New light to the Proto Historic Iron Age in Sri Lanka

A new excavation of proto history burials site at Kokebe in the North-Central Province

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Abstract

Kokebe megalithic burial site is situated at Kahatagasdegiliya Secretariat Division in the North Central Province, Sri Lanka. In the ancient time, the proto history people had been settled in this region before 2800 years. They have constructed several types of burial for burying their dead bodies. In this article, I have discussed new finding type of burials and their activities in the Kokebe site. The initial explorations conducted by S.U. Deraniyagala suggest that middle Yan Oya basin in the North Central Region of Sri Lanka was first colonized by hunter - gatherers during the microlithic period. In 1972's S.U. Deraniyagala discovered several rock shelters with quartz stone artifacts near Sangilimalai mound from the middle Yan oya basin and which were accordingly assigned to the microlithic period in Sri Lanka (Deraniyagala 1982). As per data from over the past 2 decades of Archaeological investigation, it is now suggested that the microlithic period was formally superseded by the proto historic Iron Age in the study area. A review of the previous, Protohistoric investigations undertaken by several scholars namely R.W. Livers (1885) Raja de Silva, S.K. Sitrampalam (1965/66), Sudhrasan Seneviratne (1984) and Ranjith Dissanayake (2013) indicated that approximately 25 Proto historic Iron Age megalithic burials and 6 Porto historic Iron Age settlement with BRW sites are located within area of 1370 square km.(pers comm. Ranjith Dissanayake: 2016). In this article, I have discussed new finding of burials and their activities in the Kokebe site. In this research, I have used Archaeology and Literature evidence for the success of my research activity. Data were collected through the field survey and excavations. After collecting data, I have classified those data for this research.

Previous Investigation

The earliest known proto historic Iron Age settlement of North Central Province reported from Anuradhapura citadel where beginning of proto was dated to around 1000 BC by radiocarbon dating historic Iron age (Deraniyagala 1992:707-712; Deraniyagala and Abyerathna: 707 - 731). In the 2 decades since the initial explorations of Proto historic Iron Age burial sites, a numerous burial sites in particular WadigaWeva, Gurugalhinna, Kokabe , Rabewa, Thibiri weva, Thammennagolla, Walahaviddawewa, Deulweva, Maradammaduwa, Wahalkada, Mawathwewa, Galadakatuwa and Nikkawewa have been reported from the middle Yan Oya region. Of these, Megalithic complex near Thammennagodala was excavated and to around 490 cal BC by Ranjith Bandara dated radio metrically Dissanayake of the Post Graduate Institute of Archaeology of University of Kelaniya. The dating would indicate a tendency that extension of Proto historic Iron age settlement would be concentrated on east of ancient Anuradhapura. However, the current study and new dating evidence from Kokebe megalithic burial indicated that similar earliest Proto historic Iron age settlement appear to have been coexisted in the north of Anuradhapura.

The Archaeological importance of the Kokebe protohistoric Iron Age settlement area was first recognized by Nicholas in 1963, who investigated a portion of Kokebe megalithic complex(Nicholas 171). Subsequently, the region was investigated by S. Paranavithana, who reported discovery of Early Brahmi inscription (Paranavithana 1970: 162). The first systematic archaeological explorations of the area were undertaken by Raja de Silva and S.K Sithrampalam in 1980, and have reported discovery of approximately 200 megalithic burial sites. In the same year, S. Deraniyagala reported discovery of several rock shelter with pre historic stone artifacts bearing deposits at Waul-lena near Kokebe burial site and Sangilimalai Kanda (Deraniyagala 1982 in Senaviratne 2007:150). The region was reinvestigated by S Senaviratne in 1984, who reported occurrence of numerous cist burials within a radius of about 10-15 arches which prompted to Senaviratne to recognize the area as the principle area that largest megalithic complexes in Sri Lanka representing one of the (Seneviratne 1984:237-305).

