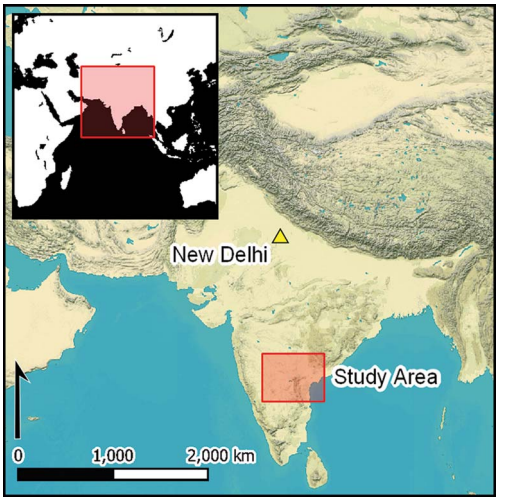
Antiquity 2023 Vol. 97 (394): 887–907
https://doi.org/10.15184/aqy.2023.81

Research Article

Social distinctions during the south Indian Neolithic: changing mortuary practices in a late prehistoric cemetery at Maski

Peter G. Johansen[1,*] & Andrew M. Bauer[2]

[1] Department of Anthropology, McGill University, Canada
[2] Department of Anthropology, Stanford University, USA
* Author for correspondence ✉ peter.johansen@mcgill.ca



Human burials have been recovered from a wide variety of intra- and extramural settlement contexts at Neolithic period sites (3000–1200 BC) in southern India, yet formal cemeteries remain virtually unknown from this period. Research at MARP-79 in the Raichur District of the south Indian state of Karnataka, near the type-site of Maski, documents a large Neolithic cemetery, now with the largest number of radiometrically dated burials of any archaeological site in southern India. The cemetery demonstrates considerable, previously undocumented variation in mortuary ritual, involving new materials, technologies and burial practices, which challenge culture-historical models, pointing instead towards long-term incremental developments that alter how we understand the emergence of Neolithic social differences.

Keywords: South Asia, Neolithic, mortuary archaeology, social organisation, funerary ritual, radiocarbon dating

Introduction

For more than 1000 years, beginning in the mid third millennium BC, agro-pastoral communities buried and memorialised their dead in a sprawling cemetery located in the shadow of a long, low inselberg in the Raichur Doab region of India's South Deccan. The cemetery at MARP-79 was discovered by the *Maski Archaeological Research Project* (MARP) during systematic archaeological survey of the area surrounding the Neolithic settlement site of Maski, in the southern Indian state of Karnataka (Figure 1). Archaeological investigations at the site, including surface documentation and excavation, have recorded important patterns of change and continuity in mortuary practices during much of the south Indian

Received: 3 May 2022; Revised: 17 September 2022; Accepted: 4 October 2022

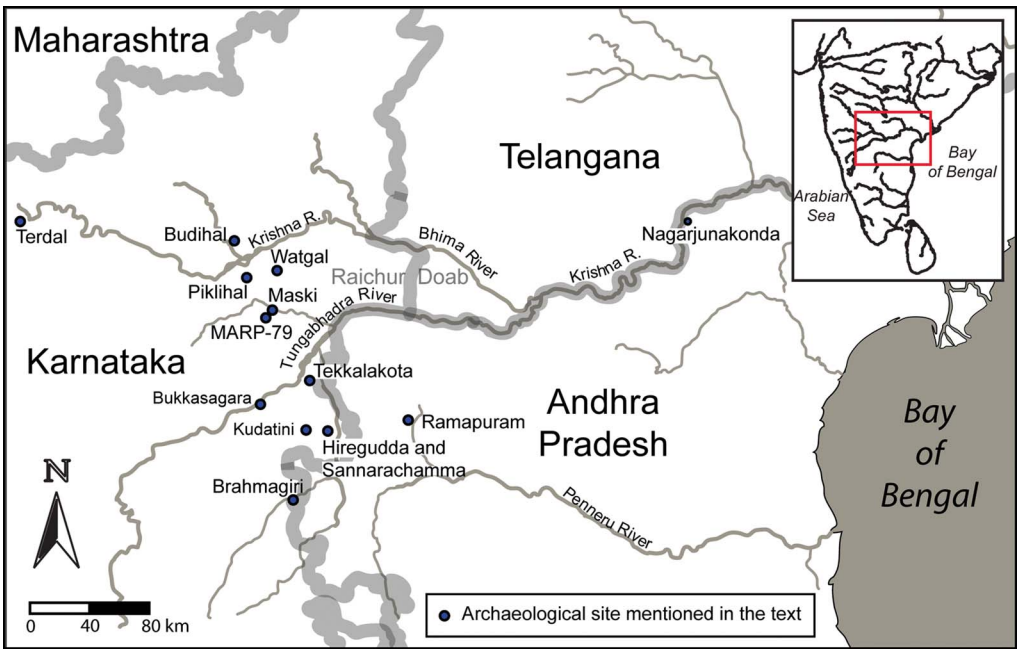


Figure 1. Map of sites mentioned in the text (figure by the authors).

Neolithic period (3000–1200 BC) and the early centuries of the Iron Age (1200–300 BC). The research we present here documents considerably more variation in mortuary practices than has typically been associated with the Neolithic period in the South Deccan and attests to the presence of significant mortuary distinctions much earlier than previously recognised in the area (cf. Wheeler 1948; Allchin 1960; Nagaraja Rao & Malhotra 1965; Nagaraja Rao 1984 [1971]; Devaraj *et al.* 1995; Walimbe & Paddayya 1999). Moreover, based on the first radiocarbon assays of burials from a Neolithic cemetery in this region, we document both the emergence of a particular suite of burial practices and their gradual and incremental development into the megalithic mortuary practices associated with the south Indian Iron Age.

Earlier research on mortuary traditions in prehistoric south India has largely perceived an abrupt transition from the Neolithic period to the Iron Age. Explanations for this change, framed within culture-historical and socio-evolutionary epistemologies, have favoured theories of population replacement or of a punctuated evolution of social complexity (e.g. Allchin 1960; Leshnik 1974; Sundara 1975; Allchin & Allchin 1982; Mcintosh 1985; Moorti 1994). At MARP-79, we document a more gradual transition in mortuary practices, demonstrating that the source of these changes was in long-standing, localised south Indian Neolithic social practices and cultural activities (Johansen 2019; Bauer & Johansen 2020). Here, we argue that mortuary rituals are assemblages of materials, practices, people and knowledge that converge on the biologically and culturally inflected problem of death, creating localised, historical contexts that provide a venue for a wider politics through which social affiliations and differences may emerge.

