

Palipbothana Complex - Survey

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Introduction

The burials constructed using large slabs are popularly named ‘megalithic’ and assigned as a cultural trait of Sri Lanka’s protohistoric period (Senaviratne, 1984; Dissanayake, 2018). These can be associated with a basic form of religion among the early farming communities, such as an ancestral cult (Somadeva, 2006, 313). Since RW Levers’ Gurugalhinna megalithic burial report in 1889 and H. Nevil’s discovery of urn burial in 1887 (Kennedy, 2000, 336) and initiation of excavations from 1923-24 by Hocart at Pomparippu following S. Paranavithana’s extensive excavations during 1956-57 (ibid, 352) 116+ cemeteries representing these various burial traditions have been recorded from Sri Lanka (Dissanayake, 2018, 3). The megalithic burials in Sri Lanka primarily date to c. 800 BC- 50 AD (Mendis, 2017).

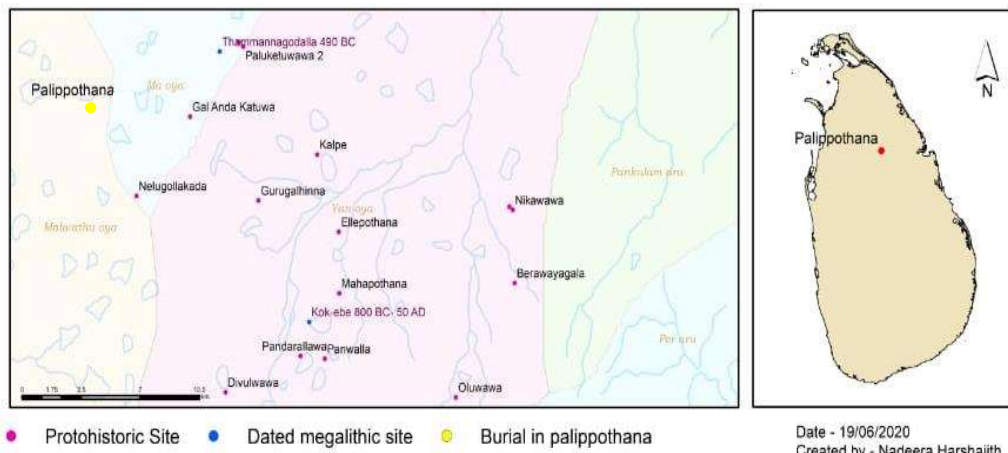
Stones or slab constructed burials are widely encountered from the dry zone, with few rare records from the intermediate and wet zones. The common types of grave goods reported from the burials are coinciding with the introduction of iron technology to Sri Lanka from India. The emergence of the Iron Age of Sri Lanka was dated to 900-600 BC, and distinguishing features were the iron technology, pottery (notable Sri Lankan variants of Black and Red Ware/BRW), the horse, domesticated cattle and paddy cultivation (Deraniyagala, 1992, 709) which laid the foundation to the hydraulic civilisation of the country.

Protohistoric research in Sri Lanka has been continuing at an increasing pace for the last 40 years. Recently, several reports have been completed by examining various aspects of the socio-cultural background of the time, resource use pattern, mortuary landscape and many other aspects, which outlines the protohistoric past of Sri Lanka are having more definitions and many more questions to be answered. We need to raise new questions, take different approaches and novel thoughts to disclose further information from this valuable material culture. For instance, a recent inter-site spatial pattern study shows the burial builders had concerns of flooding, water and resource availability (Katugampola, 2015). These studies have produced a vast knowledge of the Sri Lankan protohistory. The most recent survey work

of a megalithic burial was done during 10-15 January 2020 by the present authors, and the preliminary data and the questions they imply are presented in this chapter.

Numerous protohistoric sites have already been located and studied in the Yan-Oya basin, Malvathu-Oya basin, and the Ma-Oya basin, in the dry zone of Sri Lanka, where the majority are burial sites. However, several settlements, early irrigation works (*eba*) and early Buddhist monasteries are also known. Palippothana burial complex and associating archaeological remains will be unique, as no other protohistoric site was reported in an inter-valley region. The burial ground and the possible settlement are located in the upper boundaries of the Malwathu-oya and Ma-Oya basins. Closeness to the Yan-Oya basin must also mention the locational value of the settlement as a passage between several river basins.

The farmers encountered the burial ground during the clearance for chena farming and subsequently the information passed to the relevant officials. In January 2020, the Department of Archaeology and Heritage Management of the Rajarata University of Sri Lanka commenced an archaeological survey and has recorded 81 burials and related remains, five-rock outcrops, a small tank, a possible settlement area and later historical religious and economic-related activities in the region. Studied burials reported some unique events to the protohistoric studies in Sri Lanka, such as burials aligned to the annual sun and moon declinations, double orthostat burial tradition, cup marks on the capstones, which will be the first of such records reported from any archaeological context in Sri Lanka (refer the relevant sections in the present volume). The present chapter and others will scrutinise these, but we believe there are more to reveal hidden under dense vegetation and soil. Unfortunately, the rapidly increasing vegetation removal and disturbances are negatively impacting these archaeological records.