Discussion

Previous investigation leaves several questions concerning site formation process, stratigraphy and chronology of the burial complex unanswered. With a view to filling this location Department of Archaeology and Heritage Management of the Rajarata University had the opportunity to undertake exploration and limited excavation of the study area from 2nd February to June 2nd 2016 with the permission of the Director General of the Department of Archaeology. The exploration of the area identified approximately 267 stone burials including the new form of cist burial which are categories into 5 types namely:

- i. Cist burials
- ii. Cairn heap/Cairn Mounds
- iii. Cairn circle
- iv. Alignment
- v. Urn pot (Mendis 2016:150-153).

Following the explorations, two cist burials and one Alignment were excavated to develop a clearer perspective of the general stratigraphy of the site, together with its associations of cultural materials. One of the major objectives was to obtain charcoal samples from a secure archaeological context to date the site. The Kokebe megalithic burial excavations yielded charcoal from the pots, which were excavated in laboratory condition. The main phase of burial at Kokebe is accordingly dated between 790-540 cal BC, 770-415 cal BC and 5-125 cal AD. The dating results and cultural sequence of the site indicates a multi-phase burial site from the Proto historic Iron Age to the Early historic. Moreover, the dating is clearly consistent with dating of Anuradhapura citadel Proto historic Iron Age settlement (Deraniyagala 1992: 728).

These burials were very rich in cultural material interpreted as grave goods, which comprised a variety of Black-and-Red- Ware dish, several hundred glass beads, semi-precious stone mostly carnelian and ivory beads. Among the grave goods, a variety of metal objects are the most important. In addition to that previous excavation of the region by Raja de Silva, who reported discovery of iron and copper objects were found within the burial complex. Moreover, Sithrampalam reported that discovery of iron objects. Most recently, megalith cist burial of Thammanagodalla similar to the Kokebe was excavated by Ranjith Bandara who reported that finding of iron, copper gold objects, Carnelian and Agate beads (Manamendra archchi

and Adikari 2014:216-217) in association with the megalithic burial complex. These finding occasionally not only offer clues to social status of their owners, but also reflect availability of exploitation of mineral resources in the area.

Field observations have indicated that a Large number of Megalithic burial sites have been located in the middle Yan Oya basin. Numerous determining factors have been proposed for the institutional formation of proto historic Iron Age settlement of the study area within a time and space frame work. The most reliable and earliest date for the proto historic Iron Age settlement of Anuradhapura district from the Anuradhapura citadel whereas the earliest date for proto historic Iron Age burial site from kokebe in Anuradhapura district. Therefore, it is probable that antiquity of proto historic settlement of kokebe akin to those from Anuradhapura citadel. In other words the earliest dates from Kokebe indicate the beginning of proto historic Iron age settlement have been proved too much earlier than participated. By ca 600-500 BC the proto historic settlement at 1992:711). Anuradhapura extended a town (Deraniyagala as Geomorphology of the middle Yan Oya may indicate some of the recognizable dynamic ecology associated with the settlements and its subsistence ecology. The burial and proto historic Iron age settlement of the study area are situated on the fertile Reddish Brown earth formation, which is suitable for wet agriculture.(Cooray 1984:291). Considering the geomorphology of the area, numerous determining factors were attribute to formation of the settlement of these occurrence of mineral resources and ecology are the most important determining factors. The topography of the area is characterized by occurrence of valleys and depression in the natural topography with isolated mound. During the East monsoon, the depressions in the natural topography are filled with rainy water. According to observation made by S Seneviratne, a similar situation is seen at Ibbankatuwa, Edamoraluwawewa, Pomparippu and Yan Oya Basin (Seneviratne 1996: 265:312).