By as early as the beginning of the second millennium BC, the diversification in mortuary rites at MARP-79 involved the assembly of novel materials, technologies and practices in a

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

range of contingent configurations that appear to have created meaningful social distinctions, both in how the dead were buried and in how the dead were commemorated by and for the living. Novel materials involving innovations in technology and style (e.g. slipped and polished fine ware ceramic serving vessels and, later, copper and iron objects), together with new burial techniques (i.e. terracotta coffins, combusted organic coffins), commensal practices, and the use of stone as grave architecture, were increasingly mobilised as commemorative assemblages that included people—the living and dead. These changing and diversifying assemblages of mortuary rituals constituted both an opportunity and a venue for the Maski region's Neolithic agro-pastoralists to establish and negotiate relations of affiliation and difference within historically contingent social groups and networks, likely those of kin, locality or other cooperative associations.

The south Indian Neolithic period

The Neolithic period is perhaps the most extensively researched of any in south India's archaeological record. Initially defined in the late nineteenth century as associated with a diverse array of ground and pecked stone tool types distributed across the South Deccan (Foote 1979 [1916]), it later became synonymous with Wheeler's (1948) 'Stone Axe Culture', which included a predominantly handmade, coarse fabric ceramic industry most notable for its plain and burnished grey and dull red wares. Wheeler's initial division of the Stone Axe Culture into earlier and later deposits at Brahmagiri was expanded and modified by Allchin (1960) based on work at the site of Piklihal, which remains the most extensive and systematically published analysis of prehistoric south Indian ceramic data. This periodisation was further subdivided and modified by Fuller *et al.* (2007), who mobilised an expanding corpus of radiocarbon dates, macrobotanical remains and new ideas about site types, settlement patterning and economic activities (see Table 1).

Research on faunal and macrobotanical remains (e.g. Paddayya 2001; Korisettar *et al.* 2002; Fuller 2006) has identified cattle and sheep/goat pastoralism, together with the farming of regionally domesticated pulses and millets (the 'south Indian crop package'), as important agro-pastoral subsistence practices during the Neolithic period, alongside the use of wild food resources. By the turn of the second millennium BC, macrobotanical assemblages at several sites featured small but gradually increasing quantities of wheat and barley, previously cultivated for centuries in the northern subcontinent, followed by the introduction of African crops and north Indian species by at least 1600 BC (Fuller 2006; Fuller *et al.* 2007; Boivin *et al.* 2018; Table 1). These crop introductions appear to correlate with new forms of necked ceramic jars (Fuller 2005), and our findings at MARP-79, discussed below, also include new forms of serving vessels.

The increasing presence of non-locally domesticated crops points to expanding exchange networks and changes in foodways and agricultural practices, all with implications for the diversification of social relations (Fuller 2005; Boivin *et al.* 2018; Johansen 2019). Further evidence for expanding exchange networks comes from the presence, in small quantities, at Neolithic sites of beads made of carnelian and lapis lazuli, with origins within and beyond the northern subcontinent. This was a time of considerable change across South Asia as many regional exchange networks adjusted to the deurbanisation of the Indus Valley Civilisation (after 2000 BC).

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Table 1. Major chronological divisions of the south Indian Neolithic period (based on Fuller *et al.* 2007: 774 and Boivin *et al.* 2018: 98 and modified by the authors in bold).

Period	Date range (cal BC)	Settlement and economic evidence
Neolithic IA	3000–2500 BC	Early settlements with ceramics; first burials at Watgal.
Neolithic IB	2500–2200 BC	First ashmounds; earliest cattle, sheep and goat remains; no botanical remains but plant domesticates are inferred.
Neolithic IIA	2200–2000 BC	Larger hilltop settlements; southern Neolithic domestic millet and pulse 'package'.
Neolithic IIB	2000–1800 BC	Settlement continuity; earliest wheat and barley; **increasing diversity of mortuary treatments including earliest slipped and polished Black-and-Red Ware serving vessels in burials at MARP-79**.
Neolithic III	1800–1400 BC	Settlement continuity; first African crops (hyacinth bean), pigeon pea from north India.
Neolithic–Iron Age transition	1400–1200 BC	Last ashmounds; additional non-local cultivars (sorghum); 'classic' Iron Age ceramics develop in settlements alongside decreasing Neolithic ceramics; **early iron working at Bukkasagara; iron and copper objects in burials at MARP-79**.

These changes included the concurrent development of copper production, the farming of wheat and barley, and the performance of some mortuary practices similar to those of the north-western Deccan (i.e. the West Deccan Chalcolithic; Dhavalikar 1984; Shinde 1994).

Neolithic communities occupied small village settlements and grazing camps with circular wattle-and-daub houses, and extramural areas set aside for lithic manufacturing, animal penning and butchery, and, in some cases, featuring 'ashmounds'—large mounds of burned and vitrified cattle dung (Allchin 1963; Paddayya 2001, 2019; Korisettar *et al.* 2002). Ashmounds appear to have been focal points for periodic communal ritual practices involving the consumption of cattle products, including feasting, as suggested by excavations at Sannarachamma, Hiregudda and Budihal (Boivin *et al.* 2005; Paddayya 2019).

There are four Neolithic settlement contexts recorded within MARP's 64km^2 project area (Figure 2). MARP-97 is a multiperiod site excavated by B.K. Thapar (1957), located 1.5km north of the cemetery at MARP-79, with Neolithic settlement and funerary deposits deeply buried beneath Iron Age and Early Historic strata. We have recorded three new Neolithic settlements: MARP-64 is a small settlement (0.3ha) constructed across several adjacent inselberg terraces, 6km north-west of MARP-79; MARP-155 (0.5ha) and MARP-203 (0.3ha) are both likely small hilltop herding camps, with low-density surface distributions of Neolithic lithic and ceramic artefacts, located north and south of MARP-79, respectively.

