Terracotta Bull Figurines from the Early Historic Garhwal Himalaya and Adjoining Areas: An Ethnoarchaeological Study

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Abstract

In the Indian subcontinent, terracotta bull figurines have held deep traditional, symbolic, and cultural significance for centuries. The most common associations relate to fertility, masculinity, agrarian beliefs, and ritual practices. This study examines terracotta bull figurines recovered from Early Historic sites in Uttarakhand and the adjoining foothills, drawing on key excavations at Ranihat and Supana in Tehri district, Uttarakhand, and at Mordhwaj in Bijnor district, Uttar Pradesh. It explores the socio-cultural and religious significance of these archaeological materials. The figurines are currently on display at the Museum of Himalayan Archaeology and Ethnography, Hemvati Nandan Bahuguna Garhwal University, Chauras Campus, Tehri Garhwal, Uttarakhand. By integrating archaeological and ethnographic data, we seek to understand and reconstruct the symbolic roles of these figurines within local society, together with their enduring cultural significance in the central Garhwal Himalayan context.

Keywords: Bull figurines, socio-cultural, ethnoarchaeology, Garhwal, Central Himalaya.

Introduction

A substantial body of published archaeological evidence from different parts of the world indicates that, since prehistoric times, animals have been a prominent subject of painting and representation in early human societies (Campbell ١٩٦٩; Bar-Yosef ١٩٩٢: ١٠–٣٩; Henry ١٩٩٨: ٢٣–٣٨). The bull, in particular, appears to have held special significance, gradually establishing its prominence in art as a symbol of power, fertility and economic strength (Tiwari ٢٠١٩: ٥٠–59). The creation of paintings, images and statues reflects the cognitive development of a culture and often reveals its belief systems, as demonstrated by the imagery, paintings and figurines it produced (Davis 2018).

Lascaux Cave, in south-western France, is one of the most renowned decorated caves in the world and dates to the Magdalenian period (Leroi-Gourhan and Allain 1979; Aujoulat 2004). The Cave of Altamira in Cantabria, Spain, famous for its Paleolithic paintings, also depicts bulls (Neville and Williams ٢٠١٨; Lasheras ٢٠٠٩: ٥–٣٣; Skilbeck and Skilbeck ٢٠٢١: ٨١–119). In India, numerous examples of rock art demonstrate that prehistoric hunter-gatherers painted oxen and bulls. Notable sites include Bhimbetka and Chaturbhuj Nath Nala in Madhya Pradesh; Lekhania (Rajpur), Mukkhadari and Kolia Ghat in Sonbhadra (Uttar Pradesh); and the rock paintings of Mirzapur and the Chambal Valley (Mathpal 1984; Tiwari 2019: 81; Allchin ١٩٨٧: ١٣٨–١٥٦; Chattopadhyaya ٢٠٠٨: ٢٥١–٢٧٠). Furthermore, the Neolithic ash mounds of South India indicate that animal domestication was under way at this time

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(Allchin and Allchin 1982; Fuller and Kingwell-Banham 2018: 145). A Neolithic rock-bruised depiction of a bull on dolerite at Hire Gudda (Kupgal Hill) is significant for studying bull domestication (Boivin et al. ۲۰۰۸: ۱۷۹–۲۰۰). Terracotta figurines are small figures modelled from fired clay, often depicting people, animals or deities. Such figurines have been produced for thousands of years in many cultures, including those of India, Greece and China (Portal and Kinoshita 2007; Boardman 2016; Ahuja 2001). Terracotta figurines of bulls have been found at various Neolithic sites in the Eastern Mediterranean region, such as Çatalhöyük, Ain Ghazal, Jericho, Munhata, Basta and Netiv Ha-Gdud (Rigoglioso ۲۰۰۷: ۹۵–105; Campbell 1969; Bar-Yosef 1992; Henry 1998; Kafafi 1998; Kuijt and Chesson 2005; Campbell 2005). The humped bull is a prominent motif on Harappan seals (Shinde et al. 2008: ۲۸; Winters ۱۹۸٤: ۱–۸; Atre ۱۹۹۰: ٤۳–٥۱; Ameri ۲۰۱٦) and is also painted on pottery recovered from early Indus sites such as Damb Sadaat in the Quetta Valley (Possehl 2002: ٤٥), Naushera (Jarrige ۱۹۸۹: ۲۱–٦۷) and Kullu (Fairservis ۱۹۸٦: ٤۳; Stein ۲۰۰۲). Terracotta representations of the bull have likewise been discovered at Harappan sites, including Mohenjo-Daro, Harappa (Srinivasan ۱۹۷٥: ٤۷–٥۸), Kalibangan (Lal and Joshi ۲۰۱٥; Sharma ۲۰۱۸: ۷٤٤–۷٥٥), Baror, Tarkhanwala Dera and Chak 86 (Trivedi ۲۰۰۹; Tod ۱۹۱٤; Lal and Joshi ۲۰۱٥; Sant et al. ۲۰۰٥: ٥۰–٥۹).

During the Early Historic period, the bull appears to have been portrayed as a royal symbol, most prominently on Ashokan pillars such as the Rampurva Bull Capital (Irwin ۱۹۷۳: ۷۰٦–720) and the Sarnath pillar capital (Vogel 1954). Furthermore, the coins of the Western Kshatrapa (Kardamaka) rulers Rudrasimha I and II and Rudrasena II and III (Shah ۲۰۲۲: ۷–۲۲) indicate that such symbols played an important role in projecting royal authority, legitimising royal power and reinforcing socio-cultural and religious associations of strength, fertility and sovereignty through visual forms. Bull figurines, both humped and non-humped, have also been found at Early Historic sites such as Amreli and Vadnagar in Gujarat and Kumrahar in Patna, Bihar (Sen ۲۰۱٦: ٦۳–78; Gotad and Ambekar 2024: 1206–1254; Sinha and Narain 1970). Overall, the widespread presence of bull imagery, from prehistoric rock paintings to Early Historic terracotta artifacts, highlights the importance of this animal and the human–animal relationship across time and space.

