



Geography and Ritual: Exploring Megalithic Dolmens and Cave Burials in Udupi District

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Abstract

Udupi district in Karnataka, with its unique topographical and geographical features, houses an extraordinary array of megalithic dolmens and rock-cut cave burials. These ancient structures, located in diverse terrains from hilltops to coastal plains, reveal the ritualistic and cultural practices of prehistoric communities. This study examines the spatial distribution, structural characteristics, and environmental influences shaping these megalithic burial practices. Highlighting sites like Beluru Tuntkal, Kakkunje, and Borkatte, alongside an extensive analysis of rock-cut caves at locations such as Bommarabettu, Indrali, and Balaghatta, the research sheds light on the interplay between geography and the ritual significance of these structures. The findings underscore the impact of soil types on the size and preservation of burial structures, showcasing the intricate relationship between the natural environment and human cultural practices. By combining archaeological data and field observations, this study contributes to a deeper understanding of the megalithic heritage of coastal Karnataka.

Introduction

Introduction: Udupi district, a taluk with an area of 1559 sq.kms, located to the north of Udupi, boasts a rich megalithic heritage. The topography is characterized by an elevation

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of approximately 15.00 meters from sea level, with Gangavali, Varahi, Kolluru hole, and Sitanadi being the main streams originating from the Western Ghats and merging into the Arabian Sea.

The megalithic period in India, typically spanning from 1500 BCE to 500 CE, is characterized by the construction of large stone monuments for ritualistic and burial purposes. These structures, often associated with secondary burials, reflect the socio-economic, religious, and artistic dimensions of the communities that built them. Coastal Karnataka, particularly the districts of Udupi and Dakshina Kannada, is home to diverse megalithic structures such as dolmens, menhirs, urn burials and rock-cut caves.

This study aims to examine the spatial distribution, structural characteristics, and environmental influences shaping these megalithic burial practices. Highlighting the sites like Beluru Tuntkal, Kakkunje, and Borkatte, alongside an extensive analysis of rock-cut caves at locations such as Bommarabettu, Indrali, and Balaghatta, the research sheds light on the interplay between geography and the ritual significance of these structures

Dolmens

Dolmens, characterized by square or rectangular box-like graves, are prevalent in the region. These structures consist of orthostats supporting capstones, made of undressed rough stones or partly dressed flattish stones. These structures were often used for secondary burials, with grave goods such as pottery, beads, and iron tools placed alongside the deceased. The dolmens of Udupi and Dakshina Kannada are typically located on hilltops or elevated terrains, signifying their ritual importance.

Beluru Tuntkal: Situated north of Kundapura, the dolmen slab in Tuntkal measures 7.8 feet in length, 4.8 feet in height, and 1.8 feet in thickness. Dr. B. Vasantha Shetty initially recorded the site, later surveyed by Dr. A. Sundara, who collected black and red ware potteries from the region.

Kakkunje Dolmen: Located on the hill near Hadimane, locally known as Panara Arekallu or Pandavara Kallu, this dolmen site is situated on the left side of the Machanadi Kakkunje Road, approximately 26 km away from Udupi. Discovered by Dr. B. Vasantha Shetty, the site originally had 12 dolmens, but today only one remains intact, while two

others are in a broken state. The well-preserved dolmen chamber measures 1.52 mtr in height with a porthole on the western orthostat. The dimensions of the fallen northern orthostat, southern orthostat, and the eastern and western orthostat are provided. A large capstone, measuring 3.1 mtr in length and 1.82 mtr in width, crowns the dolmen. Despite efforts, nine additional dolmens reported by Dr. B.V. Shetty couldn't be located due to rich vegetation hindrance. No grave goods were found, but megalithic pottery was reported in the vicinity.

Borkatte: Borkatte, a small village in the Karkala Taluk of Udupi District, hosts a significant dolmen site located on the Karkala-Renjala road, adjacent to Gangamma High School. This report provides a detailed analysis of the Borkatte Dolmen, based on fieldwork conducted at the site.

The dolmen site is situated behind the school on a prominent rock boulder and comprises two well-preserved dolmens, each characterized by distinct features.

The first dolmen includes a porthole positioned on the western orthostat, with a diameter of 0.39 meters. The dolmen chamber is remarkably well-preserved, measuring 1.48 meters in height. The orthostats have the following dimensions:

- Northern: 2.88 meters in length and 1.21 meters in width.
- Southern: 2.38 meters in length and 1.21 meters in width.
- Eastern and Western: 2.28 meters in length and 1.32 meters in width. A substantial capstone crowns this dolmen, measuring 3.1 meters in length and 1.78 meters in width.

The second dolmen exhibits similar characteristics in terms of porthole position, chamber preservation, orthostat dimensions, and capstone features, underscoring the uniformity in construction techniques and design at the site.