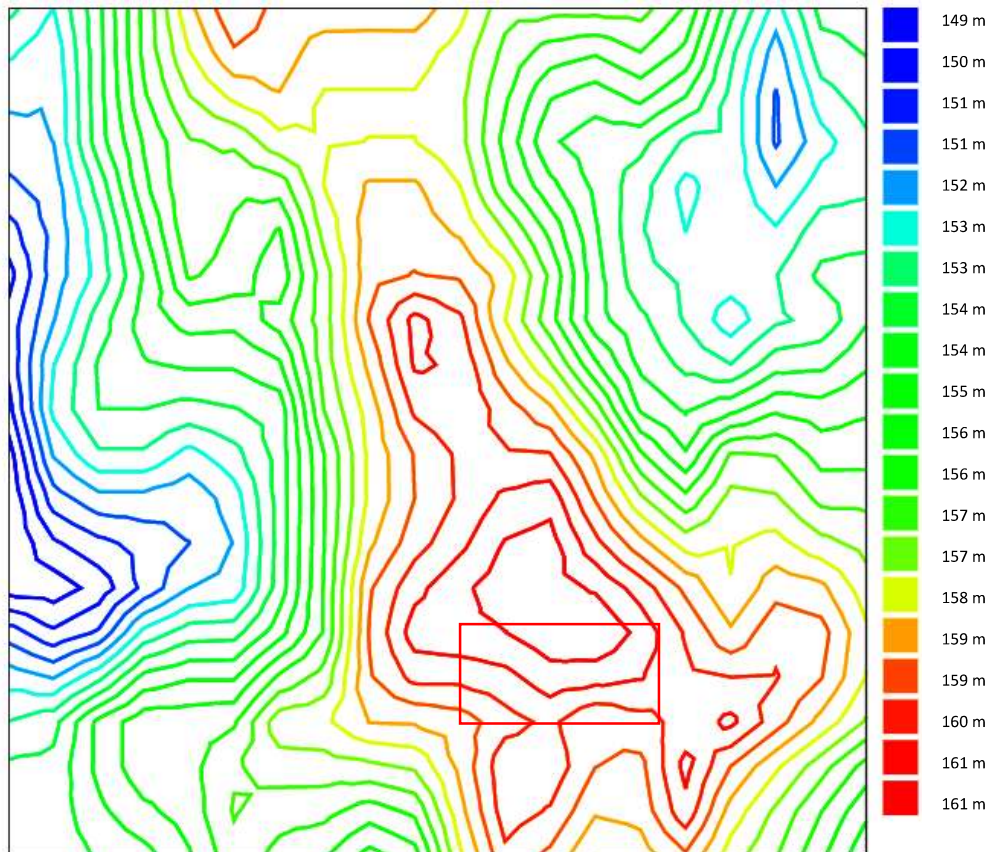


Map 5-1 Location of the Palippothana megalithic burial in the Mavathu Oya basin

The region

Location

The studying burial complex is located in the Palipbothana Grama Niladhari Division (no. 224) of Kahatagadigiliya Divisional Secretariat Anuradhapura district. The study will be named the *archaeological exploration in the Palipbothana - Rathmalgahawewa megalithic burial complex at Kahatagadigiliya in the Upper Ma Oya and Upper Malwathu Oya basins*. The burial is located in the No. 224 Palipbothana Grama Niladhari Division of the Kahatagadigiliya Division Secretariat of the Anuradhapura District North-Central province. Coordinates of the burial ground are 8.522350° N - 80.667340° E. The burial ground is government-owned lands but currently using for traditional annual slash and burn farming. The modern Palipbothana settlement is considerably large compared with the surrounding villages and comprising 101 families. The Palipbothana tank covers 91 acres and holds 292.2 acre-feet. Fifty-six acres farming by the water from the tank.



Map 5-2 Contour distribution

(created from contourmapcreator.urg8.ch. Actual height can be different from the above data)

Topography

Palipbothana is a small tableland of 160 MSL elevated from the surrounding plain of 140 MSL and located in a highly weathered rock ridge running north-south in a rock knob plain (Panabokke, 1996, 16). The ridge formation is unique to the dry zone and commonly known as “*hinna*” which has several small streams. The “Palipbothana” name itself indicates the morphological features of its geological settings. The “*Pothana*” is the folk term for a basin, a feature of water retaining low land surrounded by an elevated land (Dalupotha, 2017, 92), and there are several pothans in the region as Pothana, Erupothana, Horowupothana, Pothanegama and so on. The name of the village is pronouncing as Palipothana, and Palipbothana believes as derived from *Palli* (monastery) + *pothana* (basin).

Hydrology

The surface runoff of the ridge is draining to the Ma Oya at the northeast and the Malvathu Oya basin at the west. The Wewelketiya and the Rathmalgahawewa tanks are in the Malvathu Oya basin. The Palipbothana and other small tanks are located in the Ma Oya basin. The southern slope drains into a paddy field and then to the Tambalagollawa tank. Western slope drains into the Wewalketiya tank. These two tanks are connecting with Kanadara Oya of the Malvathu Oya. The water flowing to north and east drains into the Pethiyannekada Tank and other small tanks, connecting with the Kuda Oya, a tributary of Ma Oya. Many paddy fields only fed by rainwater are located in the slopes of the ridges, and above of each tank are connected to small rivulets nourishing during the North-East monsoon periods, which are going dry during the rest of the year (xref. Withanachchi, xref. Abeywardana)

Soil

The studying region falls into the Charnockite rock formation of the Highland Series. Reddish Brown soil and low humic gley soil (Panabokke, 1996, 37) distribution can be identified from either side of the weathered rock outcrop ridge. The Reddish Brown soil with fine drainage is unique. The soil profile comprises a clear separation of A and B horizons, which the A zone is getting much thicker in the surrounding plain rather than the top of the elevated region. Also, the soil properties have noticeable changes, which has an impact on the agricultural patterns. Slightly yellowish clay regions spread in the small valley like slopes of the ridge are suitable for paddy farming. Land plots in between these small paddy patches are widely using for slash and burn farming. Land parcels with fine drainage and sandy-loam soil

are using for farming black gram. Following the black gram harvesting, sesame is farming as a practice. Mustard, finger millet, beans and pumpkins are also growing in these units. The traditional farmers are aware of the minuscule properties of the soil, which are suitable for each crop. Therefore, undetermined characteristics of soils have shaped the nature of traditional farming and should be studied further.

Environmental settings

1 km² of the 5km² study area, is covered by the Wewalketiya, Rathmalgahawewa, Palipbothana and another small village tank. 1.5 km² area covered by chena and paddy farms. 0.8 km² covered with settlements. The remaining land is covered with natural vegetation belonging to the tropical dry evergreen forests, with thorny scrub dwarf vegetation that emerged in abandoned chena farms. The undergrowth of the tropical dry evergreen forests consists of vines and thorny plants. Denser vegetation can be seen toward the catchment areas of the tanks, and comparatively old vegetation was noted at the *Menige Vehera* (Meni's (mother's) temple), which was not removed by the shifting farming. Immense pressure on the natural vegetation noted recently with large scale land clearance for shifting farming, even in the elephant tracks.

Economy

The economy of the region is dominating by farming. However, the subsistence is not a single fold as many farmers are doing cattle rearing, chena farming, household businesses (paddy mills, petty shops, food outlets and so on). Apart from paddy farming, other cash and crop such as corn, finger millets, black gram, green gram, peanut, cashew, sesame, mustard, and many other dry zone crops and vegetables are farming. There is a tendency of farming corn, which gain a higher income a shorter period, but the impact of this needs to be assessed.

Research aims

The Department of Archaeology and Heritage Management, RUSL and several other researchers are conducting long-term research projects to study the Protohistoric settlement patterns in the Middle Yan Oya basin (Mendis, 2017, Dissanayake, 2018). The early studies show the potentials of studying the early phases of the protohistoric settlement patterns of the region, not limiting to a single river basin. Since the oldest and latest dates for the megalithic burials of Sri Lanka primarily date to c. 800 BC- 50 AD from the remains at Kok Ebe in Yan Oya basin (Mendis, 2017) broader regional approach will need to reveal the level of

expansion of protohistoric culture. The Palipbothana burial ground will be a unique part of this study with its inter-valley location and related activities that occurred in the past.

The present study is primarily an archaeological study, but it examines some other aspects of the studying region by using a multidisciplinary approach. Specifically, it will be working on the following themes.