Previous archaeological studies have interpreted bull imagery from different chronological and cultural contexts in multiple ways. While some scholars emphasise its association with fertility, agricultural prosperity and economic life, others interpret bull representations within broader ritual, religious and symbolic traditions. Ethnoarchaeological research further suggests that the meaning of animal figurines cannot be understood solely through their form but must also be interpreted in relation to their archaeological context, associated material culture and the cultural practices of the communities that produced and used them. Despite extensive research on the symbolism and representation of bulls in prehistoric and protohistoric contexts, comparatively little attention has been paid to terracotta bull figurines from the Early Historic

Garhwal Himalaya. In particular, the archaeological contexts and cultural significance of the terracotta bull figurines from Ranihat, Supana and Mordhwaj have not been examined in a focused regional study. Furthermore, the relationship between these archaeological figurines and contemporary cultural practices associated with bulls has not been explored within an ethnoarchaeological framework. This study addresses these gaps by integrating archaeological evidence and ethnographic observations to examine the possible functional, symbolic, and ritual dimensions of terracotta bull figurines in the Garhwal Himalayan region.

Against this background, the present study investigates terracotta bull figurines from the Early Historic sites of Ranihat, Supana and Mordhwaj, examining their symbolic and functional significance through an ethnoarchaeological approach. Rather than assuming an unbroken continuity between past and present, the study explores whether selected symbolic associations of bulls, particularly those related to ritual practices, agrarian life, and pastoral traditions, may have been transformed, may have persisted, or may have been reinterpreted over time. By integrating archaeological evidence with ethnographic observations, the study aims to provide a contextual interpretation of the role of bull figurines within the cultural landscape of the Garhwal Himalayan region.

Objectives of the Study

The present study has four principal objectives:

(1) To undertake a detailed examination of the terracotta bull figurines recovered from Ranihat, Supana and Mordhwaj;
(2) To analyse their archaeological contexts, morphology and associated material remains;
(3) To compare the archaeological evidence with contemporary ethnographic observations from the Garhwal Himalayan region; and
(4) To evaluate the possible symbolic, ritual and socio-cultural significance of these figurines through an ethnoarchaeological framework.

Area of Study

This study investigates Early Historic sites in the Himalayan region, with a particular focus on previously excavated sites at which terracotta bull figurines were discovered by the Department of History, Ancient Indian History, Culture and Archaeology, Hemvati Nandan Bahuguna (HNB) Garhwal University. The excavated materials are currently on display in Gallery 3, the historical gallery of the Museum of Himalayan Archaeology and Ethnography at the university. The sites of interest are Ranihat and Supana, both located in the central Garhwal Himalayan region of Uttarakhand, and Mordhwaj, situated in Bijnor district, Uttar Pradesh, in the Himalayan foothills (Fig. 1).

Ranihat and Supana are situated on the right bank of the Alaknanda River, opposite the city of Srinagar (Garhwal), within the broad Srinagar valley in the central Garhwal Himalaya. The valley offers relatively favourable conditions for settlement, agriculture and movement compared with the surrounding mountainous terrain. Both sites are archaeologically significant for their Early Historic habitation, as evidenced by ceramics, metal objects, beads and terracotta

animal figurines. Mordhwaj is located in the Himalayan foothill zone of Bijnor district, Uttar Pradesh, near the Malini River. Its position within the wider Ganga basin places it in an important zone of cultural interaction between the Himalayan region and the northern plains. Excavations at the site revealed successive Early Historic cultural phases containing ceramics, architectural remains, and terracotta figurines, including bull representations relevant to the present study.

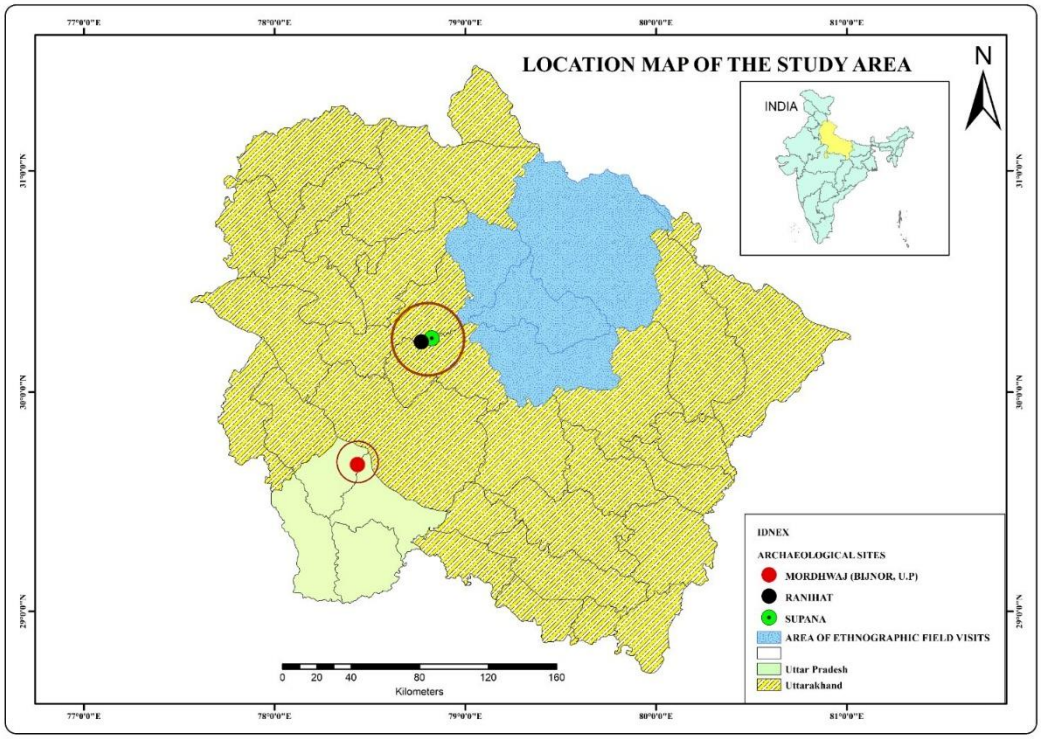


Figure 1: Map of the study area (*created* by the *authors* using QGIS and *the* Survey of India base map).