Sl. No.	Name of the Site	Northern orthostat	Southern orthostat	Eastern	Western	height	Porthole
1..	Borkatte	1.88 mtr	1.38 mtr	1.28 mtr	1.28 mtr	1.48 mtr	0.39 mtr
2.	Kakkunje	1.94 mtr	1.46 mtr	1.31mtr	1.31 mtr	1.52 mtr	0.34 mtr
3..	Palli	0.93mtr	0.75mtr	0.69mtr	0.79 mtr	1.44 mtr	0.23 mtr
4.	Badaga-Kajekaru	1.44 mtr	1.14 mtr	1.12mtr	1.18mtr	1.63mtr	0.37mtr
5.	Moodukonaje	1.46mtr	1.34mtr	1.24 mtr	1.20 mtr	1.32 mtr	0.23 mtr

Rock-Cut Cave Burials

Rock-cut cave burials, predominantly excavated in soft laterite along the southern West Coast, represent a significant aspect of the megalithic tradition in coastal Karnataka. These burial chambers exhibit remarkable technical skill, with precisely hewn entrances and chambers. Typically associated with secondary burials, these caves often contained grave goods, including pottery and other artifacts, highlighting their ritualistic importance.

1. **Nayar Mutt:** Adjacent to Nayar Mutt, a rock-cut cave is without a capstone, featuring a neck diameter of 2 feet and a depth of 6 feet. Two additional ruined caves also situated
2. **Bommarabettu:** Located 20 km from Udupi, Bommarabettu is home to five rock-cut caves in varying states of preservation:
 - **Cave 1:** Features a hemispherical dome, circular floor, and a circular opening with a diameter of 2 feet.
 - **Cave 2:** Near the Rakteshwari temple, a well-preserved cave with a covered central porthole and a 2-foot diameter opening.
 - **Cave 3:** Located at Nichakal, it has a circular opening with a diameter of 2.5 feet.
3. **Balaghatta:** Two nearly identical rock-cut caves are found here, each with a circular porthole measuring 2.5 feet in diameter and a neck length of 3 feet. The caves exhibit dilapidated hemispherical domes.

4. **Balebailu:** Situated along the Kolalagiri-Perduru road, this site includes a cave with a circular opening of 2.6 feet in diameter and a length of 2.5 feet.
5. **Ellontu-Balladi Cave:** Located on the Shirva to Balladi route, two caves with varied circular opening dimensions and neck lengths were reported.
6. **Sorpu-Nadayi:** This area contains two dilapidated caves, each with a circular opening of 1.7 feet in diameter and a length of 2 feet, with a total depth of approximately 5 feet.
7. **Indrali:** Opposite the Indrani temple near a naga shrine, a rock-cut cave was discovered with a circular opening of 2 feet in diameter, a neck length of 4.5 feet, and a total depth of 9 feet. The base has a circular diameter of 8.2 feet,
8. **Kannarpadi:** A cave adjacent to the Kannarpadi Jayadurgaparameshwari temple was exposed during ground leveling for house construction. This cave is with a depth of nearly 5 feet.
9. **Kanyana:** On the Perduru-Hebri road, a cave on a hill slope was identified with a circular opening of 2 feet in diameter, a neck length of 4 feet, and a depth of 6 feet.
10. **Kurkal:** Found on the eastern slope of Kurkal hill, this cave has a central circular opening with a diameter of 60 cm, a length of 2.5 meters, a circumference of 3.5 meters, and a total depth of 8 meters.
11. **Jatabettu-Uppuru:** Two caves were found in Uppuru-Jatabettu, Udupi taluk. The first, discovered during house construction, features a circular opening of 2 feet in diameter, a length of 4 feet, and a depth of 4 meters.
12. **Kakkude-Haradi:** Located 10 km northwest of Udupi near Haradi village, this cave has a circular opening of 2 meters in diameter, a neck length of 2 meters, and a depth of 5 feet.
13. **Soribettu-Gorel:** Near Perduru, a cave was identified with a circular opening of 2 feet, a neck length of 4 feet, and a depth of 11 feet.
14. **Balaghatta:** In Hirebettu village, two cave burials were found, each with a circular entrance circumference of 0.76 meters and a neck length of 0.92 meters.
15. **Nadayi Shirva:** In Shirva's Nadayi area, two caves were reported, with an entrance circumference of 0.52 meters, a neck length of 0.60 meters, and a depth of 1.52 meters.



Observations: The observations of cave burials in coastal Karnataka reveal a fascinating interplay between geography and the characteristics of these ancient burial structures. The study focuses on the variations in size and extent of cave burials, drawing a correlation with the specific soil types prevalent in the coastal region.

