Janakapura Megalithic Mortuary Complex

Excavation Report 2022

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The Archaeological Excavation based on Megalithic Burial Site in Janakapura, Mullaitivu

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Introduction

The megalithic burial site in Janakapura; situated in No.05 Grama Niladhari Division of Janakapura, Divisional Secretariat of Weli Oya, Mullaitivu District was primarily explored by the Department of Archaeology and Heritage Management, Rajarata University of Sri Lanka in 2020. In accordance with the outcomes of the survey, an excavation was conducted in 2022, focusing on several research objectives as;

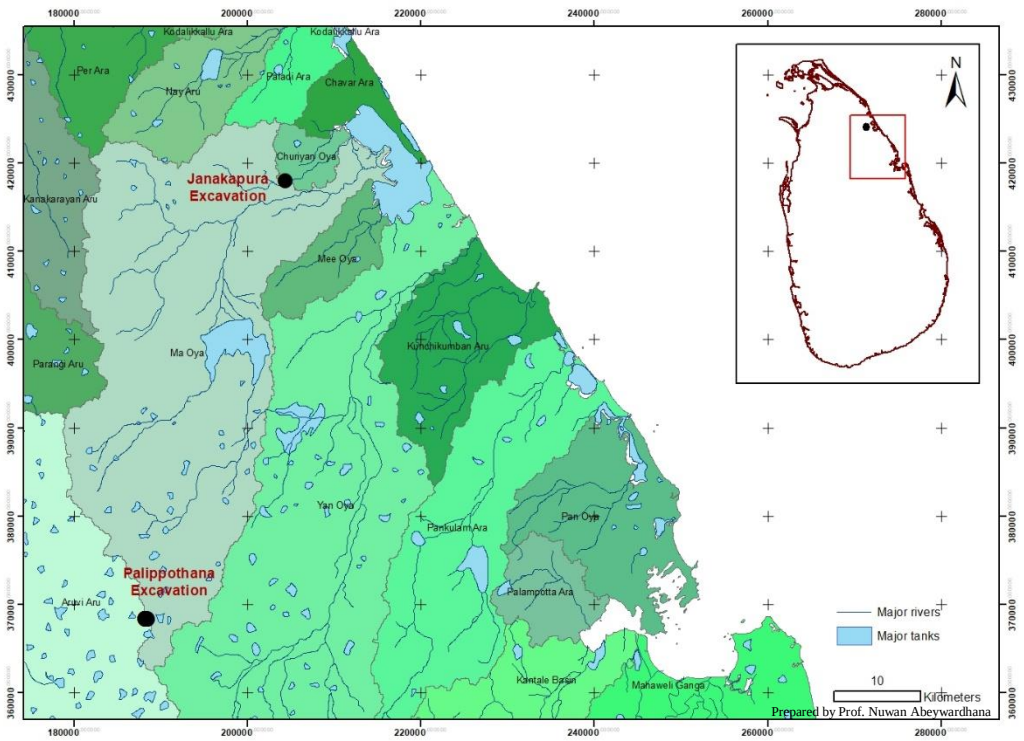
- To identify the cultural landscape of Janakapura and its peripheral region.
- To study the architecture of megalithic burials in a particular macro zone.
- To analyze the distribution of material culture in the dilated zone with regard to the lower basin of Ma Oya.
- To identify the ecological background, irrigation system, social-archaeological background and historical development of the particular area.
- To investigate the origin and development of settlements by studying the direct and indirect impacts made by the geological system on the evolution of the cultural landscape of the region.
- To study the locating pattern and interlinkage between proto-historic burials in river basins.

In order to accomplish the mentioned objectives, the Department of Archaeology and Heritage Management, Rajarata University of Sri Lanka conducted the excavation under the name of 'The Archaeological Excavation of Janakapura Megalithic Burial Site in Ma Oya Basin – 2022' (Site Code – RUSL/JP/EX/2022).

Location of the Excavation

According to administrative divisions, this megalithic burial site is situated in No.05; Janakapura Grama Niladhari Division of Weli Oya Divisional Secretariat, Mullaitivu District, Northern Province of Sri Lanka and it belongs to the lower basin of Ma Oya (Weli Oya). According to the road directions, the excavation site can be reached by travelling through Mullaitivu road which passes Weli Oya, Janakapura. After driving 290 meters towards Mullaitivu from the new Sangharama of Janakapura, there is a sideway heading to the west. Next, one should walk for 70 meters on the sideway to reach the destination.

The burial complex; reflects the culture of the proto-historic period of Sri Lanka, expanded into a land of 05 acres. However, the destruction made by the Tamil Elam Civil War which lasted for 30 years in the North-Eastern part of the country and post-war activities such as the establishment of new colonies, constructions and cultivation have destroyed the site to a considerable extent. The center part of the complex, containing a cluster of capstone burials selected for the excavation and GPS location recorded as 9.020140, 80.843510. Primarily, the excavation pit was prepared in a size of 4m x 4m and the site code can be mentioned as RUSL/JP/EX01/2022.



Map 4-1 Location of the megalithic burial site of Janakapura

Objectives of the Excavation

The objectives of the excavation based on the megalithic burial site in Janakapura can be mentioned as follows;

- To identify the chronology of megalithic burials in Janakapura through the radio-carbon dating method.
- To study the stratigraphy and deposition of particular burial complex.
- To investigate the locating pattern and interlinkage between proto-historic burials in river basins.
- To analyze the structure of capstone burials.

- To provide practical field training for undergraduates enrolled in the special degree program of Archaeology and Heritage Management, Rajarata University of Sri Lanka.

Organization and Proceeding

Conducting the Excavation	Prof. D. Thusitha Mendis Senior Lecturer Chandima Bandara Ambanwala
Excavation Team	Academic, Non-academic Staff Members and Undergraduates Mr. J.M. Indika Ruwan Jayasekara (Assistant Lecturer) Mr. D.M. Nadeera Harshajith (Independent Researcher) Ms. Janeena Nonis (Assistant Lecturer) Ms. P. Narmada Hansani (Assistant Lecturer) Mr. W.A.M.C.M. Adhipaththu (Assistant Lecturer) Ms. R.M.I.G.D.K. Rathnayake (Assistant Lecturer) Ms. P.N.M. Samarathunga (Assistant Lecturer) Mr. B.M. Anjula Dhananjith (Undergraduate Trainee) Mr. D.D. Dinelka Madhushan (Undergraduate Trainee) Mr. K.G. Hasith Randika (Undergraduate Trainee) Mr. Dulmina Wishwanath (Undergraduate Trainee) Mr. Chamara Aberathna (Photographer)

Preparation of the Land for the Excavation

The Horizontal Excavation Method was used for this excavation and the pit was mainly prepared in a size of 4m x 4m. For the convenience of recording and other related activities, the pit was divided into 16 subareas (dimensions of one subarea – 1m x 1m). Subareas were named as A, B,C, and D from west to east and 1,2,3,4 from north to south. GPS locater was used for the procedure

of identifying mean sea level and locating a temporary benchmark on site. The temporary benchmark was used as the main datum point for daily measuring purposes of the excavation.

A_1	B_1	C_1	D_1
A_2	B_2	C_2	D_2
A_3	B_3	C_3	D_3
A_4	B_4	C_4	D_4

Plan 4-1 The excavation pit

Soil Removal Method

Context System which was founded by Edwerd C. Harris in 1979 was used in this excavation based on Janakapura megalithic burial complex, as the soil removal method. Every natural or cultural phenomenon was considered as a context and a number was given. At the end of the excavation, the connection between the upper and lower strata was interpreted using the Matrix Chart.

Recording Methods

In this excavation following methods were used for data recording.

- Measured Plans (Scale Drawings)
  - Ground Plan
  - Cross-section
  - Side Elevation
  - Soil Profile

As mentioned above, all the stages from the beginning to the end of the excavation were recorded by measured plans.

- Three-Dimensional Images
- Context sheets

Since the context system was used as the soil removal method, every natural and cultural phenomenon was numbered and recorded through context sheets. 106 contexts were identified from the excavation and details are included below.

- Find Cards

Various types of artefacts were retrieved from the excavation such as pottery shreds, metal objects, beads, etc. Each finding was recorded at the moment it was found and the details of location and physical features were included in the find cards.

- Global Coordinates

The GPS machine was used to identify the locations related to the excavation via global coordinates and the records used in the preparation of maps, plans and etc.

❖ Sampling

Soil samples, charcoal samples and bone samples were mainly collected from the excavation for post-excavation analyses. Soil samples were gathered from 04 soil layers uncovered while the excavation and taken samples from fillings of burial urns as well. Furthermore, charcoal samples which could be used on radio-carbon dating were collected from both inside and outside of urn burials. Around 10 buried urns were identified from the pit and those with minimum damage were taken to the archaeology laboratory of Rajarata University, Sri Lanka with a protective case made of plaster paris. While analyzing urns, cremated bones were abundantly found inside and collected as samples. In the

sample collecting process the GPS location, position in the excavation pit (X, Y, Z), physical details, date and time collected were recorded respectively.

❖ Photography and Videography

It is important to maintain recording from the beginning to end of the excavation since it is essential for interpreting natural and cultural phenomena. The process of the excavation based on the Janakapura megalithic burial site was completely recorded by photographs and videos. Each photograph was given a number and included in a separate report (Attachment 03).

Description of the Contexts – Excavation; RUSL/JP/EX01/2022.

Context No: 01

The humus soil layer which covered the surface of the excavation entitled context 01 and was loose in compaction. The composition was recorded as sand - 87%, clay - 12%, silt - 01% and the colour was 2.5YR 4/3 Reddish Brown. When considering the thickness of the layer, 14cm was stated as the highest and 12cm as the lowest. Roots, quartz and iron fragments were included and 12 capstones; were constructed by granitic gneiss, and crystalline limestone were visible in the surface. This context can be recognized as the first layer of the excavation. The upper sea level of the layer was recorded as 100.069m and the lower as 99.902m.

Context No: 02

The second soil layer spread through the excavation pit can be mentioned as context 02 and it was loose in compaction. The composition was recorded as sand - 85%, clay - 14%, silt - 01% and the colour was 10YR 5/3 Brown. The average thickness of the layer was stated as 24cm and pottery shreds were retrieved from the particular context. In addition to the 12 capstones identified from context 01, 04 stones associated with capstones were found while

excavating context 02; 03 from the C1 subarea and 01 from the B3 subarea. Those were made by granitic gneiss. The upper sea level of the layer was recorded as 99.936m and the lower as 99.50m.

Context No: 03

Context 03 was a capstone located on the west bank of the A1 subarea. The length of the stone measured 77cm and the width as 40cm. 18cm of the stone expanded on the outside of the excavation pit.