Neolithic mortuary archaeology in the South Deccan

Neolithic mortuary practices are best known from infant urn burials and relatively unelaborated, extended adult pit graves from intra- and extramural settlement contexts (Allchin 1960;

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

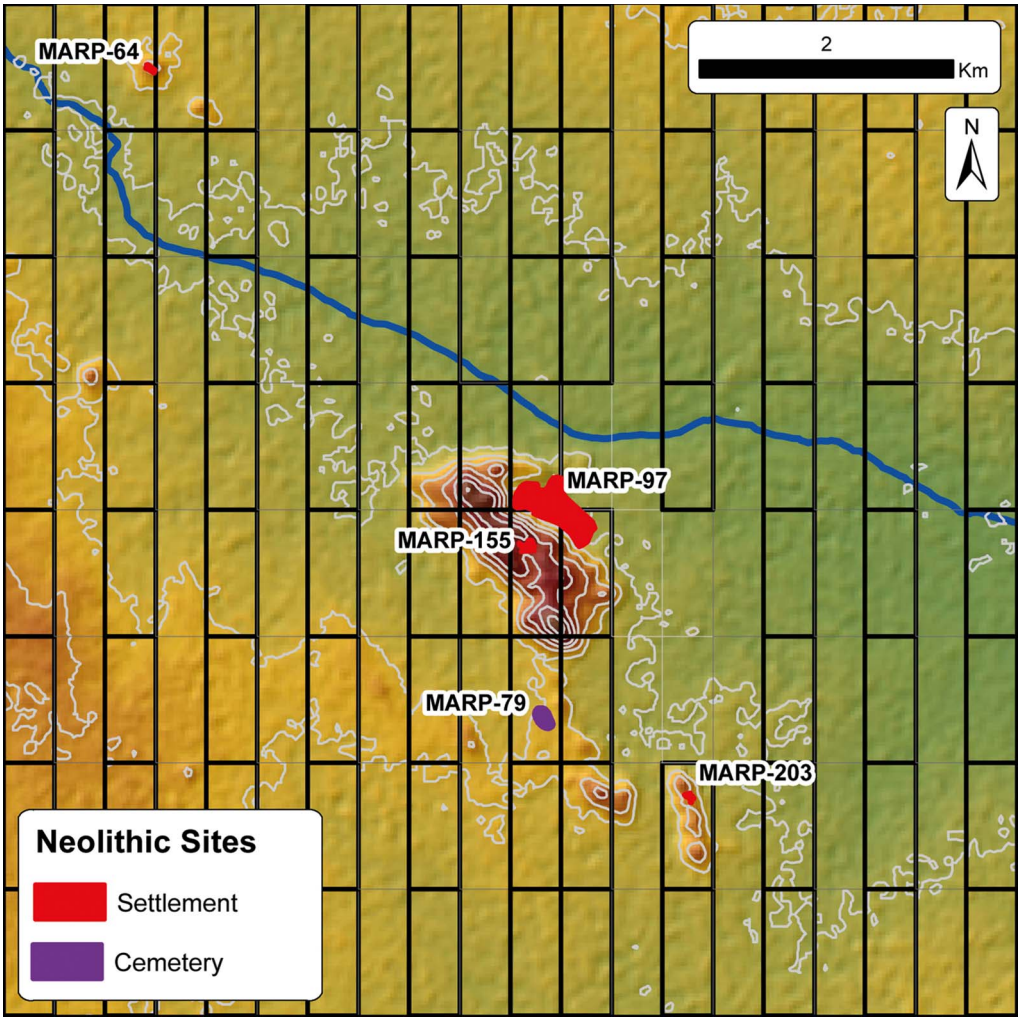


Figure 2. Map of the MARP study area, illustrating the relationship of MARP-79 with Neolithic settlements. Areas in black outline represent survey blocks; the site area at MARP-97 represents the surface area of the multi-component site and not the extent of Neolithic settlement, which is unknown (figure by the authors).

Nagaraja Rao & Malhotra 1965; Devaraj *et al.* 1995; Walimbe & Paddayya 1999). The bulk of published data on Neolithic burials in the South Deccan are of sub-adult urn burials, often associated with habitational contexts, although some children were buried in simple pits without any enclosing urn. Sub-adult urn burials contain the remains of one—occasionally two—individuals, with some variation in the number and configuration of ceramic vessels used to contain the body (e.g. single, double, vertical, horizontal, and with bowls or broken jars as lids). Typically, these burials contain no grave goods, but exceptions include Burials 6 and 9 at Budihal (Walimbe & Paddayya 1999). At most Neolithic settlements, adult burials are outnumbered by those of sub-adults.

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Excavations at several sites document site-based temporal shifts in mortuary practices between occupational phases (Nagaraja Rao & Malhotra 1965; Subrahmanyam *et al.* 1975; Indian Archaeology: a Review 1983; Devaraj *et al.* 1995). Burials at these sites are dated by association with surrounding stratified settlement deposits that include changes in the distributions of ceramic wares, and, in some cases, by a limited number of radiometric dates (e.g. at Watgal and Tekkalakota) (Indian Archaeology: a Review 1983; Devaraj *et al.* 1995). Most documented adult burials are extended pit interments associated with well-known Neolithic ceramic wares (e.g. plain and burnished grey wares) and forms (e.g. everted rim and spouted jars), either in surrounding deposits, or in small numbers as grave goods. Variation among these burials is limited, yet differences do exist within and between sites, including: the presence of primary and secondary interments; the orientation of the body; the placement of stones above all or part of the body; and the absence or inclusion of ceramic vessels (e.g. 1–3 vessels, especially bowls and spouted jars) and chipped and ground stone tools (Allchin 1960; Nagaraja Rao & Malhotra 1965; Krishna Sastry 1979; Devaraj *et al.* 1995).

At two Neolithic sites, Tekkalakota and Ramapuram, less-well reported later Neolithic burials overlie earlier graves, documenting incrementally different, as well as novel interment practices (Nagaraja Rao & Malhotra 1965; Indian Archaeology: a Review 1984). At both sites, later graves include greater frequencies of artefacts that were dominated by slipped and polished ware ceramics (e.g. Black-and-Red Ware, and slipped and polished black and red wares); these are more commonly associated with megalithic burial practices and habitational deposits of the succeeding Iron Age. At Ramapuram, interment practices included the use of stone cairn packing, stone slab cists, the burning of coffins made of organic materials and the inclusion of as many as 29 ceramic vessels, including combinations of more 'classic' Neolithic pottery (e.g. grey burnished ware) and slipped and polished wares (e.g. Black-and-Red Ware); iron and copper objects were included in some of the burials (Indian Archaeology: a Review 1983, 1984, 1985). Similar kinds of mortuary contexts, with ashy, burned coffins and slipped and polished ceramic vessels were also identified by B.K. Thapar (1957) in strata located between Neolithic and Iron Age habitation deposits at Maski (MARP-97; see the online supplementary material (OSM)), though Thapar associated these with the onset of the Iron Age period at the site.

