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Site Catchment Analysis of *Mahalena Cave* of *Rajagala*, Sri Lanka: With Special Reference to the Prehistoric and Anuradhapura Phase

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ABSTRACT

The systematic archaeological survey was carried out around the 0-10 km radius of Mahalena cave site. Documentation of natural resources available within the estimated radius. A few satellite settlements or supportive settlements were identified within the radius of Mahalena cave. The chief aim of this research is to understand the suitability of the landscape and natural resources available within the vicinity of this archaeological site. Mahalena cave site was subjected to large-scale excavation for several seasons by Sri Lankan and Indian archaeologists. A Few seasons of detailed excavations have provided us with sufficient data to study the resource exploitation pattern around the Mahalena cave. The study of the resource exploitation pattern or site catchment study is one of the important tools to reconstruct the economy of ancient settlers of any particular region. Resources lying within the economic range of individual archaeological sites support ancient inhabitants for their day-to-day living. The current research will be helpful in identifying suitable factors which lead the Prehistoric and Early Historic inhabitants of the Mahalena cave to choose this particular location for their settlement.

1. Introduction

Around the Mahalena cave (Fig.1) site, a thorough archaeological survey was conducted within the area around 0 to 10 km. Natural resources that are accessible within the radius have been documented thoroughly. A few satellite or supportive settlements have also been located within a radius of Mahalena cave to comprehend the compatibility of the environment and natural resources close to this ancient site. Defining the economic orientation of ancient people or natural resources available within the vicinity of the ancient site may provide a clear picture of the man and land relationship of a particular region. The study of the resource exploitation pattern is one of the important tools to reconstruct the economy of ancient people. Natural resources lying near the archaeological site create an extremely congenial environment to support ancient inhabitants for their day-to-day living. Defining the resource exploitation pattern of any site with the help of Site catchment analysis methodology is one of the well applied methodologies in Indian Archaeology as well in world archaeology. This is based on the fact that human group procure resources from the regions immediately surrounding their settlements which led to the formulation in the late 1960's the analytic method of Site Catchment Analysis. This method was first devised by Vita Finzi and Eric Higgs in their study of Prehistoric Economy in Mount Carmel area of Palestine (Vita Finzi and Higgs1970), It is assumed by these archaeologists that the area further from the inhabited locus is, the less likely to be exploited and less rewarding is its exploitation. Prehistoric/Mesolithic phase and Early Historic period were two significant cultural eras that had been revealed by excavations at Mahalena cave. Several seasons of excavations of Mahalena cave of Rajagala have provided adequate archaeological data which will be suitable to study the resource exploitation strategies adopted by the Prehistoric and Early historic settlers of the Mahalena cave. This research is useful in identifying the appropriate circumstances that influenced the settlers of the Mahalena cave during the Prehistoric and Early Historic periods to settle in this specific landscape.

Understanding the research on site catchment analysis so far done in India and other parts of the world is crucial, especially to understand, adapt, and put into practice its methodological fundamentals at the archaeological site of Mahalena Cave.

In India, work on site catchment analysis is attempted by scholars like - R. S. Pappu (1988), who first employed this concept of "*site catchment at the site of Inamgoan"* in Maharashtra and later at the *"Harappan site of Kuntasi in Gujarat"* with M.K. Dhavalikar (1993). Other works on this aspect include Shinde in "*central Tapi basin, Maharashtra"* (1990), Debasri Dasgupta's work at the site of *"Gilund, Udaipur district Rajasthan"* (2004), "*site catchment analysis of Senuwar"* by R.S. Pappu (2004), research on the "*site catchment analysis of Balathal"* (Dibyopama, 2010), "*site catchment analysis of Harappan site of Rakhigarhi"* district Hissar Haryana by Tejas Garge (2014), "*concept and history of site catchment analysis: With Special reference to Pandu Rajar Dhibi"* by Doyel Banerjee (2017). "*Site Catchment study of Semthan"*, Anantnag district, Jammu and Kashmir (Lone: 2019). "*Reconstruction of Economy of Chirand site with the help of territorial approach"* (Dibyopama: 2021).