- i. The cultural landscape of the Study area concerning reconstruct the palaeoenvironment and the manipulation patterns of the inhabitants at the time.
- ii. The significance and the chronological settings of the burial grounds.
- iii. The site formation and geology of the site and its surroundings.
- iv. Studying the current socio-cultural aspects of the land use and related life of the inhabitants in the current context.

The present chapter is partially working on the concerns related to the first objective. For this purpose, two approaches were considered during the survey designing.

- a. Macro scale - intersite relationship (resource use patterns, mobility, regional location, connection with other archaeological sites, etc.)
- b. Microscale - intrasite tendencies (settlement distribution and the burial complex, the stone slabs and its queries, is the spatial distribution of the size ranges showing the expansion and the technological advancements of the community? Did they reuse the burials? Did they reuse the materials retrieved from other older burials? Are these burials represents any remnants of a belief system?)

The intrasite tendencies and some intersite relationships will be discussed below. Other aims are addressed in the following chapters.

Methodology

The focus of the study will be given to record the surface remains in the burial grounds. An area of 5 sq km from the centre of the burials was examined by field walking to record the spatial distribution of other associating archaeological evidence. The farming activities and recent settlements have a clear impact on the visibility of the surface artefact distribution. The trap guns and the elephant tracks hindered the accessibility to the shrub in some parts.

Explorations

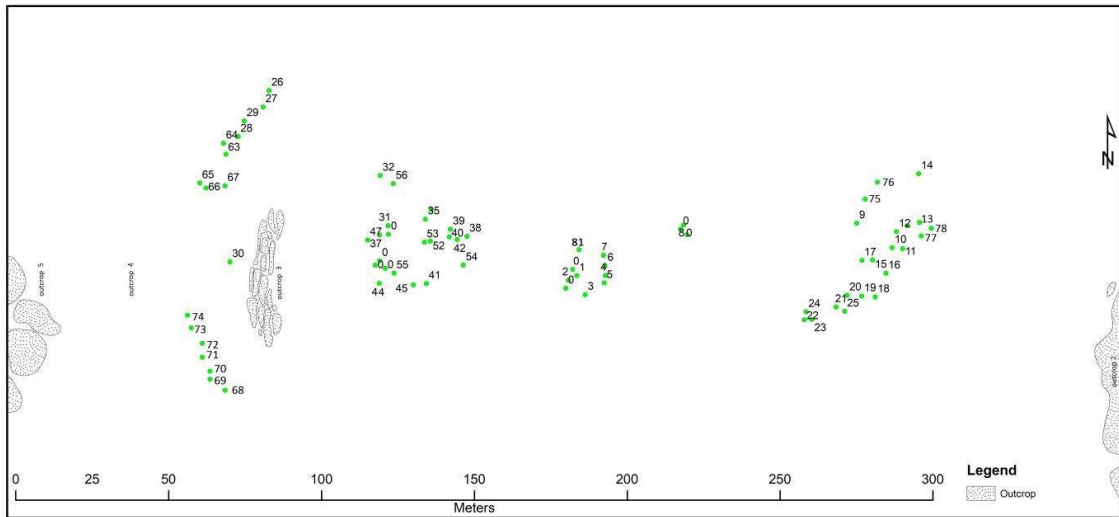
An area of 5km² centred on the burial ground of the Palipbothana was field walked using the transit survey method. The transits were laid by considering the current land use patterns, the vegetation and the distribution of the tanks. The mapmaker app used for the transits and to record the locations. The exploration was done in three different months, i.e. January, May and October of 2020, shows a clear indication of changing site visibility. The site visibility was partially hindered during January due to the chena cultivations. Further, the site visibility in the shrub was also at a minimal level due to grass. The site visibility in May was also at a minimum level as most of the chena was abandoned and covered with secondary vegetation. The third session of field works was done in October yielded fruitful results as the land surface was exposed by the new chena preparation and most of the shrub were accessible under dry weather conditions.

The major consideration of the exploration was given to identify the surrounding of the burial and to locate the settlement and other related features of the burial complex. It was assumed that the daily movements of the protohistoric inhabitants in the region might not be exceeding the region beyond the current tank systems. Hence, the area was limited to the region margined to the four tanks in the four corners of the elevated land which the burials are located. From a practical point of view, all the possibilities were tested to locate the settlement related to the burial. There are predefined models of establishing a settlement, tank, farmlands, and burials in a given location in the dry zone in most cases. However, the present study was done in an open approach as utilising the landscape at any given point of the human past shows a locational system rather than common models. Hence, an honour of the perceptions of the early inhabitants was credited.

All the burials were mapped and drew on a scale of 1:20. Burial points were recorded using a total station and used along with photo mapping to create photo scanning drawings (Senanayake, 2018, 105). Angles of all the intact slabs were measured relative to the magnetic north using a standard military compass (See Siriwardana in this volume for further details of angle measuring). Thickness and the length of the slabs, material, other features in the slabs were recorded separately. Surface artefact distribution was recorded by the number of pieces in 1m².

Excavations

Several concerns were raised about the burial ground through the survey, and to answering those and to have a better understanding of the burials, excavation was done in the burial complex. Three burials were selected by being based on the research questions. Three 3x3 m test pits were excavated. The context recording system was used, soil profiles were drawn, and separate soil samples were collected for geochemical studies. Results of the excavations are elaborated in a following chapter.



Map 5-3 Burial distribution

(some locations reported with small rock fragments will be not given in the map)

Results and discussion

The burial ground

Eighty-one burials (68 burials from the first phase and 13 burials from the second and third field sessions) are recorded from 20000 sqm in the southern part of the tableland and between the 160-158 MSL contours, distributed both in *chena* farms and shrub forest. Some burials in the eastern part of the complex are partially or fully covered with soil. Several buried burials were identified by punch a heavy metal point in an equal distance, and the reported cases were below ca. - 15cm *gl*. It is fair to assume the number of burials should exceed the above number by considering the possibility of such buried features. The burials in the western section of the complex are exposed + 15-30cm *gl*. The location of the burials, the burial tradition and the surface erosion may affect the burial visibility.

Three burial forms reported from the complex.

1. Square or rectangular cist burials without a capstone (n=37)
2. Square or rectangular cist burials with a capstone (n=13)
3. Double orthostat burials (n=5)

Twenty-six burials have either fragmented or buried remains; hence they could not be assigned to the above classification. The maximum length and width, length and thickness of each slab of the burials were measured and given in Annexe I - Table 5-3

Rock outcrops

The rock outcrop ridges can be identified as exposed heads in a rock knob plain extending from the Nattukkanda at the south and Hadagala and Veddakanda at the north of Palipbothana. All the slabs in the burial complex are obtained from these local sources. Five rock outcrop ridges running north-south direction were recorded in the association of the burial ground.