Context No: 04

Context 04 was a capstone located between A1 and B1 subareas. The length of the stone part in A1 measured 93cm and the width as 32cm. The part belonging to B1 was 80cm in length and 54cm in width. The capstone was generally spread through the northern section of the excavation pit. The sea level of the context was recorded as 100.19m.

Context No: 05

A capstone between A2 and B2 subareas was entitled as context 05 and it was 97cm in length and 54cm in width. The stone was expanded 25cm from outside of the west bank of the excavation pit. Clefts were found from the lower part of the capstone. The sea level of the context was recorded as 100.276m.

Context No: 06

Context 06 was a capstone located between A3 and B3 subareas. Length of the stone part in A3 measured 57cm and the width was 25cm. The part belonging to B3 was 60cm in length and 50cm in width. The capstone was half-circular shaped and the sea level of the context was recorded as 100.81m.

Context No: 07

A capstone expanded between A4 and B4 subareas were named as context 07 and it was 74cm in width. The stone part measured 36cm spread through A4 and the other part of 38cm was in B4. Generally, the capstone was located in the southern boundary of the excavation pit and the sea level of this context was recorded as 99.41m.

Context No: 08

Context 08 was a capstone located in the A4 subarea, as well as in the southern bank of the excavation pit. The stone was 54cm in length and 21cm in width. The sea level of the context was recorded as 100.019m.

Context No: 09

Context 09 can be mentioned as a capstone located between A2 and B2 subareas. The largest part of the stone belonged to B2 as it was 79cm in length and 59cm in width. The part spread in A2 was only 23cm in length. The capstone was generally expanded through the eastern part of the excavation pit. The sea level of the context was recorded as 100.048m.

Context No: 10

Context 10 was a capstone located in the C2 subarea. It was 92cm in length and 86cm in width. The sea level of the context was recorded as 100.13m. The stone was divided into two parts from a cleft of 10cm.

Context No: 11

A capstone between D1 and D2 subareas was entitled as context 11 and it was 104cm in length and 84cm in width. The largest part included in D1 and 20cm of the stone expanded from outside of the east bank of the excavation pit. The sea level of the context was recorded as 100.07m.

Context No: 12

The largest capstone in the excavation pit was named as context 12 and it spread among the subareas of B3, C3, C4, D3 and D4. The length, width and height of the stone were stated as 160cm, 142cm and 40cm respectively. It was located in the east part of the excavation pit. The sea level of the context was recorded as 100.03m.

Context No: 13

Context 13 was a capstone located in C4 and D4 subareas and it was 97cm in length and 50cm in width. The stone was positioned near to the southern bank of the excavation pit. The sea level of the context was recorded as 100.03m.

Context No: 14

A capstone between D3 and D4 subareas was entitled as context 14 and it was 50cm in length and 28cm in width. 30cm of the stone expanded from outside of the east bank of the excavation pit. The sea level of the context was recorded as 100.09m.

Context No: 15

Context 15 was a capstone located in the northern part of C1 subarea and it was 44cm in length and 42cm in width. The sea level of the context was recorded as 99.91m.

Context No: 16

Context 16 can be mentioned as a circular capstone in the northern part of C1 subarea. The length, width and height of the stone were stated as 40cm, 37cm and 10cm respectively. The sea level of the context was recorded as 99.80m.

Context No: 17

A stone positioned between C1 and B1 subareas was entitled as context 17. It was 51cm in length, 35cm in width and 24cm in height. The sea level of the context was recoded as 99.85m.

Context No: 18

Context 18 can be mentioned as a capstone located in B1 and B2 subareas. The length, width and height of the stone were stated as 55cm, 38cm and 23cm respectively. The sea level of the context was recorded as 99.81m.

Context No: 19

A stone positioned between B4 and C4 subareas was entitled as context 19. It was 50cm in length, 38cm in width and 19cm in height. The stone was located near to the southern bank of the excavation pit. The sea level of the context recorded as 99.78m.

Context No: 20

Context 20 can be mentioned as a capstone located in the B3 sub-area. The length, width and height of the stone were stated as 25cm, 14cm and 33cm respectively. It was positioned in the western part of the excavation pit. The sea level of the context was recorded as 99.87m.

Context No: 21

An urn pot located between C2 and D2 subareas was named as context 21. It was a large urn, slightly inclined and surrounded by a layer of quarts. The sea level of the context was recorded as 99.87m.

Context No: 22

Context 22 can be mentioned as a cluster of pottery fragments located in the western bank of the A4 subarea. A shred related to this cluster was identified

near to the western part of the excavation pit. The sea level of the context was recorded as 99.57m.

Context No: 23

A vessel positioned near the eastern bank of the D1 subarea was entitled as context 23. Beads found from inside of the pot and sea level of the context was recorded as 99.51m.

Context No: 24

The third soil layer spread through the excavation pit can be mentioned as context 24 and it was loose in compaction. Composition recorded as sand - 78%, clay - 21%, silt - 01% and the colour according to the Munsell Soil Colour Chart was 7.5YR 4/4 Reddish Brown. When considering about the thickness of the layer, 46cm was stated as the highest and 30cm as the lowest. Pottery shreds, beads, charcoal, and human bones were retrieved from the particular context.

Context No: 25

Context 25 can be mentioned as a cluster of pottery fragments located in D1 subarea. Sea level of the context recorded as 99.72m.

Context No: 26

Context 26 was a cluster of pottery fragments located in the D4 subarea. The sea level of the context was recorded as 99.53m.

Context No: 27

A cluster of pottery shreds in the A2 subarea was entitled as context 27. Beads were recorded near the cluster and the sea level of the context was recorded as 99.53m.

Context No: 28

Context 28 was a small granite stone found after removing context 27 (pottery cluster) in the A2 subarea. Length, width and height of the stone were stated as 16cm, 8cm, and 4cm respectively.

Context No: 29

A cluster of pottery shreds located in the western part of the A1 subarea was entitled context 29. Beads and charcoal were recorded near the cluster and the sea level of the context was recorded as 99.65m.

Context No: 30

Context 30 was a cluster of pottery fragments positioned near to the eastern bank of the D3 subarea. Beads were found as associated artifacts with the context and the sea level was recorded as 99.60m.

Context No: 31

A cluster of pottery shreds located between B1 and B2 subareas was entitled as context 31.The sea level of the context was recorded as 99.70m.

Context No: 32

Context 32 can be mentioned as a cluster of pottery fragments positioned in the A2 subarea. Ashes, charcoal and bones were identified from the context and the sea level was recorded as 99.61m.

Context No: 33

A cluster of pottery shreds located in the D2 subarea was entitled as context 33.

Context No: 34

Context 34 was a cluster of pottery fragments positioned near to the eastern bank of the D1 subarea. Several beads were found in the context.

Context No: 35

A cluster of pottery shreds located between context 09 and context 10 in the center part of the B2 subarea was entitled as context 35. According to the physical features, it can be assumed as a bowl or a plate. Significantly, it was surrounded by a layer of quarts and ashes, bones were included in the context.

Context No: 36

Context 36 was a cluster of pottery fragments positioned between B3 and B4 subareas.

Context No: 37

Context 37 can be mentioned as a cut, spread between A2 and B3 subareas and used to deposit context 38 (a cluster of pottery shreds). It was in oval shape and created a steep slope. The upper and lower sea levels of the context were recorded as 99.62m and 99.34m respectively.

Context No: 38

A cluster of pottery shreds located near the eastern bank of the A3 subarea was entitled context 38.

Context No: 39

Context 39 was associated with contexts 37 and 38 as the fill of the cut. The thickness of the context was recorded as 8cm.

Context No: 40

Context 40 can be mentioned as a cut, spread in the D2 subarea, near the southern bank of the pit and it was used to deposit context 26 (a cluster of pottery shreds). It was in oval shape and created a steep slope for the north. Furthermore, it might be expanded over the southern bank of the excavation pit.

Context No: 41

Context 41 was associated with contexts 26 and 40 as the fill of the cut. It was spread for 70cm from the eastern bank of the pit to the D4 subarea.

Context No: 42

Context 42 can be mentioned as a cut in the A4 subarea which was used to deposit context 22 (a vessel). It was in circular shape with a diameter of 35cm. The cut created a steep slope and spread in the north-south direction.

Context No: 43

Context 43 was associated with contexts 22 and 42 as the fill of the cut. It was expanded in the A4 subarea and beads were found from the context.

Context No: 44

A stone located on the southern border of B4 and C4 subareas was entitled as context 44. It was 84cm in length and 20cm in width.

Context No: 45

Context 45 was a small stone positioned in the centre part of the B4 subarea. Length and width of the context were recorded as 21cm and 20cm respectively.

Context No: 46

A small stone located on the southern border of the B4 subarea was entitled as context 46. It was 34cm in length and 30cm in width. The sea level of the context was recorded as 99.74m.

Context No: 47

Context 47 was a stone positioned in the B4 subarea. Length, width and height of the context were stated as 23cm, 12cm and 16cm respectively.

Context No: 48

A supportive stone located between context 10 and context 12 in C3 and C4 subareas were entitled as context 48. It was 78cm in length and 40cm in width. The sea level of the context was recorded as 99.76m.

Context No: 49

Context 49 was a supportive stone positioned in the western part, below to context 12 in the C3 subarea. The length and width of the context were stated as 42cm and 23cm respectively. The sea level of the context was recorded as 99.70m.

Context No: 50

A stone located between A3 and B3 subareas was entitled as context 50. It was 30cm in length, 20cm in width and 18cm in height. The sea level of the context was recorded as 99.58m.

Context No: 51

Context 51 was a small stone positioned in the A1 subarea. The length, width and height of the stone were stated as 17cm, 09cm and 05cm respectively. The sea level of the context was recorded as 99.70m.

Context No: 52

A stone located in the A1 subarea was entitled context 52. It was 18cm in length, 15cm in width and 07cm in height. The stone was slightly in a triangular shape. The sea level of the context was recorded as 99.80m.

Context No: 53

Context 53 can be mentioned as a long triangular stone positioned between B1 and C1 subareas. The length, width and height of the stone were stated as 21cm, 14cm and 1.7cm respectively. It might be used as a supportive stone for context 17. The sea level of the context was recorded as 99.70m.

Context No: 54

A stone located in the C1 subarea was entitled as context 54. It was 25cm in length and 10cm in width. The sea level of the context was recorded as 99.80m.

Context No: 55

Context 55 was a small stone positioned on the eastern border of the D1 subarea. The length and width of the stone were stated as 16cm and 15cm respectively. The sea level of the context was recorded as 99.91m.