The relative paucity of well-published adult Neolithic burials from this region has led several archaeologists to speculate that most of the adult population were interred in contexts which have largely eluded archaeological detection (e.g. Korisettar *et al.* 2002); the small Neolithic cemetery at Nagarjunakonda's Site 68 is a notable exception (Subrahmanyam *et al.* 1975). Thus, while prior to our research at MARP-79, the existence of Neolithic cemeteries has been predicted, and in one case (Nagarjunakonda) investigated, there remains a dearth of research on this important context of Neolithic mortuary practices, and a complete absence of radiocarbon dating of burial sequences.

The MARP-79 cemetery

The cemetery at MARP-79 was first identified in 2012, during MARP's systematic pedestrian survey of the project's study area (Figure 2). Soil and gravel quarrying activities had exposed

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

numerous burials in partial plan and section across several large quarry pits. We recorded 21 partially exposed burials, leading to the prediction that the cemetery may have once held hundreds (Figure 3), some of which may still lie in undisturbed portions of the site. Documentation began by identifying individual burials, typically located in pit wall sections but occasionally in partially destroyed horizontal exposures in the bases of quarry pits. Graves were documented, photographed and, where possible, profile drawings of exposed sections were made, followed by surface collections of cultural materials (e.g. ceramic vessels, stone and iron tools, wood charcoal) and human remains. Three of these burials were excavated in 2018 and 2019.

Thirteen radiocarbon assays on wood charcoal recovered from seven individual graves at MARP-79 (Table 2; Figure 4) document changing Neolithic funerary practices and track

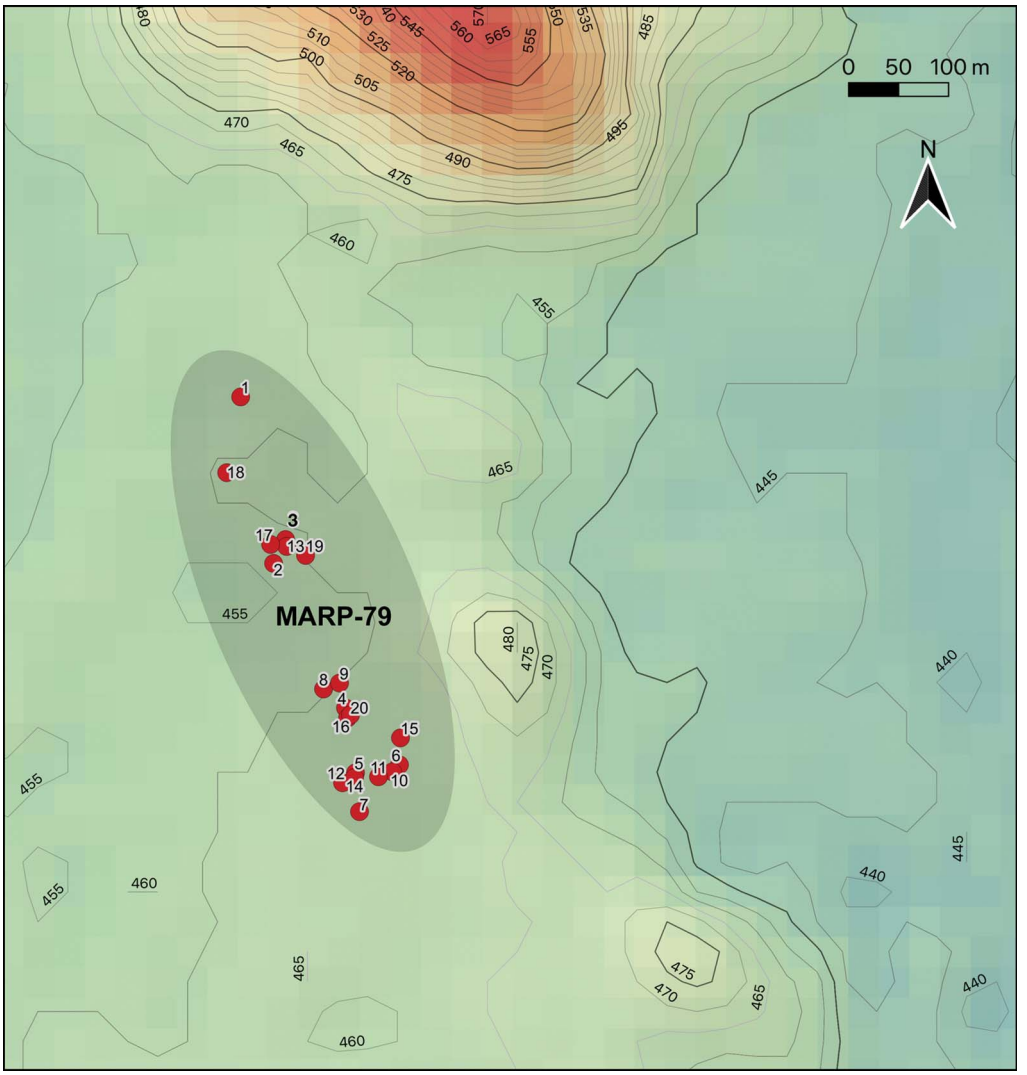


Figure 3. Map of MARP-79, with the location of recorded burials (figure by the authors).

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Table 2. Radiocarbon results from burials at MARP-79 (all samples are wood charcoal) (Bronk Ramsay 2021; r:5 atmospheric data from Reimer *et al.* 2020).