The research on the resource exploitation pattern has been employed at a number of Prehistoric sites/regions in widely separated countries of the world like – England (Ellision and Harris, 1972); Bulgaria (Denneal and Webly, 1975) Yugoslavia (Barker, 1975); Italy (Barker, 1975); Mexico (Flannery, 1976). But no single research so far has been carried out on Sri Lankan archaeological sites which could be directly associated with the application of Site Catchment Analysis methodology.

The chief aims of this research are to discover the following 1) raw material exploited by Prehistoric and Early Historic inhabitants of *Mahalena* cave within 0-10 km radius 2) the kind of resources available near *Mahalena* cave 3) Finished products manufactured at the Mahalena cave site 4) The raw material and finished goods obtained from another region 5) Nature of the subsistence pattern at Mahalena cave during Prehistoric and Early Historic Anuradhapura period 6) Whether Mahalena cave was a temporary or a permanent settlement in the course of both cultural phases.

2. Materials and Methods

- Most of the relevant published literature consulted, which is associated with the previous work carried out on Rajagala ruins and specifically several seasons of excavation report of Mahalena cave.
- Referred work carried out on the study of Site Catchment analysis in India and other part of the world. To understand and adopt the methodological aspects of it and practice it on the archaeological site of Mahalena cave.
- Detail analysis of material culture recovered from the excavation of Mahalena cave of both Prehistoric and Early Historic phase was done in order to understand the sources of these material cultures. Whether these materials were manufactured locally by utilizing resources available within the vicinity of archaeological site or obtained from trade or imported from some other region.
- Area around the Mahalena cave was to survey within the 0 - 10 km around, as per the theoretical guidelines provided by Vita Finzi and Higgs for the study Site Catchment studies of Prehistoric societies. Both Prehistoric and Early Historic cultural phases were considered for the reconstruction of resource exploitation pattern around Rajagala. Intensive and extensive survey was conducted within 10km radius of Mahalena cave site.
- Detailed documentation of natural resources available within the vicinity of Mahalena cave site. A detailed study was done on the exact nature of land available around the Mahalena cave site.
- Nature of the Satellite settlements and their relationship with the ancient inhabitants of Mahalena cave site.
- Identification of the items which are not available locally and obtained through trade, and identification of the resource region.
- Draw a conclusion about the overall suitability of the landscape around the Mahalena cave. In addition, use of Site Catchment Studies to determine the exact nature of settlements and the subsistence pattern during the Prehistoric and Early Historic (Anuradhapura period).

2.1 Study Area

The study area, Ampara district, is located between the latitudes of 7.2912° N and on the longitudes initially of 81.6724° E. General land use of this study area is mainly agricultural land, wetlands and grasslands. Agricultural land has paddy, coconut, Chena cultivation and sugarcane. Wetlands are mainly marshy lands. Green land covers the mangroves. This area has a high density of population (Mim, 2017).

The Ampara district of Sri Lanka's Eastern Province is home to the Rajagala Archaeological Reserve where the iconic and biggest Mahalena cave is situated (Fig.2). The monastic ruins in Rajagala can be found on a mountain that is about 346 meters above mean sea level and spread out over around 382 Hectares (943 acres) that have been designated as an archaeological reserve. Two elegant stone staircases that were skillfully constructed through the dense forest that blended with the mountain's slope lead to the flat plain of the mountain. Common

structures like stupas, refectories, uposathagras (buildings used for religious ceremonies), and several other unidentified structures are dispersed throughout this area (Mandawala, 2021).

Ecology of the Ampara District

Overall, the dominant features of the ecology of Ampara district are forests, shrub land with agricultural land, gardens, and water bodies. 34% of the land area of the district is covered by forest, while another 12% is covered by shrub land. Among the agricultural uses the dominant use is paddy that covers about 22% of the total land area; six percent (6%) of the total land area is covered by water bodies. The dominant soil in the district is the Reddish Brown Earth (RBE) with other soil groups as soil associations mainly in undulating terrain. The physical and chemical properties of most of the RBE associations are generally suitable for agriculture. Ampara district receives annual rainfall of 1750 mm. Much of this rainfall is received from the North-East Monsoon (NEM). Reservoirs, large and small tanks, lagoons, rivers, and streams. Some of the main rivers that flow across the district are Maduru Oya, Mangala Watawan Aru, Gal Oya, Hada Oya, and Kangikadichchi Aru. Senanayake water tank is one of the largest reservoirs located in the Monaragala district and its command area is in the Ampara district (Mim, 2017).