Context No: 56

A cluster of pottery fragments located near the northern bank of the C1 subarea was entitled as context 56.

Context No: 57

The fourth soil layer spread through the excavation pit can be mentioned as context 57 and it was loose in compaction. Composition recorded as sand - 91%, clay - 07%, silt - 02% and the colour according to the Munsell Soil

Colour Chart was 7.5YR 4/4, Reddish Brown. When considering the thickness of the layer, 45cm was stated as the highest and 35cm as the lowest.

Context No: 58

A cluster of pottery shreds in the B3 subarea was entitled as context 58. Several pieces of ochre founded near the context.

Context No: 59

Context 59 can be mentioned as a cut in the B2 subarea which was used to deposit context 31 (a cluster of pottery shreds). It was in oval shape and created a steep slope for a depth of 8cm.

Context No: 60

A cluster of pottery shreds in the northern corner of C1 subarea was entitled context 60. Beads were retrieved from the context.

Context No: 61

Context 61 was a cluster of pottery fragments positioned below context 06 in the A3 and B3 subareas. Beads, ashes and bones were identified near the context.

Context No: 62

Context 62 was associated with contexts 31 and 59 as the fill of the cut. It was expanded in B1 and B2 subareas. The sea level of the context was recorded as 99.46m.

Context No: 63

Context 63 can be mentioned as a cut in the B2 subarea which was used to deposit context 35 (a cluster of pottery shreds). It was in oval shape and created a steep slope for a depth of 12cm.

Context No: 64

Context 64 was associated with contexts 35 and 63 as the fill of the cut. It was expanded in the B2 subarea.

Context No: 65

Context 65 can be mentioned as a cut in the C1 subarea which was used to deposit the context 60 (a cluster of pottery shreds). It was under the capstone named as context 15 and it created a steep slope as well.

Context No: 66

Context 66 was associated with contexts 60 and 65 as the fill of the cut. It was expanded in the C1 subarea. Beads were found from the context.

Context No: 67

Context 67 can be mentioned as a cut in the B3 subarea which was used to deposit the context 58 (a cluster of pottery shreds).

Context No: 68

Context 68 was associated with contexts 58 and 67 as the fill of the cut. It was expanded in the B3 subarea.

Context No: 69

A cluster of pottery shreds located between A2 and B2 subareas was entitled as context 69. It was identified under the capstone named context 09. A metal blade was found in the cluster.

Context No: 70

Context 70 was a cluster of pottery fragments positioned in the southern bank of the A4 subarea. Ashes, bones, pieces of an iron nail and slag residues were recognized near to the context.

Context No: 71

Context 71 can be mentioned as a cut in the A4 subarea which was used to deposit context 70 (a cluster of pottery shreds).

Context No: 72

Context 72 can be mentioned as a cut between A2 and B2 subareas used to deposit the context 69 (a cluster of pottery shreds). It created a steep slope and expanded on the north-south direction.

Context No: 73

Context 73 was associated with context 69 and 72 as the fill of the cut. It was spread in A2 and B2 subarea.

Context No: 74

Context 74 can be mentioned as a cut between C2 and D2 subareas used to deposit context 21 (an urn pot). It was in an uneven shape and created a straight slope for a depth of 25cm.

Context No: 75

Context 75 was associated with contexts 21 and 74 as the fill of the cut. It was spread in C2 and D2 subareas.

Context No: 76

A cluster of pottery shreds in the C4 subarea was entitled as context 76. Beads and quarts were found near the context.

Context No: 77

Context 77 can be mentioned as a cluster of pottery fragments related to a vessel, which was identified after removing capstone - context 10. It was

expanded to an area of 75cm x 55cm and the sea level of the context was stated as 99.52m.

Context No: 78

A cluster of pottery shreds related to a small pot was named as context 78. It was positioned in front of context 07 (capstone) and belonged to the A4 subarea.

Context No: 79

Context 79 can be mentioned as a cut in the A4 subarea which was used to deposit the context 78 (a cluster of pottery shreds). It was oval in shape and created a steep slope.

Context No: 80

Context 80 was associated with contexts 78 and 79 as the fill of the cut. It was spread in the A4 subarea.

Context No: 81

A small stone located on the southern border of the A4 subarea was entitled as context 81.

Context No: 82

Context 82 can be mentioned as a cut used to deposit context 77 (a cluster of pottery shreds). It was expanded in the north-south direction and created a steep slope for a depth of 09cm.

Context No: 83

Context 83 was associated with contexts 77 and 82 as the fill of the cut. A quartz layer; 60cm in length and 57cm in width has been identified as an inclusion of the context.

Context No: 84

Context 84 was associated with contexts 70 and 71 as the fill of the cut. It was spread in the A4 subarea.

Context No: 85

Context 85 can be mentioned as a cut located in the C4 subarea which was used to deposit context 76 (a cluster of pottery shreds). It created a steep slope for a depth of 10cm.

Context No: 86

A supportive tone positioned near the western bank of the excavation pit was entitled context 85. It was recognized after removing context 12 (capstone) and it might be used as a supportive stone for the relevant context. The length and width of the stone was stated as 30cm and 18cm respectively.

Context No: 87

Context 87 was a supportive tone located under context 12 and in front of context 76 in the C4 subarea. It was 42cm in length and 26cm in width.

Context No: 88

As context 86 and 87, context 88 (stone) was also identified after the removal of context 12. The length and width of the stone was stated as 80cm and 20cm respectively. The sea level of the context was recorded as 99.67m.

Context No: 89

Context 89 can be mentioned as a cut located below context 12, which was used to deposit the context 93 (an urn pot). It was in a slightly circular shape and created a steep slope for a depth of 10cm. The cut spread in the north-south direction.

Context No: 90

Context 90 was associated with contexts 76 and 85 as the fill of the cut. Beads were retrieved from the context.

Context No: 91

Context 91 was associated with contexts 89 and 93 as the fill of the cut.

Context No: 92

A cluster of pottery fragments located in the C3 subarea can be mentioned as context 92. According to the morphological features, fragments might be related to a small bowl or a cup.

Context No: 93

Context 93 was a large urn pot which covered with context 12 (capstone) and located in C3 subarea. It was surrounded by five contexts as contexts 48,49,86,87 and 88. The urn was slightly inclined to the west and it was 55cm in height. The sea level of the context was recorded as 99.59m.

Context No: 94

A cluster of pottery fragments located in the D4 subarea can be mentioned as context 94.

Context No: 95

Context 95 was a stone located in the C3 subarea. It was 32cm in length and 23cm in width. The sea level of the context was recorded as 99.63m.

Context No: 96

A stone with a length of 56cm and a width of 25cm was named context 96. Sea level of the context was recorded as 99.70m.

Context No: 97

A cluster of pottery shreds can be mentioned as context 97. It was identified after extending D4 subarea for 50cm x50cm.

Context No: 98

Context 98 was a stone positioned near the southern border of the excavation pit and belonged to the B4 subarea. The length and width of the context were stated as 20cm and 18cm respectively.

Context No: 99

A stone located in the right side of the context 76 was entitled as context 99. It was 23cm in length, 18cm in width and 09cm in height.

Context No: 100

Context 100 can be mentioned as a cluster made of fragments belonging to a number of pots. It was identified after extending D4 subarea for 50cm x 50cm. The context was closely positioned to the eastern border of the excavation pit and beads were recorded as inclusions.

Context No: 101

A group of pottery shreds related to a vessel, located in the D3 subarea and the eastern side of context 88 was entitled as context 101. The sea level of the context was recorded as 99.57m.

Context No: 102

Context 102 was a vessel found under the capstone named context 14. The sea level of the context was recorded as 99.48m.

Context No: 103

Context 103 can be mentioned as a layer of quartz expanded through the D2 subarea with a length of 60cm-70cm and a width of 32cm. Quartz around 4cm-5cm in size was used to create this context and it can be assumed as a ritualistic feature related to the deposition of funerary remains. The sea level of the context recorded as 99.59m.

Context No: 104

A vessel of black and red ware type which positioned in C3 subarea and belonged to the fourth layer was entitled as context 104. Ochre fragments were identified from the context and sea level was recorded as 99.45m.

Context No: 105

Context 105 was a vessel deposited in the B3 subarea. The relative location of the context can be mentioned as X – 265cm, Y – 154cm and the sea level was 99.37m.

Context No: 106

A bowl located in the C3 subarea can be recognized as context 106. Due to its vertical position, it might be fallen from the upper phase and be stabled as a secondary deposition. The relative location of the context can be mentioned as X – 243cm, Y – 160cm and the sea level was 99.48m.

