deutschen Höhlen- und Karstforscher e.V.*. ISSN 0018-3091 (Wien, Österreich: Verband Österreichischer Höhlenforscher), vol. 49, (no. 3): 78-79.

In German: Karstologically and speleologically important objects in the UNESCO world heritage list.- The world heritage sites of Sri Lanka include Sigiriya (rock art and the sacred temple caves at Dambulla and at Degaldoruwa).

TURNOUR, George (1837): The Mahawanso in Roman characters with the translation subjoined.- (Colombo). Only one volume published; quarto.

Not seen. **TENNENT** (1860.i: 312 - 317): »It is necessary to premise, that the most renowned of the Singhalese books is the Mahawanso, a metrical chronicle, containing a dynastic history of the island for twenty-three centuries from B.C. 543 to A.D. 1758. ... The title "Mahawanso," which means literally the "Genealogy of the Great," properly belongs only to the first section of the work, extending from B.C. 543 to A.D. 301, and containing the history of the early kings, from Wijayo to Maha Sen, with whom the Singhalese consider the "Great Dynasty" to end. The author of this portion was Mahanamo, uncle of the king Dhatu Sena, in whose reign it was compiled, between the years A.D. 459 and 477, from annals in the vernacular language then existing at Anarajapoor« (Anuradhapura N08°21' E080°23'), the ruined capital.

Chapter 7 is said to relate to the cave of Kuveni and the landing of Wijayo [TENNENT 1860.i: 332].

URAGODA, C G (1973): Nitre Cave and its environs.- *Journal of the Asiatic Society, Sri Lanka Branch* (Colombo), New Series XVII, vol. 17: 37-45. monochrome photographs, 16 bibliographical references (in footnotes).

Reviews the publications on »Nitre Cave« (Lunugala Lena) and describes the cave, its exploration history, surroundings, and contents.

VALENTYN, Fr. (1726): Keurlike Beschryving van Choromandel, Malakka, Ceylon, etc.- (Amsterdam: Dordrecht).

Not seen. »E.B.« in LAIDLAY (1848 edited 2000: 373 footnote): »Valentyn has given a minute and exact account of this mountain and the images found on the summit of Adam's Peak [Samanta kuta parvata, Samadhela Sripada], in his description of Ceylon.«

VAN GOENS, Ryskloff (1663-1675 edited 1932 by REIMARS, E): Memoirs 1663-1675.- *Selections from the Dutch records of the Ceylon Government* (l.i.), vol. 3: Memoirs of Ryskloff Van Goens, 1663-1675.

Not seen. According to URAGODA (1973: 40) an evidence for saltpetre (potassium nitrate) manufacturing during the times of Robert Knox (1660-1679): »Van Goens, the Dutch Governor of the Maritime Provinces from 1663 to 1675 writes: "It would be desirable if we could bring back with us the saltpetre which had been stored by the King's people in a large storehouse there, but if there should be any risk in doing this, it should be set fire to" [Van Goens 1663-1675, edited 1932: 43].«

VANN, Lindley (1987): The palace and gardens of Kayayapa at Sigiriya, Sri Lanka.- *Archaeology* (New York), vol. 40, (no. 4, July - August): 34-41.

Not seen [Heinrich Kusch 1986 personal correspondence].

VILLIERS, A (1970): Emesinae des grottes de Ceylan

(Hem. Hetero. Reduviidae).- *Revue Suisse de Zoologie: Annales de la Société Suisse de Zoologie et du Muséum d'Histoire Naturelle de la Ville de Genève*. ISSN 0035-418x (Genève: Kundig), Tome 77, (no. 2): 321-325.

In French: Emesinae (Hemiptera, Heteroptera, Reduviidae) from caves in Sri Lanka.- Taxonomical descriptions of specimens collected from »Grotte de Rawanaella, près d'Ella« (Ravana Ella Cave), »Stripura Cave« (Batatotalena, Kuruwita, Ratnapura district) and Istripura Cave (Pannala).

VITANAGE, P W (1959): The geology of the country around Polonaruwa.- *Memoirs of the Ceylon Department of Mineralogy* no. 1.