A review of water utilization of middle Yan Oya basin indicates each proto historic Iron age settlement has a small scale tank, which was apparently constructed on the depression in the natural topography. At present, this region receives an annual rainfall of around 1500- 1000 mm which can be stored in the small. Scale tank or depression. Another determining factor in the process of the formation of settlement of the area is access to . It would be noted that deposited

of Iron and copper can be found in the vicinity of middle Yan Oya basin. According to S. Seneviratne, the utilization of mineral resources in large scale commenced from proto historic Iron age, Settlers may have had access to Seruwila copper magnetite deposit. Anuradhapura Eastern peripheral area is very important for identifying ancient human behavior pattern in the proto history period, proto historic humans settled in this region for taking minerals. Seruwila is one of the valuable place of ancient time. People identified copper magnetite deposit in Seruwila. Before 30 years Sri Lankan Geology Department had identified 7 million ton copper magnetite deposit in Seruwila (Senaviratne 1995: 116-118). but this deposit had been identified in the meddle Yan Oya proto history people before 2800 BP. They remove copper ore in surface level and transport middle Yan Oya basin and production for iron and copper object. Raja De Silva had investigated Gurugalhenna and Kokebe. He has found copper object and copper slag (Thathilage 2016).

Preliminary investigating indicated the existence of about 7 million ton of magnetite and extended nearly 200 feet below the surface level (Seneviratne

1995- 116-117). The earliest reference this magnetite deposited near Trincomalee was made by Davy (1821: 13). This evidence is highly valuable for constructing ancient metal recourse pattern between Anuradhapura and Eastern part Marginal communities. After proto history period, specialized people for metal were established eastern peripheral. According to early history inscription evidence we could identify they are Kabara (Iron smith), Thabara (copper smith), Topasha (Tin smith) (Ic. vol.1, No.161d,319,370) by These people product metal object and distribution every ware in Sri Lanka(Seneviratne 1995: 127-129). Specially Anuradhapura is very important, so main market place was established in the eastern part of Anuradhapura city. According to Labuatabadigala inscription, it can be identified and introducing Maha Tabaka Nigama. According to Paranavithana interpretation Nigama mean main market Place (Ez.Vol. iii: 1928: 33; 247 - 253) and Tabaka mean copper. In the ancient time east part of Anuradhapura city was received sale for copper object. This situation is very important for identifying eastern marginal community activities and they have lived in the middle Yan Oya basin.

According to the investigation made by PG Cooray, the magnetite despite originated from Eastern Vijan complex and High Land complex within the intermediate geological zone. A considerable number of proto historic Iron Age settlement are located from Kadiraveli to Mahindapura within eastern boarder of Yan Oya basin due to the occurrence of mineral resources (Thanthilage 2016: 1-9, 2007). The investigation indicated that Seruwila magnetite deposits were utilized by proto historic Iron Age settlers. chemical analysis on metal artifact recover from the proto historic Iron Age context illustrate, the great variety of metal and quality is similar to Seruwila magnetite deposit and therefore it is suggest that there is linkage between the nature of mineral resource availability and proto historic Iron

Age site distribution. (Seneviratne 1995: 116-120). Previous investigation by Raja De Silva at Gurugalhenna, Deulwewa, Kokebe and Kaderavali reportedly yield numerous artifact made of copper and Iron in associated with proto historic Iron age context. (Seneviratne 1984: 248-257). The finding of copper objects was mentioned by Raja de Silva.

Finding Pottery

In Kokebe excavations, we have collected much pottery and dates the collection of pottery from the 800 BC. The Pottery collection was also clear field nosing the system outlined based on the Tissamaharama Excavations record. The untitled pottery classification was conducted on the basis of predominate colour rim shape and body shape. Subsequently the results as the classification system introduced the nine pottery form. These pottery form were classified and categorized types (form) and based on a comparison with the Tissamaharama typology but Kokebe pottery form earlier than Tissamaharama pottery form.

i	Description
A	Haliya or Muttiya - Pot With Restricted and Inverted Upper Body With Everted and Flared Rim Zone
В	Attiliya or Halliya - Large Bowl With Wide Orifice
С	Deep Globular Bowl With Restricted Upper Body and Mostly Triangular Thickened Rim Halliya
D	Barani/Muttiya - Small Storage or Water Jug With Narrow and Short Neck and Globular Body
Е	Baraniya - Huge Storage Vessel With Thick Walls and no Neck
F	Small Jug With Mostly lenticular Built Body a Narrow Orifice and High and Funnel Shaped Neck
G	Påttaraya - Begging Bowl With Narrow Neck and Globular Body
Н	Conical Dish
K	Lid/Lid-cum-bowle