1. Highly weathered pinkish gneiss rock boulders - east of the burial ground
2. Weathered gneiss rock outcrop (ca. 240m x 12 m) ca. 50m east from the burials. The outcrop near the burial ground has largely broken faces and removed rubbles, possibly removing the slabs for burial construction. The thickness of the slabs is less than 20cm.
3. Gneiss rock outcrop (ca. 7 m x 31 m at the largest part and extends further N.S.). The average thickness of the natural bands in the outcrop is mostly around 30cm. Large fragmented rocks (20 x 10 cm/ 50 x 30 cm) are distributed unevenly around the outcrop.
4. Small outcrop of large grained quartz
5. Large gneiss outcrop exposed at the largest point for 55m x 11 m. and oriented north-south. The maximum exposed height is 3 m. Parallel to the third outcrop.

Distance between the outcrops 1 and 5 are ca. 820m and nearly 500 m from the eastern boundary of the burials and 200 m from the western boundary of the burials. The burials are constructed by using these same rock outcrops, and the spatial distribution of the thickness of the slabs shows the usage of the rock outcrops⁵.

⁵ Read Jayarathna, 2018 for detailed petrological analysis of the stones used in cist burials of Sri Lanka.

Burial construction and techniques

It was commonly reported the burials are erected in the association of a rock formation while the settlements are associating the water sources (Arjun, 2016, 2269). In the current event, the slabs for the burials were extracted from all the weathered rock outcrops. The rock type, hardness, fracture lines and thickness of the slabs are uniquely different in each rock outcrop. Different metamorphic levels of granitoid gneiss and gneiss caused the selection and transportation of the material.

The first outcrops in the eastern slopes are highly weathered and rarely used for the side slabs and capstones. Slabs from the second outcrop of 11 m x 17.2m (called *Veebeduwa gala*⁶) were widely used. The general thickness of the fractured slab of the outcrop is not exceeding 15cm. Nature and the condition of the burials constructed by using the slabs of this outcrop can be older than the others.

The burials in the western part of the complex mainly used the slabs extracted from the two outcrops in the western shrubs. The inner outcrop is ca. 7m x 31 m N-S running ridge exposed ca. 50 cm from the ground. The outer outcrop is 54m x 11m N-S running ridge exposed ca. 3 m bands. The general fracture thickness of these outcrops is 20-30 cm. These slabs are much heavier than outcrop number 2, and it provides larger slabs. The burial constructed using the slabs from the outcrop three and five is more significant than the previous. The causes can be either the people depended on the slab size or a socio-culture reason to build large burials. A small white crystallised quartz outcrop exposed in between the above two outcrops is rarely used and reported from a capstone and side slab only.

Two identical slabs extracted from a single rock outcrop, erected in 213cm distance with chisels marks and finely finished, were identified as a new burial type and named “*double orthostat burials*” (refer Mendis in the present volume for further details). A similar construction located next to it made by using the slabs of the rock outcrop number 2. The capstone of burial no. 27, which is the largest burial in the complex, also shows a deliberate attempt of shaping it to perfectly fitting into the erected slabs. A groove carved inside of the capstone seal the burial chamber. It can assume the slabs were shaped after they are transported to the location where burials are constructing.

⁶ Outcrop used to distribute paddy which is in the boundary of paddy fields. There are stories of tutelary spirits at *Veebeduwa-gala* among the locals.

Three large burials in the complex destroyed and exposed by the robbers. As noticed from the robbers' pits, the slabs are buried deep in the soil are placed vertically in a pit dug out to construct the burial. One burial contains four side stones of 57, 62, 103, 153 in height and 30cm thickness. A particular concern was given to extract as well as shape the stone slabs. The chisel marks were noted from several burials in the complex.

The slab measurements

Thickness and the length of the burial slabs were measured to the thickest/longest points only from the intact - reliable remains. Accordingly, the thickness was measured in 117 slabs and length was taken from 114 slabs. All the measurements are given in Annexure 1- Table 5-3.

Thickness - The thicknesses of the slabs are in the range of 10-32cm. The data showing a bimodal pattern in the histogram indicate two different sets in the slab thickness. 63% of the slabs are falling into 10 -20 cm thickness cluster and 37% assignable to 20-32 cm cluster. This is indicating the sources used for each burial where the thin slabs extracted from the outcrop two and thick slabs are from outcrop three and five.

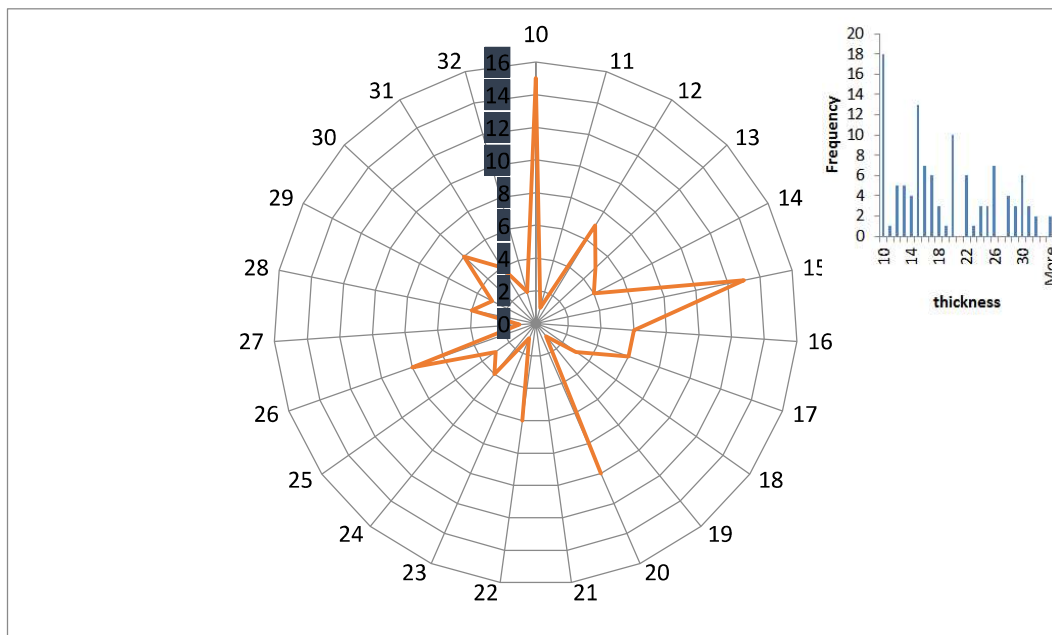


Chart 5-1 Distribution of the slabs in thickness ranges

Length - The lengths of the slabs are in a wide range from 39 - 348 cm and are evenly distributed. Though the length data do not show any trend in the distribution, it shows a pattern in the ratio after analysing with the thickness data.