Figure 1. General view of the excavated cave site Mahalena, Rajagala, Ampara

Material culture recovered from Excavation at *Mahalena*

The joint excavation was carried out by the Department of AIHC and Archaeology, Deccan College, Pune, India and the Department of History and Archaeology University of Sri Jayewardenepura, Sri Lanka during the years 2016–2019. A large-scale horizontal excavation was conducted on the Mahalena cave, with the aim of reconstructing the cultural sequence and archaeological potential of this area. As a result of the excavation, two cultural phases were revealed: 1st Prehistoric period dated between c. 38000-3000 Cal. years BP) Period II – Early Historic Period (500 BCE to 300 CE) (Kapukotuwa *et al* 2017-18).

Major findings from the Prehistoric period are wide varieties of Microliths and bone tools from excavation. More than 2500 Microliths have been recovered from the excavation of Prehistoric level. Quartz is mostly used for the fabrication of these artefacts, with the exception of a single blade produced from chert. Clear variety of quartz or some cloudy/opaque varieties like the milky and rose quartz utilized for manufacturing of microlithic tools. This is characteristic of Sri Lankan microlithic, seen from other cave sites in Sri Lanka (Kapukotuwa *et. al. 2017-18*).

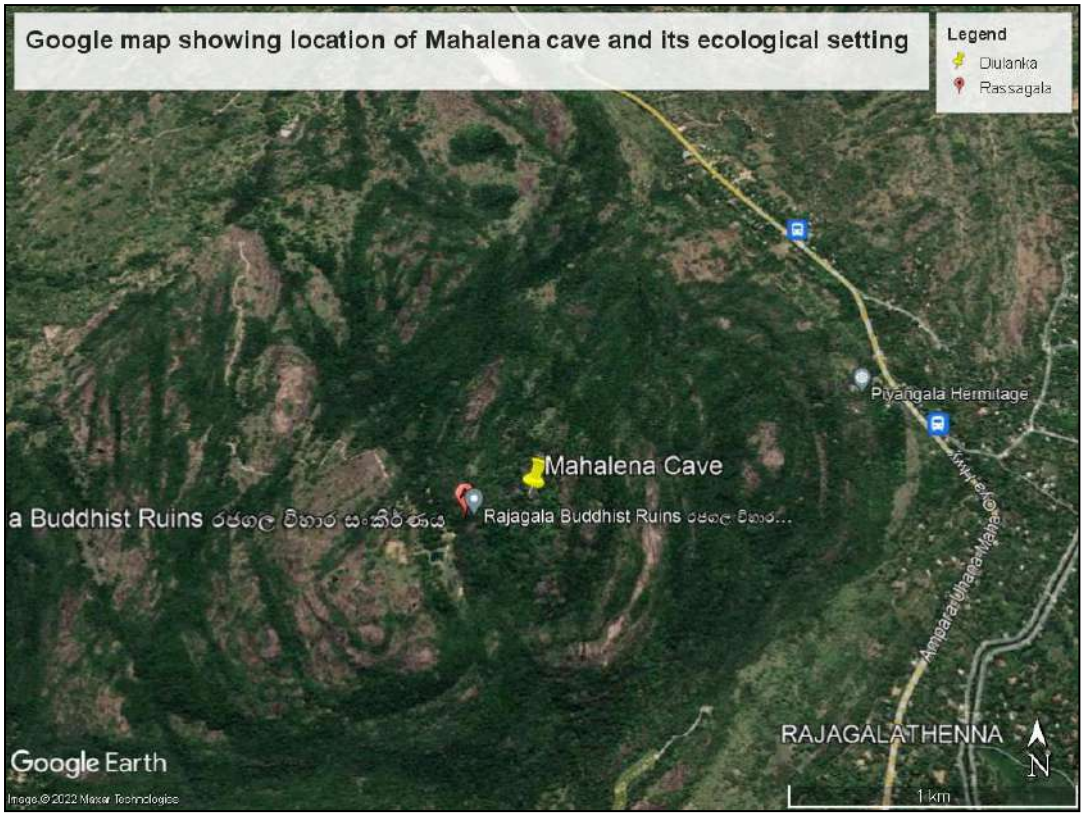

Figure 2. Google Map Showing the location of Mahalena cave and its ecological Setting.