Table 1 - Pottery form Details

LS.	noir	Preserva	Low	Low	Medium	Low		Low	Low	Low	Low	Low
Other Particulars	16	otsuO	Low	Low	Medium	Low		Low	Low	Low	Low	Low
	ter	- Diame	18CM	20CM	20cm	20cm		18cm	18CM	24cm	27cm	12cm
Form	a	War.	P.W	P.W	P.W	P.W	W. d	P.W	W.q	P.W	B.R.W	P.W
	ē	qyT	V	V	V	A	Ą	В	В	В	В	D
		Бестоп	10R 5/6 Red	2.5 YR 6/2 Pale Red	2.5 YR 5/6 Red	2.5 YR 5/3 Reddish Brown		10R 6/4 Light Red	10R 4/2 Weak Red	25 YR 5/6 Red	2.5 YR 3/1 Reddish Gray	5 YR 4/3 Dark Reddish Brown
	Colour	9bistu()	10R 5/6 Red	2.5 YR 5/6 Red	2.5 YR 5/6 Red	2.5 YR 5/3 Reddish Brown		10R 6/4 Light Red	10R 5/6 Red	2.5 YR 5/6 Red	2.5 YR 3/1 Reddish Gray	5 YR 4/3 Dark Reddish Brown
:		əbisnI	10R 5/6 Red	2.5 YR 5/6 Red	2.5 YR 5/6 Red	2.5 YR 5/3 Reddish Brown		10R 6/8 Light Red	10R 5/6 Red	2.5 YR 5/6 Red	2.5 YR 5/4 Reddish Brown	5 YR 6/6 Reddish Yellow
	re	ятхэ <u>Т</u>	Соа	Соа	Medium	Low	worI	Соа	Соа	Low	Low	Coarse
	Ι	કશુાંય	C21-4	C21-10	C35-1	C35-4		C21-19	C21-2	C31-3	C31-2	C1-2
		niA ,	EX 1	EX1	EX1	EX1		EX1	EX1	EX1	EX1	EX 3
	xt	eino.)	C21	C21	C35	C35		C21	C21	C31	C31	Cl
	oN	xəpuI	1	2	3	4	5	9	7	8	6	10

Low	Low	Medium		Medium	Low	Low		Low	Low	Low	Low
Low	Low	Medium		Medium	Low	Low		Low	I.ow	Low	Low
14CM	16cm	17CM		20cm	20cm	20CM		18CM	29cm	10CM	12cm
P.W	P.W	P.W		B.R.W	P.W	P.W		p.w	P.W	P.W	P.W
Ω	D	D	۵	О	D	D	D	Щ	Е	ī	7
5YR 6/6 Reddish Yellow	2.5 YR 2.5/1 Reddish Black	10R 5/8 Red			2.5YR 4/2 Weak Red	5 YR 6/6 Reddish Yellow		5YR 6/6 Yellowish Red	10 YR 5/8 Red	7.5 YR 6/6 Reddish Yellow	10R 5/6 Red
5YR 6/6 Reddish Yellow	2.5 YR 5/8 Red	10R 5/8 Red		2.5 YR 5/6 Red	2.5YR 6/8 Light Red	5 YR 6/6 Reddish Yellow		5YR 6/6 Yellowish Red	10 YR 5/8 Red	7.5 YR 6/6 Reddish Yellow	10R 5/6 Red
5 YR 6/6 Reddish Yellow	2.5 YR 5/8 Red	10R 5/8 Red		2.5 YR 3/1 Dark Reddish Gray	2.5YR 6/8 Light Red	5 YR 6/6 Reddish Yellow		5YR 6/6 Yellowish Red	10 YR 5/8 Red	7.5 YR 6/6 Reddish Yellow	10R 5/6 Red
Соа	Соа	Medium		Medium	MOL	Соа		Medium	Coarse	Coa	Medium
C21-9	C34-2	C21-1		C31-1	C21-18	C21-6		C21-7	C1-1	C21-5	C21-13
EX1	EX1	EX1		EX1	EX1	EX1		EX1	EX3	EX1	EX1
C21	£	C21		C31	C21	C21		C21	Cl	C21	C21
1	12	13	14	15	16	17	ά.	19	20	21	22