Length vs Thickness - Both thickness and length of each slab sorted in a tabular system. Then the values are sorted from minimum to maximum by length. Through this, the slabs with similar length and thickness but in other burials are grouped together. An attempt was made to identify these as groups and gave different colour and number to each cluster. Then, the values were rounded in the arithmetic sequence of 5, converted to a ratio value and sorted again. The initial raw data clustering and the following ratio clustering show the same pattern of grouping. Then the grouped slabs are divided into two groups as similar slabs recording from the same burial cluster and similar slabs recording from different clusters. The results are given in the table below Table 5-1

Similar slabs in the same burial cluster			Similar slabs reporting between different burial clusters		
Burial No.s	Length (cm)	Thickness	Burial No.s	Length	Thickness
17,10	80	10	11, 4	55	20
4, 7	100	10	71,44	80	10
44, 32	110	10	7,52	90	20
4,5,1	115	25	5, 41	95	10
2,5,13	115	30	68, 1	95	30
16, 13	120	25	43,70	105	15
32,31	120	30	25, 44	110	10
15,15	130	25	11, 44	115	15
76,80	135	10	73,23,3	125	10
45, 40	150	10	4,48	125	20
23,25	155	10	11, 51	130	30
			69,25,45,72	140	15
			26, 40	150	20
			1,16	235	30

Table 5-1 Distribution of slabs with identical dimensions

The slabs of burial 15, a large double orthostat burial, show a deliberate sizing of both slabs to obtain the same thickness and length (26 x 128 cm). The natural fracture lines of the slabs indicate that both had been extracted from the same block and chisel marks along the edge of one slab indicate an attempt to yield to identical slabs. The groove like chisel marks is not identical to those in the other burials. It can assume the highly weathered pink granitic gneiss rock was shaped by using minimum force.

Height of the slabs - Height is visible in the cists dugout by the robbers. The heights of the slabs in the cist no. 1 are 57, 62, 103, 153 cm. The cist builders were concerned to level the top and creating the inner chamber in equal length and width (1x2m). The slabs erected on the longest side to get the maximum length and width.

The alignment of the burials

Angles of each burial were measured. It was identified the burials were aligned to the cyclic declinations of the moon and sun. The results are given under another section of this volume (see Siriwardana this volume and Siriwardana and others forthcoming).

Cup marks

Several cup marks on capstones of the burial were reported, which will be the first such record in Sri Lanka. A descriptive analysis of the findings produced separately (Dissanayake, this volume).

Burial Clusters

By considering the closeness of a set of the burials and the distance between such sets was considered to assign the burials into clusters, and five such clusters could identify.

Cluster 1 - From burial no. 9 - 25 and 75-79. Locates in the eastern section of the burial grounds. Among the surveyed burials, this particular cluster shows some significant trends in the burial architecture, materials selection and sources as follows.

a. Double orthostat burial tradition - Four burials were noted with the characteristic feature of two free-standing elevated slabs (distance between the slabs- max. 220 cm; min. 79 cm) with two open sides. Except for the burial no. 15 exposed above from the ground level, other burials were hardly exposed.

b. Source of the burial slabs - Though this cluster is in the proximity of rock outcrop two, the burials contain slabs obtained from several sources. The thickness of the slabs in burials no 10, 17, 23, 25, 76-79 indicates they were quarried from the rock outcrop no 02. These are highly weathered biotite gneiss and mainly extract by natural cleavage. Burial no. 11, 13 and 15 used thick (ca. 30cm), pinkish biotite gneiss, which possibly extracted from the outcrop 1. The cleavage and the condition of the source indicate easy workability. Burial no. 09 and 14 used hard and thick gneiss materials, possibly from outcrop 3 or 5. Slabs of both burials have clear chisel marks along the edge indicate deliberate artistry. The capstone of the burial no. 9 and a slab of burial no. 75 were extracted from the outcrop no. 4.

Cluster 2 - several identical burials are in two parallel rows, and a few others scattered among them. The robbers had dug out two burials.

Cluster 3 - Burials in this cluster are largely disturbed. One large burial exposed by the robbers. Many other burials have only fragmented slabs or few dislocated slabs.

Cluster 4 - Largest burial in the complex reported from this cluster. It was located in the northern proximity of the outcrop 3.

Cluster 5 - Several identical burials aligned in rows are located west and southwardly of the outcrop 3.

Surface artefacts in the burial ground

Cluster 1 and 4 was highly subjected to recent land clearance and chena cultivation. Surface scatters other than the stone slab fragments were rare. Fragments of a pointed iron object and potsherds were reported from a robber pit cist no. 82. Potsherds, bone fragments and quartz pebbles noted from the backfill of cist 55 robber pit. No other artefact scatter visible on the surface.

Results of the peripheral survey

The area bound by the five tanks (*Vevalketiya, Rathmalgahawewa, Palipbothana, Thambalagollawa and Rathmalgahawewa Kuda Wewa*) was selected to examine by field walking. The area is 5sqkm, and 1sqkm of it is covering by the four tanks. The area of chena and paddy farming is 1.5 sqkm. Modern settlements are distributed in 0.8sqkm area. The rest of the land is covered by secondary shrub vegetation and considerably old vegetation at the *Menige Vehera*. Following surface features were recorded through the field walking.

1. A pottery scatter

Thin pottery scatters of 2+/1sqm reported from an abandoned mustard chena (8.52091⁰ N - 80.66551⁰ E). The scatter noticed toward the catchment of the Palipbothana tank.

2. A pottery scatter

Thin pottery scatter of 2+/1sqm reported from a chena (8.52088⁰ N - 80.66130⁰ E).

3. A pottery scatter (8.5208⁰ N - 80.66063⁰ E)

Thin pottery scatter of 3+/1sqm reported from a chena.

4. A small tank and bund (8.5268⁰ N - 80.66308⁰ E).

Abandoned small tank in the upper region of the catchment of the Wewelketiya tank and the western slope of the tableland recorded. Perimeter is 175m and covers an area of 1576 sqm. Bund length is 67m. The survey team was able to trace the founders of the tank, Suddahamige Senarathne (71) and Malhamige Ranmenika (66), living in Wewalketiya village. They constructed the tank during the 1970s to find a livelihood after their marriage. According to them, an existing small elevated bund had been rebuilt using the termite mound soil and it took almost two years to complete the tank. The Nikini rain fed the tank, and the water lasted for two months. An area of 3 acres was harvested by the water from the tank and rainwater. The tank could hold water for 5 ft deep. The tank was abandoned for two years now. A pipe of ca. 24ft was used as the sluice.

This tank should be dated with proper methods as it will provide us a new light to think of the nature of the early small village tanks.