Burial number	Sample number	Radiocarbon age BP	Calibrated date (at 95.4% confidence)
Burial 1	ISGS-A2282	2955±15	1222–1117 cal BC
	ISGS-A2283	3070±20	1407–1276 cal BC
Burial 6	ISGS-A3229	3040±20	1389–1225 cal BC
Burial 7	ISGS-A3230	3512±20	1895–1756 cal BC
Burial 8	UOC-8349	3506±38	1934–1741 cal BC
			1711–1700 cal BC
Burial 11	UOC-8350	3552±38	2018–1995 cal BC
			1981–1767 cal BC
	UOC-8351	3530±38	1961–1746 cal BC
	UOC-8352	3484±38	1904–1731 cal BC
			1721–1693 cal BC
	UOC-12451	3445±27	1879–1837 cal BC
			1830–1686 cal BC
Burial 12	UOC-12453	3910±26	2472–2335 cal BC
			2324–2304 cal BC
	UOC-12452	3893±27	2467–2297 cal BC
	UOC-12670	3875±28	2466–2283 cal BC
			2249–2233 cal BC
Burial 19	UOC-12669	3044±33	1406–1216 cal BC

the historical development of several mortuary assemblages across several centuries. Table 3 describes ten of the better-preserved graves. The radiocarbon record begins with Burial 12 (Figures 4–6) in the third quarter of the third millennium BC, during the Neolithic IB (Tables 1–3). Burial 12, identified in section, offers an example of a relatively unelaborated pit burial with modest grave furnishings—similar to extended pit burials from other excavated Neolithic sites in the region.

By the turn of the second millennium BC, while simple pit burials continued, as evidenced by Burial 7 dated to 1895–1756 cal BC (at 95.4% confidence), new mortuary assemblages had developed at MARP-79. These include terracotta sarcophagi burials, such as Burial 8 (1934–1700 cal BC, at 95.4% confidence), and combusted organic coffin burials containing fragmentary, excarnated skeletal remains. Burial 11, for example, provides four radiocarbon assays dating to the early second millennium BC (Figure 7; Tables 2 & 3). These burials now constitute south India's earliest radiometrically dated contexts with slipped and polished ware serving vessels, which became common in both mortuary and settlement contexts during the succeeding Iron Age (Table 3; Figures 6–8) and which point to possible funerary feasting in the early centuries of the second millennium BC.

The radiocarbon record at MARP-79 resumes between the fifteenth and twelfth centuries BC with assays from Burials 1, 6 and 19, all of which are combusted organic coffin burials (Tables 2 & 3; Figures 4, 5, 6 & 9). These burials demonstrate continuity in the mortuary practices from those first observed in Burial 11 several centuries earlier (i.e. excarnation prior to burial, burned organic coffins, slipped and polished serving vessels and globular slipped

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

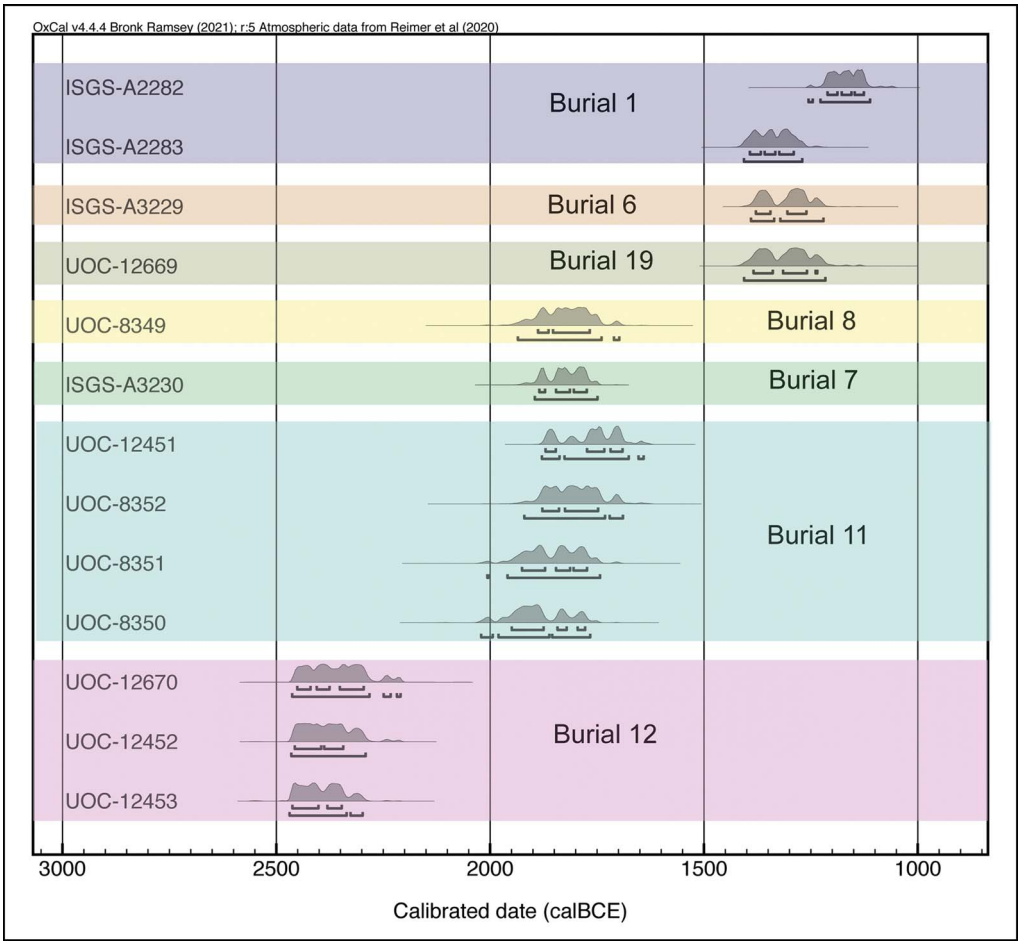


Figure 4. Probability density distributions of calibrated radiocarbon assays from MARP-79 (figure by the authors).

jars), with modifications including stone slab elements, iron and copper grave goods, and, in the case of Burial 19, the inclusion of animal remains (e.g. young sheep/goat elements) and greater numbers and types of serving vessels. The ceramic vessels and animal remains from Burial 19 suggest that funerary feasting formed part of the associated mortuary practices. Burial 19 is similar to graves excavated by Thapar (1957) at Maski (MARP-97), which were found between Neolithic and Iron Age habitation deposits (see the OSM), collectively suggesting an expansion of funerary feasting during the Neolithic–Iron Age transition.

Terracotta and simple pit burial assemblages continue into the later occupations at MARP-79. Burial 2, for example, contained a terracotta sarcophagus covered by stone slabs (Table 3; Figure 5). The inclusion of an iron blade tool in Burial 2 suggests that the practice of terracotta sarcophagi interments extended into the latter part of the second millennium BC; regionally, iron objects and iron production are documented by at least the fourteenth century BC (Johansen 2014). Terracotta sarcophagi, often with legs and other stylistic elaborations, are documented from burials elsewhere in the Deccan (e.g. Kudatini)

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Table 3. Description of MARP-79 burials discussed in the text.