						,			
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
18cm	20cm	20cm	24cm	18cm	18cm	22cm	26cm	32cm	10cm
P.W	P.W	P.W	B.R.W	P.W	P.W	P.W	P.W	P.W	P.W
9	9	G	9	Н	I	Н	H	Н	-
		2.5 YR 5/4 Reddish Brown	2.5 YR 4/3 Reddish Brown	7.5 YR 6/6 Reddish Yellow	10 YR 3/1 Dark Reddish Gray	5YR 5/6 Yellowish Red	10R 4/4 Weak Red	10R 4/4 Weak Red	
5 YR 5/4 Reddish Brown	5YR 6/4 Light Reddish Brown	2.5 YR 5/4 Reddish Brown	2.5 YR 4/3 Reddish Brown	7.5 YR 6/6 Reddish Yellow	10 YR 5/8 Red	5YR 5/6 Yellowish Red	10R 4/4 Weak Red	10R 4/4 Weak Red	5YR 6/4 Light Reddish Brown
5 YR 2.5/1 Back	2.5 YR 4/1	2.5 YR 5/4 Reddish Brown	2.5 YR 4/3 Reddish Brown	7.5 YR 6/6 Reddish Yellow	10 YR 4/2 Week Red	5YR 5/6 Yellowish Red	10R 4/4 Wcak Red	10R 4/4 Weak Red	
Соа	Medium	Low	Corse	Coarse	Coarse	Coarse	Medium	Medium	Соа
C31-4	C37-1	C35-3	C4-6	C3-7	C3-1	C1-5	C4-3	C4-2	C40-1
EX1	EX1	EX1	EX1	EX 3	EX 3	EX 3	EX1	EX1	EX1
C31	C37	C35	C4	C3	හ	C1	C4	C4	C40
23	24	25	26	27	28	29	30	31	32

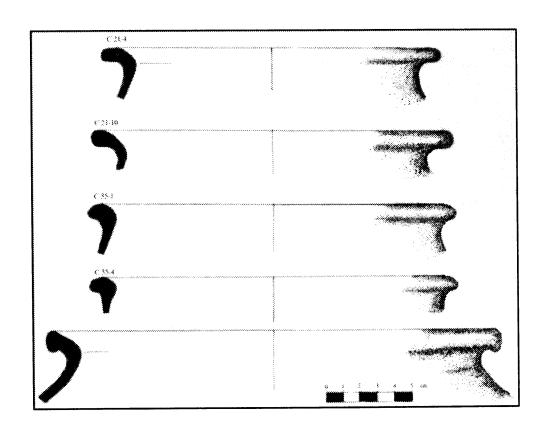
Low	Low	Medium
Low	Low	Medium
10cm	10.5CM	11.5cm
P.W	B.R.W	B.R.W
I	П	ы
5 YR 6/4 Light Reddish Brown	10R 5/6 Reddish Black	2.5 YR 5/6 Red
	10R 2.5/1 Reddish Black	2.5 YR 2.5/1 Reddish Black
Соа	Coa	Medium
C35-5	C4-8	C31-5
EX1	EX1	EX1
C35	2	C31
33	34	35