RUSL/JP/EX01/2022 Matrix Chart

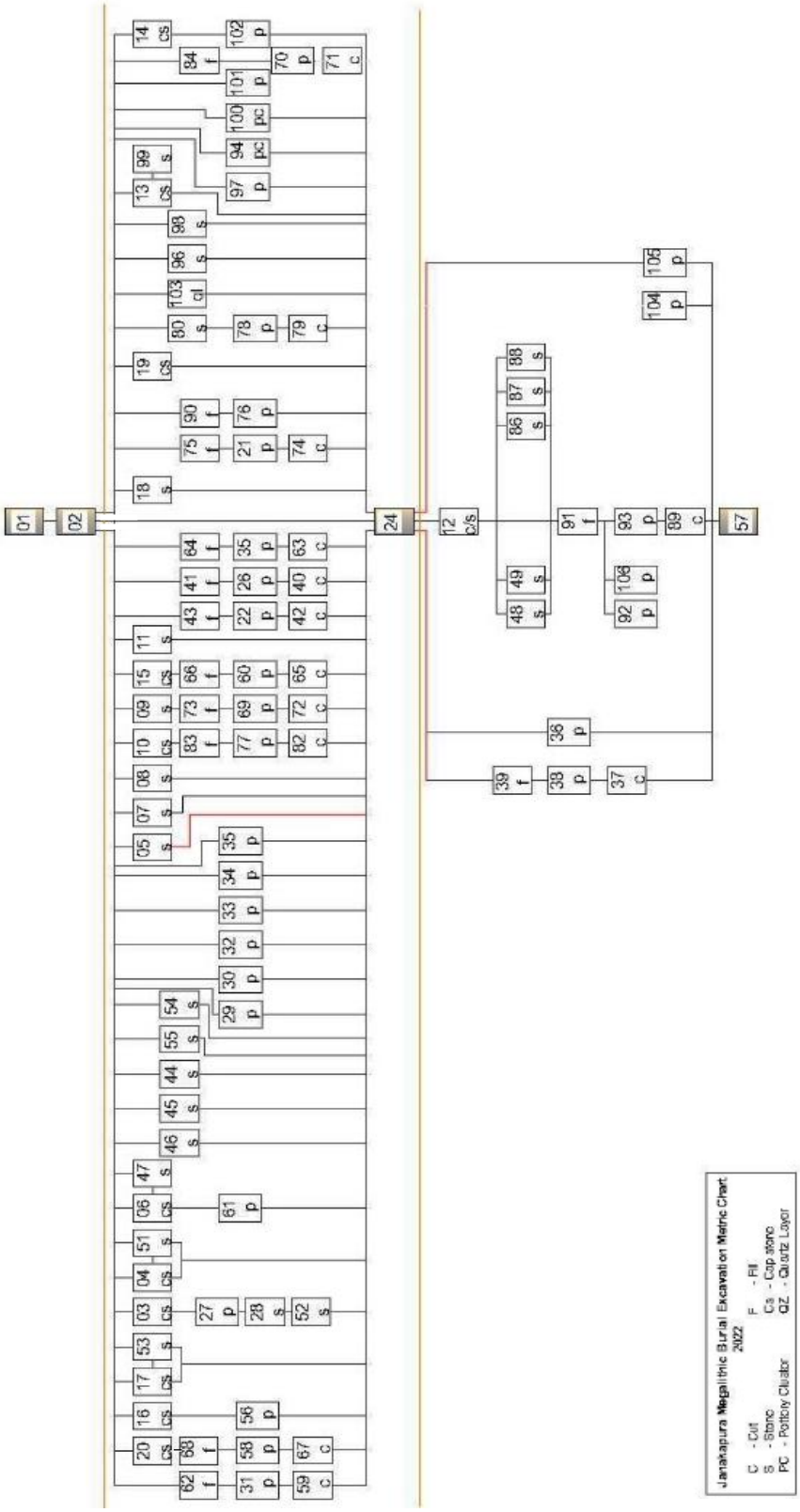
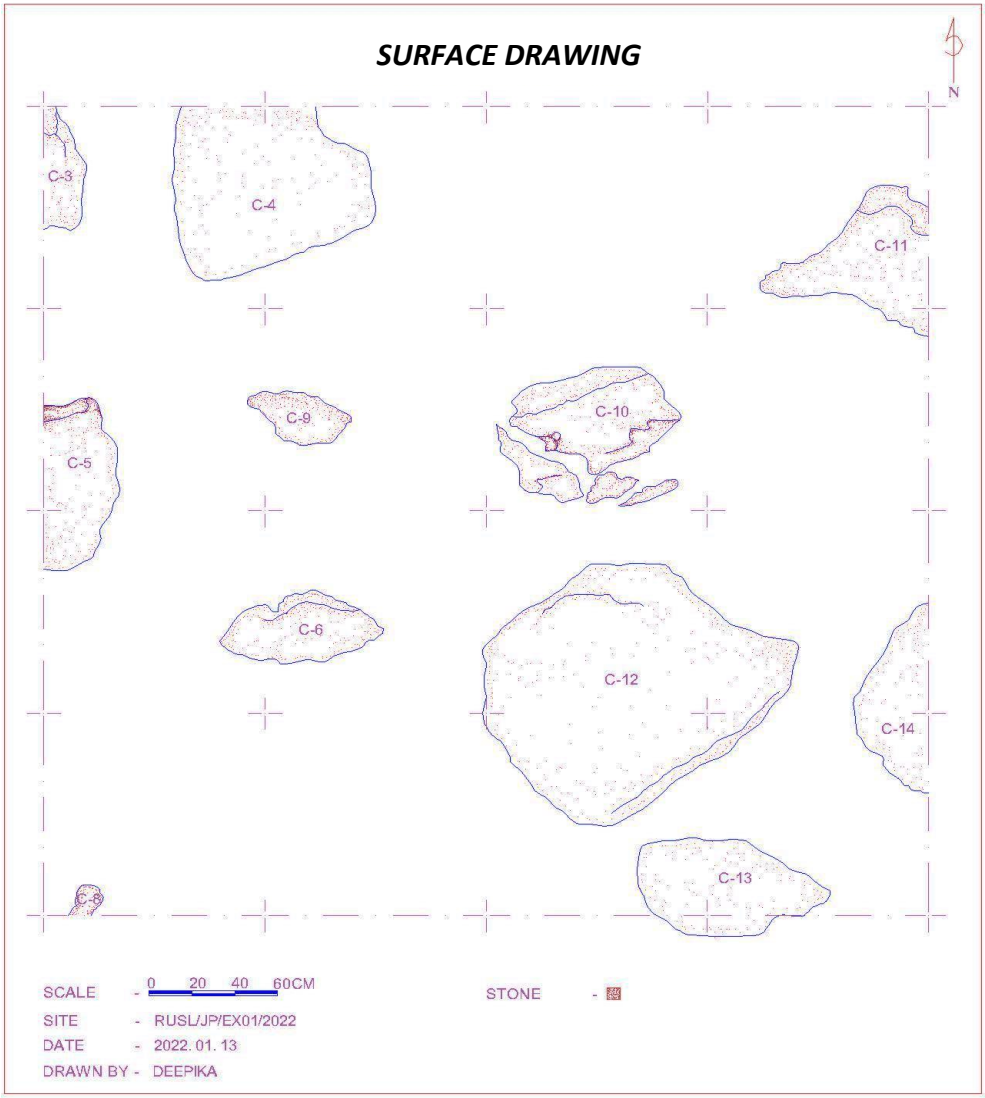
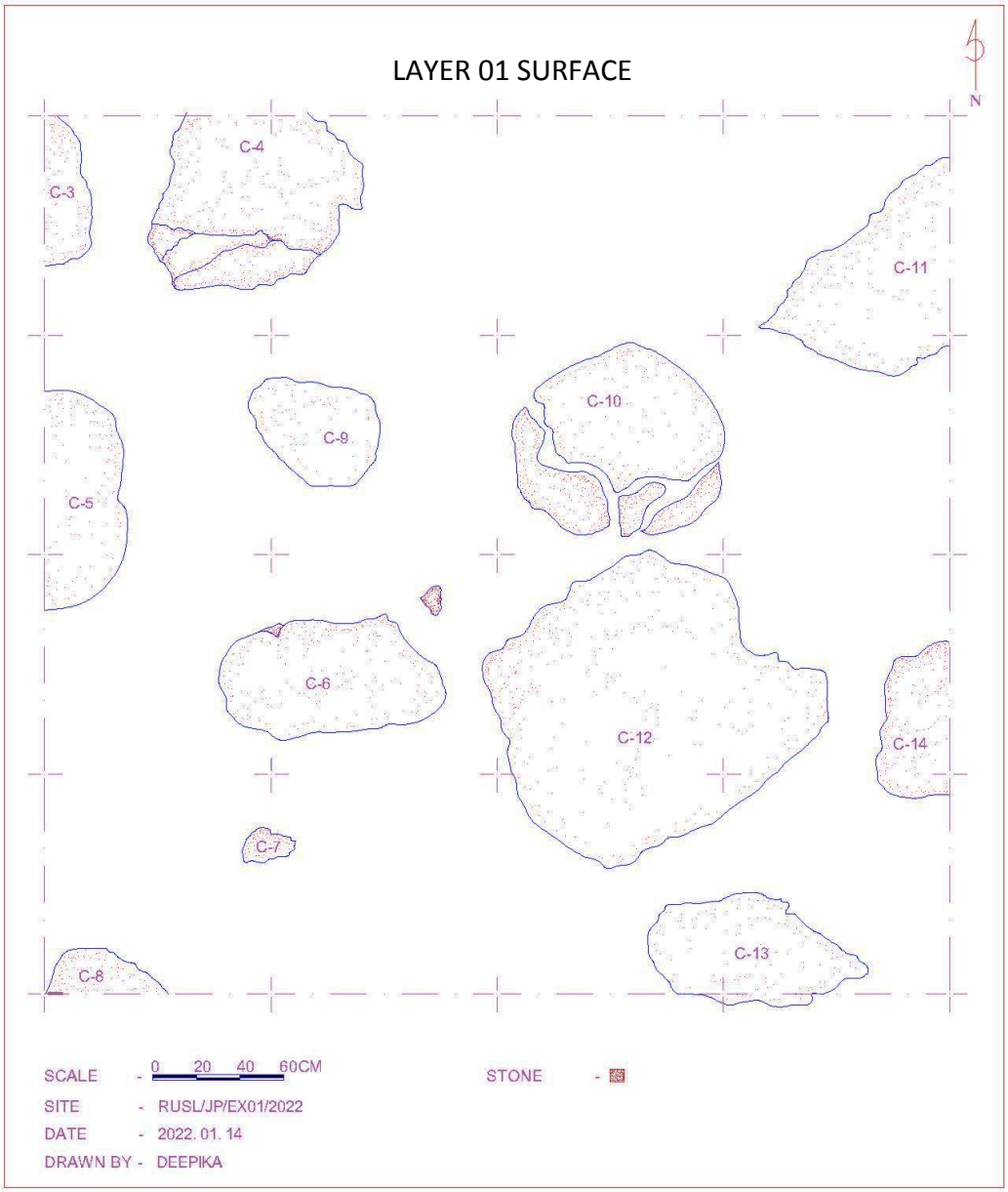