An Ethnoarchaeological Approach

This study adopts an ethnoarchaeological approach, integrating archaeological evidence with contemporary ethnographic observations to interpret the possible meanings and functions of terracotta bull figurines. Ethnoarchaeology examines living communities and their material practices to provide interpretative frameworks for understanding the archaeological record. With the emergence of the New Archaeology in the 1960s, scholars such as Lewis Binford emphasised the value of ethnographic analogy in explaining past human behaviour (Snodgrass 1985: 31–37; Binford 2016: 12–24; Watson et al. 1991: 275–291; Binford 1967: 1–12; Gosselain 2016: 215–228).

In India, ethnoarchaeological studies have examined settlement patterns, stone tool use, pottery production and traditional craft practices, demonstrating the value of contemporary observations for archaeological interpretation (Paddayya 1983: 70–104; Kramer 1998;

Sinopoli 1991: 177–192; Hashim 1988: 60–63). In Uttarakhand, ethnographic research has largely focused on folklore, ritual practices and local cultural traditions (Katoch 2003; Sharma 2007; Sexsana 2016: 10–14; Agarwal and Kharakwal 1998). Among these studies, Saklani's Ethnoarchaeology of the Yamuna Valley is particularly significant for relating contemporary practices to the archaeological record of the Garhwal Himalaya; these practices include animal husbandry, seasonal shelters, local architecture, pottery-making, agricultural tools, wooden deities, and megalithic monuments. His work highlights cultural continuity through ethnographic observations and extensive field exploration in the region (Saklani 2008). These studies provide the methodological background for the present study and demonstrate the value of ethnographic observations in interpreting archaeological evidence.

Ethnoarchaeological interpretation may involve different forms of analogy. Direct analogy assumes a relatively close correspondence between observed contemporary practices and past behaviour (Steward ١٩٤٢: ٣٣٧–٣٤٣; Strong ١٩٣٥), but such an approach can be problematic where long chronological and cultural gaps are involved (Lyman and O'Brien ٢٠٠١; Wylie 1985). Relational analogy, by contrast, focuses on comparable relationships among material objects, subsistence practices, ritual behaviour and social contexts rather than assuming identical cultural traditions (Hodder 1982; Wylie 1985). Interpretative analogy uses contemporary ethnographic observations as a heuristic framework for generating possible explanations of archaeological evidence (Gould 1980; Binford 2012; Gould and Watson 1982). The present study primarily employs relational and interpretative analogy. It does not assume that present-day ritual practices in Garhwal represent unchanged survivals from the Early Historic period; rather, contemporary practices are used to explore possible relationships between bull symbolism, agriculture, pastoralism and ritual behaviour.

Research Design and Data Collection

This study adopts an ethnoarchaeological approach to examine the symbolic and ritual significance of terracotta bull figurines recovered from the Early Historic sites of Ranihat, Supana and Mordhwaj in the Garhwal Himalayan region. Rather than assuming direct continuity between the archaeological past and the present, it uses ethnographic evidence as an interpretative framework to understand the possible cultural meanings of these figurines. The principal aim is to examine how archaeological evidence and contemporary cultural practices can be used comparatively to interpret the symbolic role of bulls in ritual, agricultural, and pastoral contexts.

The archaeological component of the study is based on re-examining nine terracotta bull figurines preserved in the Museum of Himalayan Archaeology and Ethnography, HNB Garhwal University. The assemblage comprises three figurines from Ranihat, four from Supana and two from Mordhwaj (Table 1). The specimens were examined directly in the museum collection and assessed with reference to their archaeological provenance, cultural phase, overall morphology, horn form, hump, preserved anatomical features, visible decorative motifs (e.g., Swastika and Indradhwaja), where present, and associated excavation records. Photographs of the museum specimens were taken by the authors for documentation and illustration in the present study. These observations were subsequently compared with ethnographic information collected during fieldwork to interpret the symbolic, ritual, and pastoral significance of bull figurines in the Garhwal Himalayan region.

Table 1: Archaeological sample examined in the present study

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Site	Cultural Phase	Chronology	Bull Figurines Examined
Ranihat	Period IIA	400–200 BCE	3
Supana	Post-Kushana	3rd century CE	4
Mordhwaj	Period IIA	2nd century BCE–1st century CE	2
Total	–	–	**9**

The ethnographic component of the study was conducted between 2024 and 2025 in approximately 10–15 villages in the districts of Chamoli and Rudraprayag, Uttarakhand. The study focused on villages where traditional agricultural practices, cattle rearing, and ritual traditions associated with bulls are still maintained. Information was collected through informal, open-ended interviews and discussions with 25 participants, comprising farmers (6), elderly villagers (> 60 years) (6), cattle owners (6), and priests and other residents (7). Fieldwork was carried out during repeated visits between February and April and between July and September over the two-year study period. Information on seasonal rituals, traditional practices, cattle-related beliefs, and oral traditions was obtained primarily through informal interviews and discussions with residents. Interviews were conducted in Garhwali and Hindi, depending on participants' preferences. The first author comes from the Garhwal Himalayan region, and familiarity with the local language and cultural traditions facilitated communication with local communities and contributed to the interpretation of the ethnographic information. The archaeological and ethnographic datasets were compared within a relational ethnoarchaeological framework. Rather than seeking direct one-to-one equivalence between ancient and modern practices, the comparison focuses on broader relationships between bull symbolism, agricultural activities, ritual behaviour and pastoral traditions. Archaeological evidence from the figurines was interpreted alongside ethnographic observations to explore possible continuities and historical changes in symbolic practices (Table 2).