Burial number	Radiocarbon assays	Burial description	Human skeletal materials	Documented artefacts
1	N = 2	Combusted ashy organic coffin burial with tabular caping stones. Heavily damaged and exposed in partial section.	Fragmentary remains	Slipped and polished ware serving vessels noted.
2	None	Terracotta sarcophagus burial dug into saprolite. Sarcophagus covered by stone slabs. Heavily damaged and exposed in partial section.	Skeleton within sarcophagus	Slipped and polished ware serving vessels and an iron blade noted.
3	None	Pit burial sealed by a layer of granite boulders. Heavily damaged and exposed in partial section.	Extended skeleton, heavily decomposed	Slipped and polished red ware bowl noted.
6	N = 1	Combusted ashy organic coffin burial. Heavily damaged and exposed in partial section.	Fragmentary remains	Slipped and polished ware serving vessels noted; copper bangle; four carnelian beads.
7	N = 1	Simple pit exposed in partial section and damaged.	Not observed.	Slipped and unpolished ceramics noted.
8	N = 1	Terracotta sarcophagus burial placed in a pit. Damaged and exposed in partial section.	Skeleton within sarcophagus	Black-and-Red Ware slipped and polished serving vessels noted; dolerite ground stone axe.
11	N = 4	Combusted ashy organic coffin burial with plaster coating. Coffin was interred in an east-west oriented pit dug into saprolite. Burial exposed in excavation.	Excarnated and rearticulated: single adult	Five short-necked, globular, red slipped ware jars; seven slipped and polished ware (Black-and-Red Ware) serving vessels.
12	N = 3	Longitudinal section exposure of an extended pit inhumation. Pit fill included a layer of ashy matrix capped by broken ceramics.	Fragmentary remains; heavily decomposed	Plain micaceous dark grey ware sherds noted.

19	N = 1	Combusted ashy organic coffin burial with wood and plaster. Coffin was interred in an east-west oriented pit and capped with tabular stone slabs. Generally well preserved and largely exposed through excavation.	Excarnated and rearticulated; single adult	Four short-necked, globular, red slipped ware jars; 16 slipped and polished Black-and-Red Ware vessels, including dish-on-stand serving vessels; fragment of plain buff ware vessel; medium-sized mammal remains and iron blade tool.
20	None	Stone circle cairn burial. Grave placed in a circular arrangement of naturally occurring boulders. Body placed at the base of a pit excavated into the saprolite capped by two granite slabs supporting a cairn of boulders and cobbles. Burial was heavily damaged and exposed through excavation.	Partially preserved; single individual in flexed position	Bone pendant necklace; copper bangle.

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

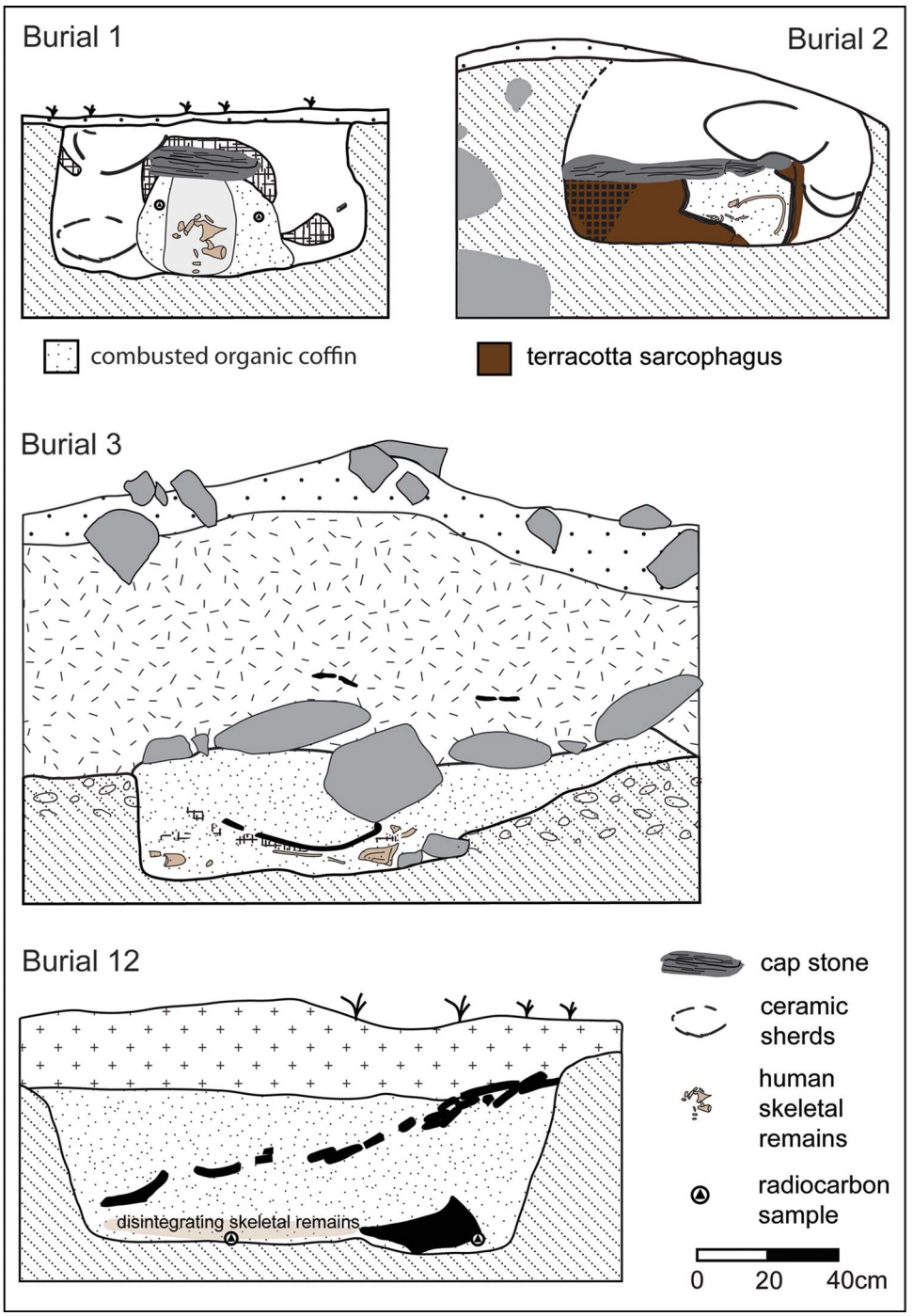


Figure 5. MARP-79 Burials 1, 2, 3 and 12 exposed in section (figure by the authors).