Prehistoric phase is followed by the Early Historic phase (Anuradhapura period) at Mahalena cave of Rajagala. The ceramic assemblages of the Early Historic period were recovered from various trenches. Pottery assemblage recovered from the excavation of Mahalena cave of Rajagala is Red Slipped ware, Red Burnished ware, Black/Grey ware and Black and Red ware**.** Principal shapes of the pottery are flared bowl decorated with mud appliqué design, plain bowl, and medium-sized globular pot. Terracotta disc and terracotta casket fragment lid were recovered from Early Historic levels. Among the ornaments and beads of semi-precious stones are paste beads and carnelian bead. Among the shell objects, shell spoons and perforated shell beads.

Two ivory beads were recovered from the Early Historic level (Fig.3 and Fig.4). There are evidence of glass bangle and glass beads recovered from the excavation. Within copper objects there are evidence of copper foil. Among Iron objects there are remains of iron ring, iron fragments and iron slags found from the excavation **(**Kapukotuwa *et al* 2017-18).

Plant remains - Fragment of wild fruit nuts *Aleuritesmoluccana* called candlenut/Indian walnut/*kekuna*. Candlenut was used as a food, and also could be used for making oil (Naik *et al* 2017-18).

Faunal remains – Faunal remains identified from the excavation of Early Historic level are Primates, Mammalia, Cat Mongoose, Spotted deer, Sri Lankan mouse deer, wild boar, Porcupine, Giant squirrel, Small flying squirrel, Rat, Black napped hare, Flying fox, Hard shelled terrapin, Soft-shelled terrapin, Reptiles – Land monitors, Python, Unidentified snake species, Sri Lanka super jungle fowl, bird species, freshwater fishes Masheer, Olive bard and catfish, Cartilaginous fishes, freshwater crab species, fresh water and Marine shells - Land molluscs, tree snails, land snails, Pila sp. freshwater shells, Bellamyasp: Freshwater shells, Lamellidenssp (Kapukotuwa *et al 2017-18*).

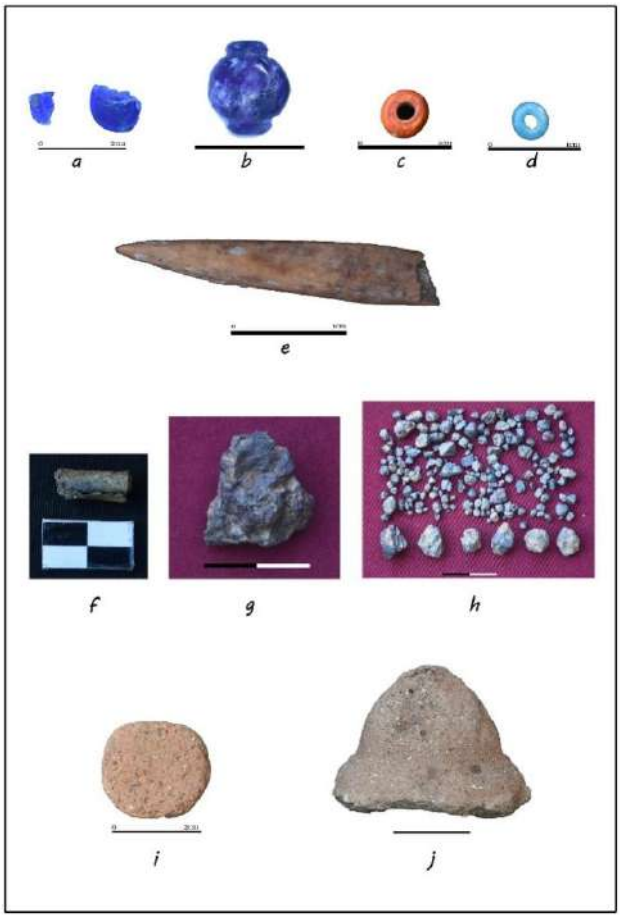

Figure 3. Glass beads, bone tool, iron slag terracotta crucible and terracotta disc recovered from Early Historic level of Mahalena cave (Kapukotuwa et al 2017-18)

