

## Spatial Distribution of Iron Age Settlement and Burials in Tirumalegowdana Doddi (TGD), in the Kanva Valley, Southern Karnataka

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**Abstract:** By using aerial photography using a drone, a regional topographic elevation map, a Google Earth imagery map, and a site elevation map showing digital photographs, this study presents the spatial distribution of Iron Age settlement and burials in Tirumalegowdana Doddi on the right bank of the Kanva valley. The aim is to identify how the Iron Age society used the land for burial practices and settlement, and to distribute the burials based on the ranking of the deceased. The position of the burials in a large area indicates the use of the landscape structures as a social and ritual space. Settlement indicates that the Iron Age society was mainly settled on the foothill, and a large number of slag remains indicate that iron was the main economic source, followed by agriculture, depending on natural springs and the non-perennial river Kanva. A mound burial in the centre of the burial complex and a few burials on the mid-range hill sediment indicate the ranking of the deceased or ritual places. The settlement is located on the foothill with an adjacent burial site, which is constructed on the top of the hill, indicating the status or ritual ground. These diverse features of burial constructions and settlements show the formation of complex social hierarchies.

**Keywords:** Iron Age, Megaliths, spatial, Mound, status, ranking, undulating, Iron Production, Hierarchies.

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## INTRODUCTION

Iron production was a powerful catalyst for social change, allowing for increased agricultural productivity, which in turn could support larger populations and enable a more settled life during the Iron Age (e.g., De Barros, 1988; Giles, 2007). This specialisation and control over key resources contributed to the rise of a social hierarchy and a warrior elite, whose power would have been linked to the ability to produce and wield superior tools and weapons (e.g., Borake, 2019; Giles, 2007; Muhly *et al.*, 1985; Sparacello *et al.*, 2010; Turchin *et al.*, 2022; Whitley, 2002). Some research also highlights the importance of integrating burial data with habitation evidence to understand the cultural system of the past Iron Age (e.g., Harding, 2012; Harke, 1990).

The study of megalithic culture in South India has evolved from early, widespread accounts to a nuanced, multi-faceted understanding of various and complex Iron Age Societies. Numerous research

studies within the South Indian Context were carried out by various scholars on the nature of Iron Age settlements, cultural materials, and developed theories to understand the settlement pattern and mortuary practices based on ecological sources. (e.g., Deo, 1973; Morrison *et al*, 2009; Brubaker, 2000-2001; Bauer and Trivedi, 2013; Morrison, 2015; Arjun, 2016; Kumar, 2023). These studies show that the settlement components for the subsistence economy, including arable land and grazing landscape, are the basic environmental factors for selecting a settlement.

According to Moorti (1994:11-18), the ecological sources like mineral sources, water, and fertile land, outcrops for burial construction are the main factors in selecting the settlement; therefore, based on these factors, the settlements are developed depending on regional resources. This gradually developed into a regional production centre and then developed trade routes, and some sites became trade centres. Therefore, the majority of the megalithic sites are located in an area rich in minerals, grazing landscapes, and fertile land for agriculture and livestock (Moorti, 1994). When settlement density increased, subsistence strategies also became varied depending on regional resources. The settlements were dispersed and expanded within the regional level and formed trade networks, leading to an increase in local iron production for various purposes like hunting, war, agriculture, etc (e.g., Moorti, 1994; Abhayan, 2018).

The spatial distributions and mortuary practices of Iron Age communities in South India have long drawn the attention of archaeologists interested in understanding burial distribution patterns, social organization, land use, and ritual practices. Scholars have also studied the gradual change in mortuary practices in particular geographical locations on physical environment and socio-cultural characteristics of the Iron Age-Megalithic culture in South India were studied by Leshnik (1974:247), Agarwal (1982:257), Allchin and Allchin (1983:345), McIntosh (1985:345), Bauer (2011), Moorti (1994), Brubaker (2001), Santanu Vaidya (2014), Mallinathpur (2015), and Arjun Rao (2016). These Previous studies have noted certain changes in land use and burials around settlements or away from settlements with their social and political organisation. although, A lack of detailed studies on the settlement and land use patterns in the Neolithic to Early Historic phase in south India, and a small number of extensive regional surveys and field investigations into the evidence for Iron Age habitation resulted in the argument that the megalithic people were pastoral nomads or agro- pastorals (e.g., Leshnik, 1974, Narasihmaiah, 1980:201; Deo, 1985; Moorti, 1994). Gururaja Rao (1972) proposed that access to resources like water, minerals, and arable land was the criterion for site selection.

Recent studies in South India, especially in Vidarbha and Northern Karnataka, have shifted the focus from megaliths as isolated burial sites to integral components of the socio-economic and political landscape of the region. Within this framework, archaeological research, especially in regions where a large number of burials cluster around habitation, has proven essential for landscape-scale surveys. The study of Iron Age Megalithic settlement patterns and mortuary practices has been a subject of extensive archaeological investigations, particularly in regions like northern Karnataka, for example, which has moved beyond simple mapping of sites on terraces and foothills to explore the cognitive and symbolic landscapes of Iron Age communities (e.g., Bauer, 2015; Sinopoli, 2009; Johansen, 2016). An extensive work in this region has shown that terrace settlements with boundaries, separate residential zones within the settlement, may have been chosen for their strategic visibility, defensible positions, and people lived in these zones based on their ranking in their society (e.g., Bauer, 2010, 2015; Abraham, 2003; Sinopoli & Morrison, 2007; Sinopoli, 2009; Sugandhi, 2008; Johansen, 2016). A regional settlement pattern study of the Hagari basin presents a clear picture of the

foothill settlements and mineral ore resource management and its exchange-based economy during the Iron Age. (e.g., Mallinathpur, 2015; Kumar, 2016, 2022, 2023). However, this recent research suggests that through systematic, extensive regional surveys and field explorations, many habitation sites were located around known megalithic burials at the foothills and close to water sources like a river, channel, or water tank (e.g., Mohanty, 2015; Mallinathpur, 2015). Research like Hirebenekal, Maski Archaeological projects. (Add more on ongoing projects). Hirebenekal, Mudmal, reveals that megaliths were strategically located near crucial resources like water and quarries.