In coastal Karnataka, where the landscape is diverse, the cave burials exhibit a discernible difference in size and extent. One prominent factor influencing this variation is the type of soil surrounding the burial sites. Through meticulous examination, it becomes evident that cave burials situated in close proximity to the coast, characterized by sandy soil, tend to be smaller in size compared to their counterparts in areas with laterite soil.

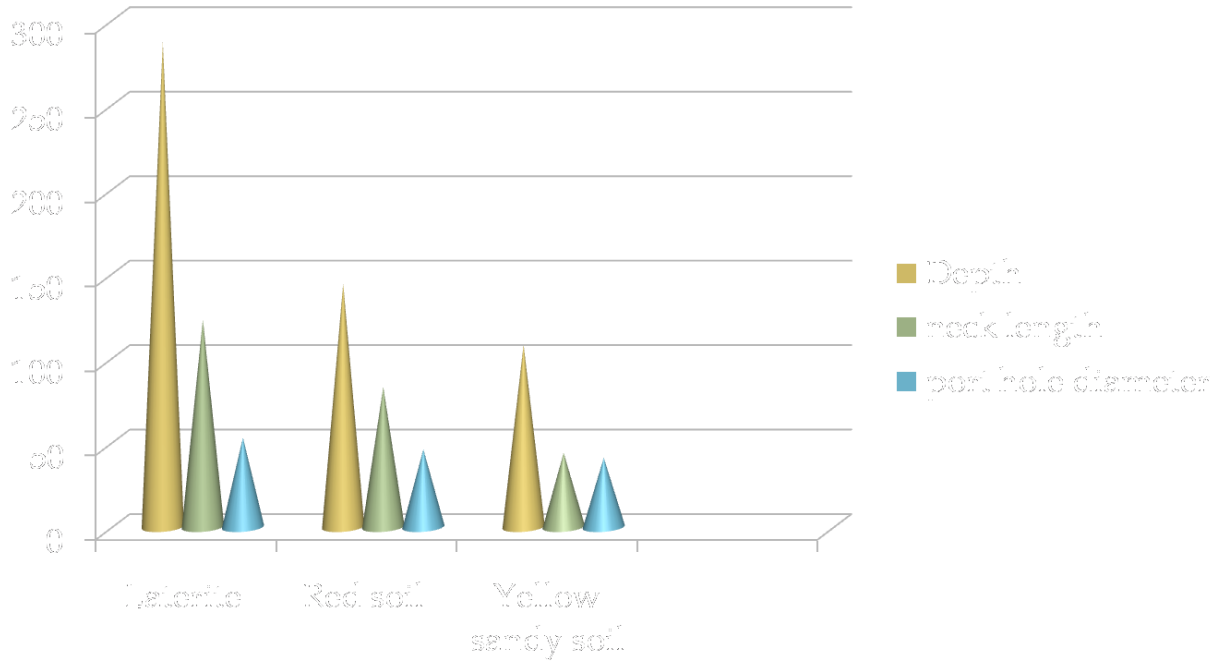
The sandy soil along the coastal regions, often associated with beaches and dunes, appears to shape the dimensions of the cave burials. The smaller size of these coastal cave

burials could be attributed to the loose and less compact nature of sandy soil, potentially affecting the structural stability of the caves. The soft composition of sandy soil might limit the extent to which the caves can be excavated or sustained over time.

Conversely, in regions where laterite soil predominates, the cave burials exhibit larger dimensions. Laterite soil, known for its hardness and durability, appears to provide a more stable foundation for the construction and preservation of expansive cave structures. The increased size of these laterite-based cave burials may be a consequence of the soil's ability to withstand erosion and maintain the integrity of the burial sites over extended periods.

This observed correlation between soil type and the size of cave burials suggests that environmental factors played a crucial role in shaping the practices of ancient communities in coastal Karnataka. The study underscores the intricate relationship between geological conditions and cultural practices, shedding light on how the local environment influenced the choices made by communities in constructing and utilizing cave burials in the coastal regions of Karnataka.

Sl. No	Name of the Site	Diameter of Opening	Length of the neck	Total depth of the cave	Nature of soil
1.	Nayar Mutt	0.54	0.58	1.84	Yellow loamy soil
2.	Bommarabettu	0.57	0.64	2.43	Laterite soil
3.	Balaghatta	0.70	0.86	2.38	Laterite soil
4.	Balebailu	0.76	0.78	2.23	Laterite soil
5.	Ellontu-Balladi	0.53	1.23	2.87	Laterite soil
6.	Nadayi-Shirva	0.46	0.83	1.44	Red soil
7.	Indrali	0.64	0.78	2.73	Laterite soil
8.	Kanyana	0.53	1.07	2.84	Laterite soil
9.	Jatabettu	0.52	0.84	1.92	Yellow loamy soil
10	Kolankal	0.41	0.44	1.08	Yellow loamy soil



Conclusion

The megalithic monuments of Udupi and Dakshina Kannada districts offer a fascinating glimpse into the prehistoric heritage of coastal Karnataka. Through their architectural complexity, cultural symbolism, and regional variations, these structures highlight the ingenuity and beliefs of ancient societies. However, their preservation requires concerted efforts from researchers, policymakers, and local communities.