Not seen: The Matale - Nalanda band of crystalline limestone is 1.5 to 6 m thick, in places 30 to 650 m [COORAY 1967: 302].

WALTHAM, Anthony "Tony" & **LOWE**, David (1995): A dictionary of karst and caves: A brief guide to the terminology and concepts of cave and karst science.- *BCRA Cave Studies Series*. ISBN 0-900265-19-1 (London: British Cave Research Association), no. 6. 41 pages, line drawings, monochrome photographs, 2 tables.

WAYLAND, E J (1919): An outline of the stone ages of Ceylon.- *Spolia Zeylanica: Bulletin of the National Museums of Ceylon*. ISBN 0081-3745 (Colombo: Government Press), Issue 41, vol. 11: 85-125.

Not seen [COORAY 1967: 302 item 30; DERANIYAGALA, P E P 1943: 114; DERANIYAGALA, S U 1985, 1987: 108; SARASIN 1939: 185 no. 53].

WAYLAND, E J (1925): The jurassic rocks of Tabbowa.- *Ceylon Journal of Science*. ISSN 0366-8479 (Colombo: Colombo University), vol. 13: 195-208.

Not seen [COORAY 1967: 302 item 21].

WAYLAND, E J & **DAVIES**, A M (1923): The Miocene of Ceylon.- *Quarterly Journal of the Geological Society* (London: Geological Society), vol. 79: 577-602.

Not seen [COORAY 1967: 302 item 24].

WEERASINGHE, G D (1966): Rock caves of Lanka (Ceylon).- *Buddhist* (l i), vol. 36, (no. 10, May): 120-122.

Not seen [Manfred Moser 1998.08.10 personal correspondence]

WEYGOLDT, Peter: Amblypygi.- In ->JUBERTHIE, Christian & DECU, Vasile (1994): *Encyclopaedia biospeologica*. ISSN 0398-7973 (Moulis: Centre National de la Recherche Scientifique CNRS: Société internationale de Biospéologie / International Society for Subterranean Biology & Bucarest: Académie Roumaine), vol. 1: 241-247. Distribution map, 3 monochrome photographs, table, bibliography on pages 245-247.

General taxonomy and characteristics of cavernicolous whip spiders (Aranea: Arachneidae: Amblypygi), their general biology and behaviour, and their . There are about 5 Charontidae: Charininae species in India, one species of Phrynichidae: Phrynichinae: Phrynichus (each?) in India and Sri Lanka. No reference to karst or caves.

WIJESEKERA, N (1959): Early Sinhalese paintings.- (Maharagama: Saman Press). XX + 107 pages, 30 plates.

Not seen [sorry: source lost].

WILLIAMS, H (1950): Ceylon: Pearl of the east.- (London: Robert Hale). 460 pages 23 by 15 cm, end-paper map, illustrations.

Not seen. J.H.G.L. (1950 in *Geographical Journal* (London: Royal Geographical Society), 1951, part 1, 117 June, page 97): »Mr Williams was a tea planter in Ceylon ... at his best when describing the tea industry ... knows the jungle and is more than superficially

aquainted with both the long history and archaeology of ancient Ceylon ...«

WILLIS, J C (1907): *Ceylon: A handbook for the resident and the traveller.*- (Colombo Apothecaries). IV + 246 pages, map, 60 plates, numerous illustrations.

Not seen [967]. Compare →CEYLON TRAVELLER 1974, 1983.

WILSON, Jane M (1988): *Caves in southern Sri Lanka.- Caves & Caving: Bulletin of the British Cave Research Association.* ISSN 0142-1832 (Bridgwater: British Cave Research Association, BCRA), no. 42: 22-23. 3 monochrome photographs, 6 bibliographical references (detected by Harry Pearman).