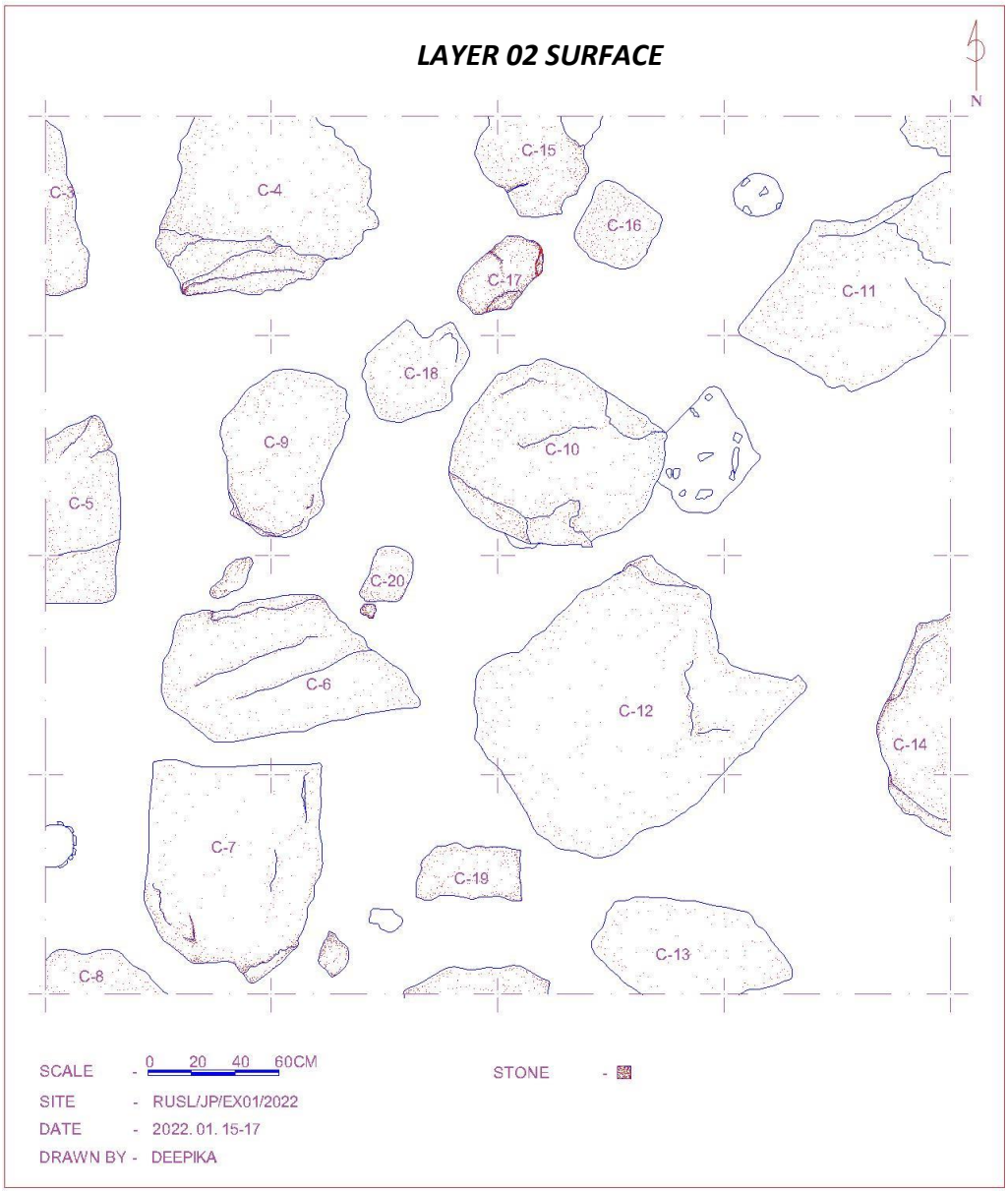
Chart 1 RUSL/JP/EX01/2022 Matrix Chart



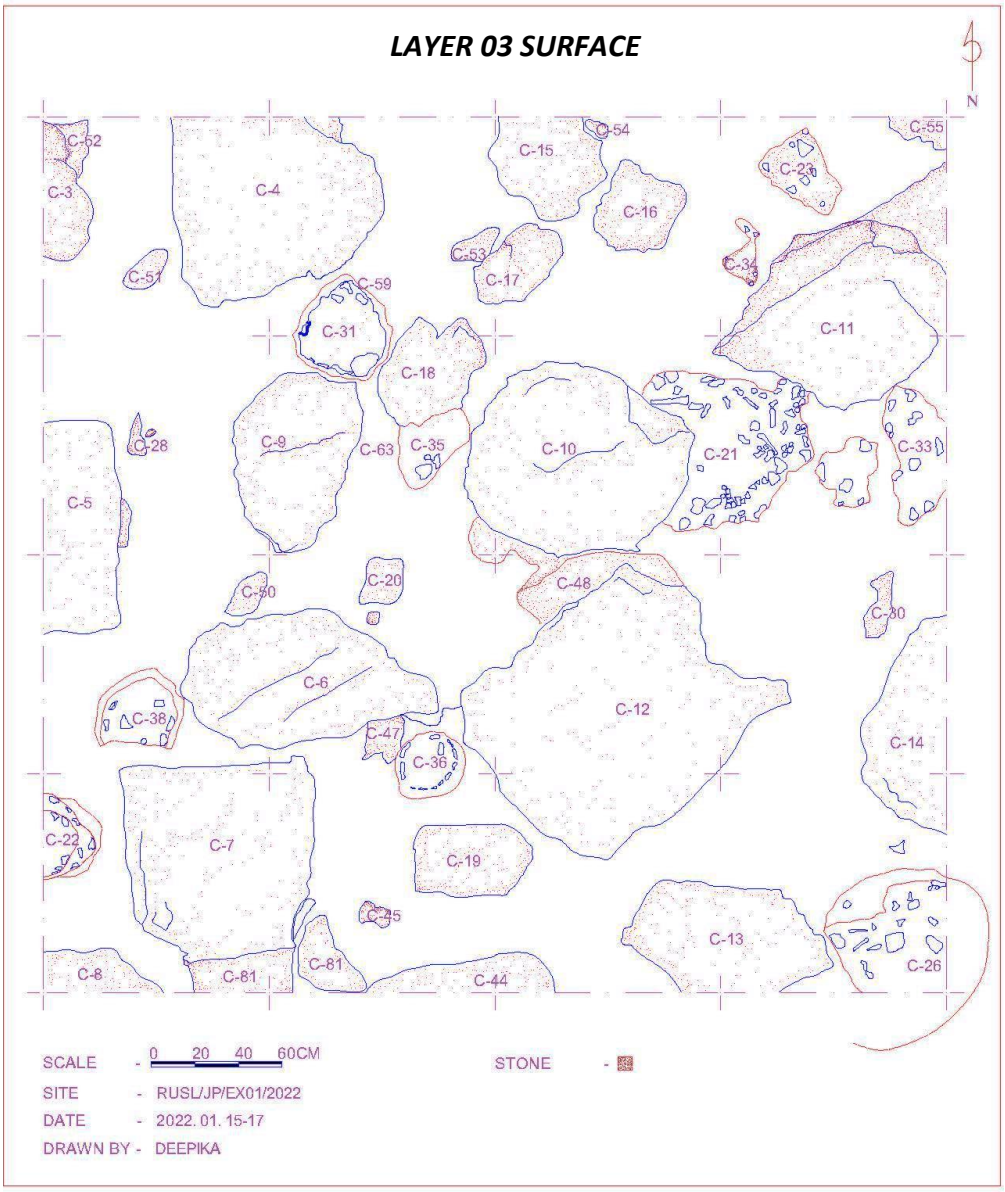
Plan 4-2 Surface Drawing



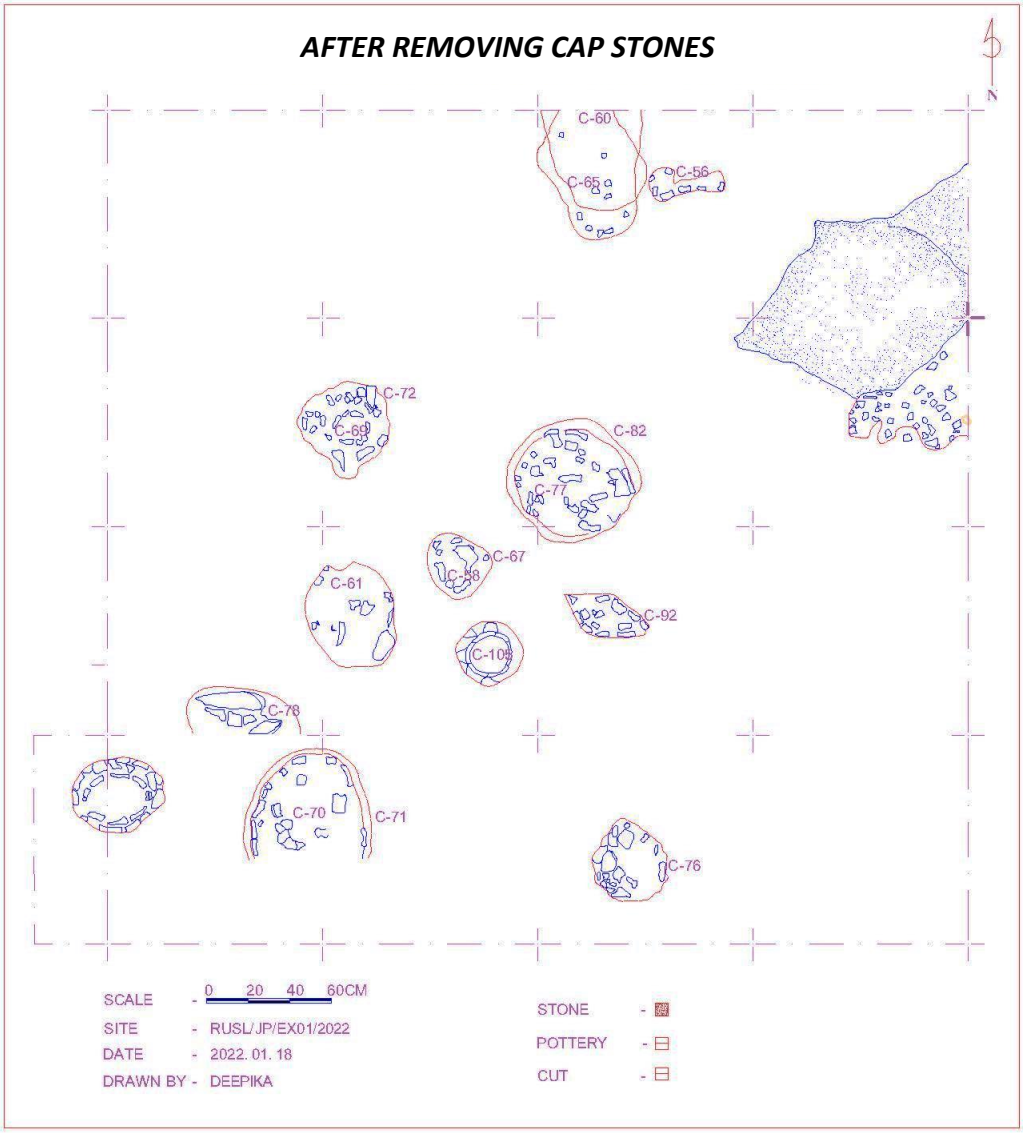
Plan 4-3 Layer 01 Surface Drawing



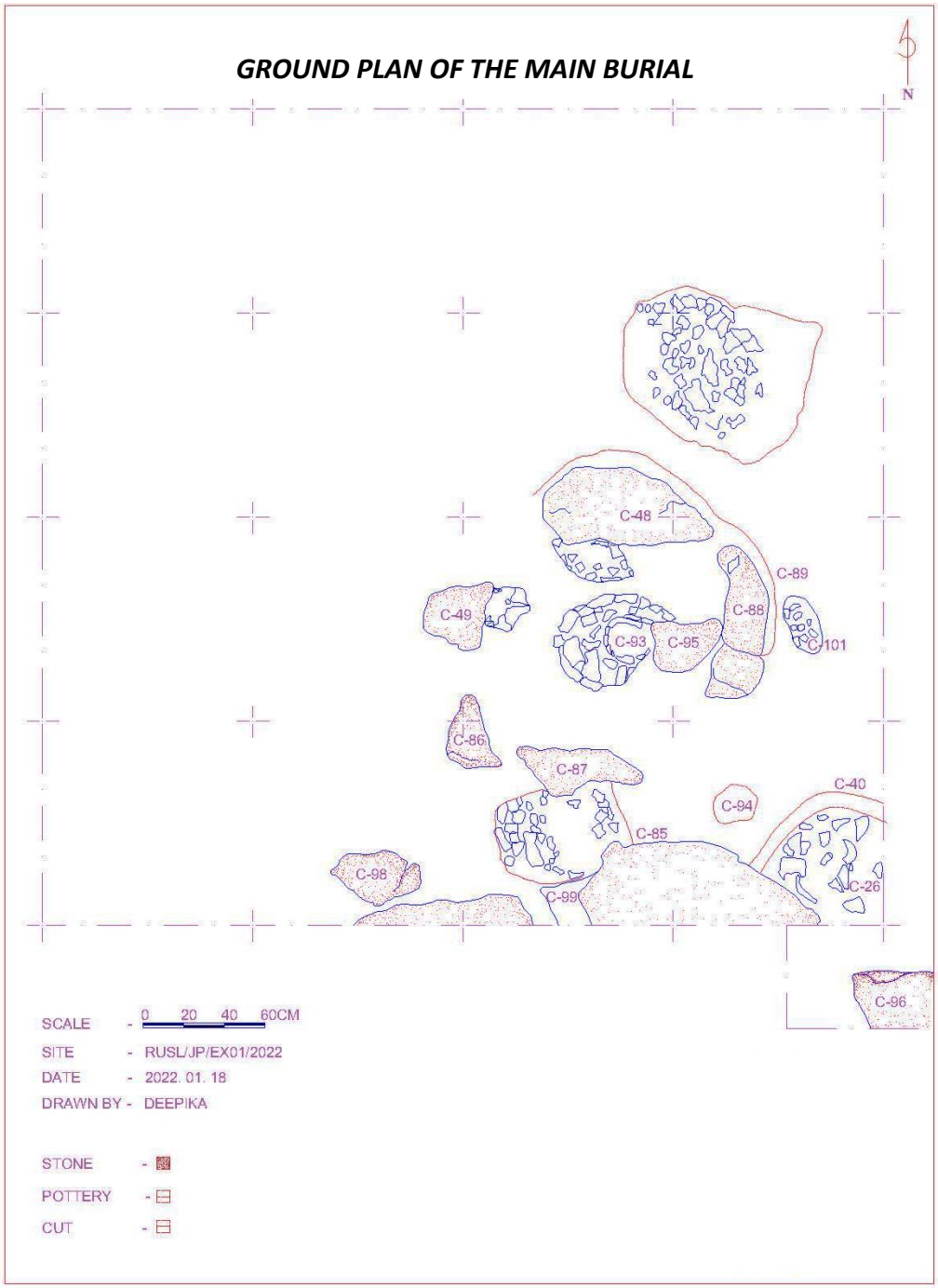
Plan 4-4 Layer 02; Surface Drawing



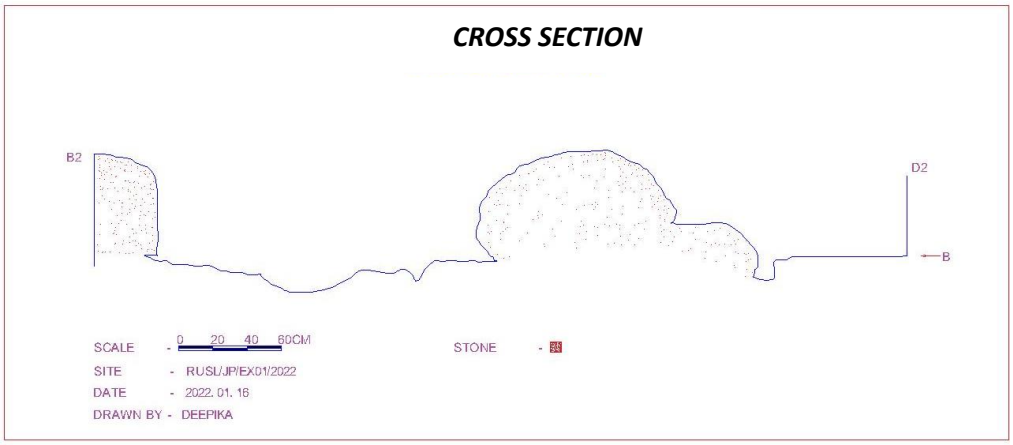
Plan 4-5 Layer 03; Surface Drawing

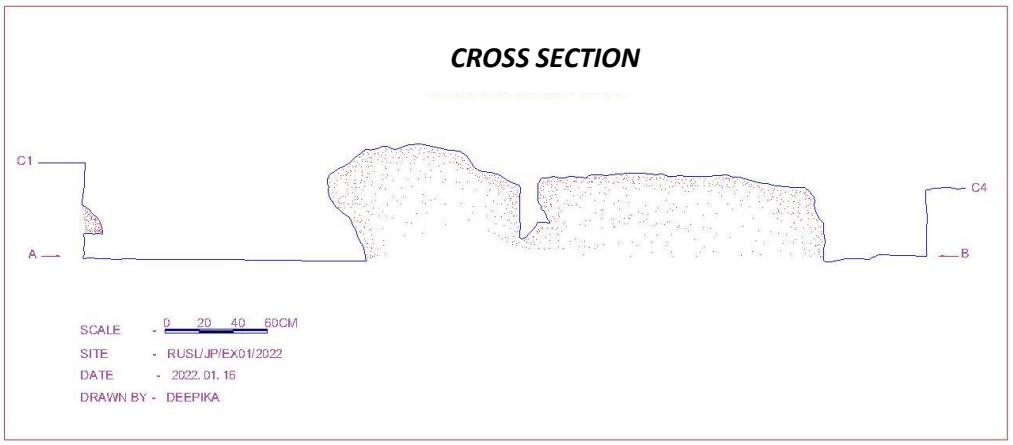


Plan 4-6 After removing Cap Stones

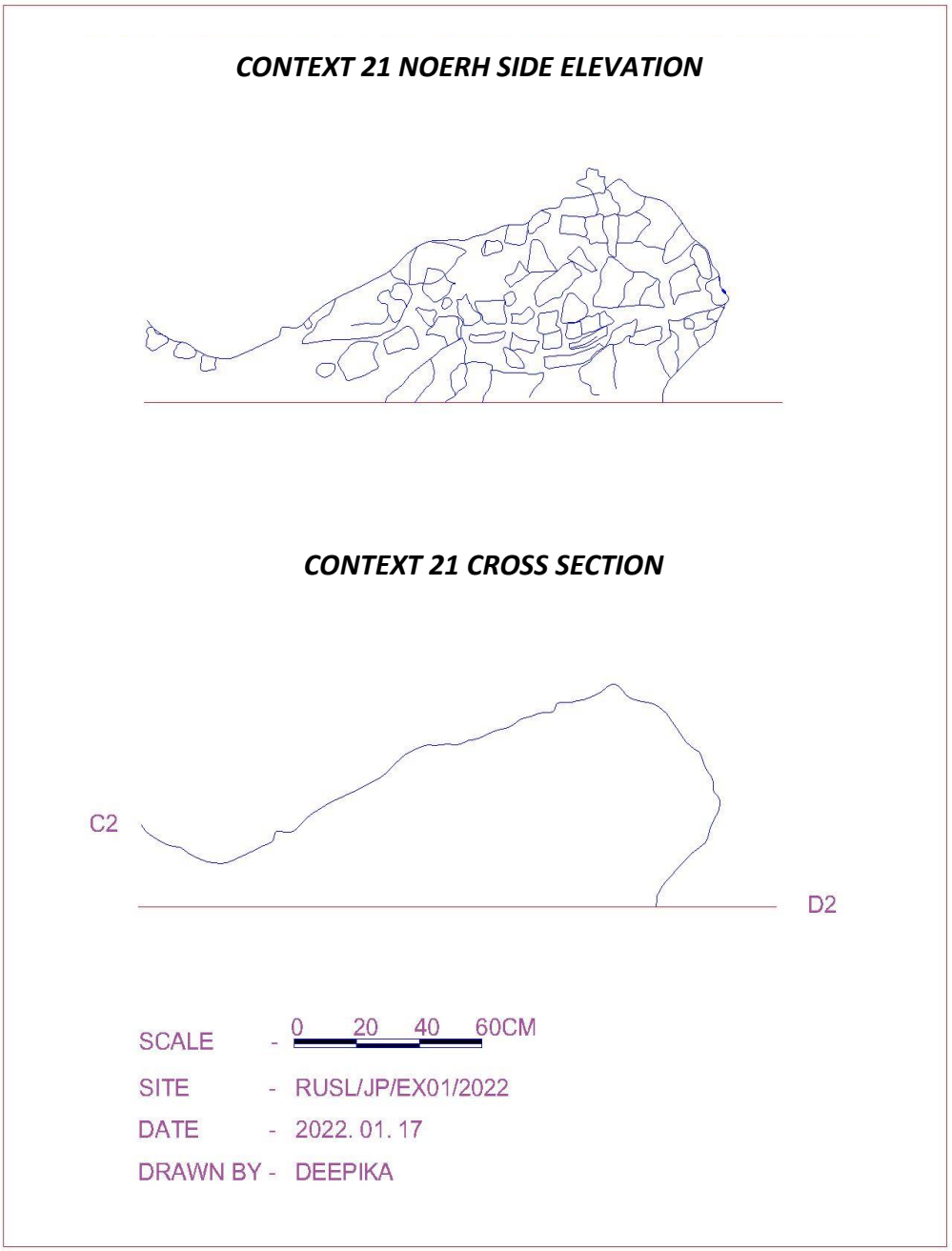


Plan 4-7 Ground Plan of the Main Burial

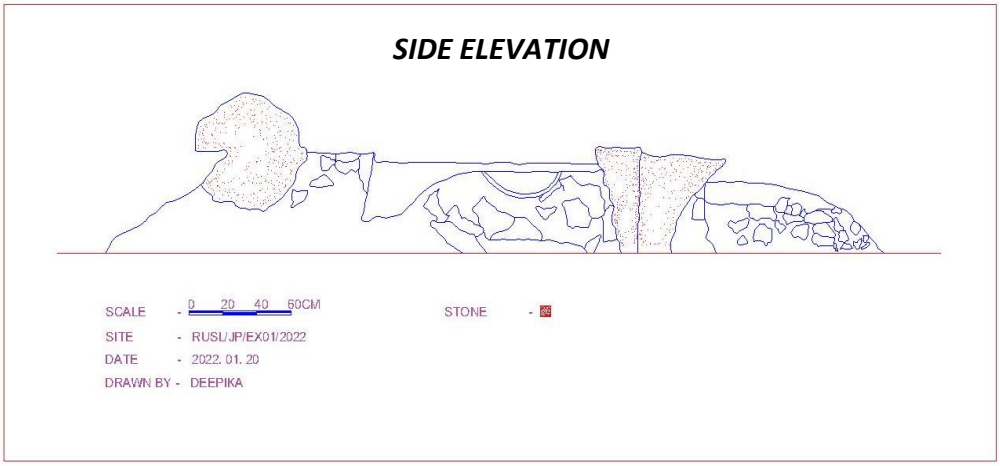




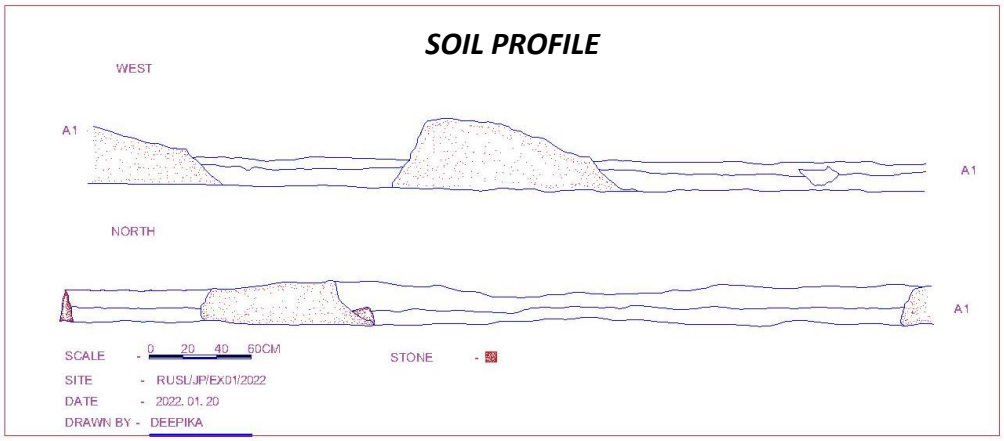
Plan 4-8 Cross sections

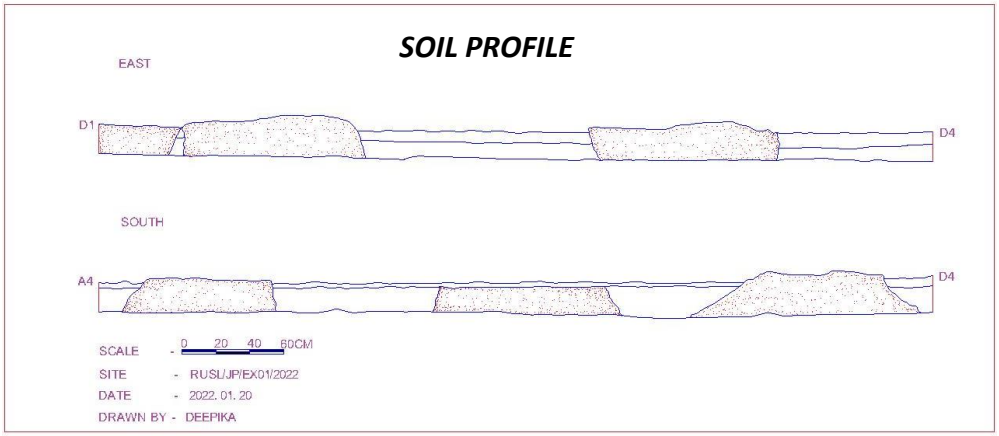


Plan 4-9 Side Elevation and Cross-section Context 21



Plan 4-10 Side Elevation of the Main Burial





Plan 4-11 Soil Profile

Figure 4-1 Before the excavation

Figure 4-2 The pit prepared with sub areas

Figure 4-3 Staring of the Excavation

Figure 4-4 After removing the first soil layer

Figure 4-5 After removing the second soil layer

Figure 4-6 The larger burial with supportive stones after removing cup stone

Figure 4-7 larger burial with supportive stones

Figure 4-8 Urn pot found from the excavation

Figure 4-9 Urn pots found from the excavation

Interpretations

The interpretations mentioned below were developed on cultural material evidence retrieved through the excavation; RUSL/JP/EX01/2022 based on a megalithic burial site in Janakapura which was located in the Ma Oya basin.

With regard to the development of the cultural landscape of the lower Ma Oya basin, the distribution of settlements among the particular zone was assumed to be started in the prehistoric period. There are many more studies based on the prehistoric period of Sri Lanka and important information about contemporary settlements gathered through those researchs. According to previous studies, the soil of reddish brown earth which was known as Iranamadu Formation extremely reflects the features of prehistoric settlements. For instance, stone tools dated to 125000 BP were retrieved from Bundala and Pathirajawela; places consisting Iranamadu soil composition (Deraniyagala,1991) Reddish brown soil has widely expanded in north-western and northern coastal areas as well as in south-eastern and southern coastal areas. When considering the northern part, particular soil types can be observed in Mankulam, Puliyankulam, Nedunkerni, Elephant Pass, Kokavil, Paranthan, Oddusuddan, Iranamadu, Puthukkudiyiruppu, etc. Villages located in the lower Ma Oya basin as Nedunkarni, Janakapura similarly consisted of Iranamadu formation.