Finally, ethnographic analogy is employed as an interpretative tool rather than as direct evidence of uninterrupted cultural continuity. The interpretations presented in this study therefore draw on a combined evaluation of archaeological context, material evidence, and contemporary ethnographic observations.

Table 2: *Comparative analytical framework linking archaeological and ethnographic evidence.*

Archaeological Evidence	Ethnographic Observation	Interpretation
Bull figurines recovered from habitation deposits and domestic contexts	Household rituals involving bulls and cattle continue to be practised in the villages of Chamoli and Rudraprayag.	Suggests that some bull figurines may have been associated with household ritual practices rather than serving only decorative purposes.
Swastika and Indradhwaja motifs on bull figurines from Supana	These symbols are still regarded as auspicious and are associated with cattle worship during festivals such as Gobardhan Puja and Egas.	This suggests possible symbolic associations with prosperity, protection, and ritual significance.

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Prominent hump and robust horns on the figurines	Bulls are regarded as symbols of strength, fertility and agricultural prosperity in local folklore and pastoral traditions.	The exaggerated anatomical features may deliberately emphasise symbolic qualities rather than naturalistic representation.
Bull figurines associated with pottery, beads and other domestic artefacts	Rituals related to cattle are commonly performed within household and agricultural settings.	Supports the interpretation that bull figurines were integrated into everyday domestic and ritual life.
Bull figurines recovered from Ranihat, Supana and Mordhwaj across different cultural phases	The symbolic importance of bulls continues in contemporary agrarian and pastoral communities, although practices have changed over time.	This suggests continuity in symbolic importance while recognizing historical transformation rather than direct cultural continuity.

Representative terracotta bull figurines and other associated animal figurines examined in the present study are illustrated in Fig. 2.



Figure 2: Bulls and other animals from the sites of the study area (courtesy of the Museum of Himalayan Archaeology and Ethnography, HNB Garhwal University, Srinagar, Garhwal; after Nautiyal and Khanduri ١٩٩١: ٦٤–٦٧; Nautiyal and Khanduri ١٩٧٨–٧٩: ٨٦–٨٧).

Site Description

In this study, we selected three previously excavated sites, Ranihat, Supana and Mordhwaj, which yielded materials now on display in the department's museum. We re-examined the artifacts housed in the museum to investigate the socio-cultural aspects, symbolism, and ritual practices associated with animal terracotta figurines, specifically bull figurines, excavated by archaeologists from the Department of History, Ancient Indian History, Culture and Archaeology, HNB Garhwal University.

Ranihat

Ranihat is situated on the right bank of the Alaknanda River in Tehri district, Uttarakhand, directly opposite the town of Srinagar Garhwal. Garhwal University excavated it in 1977 under the direction of Prof. K.P. Nautiyal, then Director and Head of the Museum and the Department. The excavation uncovered habitation deposits with a total thickness of 3.25 m, which were divided into three cultural periods, Period II being further subdivided: Period I (٦٠٠–٤٠٠ BCE), Period IIA (٤٠٠–٢٠٠ BCE), Period IIB (٢٠٠ BCE–٢٠٠ CE) and Period III (٨٠٠–١٢٠٠ CE) (*Indian Archaeology: A Review* [IAR] ١٩٧٨–79: 75; Nautiyal and Khanduri 1991: 64–67) (Figs 3 and 4).

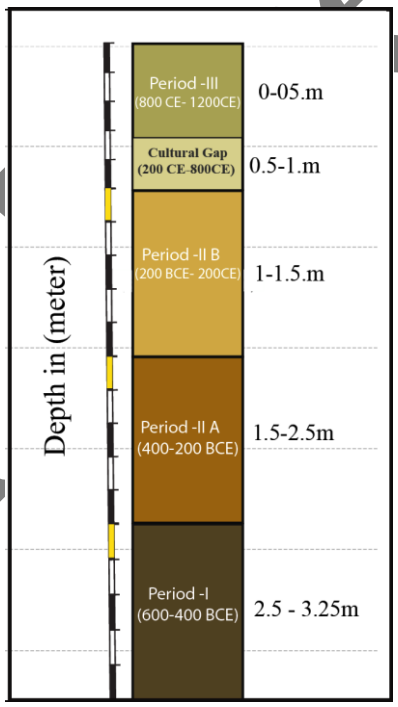


Figure 3: Stratigraphy of the Ranihat site, based on data provided by earlier scholars (after Nautiyal and Khanduri ١٩٩١: ٦٤–٦٧).

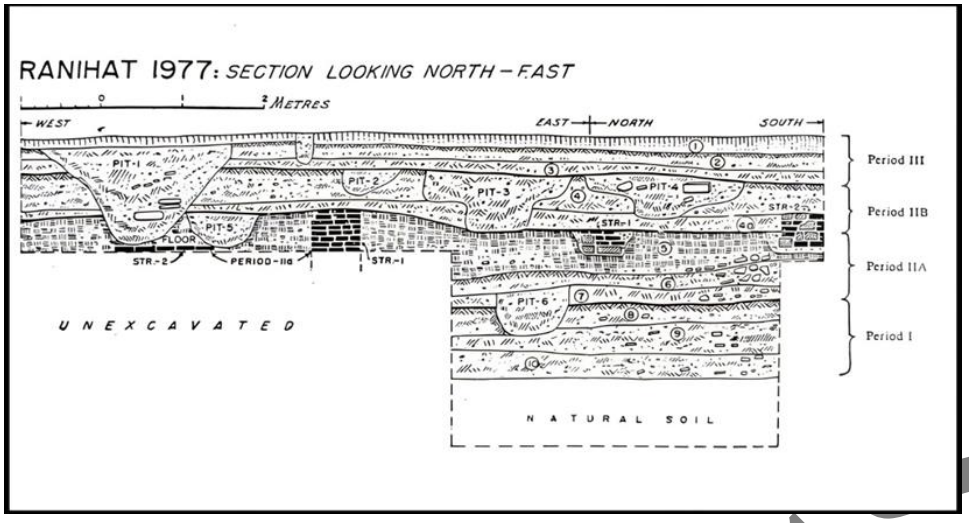


Figure 4: Section showing the cultural phases of Ranihat (after Nautiyal and Khanduri 1991: ٦٤–٦٧).