Brief description of three visited caves called »*Vavul Pena*« (i.e. cave near Wavulpane), Kurugala Cave Temple, and Budugala Cave temple. Also mentioned are seven caves, sacred »*cave temples*« (sic! confused with temple caves) and rock art sites compiled from literary sources provided by Harry Pearman and Pierre Strinati: »*Cave of Rawana / Rawanaella Cave / Raltaran Guhava*« (i.e. Ravana Ella), Dambulla, »*Istripura Caverns*« (Istripura Cave, Welimada), »*Istripal-lena*« (Istripura Cave, Pannala), Kurugala and Budugala cave temples, Mulkirigala, »*Nitre Cave*« (Lunugala Lena), and the rock art site Sigiriya.

YULE, Henry (1866): *Cathay and the way thither: Being a collection of mediaeval notices of China with a preliminary essay on the intercourse between China and the western nations previous to the discovery of the Cape route.*- (London: Hakluyt Society). 2 volumes 8vo.

YULE, Henry (1871 edition of Marco Polo & Rustichello de Pisa 1298): *The book of Ser Marco Polo, the Venetian, concerning the kingdoms and marvels of the east newly translated and edited with notes by Col. H. Yule in two volumes with maps and other illustrations.*- (London: John Murray). 2 volumes 8vo, maps, illustrations.

YULE, [Colonel] Henry & BURNELL, Arthur Coke (1886): *Hobson- Jobson: Being a glossary of Anglo-Indian colloquial words and phrases, and of kindred terms; etymological, historical, geographical, and discursive.*- (London, John Murray). XLIII + 870 pages 8vo.

YULE, [Sir] Henry; BURNELL, Arthur Coke (1903, edited by CROOKE, William): *Hobson- Jobson: A glossary of colloquial Anglo-Indian words and phrases and of kindred terms, etymological, historical, geographical and discursive.*- (London: John Murray). 2nd, enlarged edition.

Online <www.dsal.uchicago.edu/dictionaries/hobsonjobson/> (accessed 2005.03.08).

YULE, Henry (1903, revised and annotated by CORDIER, Henri): *The book of Ser Marco Polo.*- (London: John Murray). 2 volumes.

Online edition below:

YULE, Henry (1913 - 1916, edited by CORDIER, Henry): *Cathay and the way thither: Being a collection of medieval notices of China.*- (London: Hakluyt Society). 4 volumes octavo.

Vol. 1 (1915) XXIII + 318 pages, illustrations: Preliminary essay on the intercourse between China and the Western nations previous to the discovery of the Cape route.- Vol. 2 (1913) XII + 367 pages, map, illustrations: Odoric of Pordenone.- Vol. 3, XV + 269 pages: Missionary friars: Rashiduddin, Pegolotti, Marignolli.- Vol. 4, XII + 359 pages, map, index: Ibn Batuta, Benedict Goes.-

YULE, Henry (2004, revised and annotated by CORDIER, Henri; produced by FRANKS, Charles, WILLIAMS, John & PG Distributed Proofreaders): *The book of Ser Marco Polo.*- 2 volumes

Project Gutenberg eBook # 10636 (Release date 2004 January 8), www.gutenberg.net/1/0/6/3/10636 (accessed 2005.11.23)

Project Gutenberg eBook 12410 (Release date 2004 May 22), www.gutenberg.org/dirs/1/2/4/1/12410 (accessed 2005.11.23).

Including the unabridged third edition (1903) of Henry Yule's annotated translation, as revised by Henri Cordier; together with Cordier's later volume of notes and addenda (1920).

Book 3 (Japan, the Archipelago, Southern India, and the Coasts and Islands of the Indian Sea):

Chapter XIV: Concerning the island of Seilan.- [Ceylon, Sri Lanka]. Notes the marine transgression of parts of the Jaffna peninsula.

Chapter XV: The same continued; The history of Sagamoni Borcan and the beginning of idolatry.-

967 *Nature* (06 August 1908), 78: 317-318 (doi:10.1038/078317b0): »*The Director of the Royal Botanic Gardens of Ceylon explains that he is the author of this handbook by default. He was of opinion that a handbook was needed, and having failed to persuade one better qualified than himself to become the author, Dr. Willis undertook to write the book himself.*«
<www.buchfreund.de/productListing.php?used=1&productid=28231331> (accessed 2009.07.30).