4. *Menige Vehera* (8.51354⁰ N - 80.66127⁰ E).

Also known as the Palipbothana temple, maintains by the villagers but no incumbent monk. The whole sacred area is covered by dense vegetation. Old brick and potsherd scatter as well as a brick mound, was noticed. The remaining evidence is similar to the Anuradhapura period brick constructions. The villagers believe the temple is dwelling by a tutelary deity known as “*Máni*” (mother), and they extremely refused of visiting the temple by the research team⁷. Hence, no further observations were made. However, the remaining evidence might belong to an ancient settlement located above the tank.

5. A rock pillar (8.53016⁰ N - 80.67030⁰ E).

A rock pillar of 210 cm long and ca. 30cm of each side dugout from a well in a privately owned land. As two sides of the pillar are shaped to be flat, it can assume it

⁷ It must note the level of their respect to the "*Mani*" and hesitate to talk or make a statement regarding her or about the temple. As they believe, if they garrulous enough to make an ill statement of her or vowed, her curse will upon them and may not even let them to stay in the farms at night. The origin of this goddess is unknown, but should be studied to get a better understanding of the locals' environmental perceptions. Also, it is worth to note the current traditional practices associating this archaeological monument, which is now in different cultural context. Hence, we believe the mentioned "*Manige Vehera*" and alike places should be declared not just as an archaeological site, but must provide a different recognition in the Sri Lankan archaeological policy.

as part of a walled building. As it was revealed, the other pillars exposed from the particular land were removed from the location.

6. Wewalketiya inscription (8.52348⁰ N - 80.64871⁰ E)

A pillar inscription in a declared archaeological reserve. Potsherds, beads and semi-precious stone scatters noticed around the inscription.

7. Thambalagollawa temple (8.52301⁰ N - 80.65166⁰ E)

An ancient monastic complex known as Punchi Dambulla, located in an isolated hill connecting to the bund of both Wewalketiya and Thambalagollawa tanks. Drip ledge caves can be the oldest architectural remain.

8. A pile of shaped stone blocks (8.52301⁰ N - 80.65166⁰ E)

A pile of shaped stone blocks was noticed near the Rathmalgahawewa junction, which is identical to the blocks used in the British colonial period for culverts.

9. A pottery scatter (8.52746⁰ N - 80.67966⁰ E)

Potsherds exposed from the dugout pits done by the farmers.

10. Sri Aloka Pabbatarama temple (8.52675⁰ N - 80.67911⁰ E)

A modern temple constructed on a rock outcrop.

11. A pottery scatter (8.52516⁰ N - 80.67384⁰ E)

Thin pottery scatter of 5+/1sqm reported from a chena

12. Surface artefact scatter (8.52300⁰ N - 80.67191⁰ E)

Thin pottery scatter of 3+/1sqm and few slags reported from a chena.

13. Surface artefact scatter (8.52235⁰ N - 80.67030⁰ E)

Large pottery scatter of 10+/1sqm, few slags and a short barrel bead recorded from a newly harvested chena, located ca. 50 m east of the burial complex. The potsherd distribution noticed in an area of ca. 1.5 acres (ca. 80 x 80 m). It appears the tillage by disk plough rolled up the artefacts. Usually, the tilling not exceed 15cm of the topsoil; hence the exposure level indicating the artefacts are lying below the present surface. Very small pottery scatters (<5 per 1 sqm) and potsherds occasionally noticed in the slopes toward the tanks.

Emergence of Palipbothana as a settlement

The monasteries and a large sub-urban market at Vevalketiya and its surroundings, which were regulated under the direct administration of Anuradhapura kingdom, tempted to query the causative to the emergence of the settlement this particular region. Both regional geomorphology and historical evidence provide some clues for this.



Chart 5-2 North - South elevation profile through the burial complex



Chart 5-3 Elevation profile from the West coast to the East coast through the burial complex.

(source - Google earth)

Regional geomorphology

As mentioned above, the local settings, hydrology and soil formations were decisive to establish a settlement in the region subjected to the present research. However, among these, the morphology of the N-S running ridge impacts the location of large settlements and the road network. Though the ridge is not a large barrier to intervalley transportation, the gaps at the northern and southern extremes have two main roads in the road network, which develop through the historic period (C and B in Chart 5-2). The next accessible gap in-between is coinciding with Rathmalgahawewa - Palipbothana region (A). It is natural to use the gaps in the ridges as a passage between the river valleys. The megalithic burial distribution in the Yan Oya basin is showing a spatial orientation toward the Kahagatagasdiliya area, which the ancient road network connected the Anuradhapura and the Eastern coast. Palipbothana should have emerged as such an entry pot during the proto historical period, and its hydrology and geology might sustain a considerable population in the area. Further, it should note the study area located in the highest point at the western slope in a section crossing the country from east to west coast and lying in the Malvathu Oya basin

(A in Chart 5-3). This might also be a crucial factor to form a road network connecting Anuradhapura and urban centres at eastern Sri Lanka through the present study region.

Historical developments

The development of early historic monastic complexes and the medium size tanks shows a gradually increased population density. The Vevelketiya pillar Inscription of King Udaya IV⁸ (946-952 AD) describing the penal law at the time mentions the associating settlement as a part of ‘ten villages’ or *dasa gam* administration system (Wickremasinghe, 1912, 244; Ranawella, 2004, 175), where possibly the officer-in-charge of such a unit lived in a settlement located near to Palipbothana. The inscription refers (Ranawella, 2004, 181),

"..... *uturpasa Amgam kuliyehi Kibindu(bi)mhi Demel-veher pamaniyen Dasagamat ekeki nayakayan Kibigam...."*

which translates as,

“...Dasagam of the Demel Veher Pamaniya in Kibindu-bima, Amgam-kuliya of the Northern Quarter, and of the chieftains who have provided security to Kibi villages....”