Period I (٦٠٠–400 BCE). Period I yielded glossy red ware, along with smaller quantities of fine grey ware and polished black ware. Excavations also exposed a pebble floor, together with terracotta ram figurines, copper rings and iron objects, including arrowheads and needles (IAR ١٩٧٨–٧٩: ٧٥).

Period IIA (400–200 BCE) is characterised by crude Northern Black Polished Ware and red ware, including rimless *handis* and miniature bowls. Key artefacts from this period include terracotta animal figurines (notably bull figurines), stone beads, copper bangles and iron objects such as arrowheads and nails, which highlight the prominence of iron.

Period IIB (٢٠٠ BCE–٢٠٠ CE) is characterised by the continuation of earlier pottery traditions, alongside the emergence of new techniques such as thumb impressions and grooved decoration (Nautiyal and Khanduri ١٩٩١: ٦٤–67).

Period III (٨٠٠–١٢٠٠ CE) followed a hiatus of approximately ٦٠٠ years. A floor structure was constructed using rammed clay mixed with brick fragments. The floor consisted of river pebbles and was finished with stone slabs (IAR ١٩٧٨–٧٩: ٧٥; Nautiyal and Khanduri ١٩٩١: ٦٤–٦٧).

Supana

Supana is located on the right bank of the Alaknanda River in Tehri district, Uttarakhand. It was excavated in ١٩٩٨–٩٩ by the Department of History, Ancient Indian History, Culture and Archaeology, Garhwal University, under the direction of B.M. Khanduri (IAR ١٩٩٨–99: 216–217). The excavation revealed a single-phase post-Kushana culture, with evidence of stone sculptures, iron objects, terracotta artefacts, pottery, beads, grinding stones and pestles (IAR

1998–99: 216–217; Table ٣). The terracotta artefacts included figurines of rams, bulls and humped bulls, which are the focus of this study.

Category	Description	Remarks/interpretation
Pottery	**Red ware** (most common); wheel-made; medium to fine texture; generally unpainted, with occasional incised and stamped decorations	Indicates post-Kushana ceramic tradition; utilitarian and possibly domestic in function
Pottery forms	Bowls, lamps, spouted pots, lids, and perforated ware	Variety suggests a range of domestic and possibly ritual or functional uses (e.g. lamps, cooking vessels)
Iron artefacts	Nails, arrowheads, borers, needles, fishing hooks, blades, hooks and forks	Evidence of advanced iron technology; tools imply domestic use, hunting, fishing, and possibly warfare
Copper and silver items	Copper rings, bangles, antimony rod, plumb bob, toy silver bangles	Suggest knowledge of metallurgy; ornaments and tools reflect daily life and aesthetic or ritual concerns
Terracotta figurines	Animal figurines: rams, bulls, humped bulls	Represent symbolic or ritualistic expressions; pastoral associations
Decorated figurines	One figurine bears **swastika** and **Indradhwaja** motifs	Possible indication of ritual or religious symbolism, perhaps linked to fertility, prosperity or cultic practices
Other terracotta items	Earrings, cart wheels	Likely children's toys or votive objects; suggest aspects of daily life and craft
Stone tools	Grinding stones, pestles	Used for food preparation or craft, typical of domestic contexts
Beads	Type not specified	Implies ornamentation or trade; common in post-Kushana assemblages
Faunal remains	Animal bones: cattle, pigs, goats	Evidence of domestication and animal husbandry
Fish remains	Scales and bones	Indicates that fishing was an important part of the subsistence strategy

Table ٣: Cultural materials recovered from the Supana excavation (IAR ١٩٩٨–٩٩: ٢١٦–٢١٧).

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Mordhwaj

Mordhwaj is situated approximately 15 km southwest of Kotdwar, in the foothills of the Garhwal Himalaya, in Bijnor district, Uttar Pradesh. It was excavated by Garhwal University in ١٩٧٩ (Nautiyal and Khanduri ١٩٧٨–79: 86–87). The excavations revealed three cultural periods: Period I (5th century BCE to 2nd century BCE), Period IIA (2nd century BCE to 1st century CE) and Period IIB (٢nd century CE to ٤th century CE) (Nautiyal and Khanduri ١٩٧٨–79: 86–87).

Period I marks an earlier settlement, characterised by Northern Black Polished Ware and fine, thin grey ware, represented primarily by dishes and bowls (Nautiyal and Khanduri ١٩٧٨–٧٩: ٨٦–٨٧; Fig. 5).