Furthermore, the natural landscape of the region should be analyzed vastly to propagate successful research in this regard. However, due to the civil war in Sri Lanka, studies based on this area could not be conducted for decades. Even though, the visible features as natural caves in isolated hills, and factors found from the surface directly prove that the particular area could be influenced by prehistoric man.

The north-eastern part of the Anuradhapura district, the northern part of the Trincomalee district, the eastern part of the Vavuniya district and the south-eastern part of the Mullaitivu district can be recognized as the main areas nestled in lower Ma Oya basin. Though Yan Oya is the first main water resource of these regions, Ma Oya and related irrigation systems can be identified as the other main water resource of mentioned areas. The right bank of the lower Ma Oya basin is nourished by the Padaviya Wewa tank, while several tanks such as Ehetugaswewa, Nikawewa, Kiri-Ibban Wewa, Sampathnuwara Wewa and Janakapura Wewa nourishing the left bank. The waviness of the land has made a huge impact on the establishment of this irrigation system. Due to the diversity of contours, cavities occurred and those were used to construct small, medium and large-scale irrigation systems through decades. Moreover, cavities not used for irrigation can be recognized as well and in the season of the north-east monsoon, they were transformed into ponds filled with water, fish and plants.

The diversity of contours in the Ma Oya basin occurred mostly due to isolated hills; initiated from the right bank and separate emergence through the surface as rock mounds. Among them, a narrow rock belt expanded from southwest to northeast can be identified as a special geographical background consisting of natural caves (Ranathunga,2017)

When considering the geographical landscape of this zone, all the essential requirements for the existence of prehistoric settlements were naturally arranged. Natural caves could be used as residential areas and ponds created in cavities (created due to the contour diversity) could be used for fishing. Furthermore, the high subsistence capacity of hoofed animals (deer, stag, wild boar and etc.) in this area could make a great impact on the establishment of prehistoric settlements as well. According to these facts, the development of