By analysing regional locations, various factors could be revealed, including land use and settlement patterns, distribution of the burials, symbolic patterns, political power control on zonal economic landscapes, social formation, subsistence patterns, level of dependence on existing natural sources and efforts made by local iron age megalithic inhabitants to meet the biological needs of their daily activities like agriculture, hunting, fishing, mortuary practice, security, etc (Gururaja Rao, 1990). In contrast, various forms of mortuary practice offerings have occurred from foothills, medium-range hilltops, undulating uplands, and near streams. This might have formed constructing elements in the densely populated areas of the later Early Iron Age landscape and later dispersed and continued even during the early historic period, as well as in the modern period in certain regions.

The Iron Age Megalithic communities exhibit a complex and multi-layered social structure, as evidenced by various aspects of their material culture, advancement in iron production Technology, and an extensive array of burial monuments with diverse scales and characteristics (Uesugi, 2021, pp. 33-34). In recent years, several regional studies discussed the megalithic culture in South Karnataka, mainly in the Kaveri basin, Arkavathi, and Kanva (e.g., Shobha, 2013; Arjun, 2019, 2020; Kumar, 2019, 2023) valleys. These studies contributed a significant result to understanding the megalithic typology, settlement pattern, and subsistence strategies in the regional geographical area.

## CURRENT RESEARCH

Investigation and documentation of megalithic Burials in the current research site, TGD, is done by the current researcher for their doctoral project and surveyed during 2018-2022 (Kumar, 2023). The megalithic complex and habitation were intensively surveyed and documented, with a total of 267 burials in the Kanva valley, South Karnataka, which can contribute to our knowledge regarding the burial distribution and settlement pattern of the Iron Age Megalithic culture. The Kanva valley is one of the tributaries of the Kaveri, located in the Channapattana Taluk, Ramanagaram District.

This site is located on the right bank of Kanva in the upland area, and habitation is situated on the foothill. The current research is focused on the distribution pattern of megaliths, whose results may aid the understanding and study of megalithic mortuary practices in southern Karnataka.

For the current spatial analysis, *Talavadi Betta (Talavadi Hill)* has been taken as the central reference point to determine the direction and relative positioning of the four localities considered, including the settlement area, based on their distribution location and the characteristics of burials. To analyse the site landscape, river catchment, and elevation, the following techniques were applied: aerial photography using a drone, a regional topographic elevation map, a Google Earth imagery map, and a site elevation map showing digital photographs. The survey results show that the TGD site had a high concentration of megaliths, settlements, and clusters, which were selected for the study. In the study area, there has been a significant level of destruction of Iron Age megalithic burials, especially due to quarrying, intensive agriculture, and looting by treasure hunters. Burial complexes with earlier

landscapes are more extensive due to the increased social complexity of the Iron Age. However, they have been greatly reduced in number due to quarrying and agricultural activities as mentioned above; therefore, it is not possible to account for all the megaliths to analyse their extent.

### TIRUMALEGOWDANA DODDI (TGD)

Tirumalegowdana Doddi is located 12 km in the northern parts of Ramanagara Taluk. The present burial complex is situated on the west side of the *Talavadi* hill, 1 km east of TGD village and about 1.5 km north-west of Kutagal village at an altitude range between 798 and 834 m AMSL (Fig 1). There are three villages in the area under study: Nijiyyappanadoddi, Kanchidoddi, and Tirumalegowdana Doddi. Based on the concentration of the burials and cultural material, we have considered the primary site of interest to be Tirumalegowdana Doddi (TGD), which encompasses the majority of the burial complex in the study region. Initially, the burial sites were scattered across the three villages' areas of agricultural land, foothills, and arable land. However, an intensive survey revealed that the entire complex, including the habitation area, is concentrated in one area. Therefore, based on the current documented burials and land use analysis with the extent of the land, TGD could be one of the largest sites in Southern Karnataka and is unique due to the large number of burials, the abundance of rich materials, as well as the coexistence of habitation, which is a stimulating discovery. Therefore, this discovery of a habitation site for the first time in the Kanva Basins adds a significant dimension to the present research.