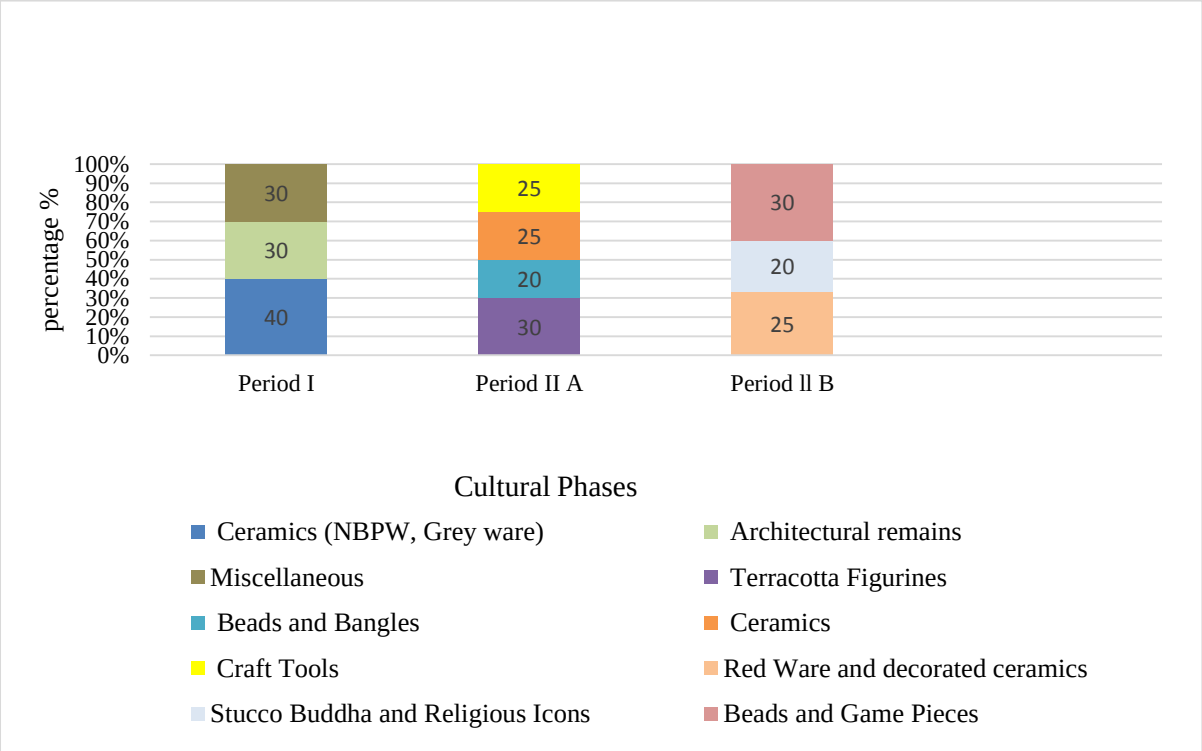


Figure 5: Graph showing the period-wise distribution of artefacts at Mordhwaj (after Nautiyal and Khanduri ١٩٧٨–79: 86–87).

Period **IIA.** Brick structures were revealed, and a brick lattice was incorporated into the floors. Notable finds from this period include terracotta figurines of humans and animals, among which the terracotta bull figurines are the focus of this study (Nautiyal and Khanduri ١٩٧٨–٧٩: ٨٦–٨٧).

Period IIB. Burnt bricks were widely used in this period, in standard sizes of 24 × 12 × 6 cm and 25 × 15 × 6 cm. A terracotta stucco depicting the Buddha was also discovered at the site, along with terracotta and stone beads and terracotta game pieces.

Contemporary Ethnography

Uttarakhand, commonly known as Devbhoomi, has a rich cultural heritage rooted in Hindu traditions, pastoral practices and tribal customs. The Khasas, Kiratas and Nagas are ancient tribal groups of the central Himalayan region of Uttarakhand (Katoch 2003; Khanduri 1994; Khanduri et al. ١٩٩٨: ٦٨–٧١). These groups represent some of the earliest nomadic-pastoral communities in the area (Agarwal and Kharakwal 1998). In this region, bulls hold considerable importance, playing a vital role not only in ritual practice but also in art and symbolism. Above

all, bulls and oxen are essential for breeding and agricultural work, and it is difficult to imagine rural agriculture and cattle herding without them.

Folklore

Uttarakhand has long maintained a rural culture, and its residents follow distinctive ways of life, belief systems, and traditions. Folk tales and folklore are significant parts of these traditions, often rooted in themes of agro-pastoralism, animal herding, and domestication. The people of this region depend on animals such as cows, goats, and bulls, and bulls are important for breeding and for ploughing agricultural fields. Oakley and Gairola (1935) compiled the folk stories of this region in a book titled *Himalayan Folklore*. One story in this compilation concerns the 'invention of ploughing'. In this tale:

> '*The guru created the earth and all the beings that inhabit it. A man approached him and asked, how shall I live on the earth? The guru first called a lion and asked it to plough the earth, but the lion refused. The guru then called other animals one by one, and finally, the bullock agreed to plough the earth. The guru then calls Melu (the ploughman) and instructs him to create a wooden plough'* (Oakley and Gairola ١٩٣٥).

Several folk legends and episodes of oral history also stem from pastoral society. Among them are the stories of Gangu Ramola's son, Shidiva, and Viduwa from Gangolihat (Oakley and Gairola 1935), as well as the tale of Jeetu Bagadwal. According to this tale, Jeetu Bagadwal was captured on Khait Mountain by the *Achharis*, also known as the *Vandevi* (the term usually refers to mysterious or supernatural female beings, sometimes beautiful and benign, at other times eerie or mischievous) (Khanna and Bhairav 2023). He was released after promising that, on the sixth day of the month of Ashad (June–July), once he had finished sowing his field, he would surrender himself to the *Achharis*. Over time, however, Jeetu forgot his promise. On the appointed day, he was taken captive while ploughing his field with oxen, and he and the oxen sank into the ground (Fiol ٢٠١٢: ٢٦١–٢٧٢; Kaur et al. ٢٠١٩: ١١٧; Khanna and Bhairav ٢٠٢٣).

These tales highlight the close association of bulls and oxen with agriculture, ploughing and the cultural life of rural communities in the Garhwal Himalayan region. Although these stories cannot be taken as direct evidence for the function of Early Historic terracotta bull figurines, they provide an ethnographic context for interpreting the strong association of bulls with agriculture and pastoral life observed in the archaeological material.

Kal Bisht

Kal Bisht is a pastoral deity who resides at Kotyudh in the Binsar area of Almora and is known as a cattle herder and protector of cattle. He is said to dream about cattle and the forest while playing his flute, and these dreams inspire him to take the cattle into the forest to protect them from wild animals.