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

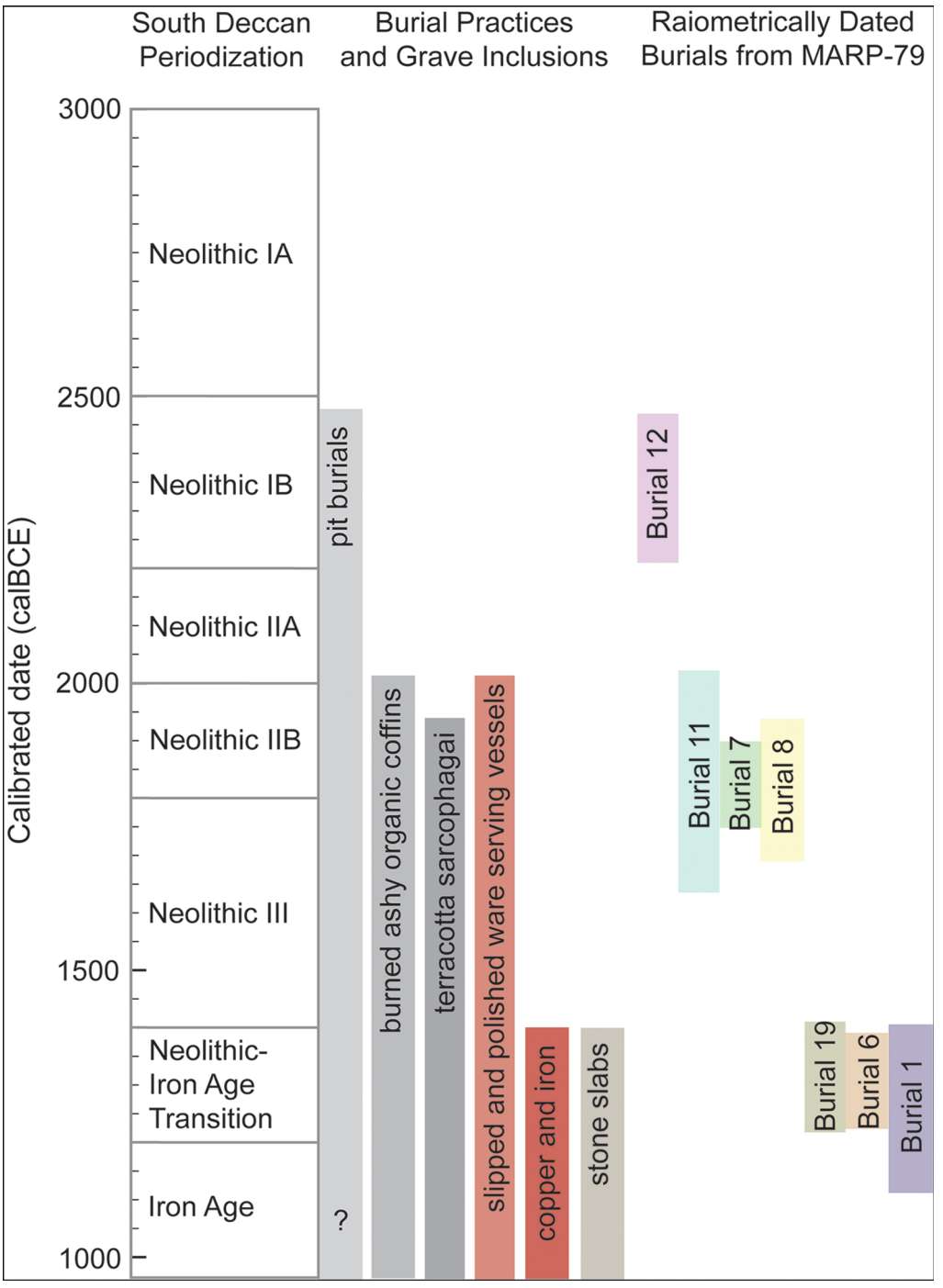


Figure 6. Chronological chart documenting the development of burial practices and grave inclusions at MARP-79 (figure by the authors).