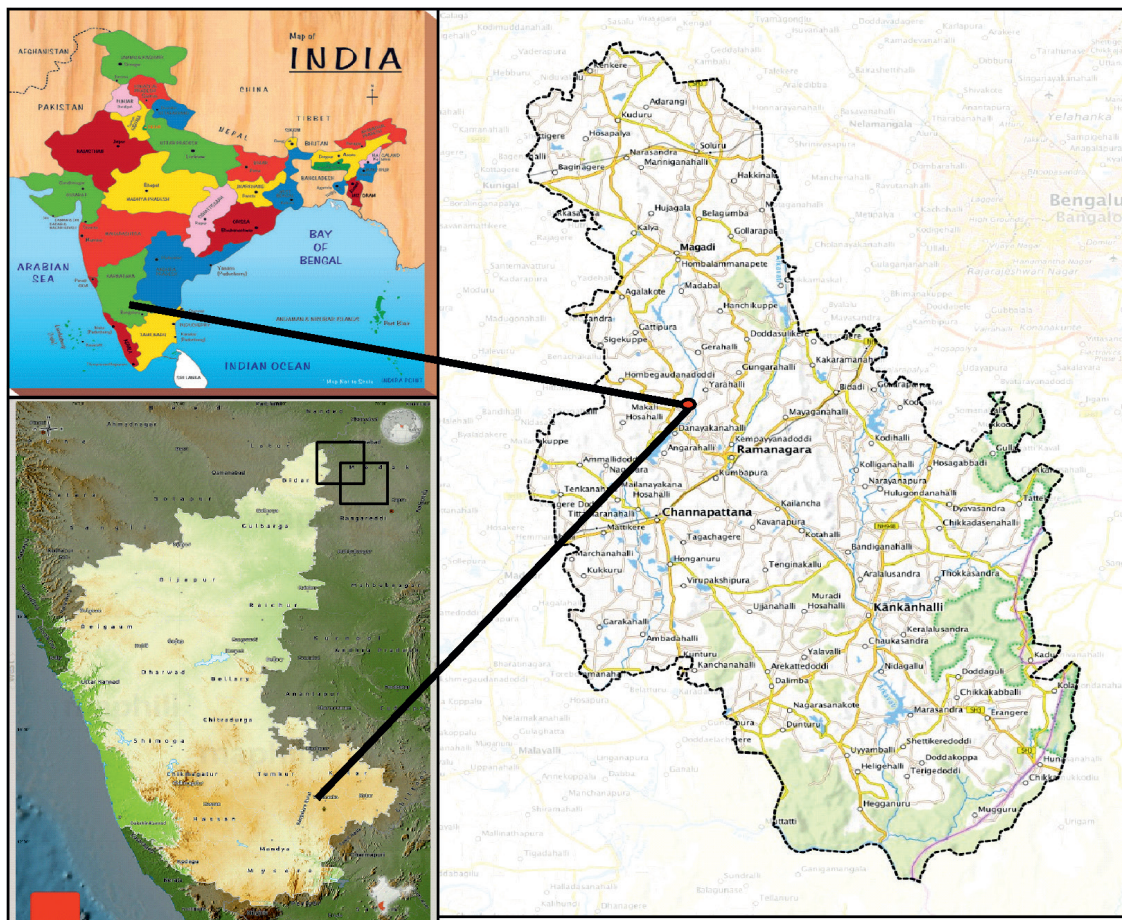


Fig. 1: Location of the Iron Age site TGD

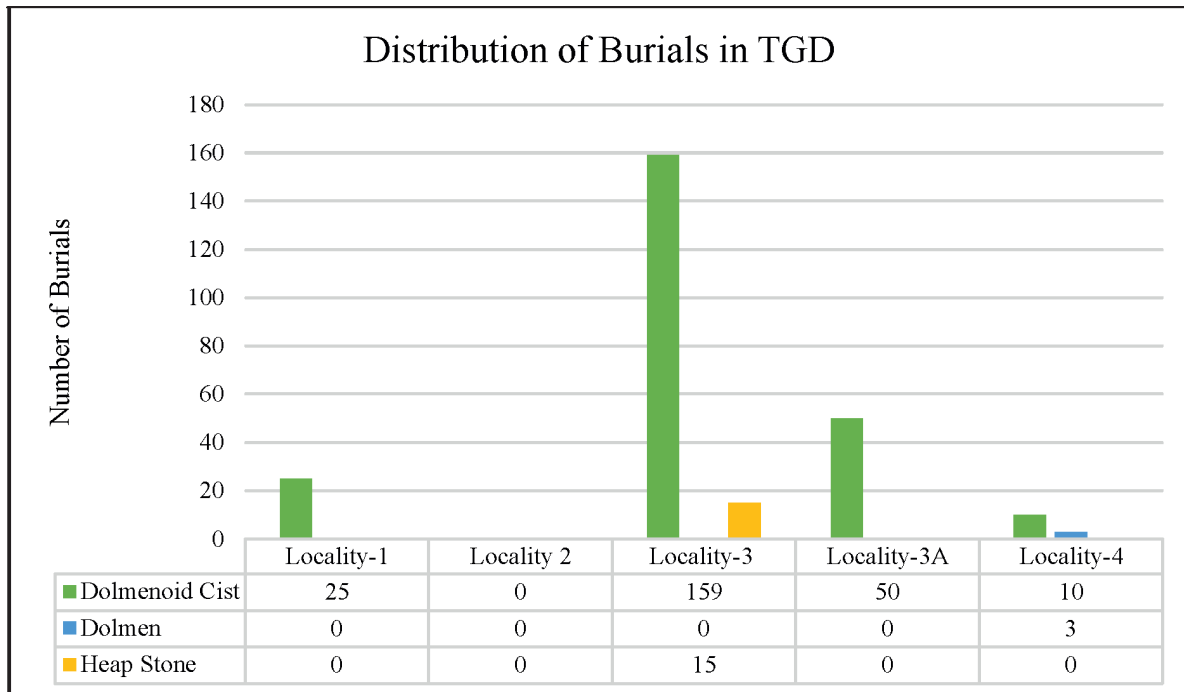
Physiographically, the area enjoys a beautiful, natural, undulating topography comprising a hilly and undulating plateau (Fig. 2). The present study site is situated between an upland landscape on the left bank of the Kanva basin and the right bank of the *Kolli Tore (Kolli Valley)* stream. The Kanva basin is occupied by a granitic rock, and whitish-pink granite rock deposits are derived in the whole region. The western side of the *Kolli tore* sub-stream is close to the burial complex and habitation site is formed by the undulating side slope. This burial complex was first reported by Bhairegowda, a Kannada writer (2002:29-37), mentioning the presence of Megalithic burials in the south-east part of the main hill, where the author noticed hundreds of burials in the area, but no further details about the site and archaeological evidence were discussed. During the present survey, 264 Megalithic burials were found and systematically documented, along with the discovery of a habitation area for the first time in the study area. This habitation area is located at the foot of the *Talavagdi* hill (Fig 3). An intensive survey of the region was carried out in the south-west, west, and north-east regions of the main hill called *Talavagdi* hill. The present investigation at TGD represents the Neolithic assemblage on the right bank of the Kanva basin in firm association with evidence of celts and ground stones in the habitation area (Kumar, 2023).

Remains of the cultural materials can be dated to the end of the Neolithic period and are mainly of the Iron Age to the Early Historic period. However, apart from these cultural remains in the habitation, the settlement yielded medieval remains and a defence fortification along with some structural remains like a circular-shaped Rampart or stockade at the top of the hill and an oval-shaped mud fort in the middle of the hill. Remains of a mud fortification with arrow slits/loopholes are present in the middle of the hill and at the hilltop; a structural Mandapa and an embankment structure have been made for a natural pond to store the water. A brick structure and a platform constructed adjacent to a natural shelter were also noted in the middle of the hill, which might have been used as a living place.