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In this study, an important episode in the folklore is Kal Bisht's departure from his home to travel to Haldwani. In this relatively large town, he first visits a goldsmith. He buys a hoof ornament for the *Jetia* (sacrificial bull) that he plans to offer at the temple of his guardian deity (Budhawar 2010). Many similar stories are common in this region; they reveal a distinct pastoral background and reflect the importance of animals such as cows, bulls, oxen and goats in daily life.

Such traditions illustrate the continuing symbolic connection between bulls, pastoral identity, protection and religious offerings in the Garhwal and Kumaon Himalayan region. Although these contemporary traditions cannot be treated as direct survivals of Early Historic practices, they provide an important interpretative framework for understanding the possible symbolic and ritual roles of the archaeological bull figurines.

Rituals and Fairs

The bull cult has been discussed in relation to the development of animal worship in ancient societies. According to James (1960), the bull symbolises fundamental human qualities, such as immense strength and great fertility. These attributes were revered in various ancient civilisations, and the bull was consequently worshipped in many different cultures. In Uttarakhand, families in the Chamoli and Rudraprayag districts perform specific rituals before ploughing their fields (Devi, personal communication 2025). One important ritual involves a ceremony in which oxen are worshipped before they begin tilling the land (Singh, personal communication 2025). Egas is celebrated twelve days after Diwali and is often called *Badi Diwali* (Rawat 2023). This festival coincides with *Hari Bodhani Ekadasi*, which falls on a specific day in Kartik Shukla Paksha. On this occasion, fields are not ploughed; instead, oxen are garlanded and well fed, and their horns are smeared with oil (Sharma 2007). Similarly, during Diwali, on the day of *Mahalakshmi Puja*, handprints made from a mixture of rice and water are imprinted on the backs of cattle, and their horns are coated with *ghee* (Lamont 2012). On *Gobardhan Puja*, the print of '*Mana*' is applied to the backs of animals, and their horns are oiled. In an agrarian society, certain days are set aside as rest days for oxen; these days are called *A Jot* or *A Jaut* ('no-ploughing days') (Sharma ٢٠٠٧; Sexsana ٢٠١٦: ١٠–١٤).

Pastoralist societies in Uttarakhand and adjoining areas also traditionally held fairs, where oxen and bulls were traded (Pandey ٢٠١٧: ١٦–20). The Somnath fair traditionally lasted ٨ to ١٠ days, similar to the Chaiti fair in Kashipur (Moli et al. ١٩٩٧: ١٣–24), and historically served as a trading ground for oxen (Sharma 2007). Even today, bull traders from the Ramnagar area gather at this fair. Some residents and traders from Teez Bazar in Garur bring oxen to the fair in Bageshwar (Pandey ١٩٩٠; Sexsana ٢٠١٦: 10-14). Additionally, the Gulabrai area of Rudraprayag district hosts a fair devoted to animal trading, primarily of oxen (Naithani 2024).

These traditions illustrate the deep bond that people have with oxen and bulls. In the Kumaon and Garhwal region, oxen and bulls are traded at well-known fairs just like other commodities. The Somnath fair, for example, is held at 'Manasi' in Pali-Pachhaun, between Bhikiyasain and

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Chaukhutia; it spans around 30 km and takes place in a fertile, water-rich region (Pandey 1990; Rana 1997).

These ritual practices and animal fairs demonstrate the continuing cultural importance of bulls and oxen in agricultural, pastoral and religious contexts in the Garhwal Himalayan region. While such contemporary practices cannot be considered direct survivals of Early Historic traditions, they provide a useful interpretative framework for examining whether the archaeological bull figurines may have been associated with ritual activities, agricultural prosperity, protection and the social importance of cattle.

Agriculture and Fertility

In mountainous regions, food production has relied heavily on traditional ploughing methods that make use of healthy oxen. The inhabitants of these fertile lands have depended on strong oxen since ancient times (Sharma ٢٠٠٧). To meet the demand for quality oxen, traders from the 'Bhabar' region historically brought them to these areas. The geographical and topographical characteristics of the Himalayan region suggest that agricultural practices have typically been challenging and small-scale, with a historical tendency towards shifting cattle herding (Agarwal and Kharakwal 1998).

Nevertheless, agriculture continues to support the local food economy (Fig. 6). The bull is called *Bald* in the Kumaoni and Garhwali dialects (Pandey 1990; Rana 1997). Apart from small stretches of plain along the rivers, terrace farming predominates in most mountainous areas. In these harsh climatic conditions and on uneven terrain, bulls are essential for ploughing fields (Sexsana ٢٠١٦: ١٠–14). For farmers, livestock is nearly as valuable as land, and among livestock, a pair of oxen is especially important (Sharma 2007). The value of a pair of oxen is also reflected in aphorisms from Kumaoni and Garhwali culture (Sexsana ٢٠١٦: ١٠–١٤).



Figure 6: Terraced agricultural fields of local communities in the Garhwal Himalayan region (photograph by the authors, 2025).

These agricultural practices highlight the importance of bulls and oxen in the subsistence economy and cultural life of the study area. Although contemporary agricultural practices cannot be directly equated with those of the Early Historic period, this ethnographic evidence provides a useful relational framework for interpreting the association between archaeological bull figurines and agriculture, animal husbandry and ideas of fertility and prosperity.

Discussion

The interpretations presented in this study are based on a comparative assessment of archaeological and ethnographic evidence. Archaeological observations, including the context of recovery, cultural phase, morphology, and visible decorative motifs of the terracotta bull figurines, were evaluated alongside ethnographic information on cattle rearing, ritual practices, and local beliefs documented during fieldwork. Rather than assuming direct cultural continuity, this comparative approach provides an interpretative framework for exploring the possible symbolic and ritual significance of the bull figurines within their respective archaeological and cultural contexts.