- Ganapayya Bhat, P. 1978: Megalithic Rock-Cut Caves of Coastal Karnataka. *Archaeological Studies*, III : 62-65;
- ----- 1990 : Prehistory of Coastal Karnataka. *Quarterly Journal of the Mythic Society*, LXX (1-2) : 86-96
- ----- 1998 : Tulunadinalli Brihat Shilayuga Sanskritiya Kuruhugalu. *Itihasa Darshana*, 13 : 1-5
- Joshi, R. V., Prehistory and Protohistory of India (Recent Trends and Prospects), In Sundara A., Ed., *Proceedings of R. B. Foote Memorial National Seminar (1995)* on

- Indian Prehistory and Protohistory (Recent Studies) (2004) Directorate of Archaeology and Museums, Govt. of Karnataka.
- Korisetar, R. 1979. Prehistory and Geomorphology of Middle Krishna: Karnataka, Unpublished Ph.D Dissertation. Pune: Deccan College, Post Graduate and Research Institute.
 - Misra, V.N. 1978. The Acheulian Industry of Rock shelter IIF-23 at Bhimbetka, Central India - a Preliminary Study, IPPA Bulletin 1:130-171.
 - Moorti, U. S., Megalithic Culture of South India: Socio-Economic Perspectives (1994) Ganga Kaveri Publishing House, Varanasi.
 - T Murugeshi and Prashantha Shetty; 2010-11. "Discovery of Rock Art and Associated Neolithic Assemblages in the Southwest Coast of Karnataka". Purakala Vol.20-21 (the Journal of Rock Art Society of India) pp. 142-44.
 - Murugeshi T. 2023: Avalakkipareya Bhande Chitrragal, Itihasa Darsana vol. 38.
 - _____ 2012: Minor Research Project on megalithic burials of udupi district
 - Nagaraja Rao, M.S. and K.C. Malhotra 1965. The Stone Age hill Dwellers of Tekkalakota. Pune: Deccan College, Post Graduate and Research Institute.
 - Narasimhamurthy, P.N. 2005: Pre and Protohistoric sites/Remains in Coastal Karnataka : Further Discoveries,.
 - Raghunath Bhat, H.R. 2004: Megalithic Remains of Uttara Kannada Region: A Note. Sundara, A. (ed.), Proceedings of .B. Foote Memorial National Seminar (1995) on Indian Prehistory and Protohistory (Recent Studies). Hospet, Directorate of Archaeology and Museums : 247-50
 - Sundara, A. (2004). *Early Chamber Tombs of South India: A Study of the Iron Age Megalithic Monuments of North Karnataka.*
 - Rao, M. S. N., Progress of Archaeology in Karnataka:1956-1972 (1978) Directorate of Archaeology and Museums in Karnataka, Mysore.
 - Rajendra 1983: The Mesolithic Industries from South Canara. Bulletin of Deccan College Research Institute, 42: 133-35
 - Rao, L.S. 2004: Recent Prehistory Discoveries from the west of Karnataka. Sundara, A. (ed.) Proceedings of R.B.Foote Memorial National Seminar (1995) on Indian

Prehistory and Protohistory (Recent Studies), Hospet, Directorate of Archaeology and Museums:186-95

- Shivarudrappa, T.V., Fuziwora, Kenzo and Shadakata, Noboru 1983: Middle Palaeolithic in the Naravi Valley South canara District India. Archaeological Studies, VII:51-56
- Shivatarak K.B. 2001: Karanataka Puratattva Nelegalu. Hampi, Vidyaranya, Kannada University:23-53;323-27
- ----- 1990: Some Recent Archaeological Notes: Megalithic Relics in Dakshina kannada- A Study. Sundara A. (ed.), Archaeology in Karnataka Presented at National Seminar on Archaeology 1985, Mysore, Directorate of Archaeology and Museums: 215-18
- ----- 1991: Dakshina Kannada Pragitihas. Telagavi, Laxmana (ed.), Samshodhana:Dr.M.Chidanandamurthy Gaurava Samputa. Bangalore, Dr. M. Chidanandamurthy Abhinandana Samiti: 714-19.
- Vasanth Shetty. B. 1987: Dakshina kannada Jilleya Nutana Shilayuga. Itihasa darshana, 2: 34-35