During the medieval period, this area was a fortified or defensive settlement. To some extent, the fence could have acted as an element to secure and protect the settlement during the medieval period. Interestingly, the medieval occupants used the ancient habitation soil to construct the brick wall and mud fort. The BRW, Red slipware, human bones, and other cultural materials can be traced on the fort wall.

The megalithic burials of TGD represent the western margin about 1 km away from the main catchment river *Kanva*. Three main megalith types are distinguished here: the Dolmenoid cist enclosed by a stone circle, Dolmens, and Heap stones. The burials of the Dolmenoid cist enclosed by a stone circle type are largely distributed. The whole complex extends in an SW-NE direction. Due to extensive agricultural activities and treasure hunters, the majority of the burials were destroyed. The archaeological remains have yielded exceptionally valuable results for the reconstruction of the cultural sequence of this region. On the bedrock surface, microlithic artefact remains have been collected. Significant findings at this site include flakes, blades, bladelet cores, and chips on the bedrock in the habitation area. Raw materials like black and brown chert, quartz, and milky quartz were used for making tools.

A good number of ceramics have been collected from habitation, and disturbed burials are represented by Black-and-Red Ware pottery of fine to medium coarse fabric, black slip ware knobs, red slip ware, and graffiti sherds. Along with these ceramics, iron objects, human bones, and teeth are collected from a destroyed burial in locality-3a. The Tirumalegowdana Doddi burials occur in three distinct types of landscapes.



**Chart: Distribution of burials in Tirumalegowdana Doddi (TGD).**

### **Locality-1, Tirumalegowdana Doddi (TGD) N 12° 47.685' E 77° 14.043'**

This locality is situated 450m to the north of the main hill, *Talavadi Betta*. Geologically, rocky outcrops are at the foothill north of the Habitation area. A total of 25 dolmenoid cists and two dolmens were documented in the area extending over 310 m (NS) x 204 m (EW). Two dolmens are erected on the bedrock, others are scattered at the foothill, and two are erected at the hilltop. Generally, these burials measure Circle Dia: 8.5 m to 4.5m; Disturbed Cist: 2.80m (L) EW x 1.50 (W) NS Capstone: 4.5 m (L) x 2.40 (W) x 20cm to 35cm Thickness.

These megaliths were built using local granite; some of the burials consisted of boulder circles, while others were slab circles. There are two burials: One burial comprises two circles. Spatially, these burials are scattered at the foot of the hill. This complex is located very close to habitation, where the habitation area is located between two hills. A spring lies at the top of the hill, where three dolmenoid cists were also found in the same area (Fig 4). The majority of the burials were destroyed. Two types of portholes could be seen, such as 'U' and horseshoe portholes.

### **Locality-2, Settlement area, Tirumalegowdana Doddi (TGD).**

The habitation site is located at the foot of *Talavadi* Hill. Habitation area Locality-2 is lies between the foothills of the *Taalavadi* hill and a small hill opposite the Main *Taalavadi* hill. The settlement is on a slope at the foot of the hill and has red sandy soil with ash color, as well as natural springs and a pond, which may have been modified during the medieval period (Fig 4). The settlement covers an area of 68750 m<sup>2</sup> / 6.87 hectares. The slope is running towards the south and ends near the stream at the southwest of the hill, which starts from the west, where a large number of burials were scattered, and flows to the Kanva River. The settlement nature suggested a continuity of cultural development from the late Neolithic to the Early Historic culture, mainly the Iron Age megalithic culture. Later, it was occupied by medieval folk, and a fort was built using the habitation soil. The assemblages consist

mainly of fragments of ground stones, hammer stones, broken celts, microliths, slags, Iron objects, Black and Red ware, red slip ware, knobs, etc (Kumar, 2023).

### Key details: Locality-3, Tirumalegowdana Doddi (TGD)

This is a major complex of burials situated about 500m West of the main hill. Overall Average elevation of the entire area is 750- 845 m. In Locality-3, the entire complex extends 1.25 km from north to south and 962 m from east to west on the north side and 456 m from east to west on the south side. In the area of 100 x 80 m, heap stones are found in locality 3. A total of 159 Dolmenoid cist circle-159 and 15 Heap stones were documented.

The burials are spread on the upland area and on the stony waste land and extend up to the bedrock surface and are constructed on the bedrock sediment surface.

In this complex, innumerable Dolmenoid Cist burials were found, and most of them were destroyed. During the first season of investigation (2018), we only counted 159 burials and found them partially disturbed, some of them disturbed by treasure hunters. In 2019, we again visited the site, but the majority of the area was completely disturbed, and nearly 75 burials were destroyed to extend the agricultural land to make a formation. Today, around 50 burials are partially intact and well preserved, where the burials are scattered on forest land. Among these burials, the largest cist burial has been noticed, measuring 17 m in diameter, and was built on the mound using slabs for the circle (Fig 5). The smallest burial circle is 4 meters; among disturbed burials, the cist chambers are built in orthostates. Some of the burials consisted of two to three circles, with the inner circle generally made using boulders and the outer circle being slab stones. generally, east-west orientation and with three types of portholes ('U', O, and '∩' shapes) on the eastern slab, while a single burial has a 'U' shape porthole on the western slab, indicating astronomical features. Some of the burials were built on the bedrock with filling soil and small rubble stones and made into circles and a chamber, which are supported by orthostats and a massive capstone.

### Measurement of Burials

Mound burial: Circle Diameter: 17 meters to 8 meters

Capstone:

Max- 3.85 m x 2.90 m x 55 cm Thickness

Min: 2.85 m x 2.50 m x 30 cm Thickness

Cist: 2.80 m (EW) x 2.10 m (NS) (This measurement has been taken from a disturbed burial)

Porthole Dia: 55 cm to 60 cm

### Locality-4: Agasana Are (In Kannada), Nijiyappana Doddi (NYD)

This locality is situated 220 m to the east of Nijiyappana Doddi Village, and 1.2 km **southwest of Locality-2**, Megalithic Habitation area. The site is **locally known as Agasana Are (Bedrock of Agasa (Washerman) and is located to the south-west of** the main hill. The burials are scattered at the top of the hill and on the sediment slope in the same area.