The recurrence of terracotta bull figurines at Ranihat, Supana and Mordhwaj suggests that bulls held an important symbolic and ritual role in the Early Historic societies of the Garhwal Himalayan region. When considered alongside contemporary ethnographic evidence, these findings may indicate elements of cultural continuity in the symbolic significance of bulls, while also recognising that ritual practices and cultural meanings have probably undergone historical transformation. Furthermore, the bull figurines examined from the museum collection are handmade, fired-clay artefacts that exhibit a relatively standardised form while also reflecting regional variations in style and finish. The simplicity of the design may indicate local production, possibly for domestic ritual use, rather than large-scale or elite patronage.
The domestic context of these figurines provides an important basis for interpreting their potential function. Their consistent association with habitation deposits and domestic architectural remains suggests that they were integrated into household life rather than confined to public or elite ritual spaces. This recovery pattern indicates that bull figurines probably formed part of everyday practices through which agrarian prosperity, the protection of livestock, and household well-being were expressed symbolically. While their precise function cannot be established with certainty, the archaeological context supports an interpretation that emphasises their social and ritual significance within the domestic sphere.

Although occasional use as toys cannot be excluded, the available archaeological context better supports ritual and symbolic interpretations than purely recreational use.
The presence of swastika and Indradhwaja motifs on one Supana figurine further suggests a possible ritual or symbolic dimension. These motifs set the figurine apart from purely utilitarian or recreational objects and suggest that such bull representations may have carried culturally meaningful associations. However, the precise religious significance of these motifs cannot be determined from their presence on the figurine alone, and their interpretation should therefore

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be approached with caution, taking into account both the archaeological context and the ethnographic evidence.

Ethnographic accounts from the villages of Garhwal revealed that bulls are often symbolically linked to Shiva's mount, Nandi, and are sometimes ritually invoked to protect livestock and crops. This folk religiosity parallels the sacred or protective roles that may have been ascribed to bull figurines in Early Historic domestic spaces. In contemporary folk songs and stories, the bull often represents virility, strength and resilience, qualities that may be reflected in the stylised physical features of the figurines (e.g. strong humps and thick horns). From an interpretative perspective, the bull may be understood not merely as an economic animal but also as a culturally significant symbol embedded within ritual practice, household life and pastoral traditions. In this context, the terracotta figurines are interpreted as material expressions of social and religious beliefs that reinforced relationships between humans, animals and the agrarian landscape. Rather than functioning solely as artistic objects, they may also have served as symbolic media through which ideas of fertility, protection and prosperity were expressed within everyday domestic and ritual contexts. Even today, oxen are valuable animals for ploughing fields, especially in areas where terrace farming is practised, and residents rely on oxen rather than on mechanised ploughing. Bulls are also regarded as important in relation to fertility among pastoral communities.

The ethnographic evidence offers a useful way to understand the recurring associations of bulls with agriculture, fertility, protection, and pastoral life. It does not, however, demonstrate that particular rituals practised today continued unchanged from the Early Historic period. When these observations are considered alongside the archaeological contexts of Ranihat, Supana and Mordhwaj, they offer insight into the possible significance of bull figurines in domestic and agrarian settings. The comparison is therefore relational and interpretative, and it should not be taken to suggest that present-day practices directly survive ancient traditions.

Terracotta bull figurines are known from several parts of the Indian subcontinent, including Harappan sites (Shinde et al. ٢٠٠٨: ٢٨; Winters ١٩٨٤: ١–٨; Atre ١٩٩٠: ٤٣–٥١; Ameri ٢٠١٦; Fairservis 1986; Parasher-Sen 2023; Sharma 2018), Mathura (Kaul 2015; Khan 2024), Ahichchhatra (Ahuja 2001; More and Vikrama 2020) and Taxila (Ahmed 1958; Dobbins 1973). Their occurrence at these sites shows that the bull was a familiar subject in South Asian terracotta traditions. The figurines show broad similarities in how the hump, horns, and body are represented, although they differ in modeling, decoration, and archaeological context. The Garhwal examples considered in this study are generally handmade and comparatively simple in form, and most were recovered from habitation contexts. This contrasts with more varied, molded, and stylistically elaborate examples reported from northern India and Taxila. Furthermore, the swastika and Indradhwaja motifs on one Supana figurine suggest that certain figurines may have had locally meaningful symbolic associations. Thus, while the Garhwal figurines share features with the wider South Asian tradition of bull representation, they also show regional characteristics in their manufacture, form, context and symbolism. The comparison places the Garhwal material within the broader archaeological tradition without assuming direct cultural transmission from any one region.

Conclusion

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The present study examined terracotta bull figurines from the Early Historic sites of Ranihat, Supana and Mordhwaj in the Garhwal Himalayan region using an ethnoarchaeological framework. The archaeological evidence shows that the figurines were predominantly handmade and were mainly recovered from habitation and domestic contexts. These contexts suggest that they formed part of household life and may also have been associated with ritual and symbolic activities. The pronounced humps and horns on the figurines, along with the decorative motifs on some specimens, indicate that the bull was represented as a culturally meaningful animal rather than merely an artistic subject. The comparative study also shows that bull representation was common in South Asian terracotta traditions, while the Garhwal examples exhibit regional characteristics in manufacture, morphology, decoration and archaeological context. Contemporary ethnographic observations further show the continuing association of bulls and oxen with agriculture, pastoral life, fertility, protection and religious practices. These observations provide a relational and interpretative basis for considering the possible significance of the archaeological figurines. However, they do not demonstrate direct or uninterrupted cultural continuity between the Early Historic period and the present.

The study contributes to the understanding of Early Historic material culture in the Garhwal Himalaya by considering archaeological contexts alongside contemporary ethnographic observations to explore the possible social and symbolic significance of terracotta bull figurines. However, the interpretation is constrained by the relatively small number of specimens examined, the limited archaeological contexts available, and the absence of direct evidence linking individual figurines to particular ritual practices. Further research based on larger comparative assemblages, detailed technological studies and broader archaeological and ethnographic datasets could provide a clearer understanding of the production, distribution and changing significance of bull figurines in the Himalayan region.

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