Table 2 - Pottery form Descriptions

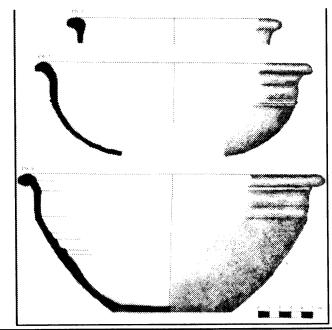
Serial	Tro-H	ə ()į.
Ko Ko	A A A	Kokeb	тоЯ	Type	эѕвЧТ	194 əmiT
Ko Ko	A A	C21-4	A	11b	C2	1st BC
Κο	A	C21-10	А	8a	C1	2nd BC
7\1	1	C35-1	А	98	þ	3rd BC
Ko	A	C35-4	А	1116	C2	1th BC
Ko	A		А	3a	a	3rd/4th BC
Ko	В	C21-19	В	16	b/c1	3rd/2th BC
Ko	В	C21-2	В	116	b/c1	3rd/2th BC
Ko	В	C31-3	В	2b	c2	1th BC
Ko	В	C31-2	В	4b	р	1st/2nd AD
Ko	Ω	C1-2	D	9p	е	2nd/3rd AD
Ko	D	C21-9	D	d3	c2/d	1st BC/1st,2nd AD
Ko	D	C34-2	D	d3	c2/d	2nd BC/1st,2nd AD
Ko	D	C21-1	D	d2b	a	3rd/4th BC
Ko	Ω		D	d3	þ	1st/2nd AD
Ko	D	C31-1	D	9p	е	2nd/3rd AD
Ko	D	C21-18	D	d2	c1/c2	2nd BC/1st BC

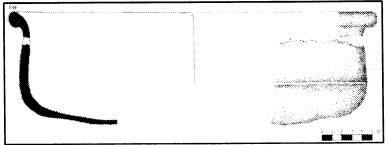
					<u> </u>		
17	Ko	D	C21-6	Д	d2	c1/c2	3rd BC/1st BC
18	Ko	Д		D	d3	c2/d	1st BC/1st AD
19	Ko	E	C21-7	E	e1	a/b	3rd/4th BC
20	Ko	E	C1-1	田	e1	a/b	3rd/4th BC
21	Ko	Щ	C21-5	Щ	8a	q	1st,2nd AD
22	Ko	Н	C21-13	Н	8a	d	1st,2nd AD
23	Ko	ß	C31-4	Ŋ	8	c1	2nd BC
24	Ko	5	C37-1	9	2	a	3rd/4th BC
25	Ko	ß	C35-3	Ŋ	2	q	3rd BC
26	Ko	ß	C4-6	9	7	q	3rd BC
27	Ko	Н	C3-7	Н	9I	f	300-450 AD
28	Ko	Н	C3-1	Н	G20	8	450-7th AD
29	Ko	Н	C1-5	Н	Н	c2	1st BC
30	Ko	Н	C4-3	Н	H11	8	450-1st AD
31	Ko	Н	C4-2	Н	Ia	р	1ST/2nd AD
32	Ko	I	C40-1	I	11	a	3rd/4th BC
33	Ko		C35-5	I	11	а	3rd/4th BC
34	Ko	I	C4-8	I	11	а	3rd/4th BC
35	Ko	П	C31-5	Ι	J	a	3rd/4th BC

Table 3- Kokebe Pottery form comparison study with Tissamaharama

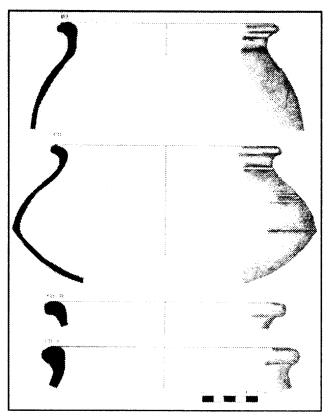


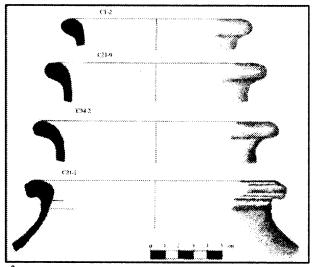
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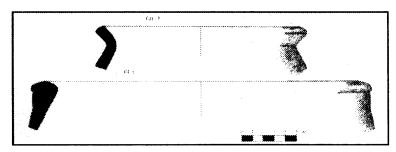