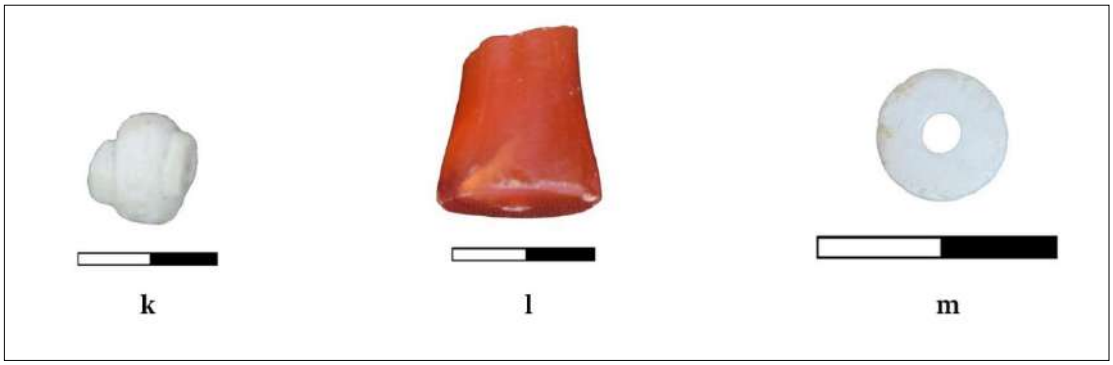

Figure 4. Ivory and carnelian beads recovered from the Early Historic level of Mahalena cave (Kapukotuwa et al 2017-18).

Figure 5. Water Pond near *Mahalena* cave site

2.2 Findings

As already mentioned detailed documentation of natural resources available around the Mahalena cave was done. Also a few satellite supportive settlements were identified in the vicinity of the catchment area of Mahalena cave.

Details of data collected through the fieldwork and sampling of the pottery and other objects through survey, are discussed below.

Water resources - There are numerous natural water springs available in and around the Mahalena cave. There are three springs which are accessible for most of the year, making them a potentially crucial water supply for ancient and medieval communities. Remaining are seasonal springs, where water is only available during rainy seasons (Fig.5, Fig.6 and Fig.7). Apart from these water resources, there are several ponds among them Twin pond, Crocodile pond and Akkarfansi pond; a structure

designed to collect spring water for use in cooking have two sizable stone basins and a small tank and hot water bath houses. One of the major sources of water is Diulanka tank; water flowing from hills is diverted to the tank by making bund on it and utilized as an irrigation canal.

Clay resources - Clay resources were identified around the Mahalena cave to find out the source of clay for manufacturing pottery. During the Early Historic period, bricks and other terracotta objects were used to make pottery; the nearest source could be Diulanka tank (Fig.8). It has a good quality sandy clay available, even the Early historic pottery recovered from the Mahalena cave have the traces of sand particles in the pottery.

Quartz resources–Quartz was one of the important raw materials for the manufacturing of stone tools and Microliths which were recovered in huge amounts from the Mesolithic level of Mahalena cave. Thick quartz veins of almost 10cm available on the north eastern side of the Mahalena cave. Apart from that there are several other resources of quartz available within the 10km around the Mahalena cave (Fig.9). Another quartz vein is observed during surveying for natural resources around Mahalena cave. Quartz resource near ancient irrigation canal which is 1.5 km North from Mahalena cave. Milky and rose quartz resources are available here.

Chert Resources – As already mentioned above during the Mesolithic phase only one chert blade was recovered, which is quite common in Sri Lankan, Prehistoric Archaeology. A majority of stone tools are manufactured by utilizing, varieties of quartz with limited occurrence of stone tools made of chert (Deraniyagala, 1998). But the source of chert could not exactly be located in Sri Lanka; nearest source of Chert could be Puttalam district, northwest of Sri Lanka. Specifically pebbles scattered on the River beds consist of chert stone out crop or pebbles.