### Measurement of Burials

Circle Dia: 4 meters to 8 Meters

Capstones: all the burial capstones are missing

Cist: Max: 2.90 m (EW) x 2.50 m (NS)

Min: 2.20 m (EW) x 1.80 m (NS)

## SPATIAL ANALYSIS

All the burials are being disturbed due to the activities of treasure hunters and stone extraction. One of the large Dolmenoid cist circles is situated on the top of the bedrock surface. It seems like, at first, they erected cist slabs in orthostate form and filled soil into the cist by placing grave goods into the cist. Finally, they constructed a circle around the cist and filled it with small rubble stones and soil (Fig 6). This circle was made using boulders, while others are slabs, and was constructed on the sediment on the northwestern side of this large burial. A very interesting observation during the investigation at this site was that, around 90 m long, a thin Dolerite dyke patch runs over the granite, and marks of extraction (Quarried) were noticed on the dyke patch. The thickness of the dyke patch is 60 cm to 10 cm. It clearly indicates that stone extraction activities took place at this site for making dyke tools, such as a Celt (Neolithic form), adzes, and other domestic stone tools, using the raw material from this area

At Locality 3 and 3a, a large number of burials are distributed on the upland and extend up to the Rocky hill in the south, where the bedrock consists of granite and a colluvial soil deposit. The bedrock and hill of *Tirumale Betta* is dominated by granite intruded by basic dolerite rocks in the form of dykes. This complex gneiss mass has been styled as “Peninsular Gneiss” and runs the band of grey uniform porphyritic granite of the closepet granitic series. Among the dyke rocks, groups of Mafic dykes intruding charnockite gneiss are found in the south-western portion of the site on the bedrock, where locality-4 lies on the hill top, locally known as *Agasana Are* (Bedrock of Washerman), and some horn-blended dykes cut across the gneisses and granites.

In this region, hills are formed with coarse-grained granite in a prominent topographic feature. The hill rock consists of massive boulders strewn, which yield good slabs. The river valley in between the granite hills forms a very fertile area with an abundance of small water tanks.

There is a remarkable concentration of at least 264 burials, coinciding with one of the big burials in this complex on a rounded mound consisting of red sandy soil. Special patterns are discernible in TGD that clearly show the burials are closely spaced. The average 2–5-meter occurrence intends regular spacing within the complex.

Generally, dolmenoid cists at this site are rectangular in shape, made of finely trimmed stone slabs, with orthostats in form. The capstones are massive block stone, generally covered with cist. Three distinctive types of portholes have been identified so far in this burial complex: Circular shape, ‘U’ shape, and horseshoe shape, generally carved in eastern slab, with no specific orientation, but usually on the eastern slab. Interestingly, there is a Dolmenoid cist having a porthole on its western slab, while others have it on the eastern slab. Evidently, the change in the cist orientation could indicate astronomical practices or other significant differences in direction.

Another interesting burial, the largest in this complex, which is in the centre of the burial complex, has a diameter of up to 17 m and is built on a round mound. Interestingly, medieval stone pillars were erected above the burial, and the mound appears to be man-made. The soil in the mound is grey and mixed with sand, which is in contrast to the original soil in the surrounding area. This stark difference in the soil clearly indicates that the mound is man-made. Also, it can be considered a large Dolmenoid cist burial in this region (Fig 5).

To better understand the formation of the megalithic settlements and the spatial distribution of burials in the study area, in relation to land use, elevation, and slope, was examined (Fig 8). An intensive investigation at TGD, on the right bank of Kanva, characterized by a settlement of a total area of 68750 m<sup>2</sup> / 6.87 hectares and a high density of burials and geomorphological aspects, particularly the undulating plateau environment, threw light on the landscape morphology used for the mortuary practices and settlement across the area (Fig 9).

This site is located between the right bank of the Kanva basin and the left bank of the *Kollitore* Stream. The study of the topographical features of the area is one of the major sources of information for deriving the catchment characteristics in the availability of plain land nearby. Especially, the drainage density channel slope and land formation in the southeastern side of the burial complex is characterized by a low lying plain with an elevation ranging between 720-765 meters Above Mean Sea Level (AMSL) and again it is raised towards the western side where the burial complex is located on upland plateau nearby the rocky knob (Fig 9). The settlement is located at the foothills at an altitude of 823 meters AMSL, and the burial complex is located in two different geomorphological locations: upland plateau (Loc-3) and on flat hilltops (Loc-1). These two localities cover a total area of 910539.193m<sup>2</sup> / 91.053 Hectares. The locality 4, along with a sediment deposit (Loc-4). The valley is occupied by red loamy soil and red sandy soil that is formed by fluvial and alluvial deposits present up to 0.5 km on either side of the river bank.

A traversable area starts at the edge of the Kanva River's right bank to the settlement, as well as the burial ground and top of the hill, and extends to the left bank of the sub-stream *Kollitore* at the western side (Fig 9, elevation Profile graph). There are many ditches created by the stream along with springs, on the bedrock and foothills between these rivers. It is worth mentioning that the TGD plateau is consistently located on the plain next to the river (west direction from the river) and the settlement at the foothill, indicating the reliance on agriculture in this region. A large number of domestic ground stones, such as pestles, broken mortars, celts, scrapers, querns, grinding stones, etc., were discovered at the settlement, which supports these observations and the mode of subsistence of the society. In fact, due to the presence of an extreme slope and plain at high altitudes, the area provides a suitable area for human settlement along valleys and river sides.

## CONCLUSION

Settlement and burial landscapes are traditional issues in the South Indian Iron Age, with different approaches in each geographical region. A large number of burials with a complex distribution pattern, which indicates occupation over a long period of time, and the construction of a large number of burials within a physiographical area, pointed to the fact that TGD was important and most dominant in the Iron age, not only in Kanva valley but in a much broader area of Karnataka. Material finds from habitation have shown that a prominent culture emerged from at least the late Holocene, and the Neolithic axe tradition was also practiced by the Iron Age society.