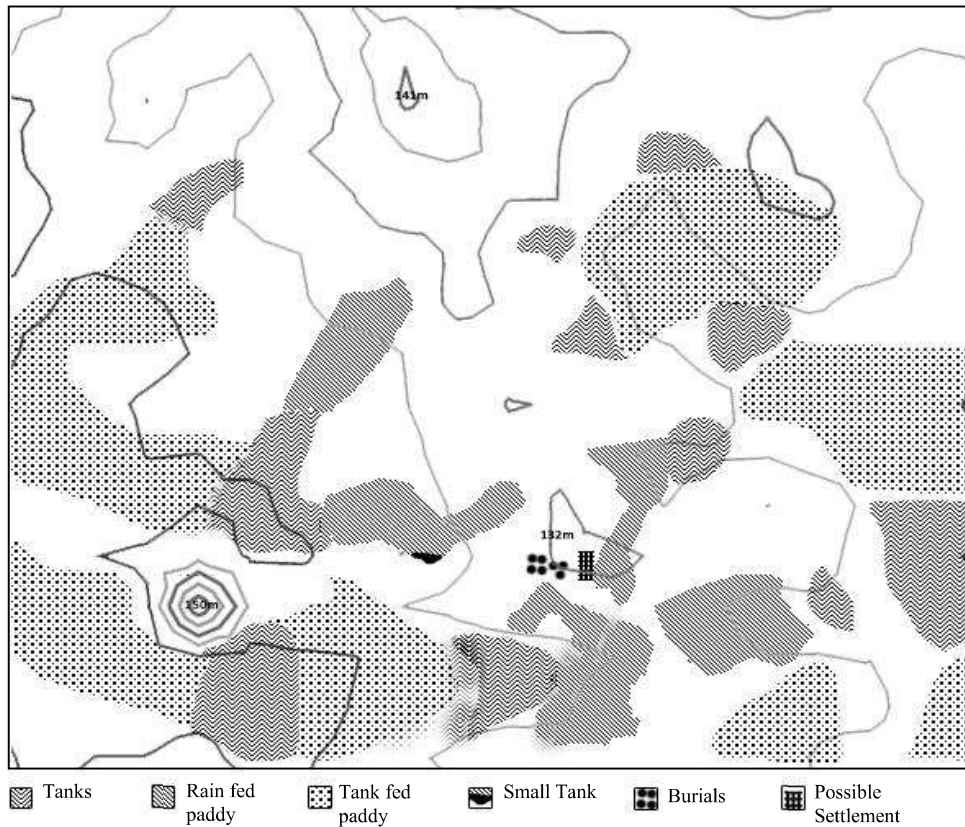
Ranawella was identifying this as some *Dasagamas* in a region named *Kibindu-bima* in a District known as *Amgam-Kuliya* of the Northern Quarter of Rajarata. *Amgamkuliya* can be corresponding to the *Kandu Tulāna* in the *Kadavat Korale* and *Pahala Kandu Tulāna* in *Kándá Korale* of the *Nuwaragam Palātha* of Anuradhapura District (ibid, 179). It is possible to infer that the inscription was established in a larger village among the others and might be a market village where the regional leader for ten villages lived or a committee of such an administrative unit was located.

Settlement associated with the burials

The nature of surface findings and the extent of the distribution aids propose that site no. 13 recorded in the field survey can be the potential settlement related to the burial complex. The surface artefacts are distributed in an area of ca. 90x50m (1.1 acres), and it can assume the recent tilling moved artefacts to a certain extent from their origin. A study done in a radius of 50 km from the Anuradhapura reported fifty-six smaller settlements associated with Black and Red Ware which are not exceeding the maximum size of 25 square metres

⁸ or Mahinda IV (956-972 AD) cf. Wickremasinghe, 1912, 244

(Coningham and Young, 2015, 395). Therefore, we hypothesise that a settlement of less than 1 acre located close to the burial grounds.



Map 5-4 Burial complex and tank-paddy systems

Following the ethnographic observations in the region, slash and burn farming was the main agricultural system followed by these settlers. Still, the farmers yielding a considerably higher return by slash and burn farming without having advanced technology. These farmers might be used the reported small scale rain-fed tank to cultivate paddy in small land plots, and such practices were reported until recent past (Somadeva, 2006, 146).

Some concerns - Burials and materials reused?

Several burials with all four or three slabs in good condition noticed a shorter slab with a lesser length and thickness. The top of such are ca. 15-30 cm below the other slabs. A proper study of this will provide an insight into the method of burial construction or a sign of burial reuse. If such small slabs are intentionally placed to be moved from time to time, they might get access into the burials to perform rituals or reuse the burial chamber.

Also, there are burials constructed with slabs from different rock outcrops of one or two different slabs and the slabs retrieved from the closest outcrop. The burial 3, 40, 44 and 45 in the cluster two used the slabs from the outcrop two and three. Significantly, the four slabs of the burial no. 44 has unequal thickness and length, except for two slabs with 10 cm thickness. These burials are unique when considering the other burials, which have similar slabs. The size variation and the location of the above burials show a sign of using multiple sources to construct a single burial, which is unprecedented. Hence, we would like to suggest that the burial builders reused the materials recovered from the older burials. We are forwarding these as hypothetical suggestions and will need to be examined in future studies.

Possible periodisation and dating

The largest concentration of the Megalithic burials in Sri Lanka reported from the Yan Oya Basin and was widely studied by many researchers. It can believe that the other river basins in the region also should have evidence, which is yet to been overlooked by the researchers. Recently the second author reported several such burial complexes from the other river basins. The Oldest and the most recent dates of the Sri Lankan megalithic cist burials reported from the Kok-ebe as 790 BC -125 AD. The Tammannagodalla cist burials locate northwardly from the Palipbothana is the closest burial complex to the burials reported in the present study, and they are dated to 490-350 BC. The nature of the burials in the Palipbothana suggests that the cemetery was used for an extended period. The cutmarks and the chisel marks in the burials constructed with the large stone slabs should belong to a later period with advanced iron technology to shape such features.

A single burial was dated following the excavations, which was dated to the 4th -2nd century BC. The attributes of the burials indicate they belong to different periods. Therefore, the burials were grouped into three periods based on two assumptions; a. the complexity of the burial attributes showing the cultural changes and b. though the causatives of the changes were either external or internal, it leads to a progression in the contemporary culture. It is not necessarily required that the dynamic nature of culture is progressive. However, evidence from the other protohistoric sites shows many developments in these societies, especially the metal technology and the belief systems.

Period	Cluster	Burial numbers	Remarks
I (6 th - 4 th centuries BC)	1 and 5	7, 8, 10, 16-18, 23, 25, 30, 40, 41, 45, 69-80,	Lesser slab thickness Crust of the outcrops Some are in a linear orientation
II (4 th - 2 nd century BC)	1 and 2	1, 2, 5, 11, 13, 15,	Pinkish gneiss rock Small cist burials and a single, double orthostat Exposed from the ground level
III (3 rd - 1 st century BC)	1, 2, 5	1- 4, 9, 12, 14, 16, 19, 20, 21, 26, 27, 31, 32, 44	Clear chisel marks, cup marks, capstones, hard granitic gneiss slabs, shaped edges

Table 5-2 Possible dates or periods of the burials

The first phase represents the burials constructed with naturally flaked slabs which are rudimentary. The burials grouped into the 2nd period used the materials from a single source and included different burial types. The burials in the 3rd period show the features of advanced metal technology.

Alternative to the above assumption, we would like to forward a second opinion as the period I and III can be contemporary, and in that case, the capstone burials were constructed for a unique individual(s) in the society, and the other burials might be placed around such capstone burials. If so, it must be indicating a social hierarchy of the society.