Resources of semiprecious stone Carnelian - There is one semiprecious stone/ carnelian bead recovered from the Early Historic Anuradhapura phase of Mahalena cave. There are no single resources available within the catchment area nor any reported resource in the country. The nearest source could be the Deccan region of Maharashtra or Gujarat of India. So we could not refuse the possibility of trade contact with India, during the Early Historic Anuradhapura period.

Shells - There are two varieties of shells observed from the excavation of Mahalena cave specifically from the Prehistoric phase which is fresh water shells as well sea shells. Source of freshwater shells could be obtained from nearby water ponds. Sea shells might be brought from the eastern coast which is 50-60 km far from the Mahalena cave.

Ivory – Some early historic ivory beads were discovered in the Mahalena cave's excavation. Sources of the ivory could be the tusks of wild elephants available in the Jungle. Wild elephants are quite prominent in the Jungle around Mahalena cave even now days.

Copper resources – Fragment of copper rod was recovered from the Early Historic level. There are no sources of copper nearby Mahalena cave. Eastern province Seruwawila could be the source of copper. During the Early Historic Anuradhapura period it was one of the important copper mines **(**Thantilage, 2008**)**.

Iron - From the Early Historic level there are iron slags and iron fragments recovered from excavation of Mahalena cave. It is 1.5 km far from the Mahalena cave near the ancient irrigation canal. Big chunks of iron slags are available in natural state (Fig.10). So the source of iron is available quite nearby. Another place at the eastern side of Diulankadawala tank also got the evidence of iron slags in natural state.

Figure 6. Diulankadawala tank around Mahalena cave site

Figure 7. Natural/Seasonal Ponds around Mahalena cave

Figure 8. Source of clay near Diu Lanka tank

Figure 9. Quartz resource near the Mahalena cave site

Figure 10. Source of Iron slag/content in natural soil

Figure 11. General view of Diulankadawala tank site

Figure 12. General view of pottery scatters over surface of Diulankadawala tank site

Figure 13. Stone out crop with mark Diulankadawala tank site

Figure 14. General landscape and fauna around site

Glass–Nearest source of glass could be Mantai and Rajanganeya kiln mass production site (John Carswell, Siran Deraniyagala and Alan Grahm, 2013).

Flora - The Mahalena cave lies within the low country dry zone. It has tropical natural vegetation formation with grassland, bushes, small trees and a variety of creepers.

Variety among the tree and bushes can be divided among edible and non-edible flora. There are more than twenty varieties of edible plants identified around the jungle of Mahalena. Names of these flora are the following **–**

Siyabala (*Tamarindusindica*),
Gal Siyambala (*Dialiumovoideum*),
Palu (*Manilkarahexandra*),
Amba (*Mangiferaindica*),
Tal (*Borassusflabellifer*),
Lolu (*Cordiadichotoma*),
Madu (*Cycasnathorstii*),
Timbiri (*Diospyrosmalabarica*),
Eta Thimbiri (*Diospyrosaffinis*),
Demata (*Gmelinaasiatica*),
Madan (*Syzygiumcumini*),
Wira (*Drypetessepiaria*),
Divul (*Limoniaacidissima*),
Kobbe (*Allophyluscobbe),*
Mora (*Dimocarpuslongan*),
Wal Mora (*Glennieaunijuga*),
Mi *(Madhucalongifolia),*
UlKenda (*Polyalthiakorinti*),
Heen Karamba (*Carissa spinarum*),
Ela Gokatu (*Garcinia spicata*) and
Bora Daminiya (*Grewiahelicterifolia*)

Plants used for making mat- Boru Pan (*Eleocharis spp.*), Maha Geta Pan (*Schoenoplectusarticulates*) and Hambu Pan (*Typhaangustifolia*) etc.

Kekune tree - Not a single *kekune* tree is available around Mahalena cave in the present day but from the Prehistoric level lots of *kekune* seeds were recovered. It is similar to the walnut. This tree is mainly found in the wet zone (Naik *et al* – 2017-18). Probably during Prehistoric/Mesolithic time, the area around Mahalena cave, Rajagala would have much more humidity than today.