The land use pattern studies of human movement in the Neolithic to Early historic period and the Medieval period were attempted for the first time in the Kanva valley. The dense concentration of megalithic burials and habitation areas in Tirumalegowdana Doddi marks this as a preferred place of residence for humans from the Late Neolithic to the Early Historic period. After a long gap, the presence of human occupation during the medieval period is seen along with the remnants of a medieval mud fort at the middle of the hill, a living structure, a modified pool on the top of the hill, as well as on the



Figure 2: General view of TGD Landscape



Figure 3: Aerial View of Settlement in 2023: An aerial photograph captured in 2023 using drone technology, showing a diverse historical landscape at Tirumalegowdana Doddi. The image encompasses a Neolithic to early Historic settlement at the foothill, featuring a distinct oval-shaped fortification from the medieval period. At the top of the hill, a modified pond is also visible.

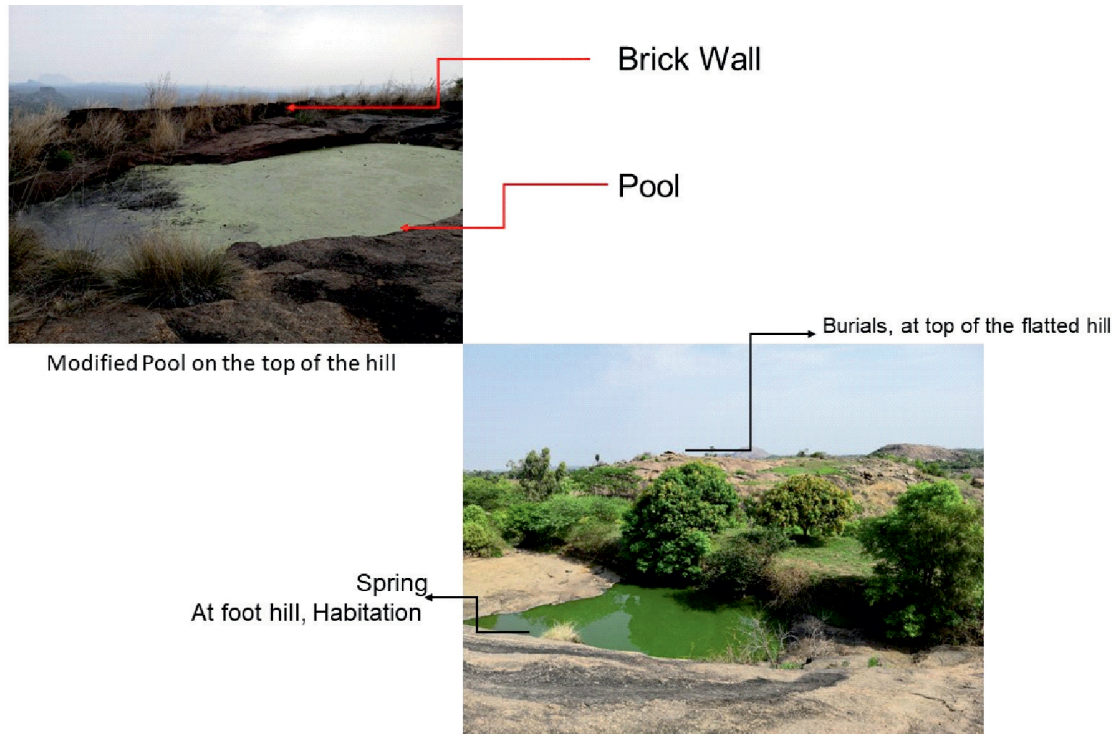


Figure 4: The waterscape close to the settlement from Tirumalegowdana Doddi: showing a pool at the top of the hill and a brick wall for water preservation, second image is a Spring at the foot of the hill very close to the settlement and Burial site.