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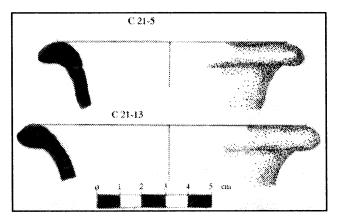




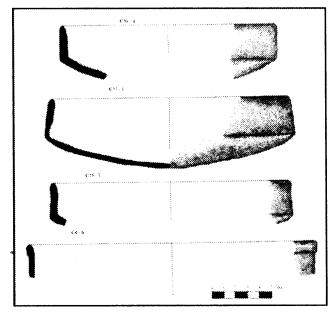
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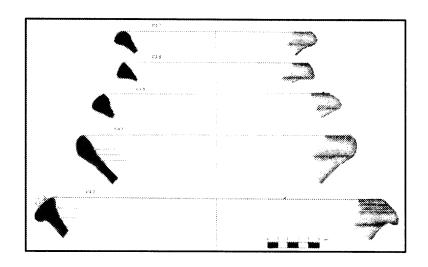


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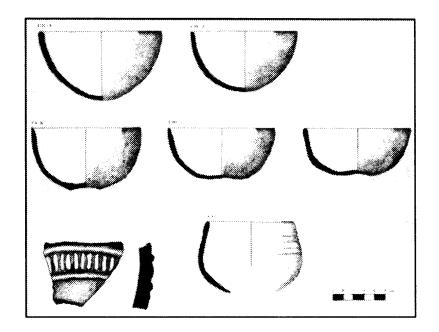


Form 'G'

A.

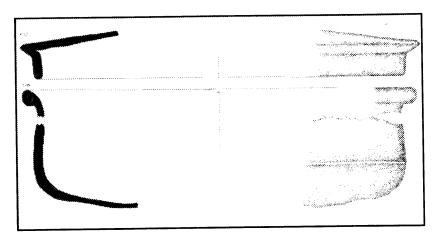


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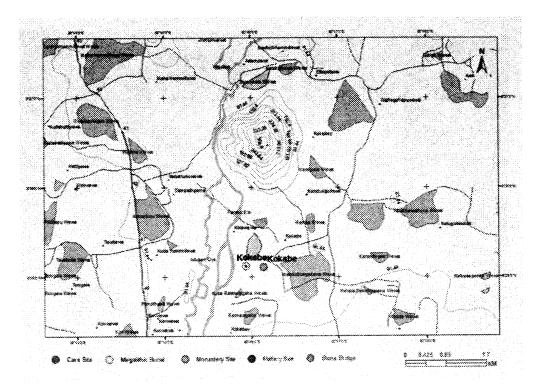
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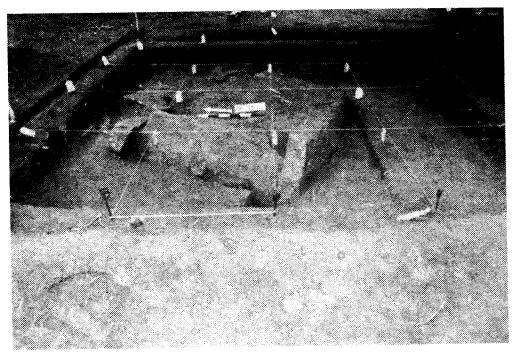
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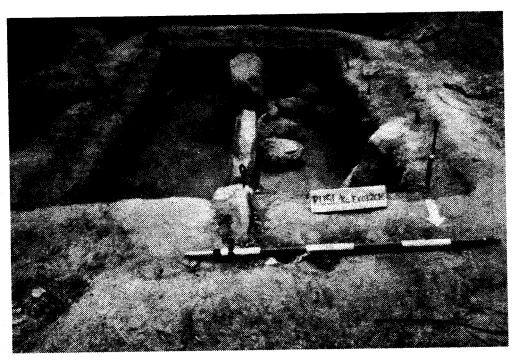


Site location map





Excavation steps cist burial



Excavation steps Alignment