the cultural landscape of the lower Ma Oya basin almost certainly started in prehistoric times.

Cultural Contextualization in Proto-historic Period

The earliest dating related to the proto-historic period in Anuradhapura and Wanni dry zone was recorded from the citadel of Anuradhapura. According to C14 and OxCal radiocarbon methods, it has been confirmed that this culture travels as far as 1000 BC (Deraniyagala, 1992; Deraniyagala & Abeyrathne, 1997). Megalithic burial tradition can be identified as the most popular feature associated with the proto-historic era and a large number of burial sites have expanded through the mentioned districts. For instance, Thammnannagodella megalithic burial site has dated to 490 BC and Kok-ebe burial complex to 790 BC (Press. com. with R.B. Disanayakae, Mendis, 2017). The excavations based on megalithic burial sites in Palippothana and Wahalkada have stated that the time period of these sites gets back to 420 BC and 369 BC respectively (Press. com. with T. Wagalawaththa, 2020). It is significant that all the mentioned megalithic burial sites are centralized in a zone nestled between the upper basin of Ma Oya, the middle basin of Yan Oya and the upper basin of Malwathu Oya.

The multiplicity of factors based on time and space had made a huge impact on the establishment of proto-historic settlements in the Ma Oya basin. Especially, since the earliest evidence of Anuradhapura district was reported from the citadel, it is logically acceptable that the proto-historic culture was mainly spread-out from Anuradhapura and headed to the eastern zone. Therefore, based on the emergence of social, economic, and technological sectors, proto-historic man had travelled through these areas in order to acquire resources and raw materials. According to recent research, Anuradhapura had urbanized by 500 BC and it is proved by local and foreign

artefacts (Deraniyagala,1992). Consequently, with the rise of Anuradhapura as the main settlement, sub-colonies located in the peripheral region had to contribute to leverage of Anuradhapura. Through a macro zonal investigation, it can be confirmed that the settlements of the middle Yan Oya basin, upper Malwathu Oya basin, and upper and lower Ma Oya basins were established to follow up this inter-linkage. As the megalithic burial sites of Janakapura and Kiriibbanwewa have expanded in the lower Ma Oya basin, it can be assumed that the proto-historic man had travelled through river basins to approach inner country as well as the coastal area of Sri Lanka.