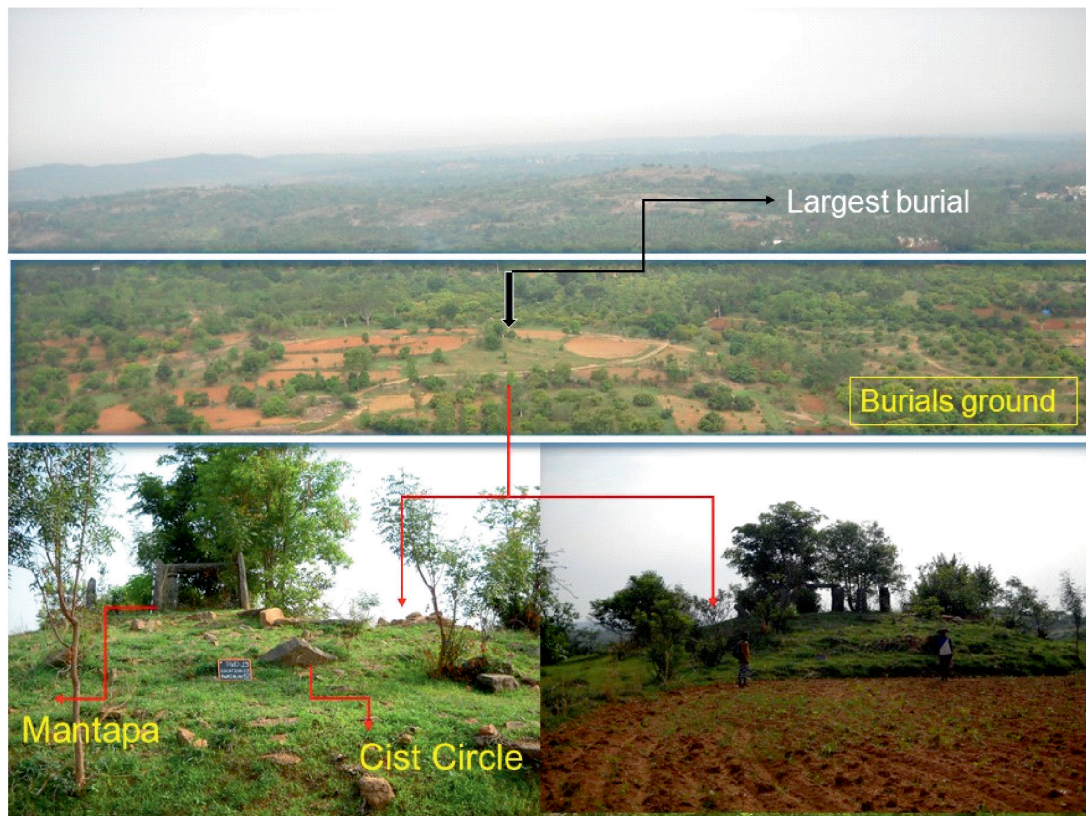


Figure 5: Central mound burial: showing reused in medieval times with a constructed Mantapa on the centre of the burial, representing the largest interment at Tirumalegowdana Doddi



Figure 6: Aerial drone photograph captured an exposed orthostat cist lacking its capstone due to intrusion by treasure hunters. The image also provides a detailed view of the Dolmenoid Cist Circle from Loc-3a, Tirumalegowdana Doddi. This visual record was obtained in 2023 using a drone instrument.

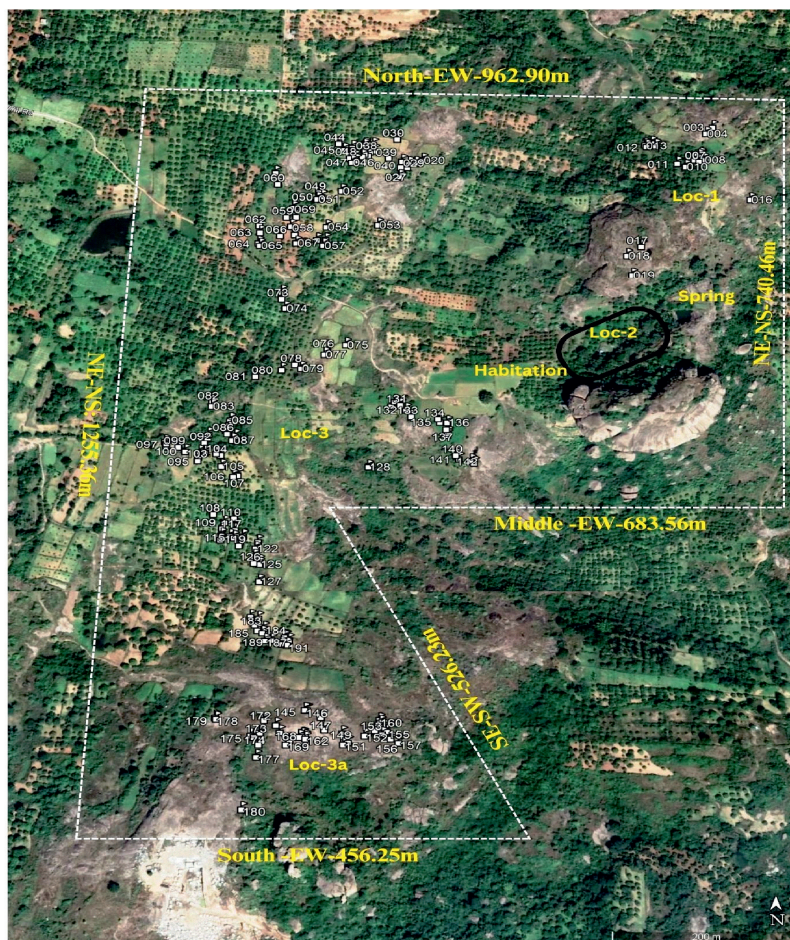
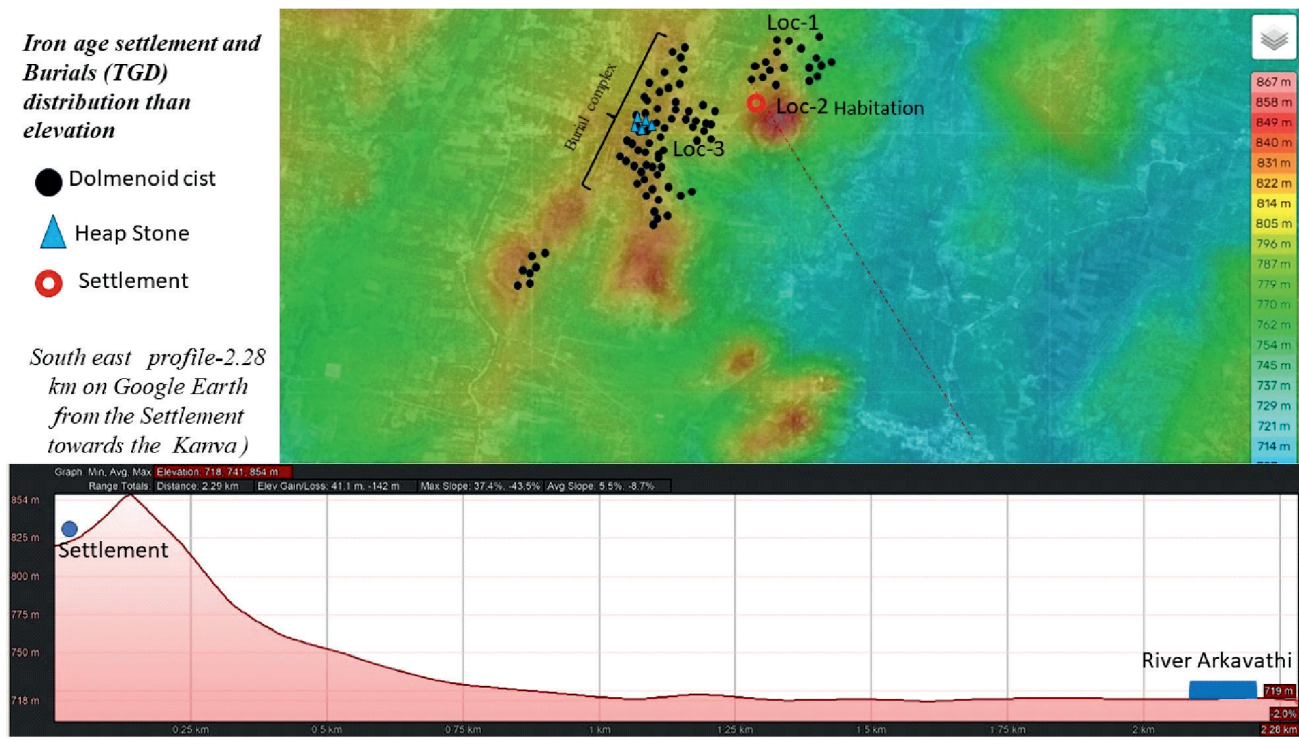
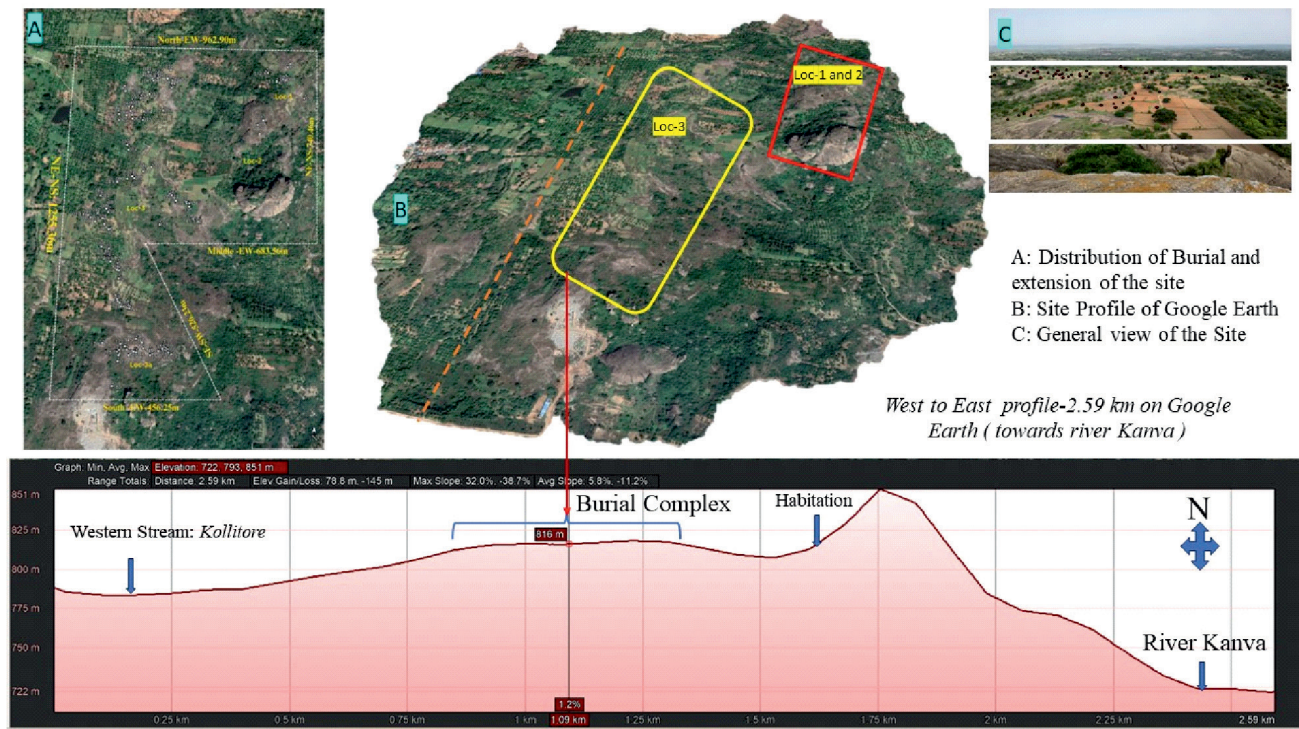