Land distribution - Geographically, the Rajagala archaeological ruins lie within the low country dry zone. This is a tropical natural vegetation formation consisting of grassland, rocky plains, plains, water streams, rough gradients and manmade tank. If we consider the distribution of land around Mahalena cave (Fig.2) at Rajagala, around 0-10 km radius, 75%of land is occupied by natural jungle and hilly area and 5% of modern teak forest jungle by government. 15% percent of area is barren land with stone outcrop and remaining 5% of the area is dedicated to water resources, natural springs, seasonal ponds, manmade canal and tanks.

Diulankadawala tank satellite settlement - 1 (Early Historic Anuradhapura period)

Diulankadawala tank site (Geo-coordinates 7.53860 N – 81.542302 E) is situated 25km South of Rajagala. The visible extent of site N-S 200m and E-W 200m; it seems some parts of the site is inside of water tank due to the rise of water level. This site is situated near ancient bund near water tank, constructed during middle Anuradhapura period and expanded during British time and after the independent era. They repaired the ancient tank during the British period and again renovated it after the independence era. The site's Southern and northern side is hilly, with thick jungle and stone outcrops. Eastern and Western side of the site has the spread of water tank. The surface of the site has medium scatter of fragments of red ware pottery. Surface sampling – Pottery – 11 sherds, out of them 8 rim sherds, one decorated body shred of red slipped ware and others are plain red ware body sherds. Detailed descriptions of pottery recovered from the surface survey of the site are below–

1. Fragment of flared stand with square rim, with medium coarse fabric and medium firing (Fig.15).

2. Rim sherd of red washed carinated handi with external projecting out turned beaked shaped rim. Rim has top deep groove for lid socket. Medium coarse fabric and medium fired (Fig.15).
3. Rim sherd of plain red ware with triangular rim. Rim has top deep groove for lid socket. It has medium coarse fabric and medium fired (Fig.15).
4. Fragment of rim sherd of red washed globular pot, external projecting out turned rim. Rim has top deep groove for lid socket. It has medium coarse fabric and medium fired. Sand particles are seen all over the rim (Fig.15).
5. Fragment of flared stand with square rim, with medium coarse fabric and medium fired (Fig.15).
6. Fragment of rim sherd of grey ware globular pot, external projecting out turned rim, rim has top deep groove for lid socket. It has medium coarse fabric and medium fired, sand particles are seen all over the rim (Fig.15).
7. Fragment of rim sherd of red wash with square rim. Rim with flat top and externally projected. It has medium coarse fabric and medium fired (Fig.16).
8. Rim sherd of plain red ware with triangular rim. Rim has top deep groove for lid socket. Sand particles are seen all over the sherd. It has medium coarse fabric and ill fired (Fig.16).
9. Fragment of body sherd of Red slipped ware decorated with etched designs placed between horizontal engraved lines (Fig.16).
10. Fragment of body sherds of plain red ware decorated with grooved designs inner side of the body sherd (Fig.16).
11. Fragment of body sherds of plain red ware decorated with appliqué designs outer side of the body sherd (Fig.16).

Diulanka dam satellite settlement-2(Early Historic Anuradhapura period)

Diulanka dam site (Geo-coordinates 7.518568 N – 81.605048 E) is located 25km South of Mahalena cave (Fig.17 and Fig.18). The extant of site is N-S 200m and E-W 600m, southern and northern side of the site is hilly area with thick jungle and rocky terrain surface. Eastern and western side of the site has the extension of water tank. The surface of the site has very rich scattering of fragments of black ware pottery. Surface samplings – Lid cum bowl and terracotta crucible, finding of terracotta crucible is indicative of iron working activity which could have been done on the site.

Lid cum bowl- Lid cum bowl which has diameter of 10cm bowl has flaring sides and tapered rim (Fig.19).

Crucible– Piece of a handmade, thick-walled, medium-fine-fabric, and well-fired terracotta crucible. It has knobbed bottom with broken handle. Crucible is the pot withstand used for the feverish heating and stirring required to transmute base elements (Fig.19). During the Early Historic phase of Sri Lanka, iron manufacturing sites have the evidence of the crucibles (Sin. *kova*) appeared in various forms. The most common form was a tubular form that was made out of rice husk (Sin. dahaiya) and mixed with clay in a ratio of 1:1 (Ondaatje 1854; Juleff 1990b).