Status of preservation

The total area of archaeological materials was a 40-hectare shrub forest, but since 2019 the land is facing a gradual clearance for farming and settlement purposes. A part of the burial ground was cleared in 2014, and encroaching activities of farming have created massive pressure upon the archaeological evidence. Specially, several burials were dug out by the robbers. The dislocation of the slabs and fragmentation of the burials noticed in cluster 3 must impact recent farming activities performing by using the tractors and, in some cases, the diggers. We must appreciate Mr. IMP Amararathna, a retired worker of the Jethavanaramaya project, Anuradhapura, for his measures by leaving a part of his land where the burials are located.

The burial complex is locating in high potential farming land. As there are people who claim land ownership, it is under a higher threat of dislocating the burials, which was noticed during the present study. On the other hand, there must be a proper management plan

to assist the economic and social requirements of the farmers while protecting the archaeological heritage. Some of the farmers are willing to protect the remaining archaeological evidence, with a minimal effect from their farming. As noticed from the burial complex and site 5 of the field walking, the villagers intentionally remove, hide, or destroy the archaeological evidence by being afraid of the government acquiring their lands as archaeological reserves. This is one of the burning issues in the current archaeological heritage management in Sri Lanka, which we need both short-term and long-term policies.

Future studies

The present study was based on the observable features of the burial complex. The protohistoric studies done hitherto in Sri Lanka provide us with knowledge about the socio-cultural background at the time. We have lists of burial complex with some dates assigned. Therefore, digging the megalithic burials to obtain the dates and material remains will add little to this existing knowledge, and we will need novel approaches and research questions to be working on. In this context, we are not attempting to raise conclusions for this chapter but emphasising the necessity of researching the Palipbothana burial complex with more scientific approaches in future studies. *Behind the stones erected to celebrate the deceased, there is a story left untold of the people whose voice never heard, but echoing through the plains...through the sky...*

Acknowledgement

We are grateful to Lahiru Jayarathna (Palipbothana) and Pradeep Karunaratne (Rathmalgahawewa), Grama Niladhari officers for their assistance during the field works. Also, SN Sugatapala, Sisira Senarathne and IMP Amararathna, villagers of Palipbothana helped us locate the burial exposed by their farming. We also thank the students of the year 2016/2017 of the Department of Archaeology and Heritage Management and all the academic and non-academic staff members of the Rajarata University of Sri Lanka for their commitment during the field surveys. The service provided by Chamara Abeyrathne must appreciate as he extended his capacities beyond his duties.

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Annexure 1 - Dimensions of the slabs used in the burials (L-length, W- width) (measurements are in centimetres)

SN	Burial number	Slab N (cm)		Slab E (cm)		Slab S (cm)		Slab W (cm)		Remarks
		L	W	L	W	L	W	L	W	
1.	1	116	26	210	16	95	28	235	28	
2.	2			92	16	113	29			Capstone 138 x 137 chisel marks
3.	3	125	10							Capstone 199 x 120 chisel marks
4.	4	55	19	97	12	114	24	123	22	
5.	5	115	27	57	23	119	31	96	12	
				58	22					
6.	6									Capstone
7.	7	39		99	12			89	18	
8.	8	80	17	45	6			147	16	
9.	09			192	31					Chisel marks Capstone 164 x 72
10.	10			80	12			104	10	
11.	11	54	20	115	15	65	20	128	28	
12.	12									A capstone with cupmarks
13.	13	117	29	122	25			128	22	

14.	14					31						Cap stone thickness 27 cm
15.	15	128	26				128	26				Double orthostat
16.	16				237	30	120	24	142	20		Chisel marks
17.	17	79	10				67	10				Double orthostat
18.	18	52	15				75	26				
19.	19	45	14	60	39	49	10					Capstone (124 x 96 cm)
20.	20								240			
21.	21			78	30				110			
22.	22	109	15									Highly fragmented burial
23.	23			154	10				123	10		Capstone 107 x 167
24.	24											Fragments and partially buried slabs
25.	25	110	10	155	10				140	13		Two side slabs a. 32x6 b. 47x9
26.	26	144	29	130					149	20		
27.	27			348	30							Capstone 340x190, cupmarks
28.	28											Fragment
29.	29											Capstone 100 x 90

30.	30					102	17	174	15	
31.	31	85	17	120	28					
32.	32	120	31			295	25	140	32	
33.	33			77	24					Rock fragments
34.	34			60	15					Rock fragments
35.	35									Rock fragments / Slab fragment of 74 x 84
36.	36									Rock fragments
37.	37	112	26							
38.	38							92	17	
39.	39			110	13					
40.	40			150	18			150	10	
41.	41			54	12	94	13			Capstone 165 x 100
42.	42	108	20							
43.	43	104	15	237	20	120	20	155	40	
44.	44	140	30	107	10	115	16	80	10	
45.	45			150	10			140	16	
46.	46							46	25	Rock fragments
47.	47	165	26							

48.	48				124	22					Capstone fragment 128 x 95
49.	49										Rock fragment
50.	50										Rock fragment
51.	51				84	10	130	32			
52.	52				90	17					
53.	53		67	15			102	15			
54.	54										Rock fragment
55.	55		110				104	30			Highly disturbed burial
56.	56		52	20							
57.	57		60	15							
58.	58										Rock fragment
59.	59										Rock fragment
60.	60										Rock fragment
61.	61										Rock fragment
62.	62		63	22							Rock fragments
63.	63										Rock fragments
64.	64										Rock fragments
65.	65				72	15					

66.	66				60	15													Rock fragments
67.	67				100									197					
68.	68	120			95	30													
69.	69				220	20	140	14						210	26				
70.	70	109			104	16													
71.	71	79	12											160	14				
72.	72													142	16				
73.	73				124	13	73	14											
74.	74	120	26		130	17	120							147	18				
75.	75	65	13				75	22											
76.	76				135	10								150					
77.	77																		Partially buried slab
78.	78	47	10																
79.	79	40	10																
80.	80	110	15		135	11								76	20				One side slab of 40x16
81.	81													54	15				Fragmented rocks
82.	82																		Cist dugout by the robbers. near to burial I

Table 5-3 Dimensions of the slabs used in the burials



Figure 5-1 Visibility of the burials with vegetation



Figure 5-2 Visibility of the burials with land clearance for farming



Figure 5-4 The largest burial in the complex



Figure 5-3 The burial with illegally excavated



Figure 5-5 Double Orthostat



Figure 5-6 The capstone



Figure 5-8 A burial without capstone



Figure 5-7 A Stone pillar identified by the exploration



Figure 5-9 Palipbothana wewa



Figure 5-10 Thambalagollawa wewa



Figure 5-12 Vewalkatiya Inscription



Figure 5-11 Survey team