Figure 7: Map showing the Distribution of Burials and settlement (Loc-2) on the upland plateau and settlement on Google Earth than the site extent of Tirumalegowdana Doddi (Loc-1, 2, 3). A total area of 910539.193m<sup>2</sup> / 91.053 hectare, and with the number of burials.



**Figure 8:** Distribution of Burials and settlement on Elevation map from Tirumalegowdana Doddi -Kutagal site, and the graph below it shows the elevation information of the area profile, a plain next to the river Kanva towards the west.



**Figure 9:** Distribution of Burials on the upland plateau and settlement on google earth and the graph below it shows the elevation information of plotted location and distributed burials from Tirumalegowdana Doddi

foot of the hill. The habitation itself lies at the foot of the hill of the *Talavadi Betta*, forming a clear spatial sequence: Main Hill-Settlement at the foot of the hill-Locality 1 Burial ground at a medium-high range hill.

This positioning places the burials in close proximity to the habitation zone while maintaining a slight elevation, natural springs, possibly chosen for visibility, symbolic association with the surrounding landscape, and ease of access from the settlement. The intentional use of the landscape structures social and ritual space. The selection of the settlement at an elevated landscape and a large complex of burial grounds within the extent of undulating arable land is also elevated above the river bed; all these features indicate the Iron Age society was well organised and indicates a complex-based society. The burial on the mound indicates the Centre of the burial complex and the rank or status of the dead person. The dolmenoid cist enclosed by the stone circle is built on the flattened surface on the hilltop instead of the foot of the hill or nearby foot of the hill, like a few other burials in the foot of the hill, which perhaps indicates the social rank or power of the deceased who was cremated with all honour he or she was entitled to. All these factors indicate that the megalithic monuments were not built for all the people. It might only be certain individuals or certain groups, like those based on status, warriors, or hunters, who practiced burial erection for the deceased. Therefore, the results show that the TGD Iron Age society depended on seasonal agriculture, and Iron production was a key subsistence and major economic activity, indicating the formation of complex social hierarchies.

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