2.3 Data Analysis

The systematic archaeological survey was conducted around the Mahalena cave approximately, 0-10 km radius of the site to understand the suitability of the landscape and natural resources available within the vicinity to support the life of the ancient inhabitants of the Mahalena cave during the Prehistoric and Early Historic Anuradhapura period. Compiled archaeological remains were recovered from the excavation with survey data. It was identified, huge natural rock shelter, availability of water, edible plants, wild edible fauna, freshwater

fishes/shells, sea water shells, quartz resources for manufacturing microliths, clay for manufacturing pottery, elephant tusk–ivory. Most of the basic resources were available within 0-5 km, vicinity of Mahalena site. Iron slags and crucibles have been found near the Diu Lanka dam site, suggesting that the area was once used for the production of iron tools. Other objects like, copper, chert, carnelian and glass artifacts may have been obtained through trade.

Figure 15. Pottery from Diulanka tank site (i)

Figure 16. Pottery from Diulankadawala tank site (ii)

Figure 17. General view of Diu Lanka dam site

Figure 18. Scatter of pottery over the surface of Diu Lanka dam site

Figure 19. Fragment of Pottery and crucible recovered from the surface of Diu Lanka dam site

3. Results and Discussion

During the prehistoric period, Mahalena cave served as a primary settlement; they have conducted Microlithic manufacturing activities on the site. During Early Historic Anuradhapura period this cave would have been occupied by ancient inhabitants or monks for ritualistic or meditation purpose. Early Historic phase, Mahalena cave might have been used as a secondary site for ritualistic purposes and temporary residence, but the main settlement would be the most densely populated place, hamlet, or city located adjacent to Mahalena cave. Because, material culture, recovered from the Early Historic level from excavations like pottery, antiquities, artefacts and ecofact are in small quantity. The two Satellite settlements near Diu Lanka tank might be utilized for procuring water resources, gathering of edible plants from the jungle and for obtaining sandy clay for making pottery. Also evidence of crucible on Diu Lanka dam site reflect the iron smelting activity on the site during Early Historic Anuradhapura phase. The resources which are not available locally like copper, seashell and carnelian bead obtained through the trade. Source of Iron in the form of slag was available within 2km close to irrigation canal and another one near to Diulankadawala which is 25 km far from Mahalena cave. Iron rich granite niece observed in the form of bedrock. Such iron rich material is used for the iron smelting activities. Nearest source of glass could be Mantai and Giribawa kiln mass production site. Source of fresh water shell could be nearby water ponds and natural water sources. Sea shell might be brought from eastern coast which is 50-60km far from the Mahalena cave. Eastern province Seruwawila could be the source of copper. Ivory must be obtained from the wild elephant available in the Jungle. Wild elephants are quite dominant in the Jungle around Mahalena cave even now days. Only carnelian could have obtained through trade with India. Because neither is there a single resource inside the catchment area, nor is there a single resource in the country that is known to exist. Nearest source could be Deccan region of Western India Maharashtra or Gujarat of India. So they may

have trade contact with India, during Early Historic Anuradhapura period.

4. Conclusion and Recommendation

The Mahalena cave, a natural rock shelter, would have been used by both prehistoric and Early Historic settlers. Prehistoric and Early Historic inhabitants settled in Mahalena cave due to favourable natural conditions. Mahalena Cave was most likely the principal prehistoric settlement, and prehistoric residents even engaged in the manufacture of microlithic tools here. However, throughout the Early Historic Anuradhapura period, this cave was only used sporadically or for ritualistic purposes.

This research is based on the preliminary observations and most important this is the first attempt to reconstruct the economy of Prehistoric and Early Historic settlers of Mahalena cave of Ampara, district of Sri Lanka with adopting Site Catchment Analysis methodology of Archaeology. There is scope to continue the research in this direction for future such as examining the settlement pattern of archaeological ruins of Rajagala and, locating the key sites associated with the sporadic inhabitants of the Mahalena cave during the Early Historic Anuradhapura period.

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