As previously mentioned, the natural landscape of the Ma Oya basin has made a great impact on the development of settlements. Even though it is a coastal area, the waviness of the land occurred by the diversity of contours based on isolated hills; initiated from the right bank and separately emergence through the surface as rock mounds and the narrow rock belt expanded from south-west to north-east can be identified as special geographical features that helped on proto-historic livelihood. Natural hollow created in cavities were used for primary paddy cultivation and chena cultivation by contemporary society. At first, they extended the pond and created a small tank by constructing a hand-made bund. Through the ages due to the population, economy and technology those tanks developed as middle and large-scale irrigation systems. In the proto-historic period, small tanks were used to store water gathered from the north-east monsoon (1000 mm-1500 mm) and it helped to conduct paddy cultivation in dry seasons. As well, the particular zone was covered by the reddish-brown soil and it could be used for chena cultivation. Accordingly, the proto-historic man was attracted by the Ma Oya basin due to the utility of water and soil. Furthermore, apart from cultivation, they were engaged in animal husbandry since it was essential to have cattle for agricultural purposes and foodstuff; meat and milk. Buffalos, wild and feral buffalos, have been

used for a long time in this area and wild buffalos, in forests are tamed by people known as 'Marikaruwa', using traditional taming methods as 'Waramanda'. Even these days, people who live in the lower Ma Oya basin domesticate buffalos as herds for agriculture and food (milk). Due to the near location of Kokkilai Lagoon, they could approach subsistence methods based on the lagoon as well (fisheries). Areas with heavy rainfall are not suitable for pastoral work. Therefore, the friendly environment of the lower Ma Oya basin for agriculture, irrigation system and pastoral work was important in establishing proto-historic settlements.

When considering the settlement pattern of this zone, it can be identified that the expansion of mineral resources had made a major impact in this regard. Metal resources are located close to Ma Oya and according to Sudharshan Senaviratne, the consumption of iron and copper in Sri Lanka had been started from the proto-historic period (Senaviratne, 1994). Metal was an essential component of resource utilization patterns in early iron-age livelihood and evidence for large-scale smelting works propagated in the lower Ma Oya basin can be identified from the surface. Though metal production was vastly developed in the historic period, the smelting process was primarily started in the proto-historic era. The iron usage of contemporary man can be recognized through analyses based on megalithic burials as well. Iron and copper objects were found from the excavations conducted in burials, located in the lower Yan Oya basin; the peripheral region of the lower Ma Oya basin. For instance, a cluster of fragments related to a copper vessel and a blade made of iron were retrieved from the excavation based on a megalithic burial site in Wahalkada, organized by the Deapartment of Archaeology of Rajarata University of Sri Lanka. An object that can be assumed as a blade of an iron axe, was found in Janakapura megalithic burial complex, which is situated below the previously mentioned area. Consequently, it is confirmed that there was a developed

metal technology in the lower Ma Oya basin and its peripheral zone, which was established in the proto-historic times.

Significantly, apart from the metal objects, beads made of minerals and glass were also found from the megalithic burial site in Janakapura. Most of them were glass beads, created in different shapes. Evidence for glass bead production in the proto-historic era, can be identified from settlements and burial sites. With regards to the beads production in the Anuradhapura district, the earliest dating was recorded from the megalithic burial complex in Kok-ebe, Kahatagasdigiliya in 790 BC. Blue, green and brown glass beads were retrieved from the excavation based on dated burial in a particular site, which was conducted by the Rajarata University of Sri Lanka in 2016 (Mendis,2016).

When considering the cultural landscape of the lower Ma Oya basin in the proto-historic period, only several places were identified so far as Janakapura, Kiri-Ibban Wewa and New Gajabapura. These places can be mainly recognized as megalithic burial sites. In accordance with the expansion of these sites, there should be associated settlement areas and further investigation should be propagated in this regard.

However, the built environment and geographical landscape of the middle Yan Oya basin, upper Malwathu Oya basin and upper Ma Oya basin had initially changed in the proto-historic iron-age, in order to create a suitable background for rural tradition. Specially, using natural hollow to construct small tanks with hand-made bunds, developing villages, and maintaining funerary rituals through the architecture of megalithic burials, had made a huge impact on the transformation of the landscape in this techno-cultural era. Megalithic burials are the most trustworthy evidence which can be used to explore the mentioned changes that occurred for a long time (Manamendra-arachchi, 2014; Dissanayake, 2018; Mendis, 2017).

With regard to the megalithic burials in Sri Lanka, a number of structural types can be identified as;

- Cist Burial
- Cairn Mound/Cairn Heap
- Cairn Circle
- Delmenoid Cist (Senaviratne,2007; Dissanayake,2018)
- Alignment Burial (Mendis,2016;2017)
- Double Orthostat (Mendis and others,2020)

Considering these types, Cairn Circle burials were recorded from New Gajabapura in the lower Ma Oya basin. Apart from that, a special structural type known as Capstone Burials was recognized from Janakapura megalithic burial site. In these burials, vessels containing funerary remains were buried in the earth and they were covered by a capstone. There are similarities as well as differences between these burials.

Figure 4-10 Cairn Circle Burial – New Gajabapura

Significantly, the features of rituals associated with mortuary practices in the proto-historic period were identified from the excavation based on the megalithic burial complex in Janakapura. Tools, equipment, jewelry and other related goods that might be used by the dead had been buried together with funerary remains such as ashes and bones. For instance, beads and metal objects were found in buried vessels. Pots of black and red ware (BRW) type were used in various sizes in proto-historic burial contexts to deposit relics (Senaviratne, 2007). Furthermore, several types of depositing vessels; containing remnants of the dead were recognized from the particular site.

- Depositing the funerary urn was done, after making a cut (according to the size of the urn) on earth and then, covering it with a capstone.
- Depositing the funerary urn was done, after making a cut on earth and then, scattering quartz from below space between the wall (wall of the pit made by cut) and the urn to the middle-upper body part of the urn. At the end, the cluster was covered with a capstone.
- Depositing the funerary urn was done, after making a cut (according to the size of the urn) on earth and then, establishing the capstone by using several supportive stones.

When considering burials in Janakapura, large rounded stones were used as capstones in burials, created according to the first method. Urns have been destructed due to the huge pressure made by the capstones and as a result of various natural impacts occurred for a long time and most of the capstones had slightly dislocated.

In the second method, after depositing the urn inside of the pit (made by cut), they had included a layer of quartz around the urn; starting from the inside

space between the wall (wall of the pit) and the urn. It was applied over the wall as well and completed from the middle-upper body part of the urn.

Figure 4-11 Large rounded capstone

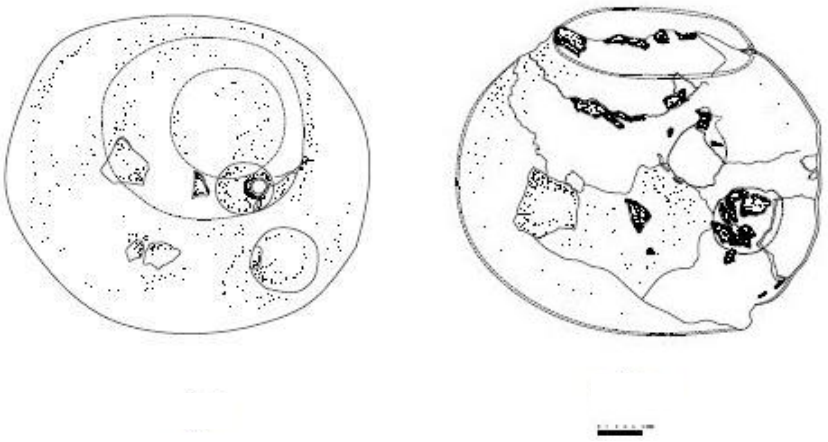
Figure 4-12 Quartz layer that deposited around the urn

Figure 4-13 Burial with supportive stones.

In burial, created according to the third method, a large stone slab was used as a capstone and several supportive stones had been used to stabilize it. Those stones are different from side stone slabs known as orthostats, which were used in cist burials to keep the capstone steady. They are uneven in shape and size. Also, they were not established according to a specific pattern. It can be assumed that those stones were added in areas which were affected by the huge weight of the capstone as they were used to maintain the balance of the burial. Only one burial was identified from the excavation which, was related to the particular type and it was constructed on the fourth soil layer. Significantly, it was different from other burials as they were built on a third soil layer, recognized in the excavation.

With regard to the pottery findings retrieved from the megalithic burial site in Janakapura, a considerable collection of vessels differing from large urns to

small pots was identified from the excavation. Large urns had been used to store the remnants of the dead and small containers can be assumed as objects used by the dead. Small pots were deposited inside large urns and bones, ashes, and beads were included in those pots and urns.



Plan 4-12 Plan of an urn burial.

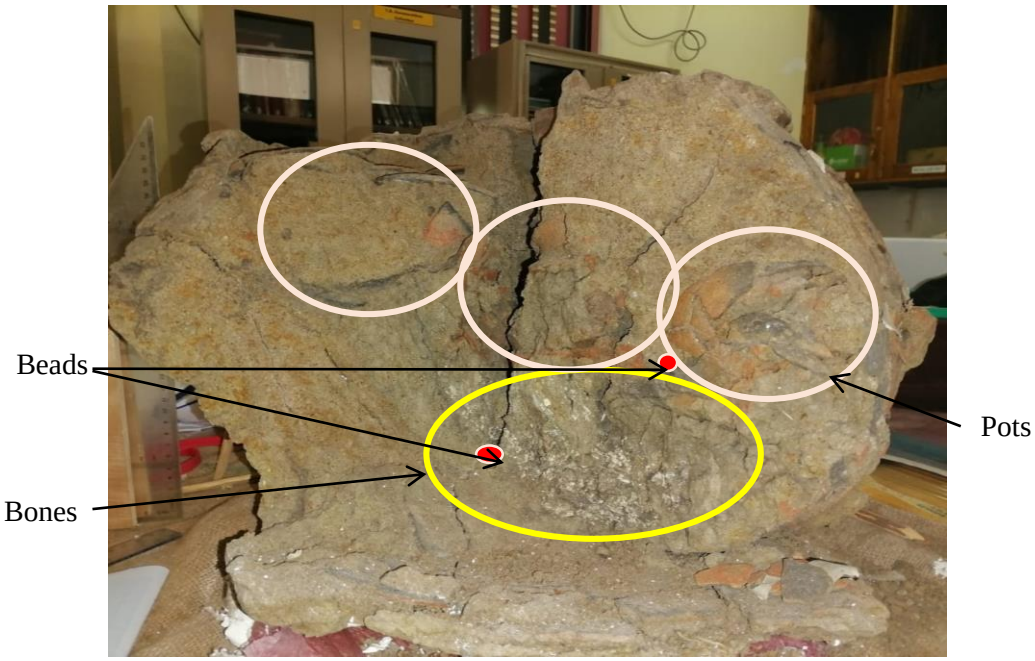


Figure 4-14 Positioning of the beads, pots and bone inside of the urn

Accordingly, the landscape of the lower Ma Oya basin was significantly transformed by the proto-historic community, by discovering an exclusive techno-cultural stage. Establishment of rural tradition, irrigation system, various productions and megalithic traditions have made a great impact in this regard. The megalithic burial site in Janakapura reflects the intellectual and techno-cultural features of the proto-historic man who walked through the land of the lower Ma Oya basin.

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