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

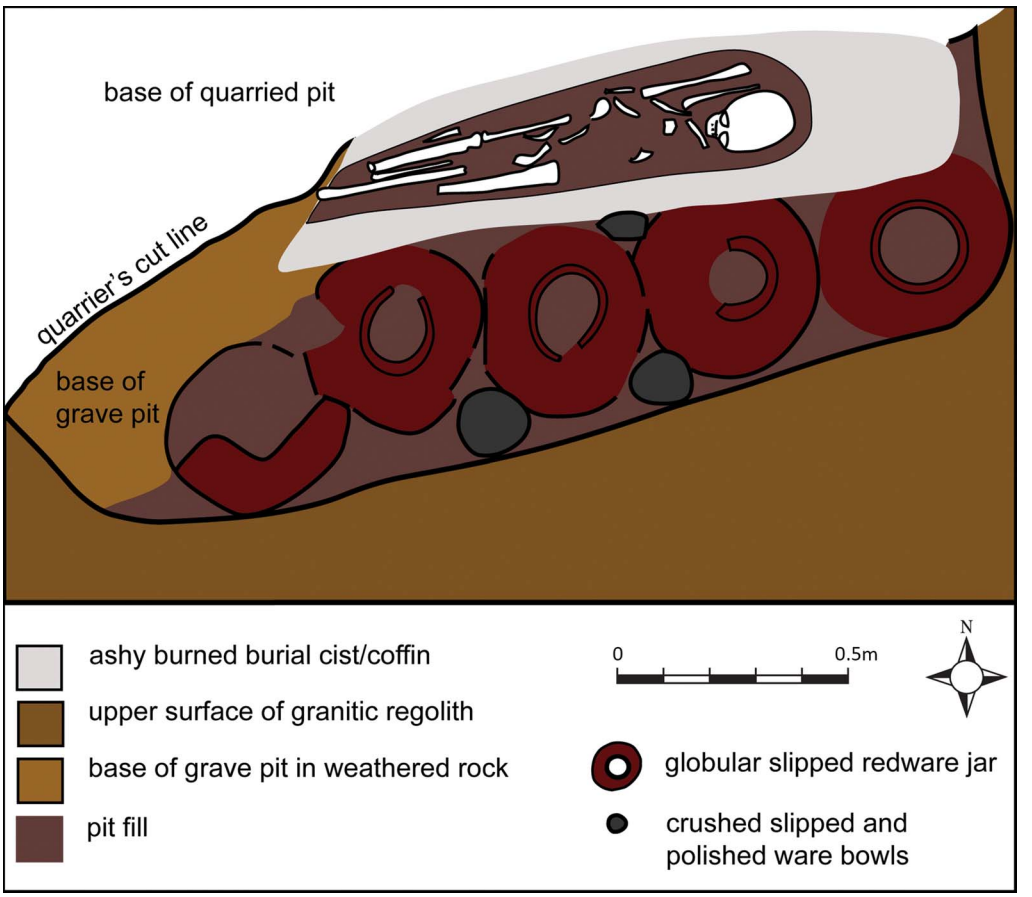


Figure 7. Burial 11 excavated, with burned organic coffin exposed in plan (figure by the authors).

(Mushrif *et al.* 2003) and date to as late as the Early Historic period (300 BC–AD 500) in other regions of south India (Haricharan *et al.* 2013). The stone slabs, like those observed in later combusted organic coffin burials, suggest a developing preference for the inclusion of large stone elements, prefacing the large stone constructions of Iron Age megalithic graves.

Other burials at MARP-79 featured stone elements in their architecture. Burial 3, an undated primary burial exposed in section, contained a layer of granite boulders sealing a shallow burial pit (Figure 5). Burial 20 (Figure 10) was another partially preserved grave exposed in section, reminiscent of the more formally constructed stone circle megaliths of the Iron Age and Early Historic periods. It is similar to Thapar's excavated burial Types iv and v (see the OSM), and to a stone circle cairn burial at Terdal that contained diagnostic Neolithic grey ware ceramics and a copper bracelet in an otherwise Iron Age megalithic cemetery (Sundara 1969–1970). This suggests a gradual development of burial forms, from the use of stone slabs to cap burial pits and containers towards more elaborate megalithic constructions featuring stone circles, cairns and later dolmens.

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

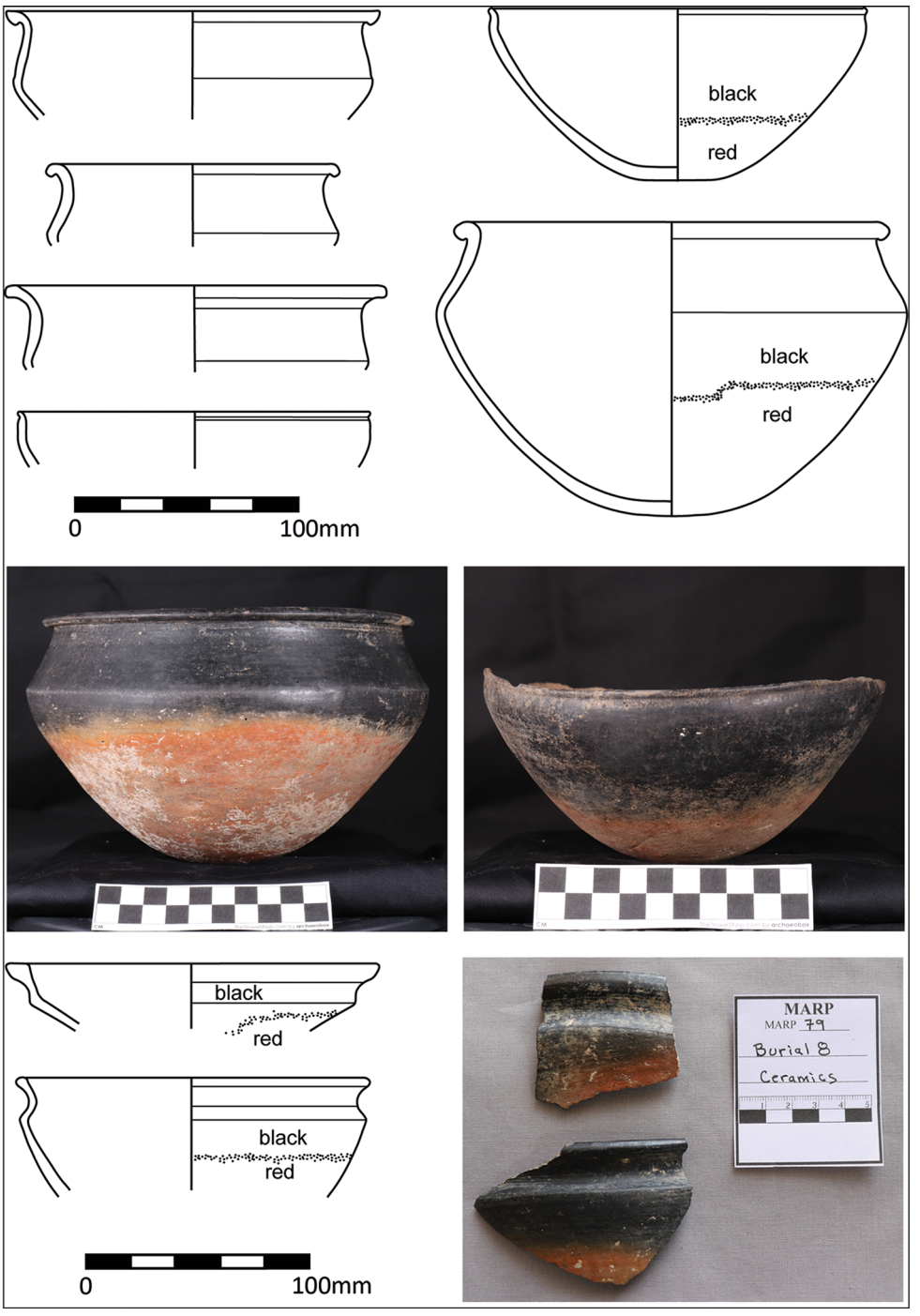


Figure 8. Early slipped and polished serving vessels from Burials 11 (above) and 8 (below) (figure by the authors).

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

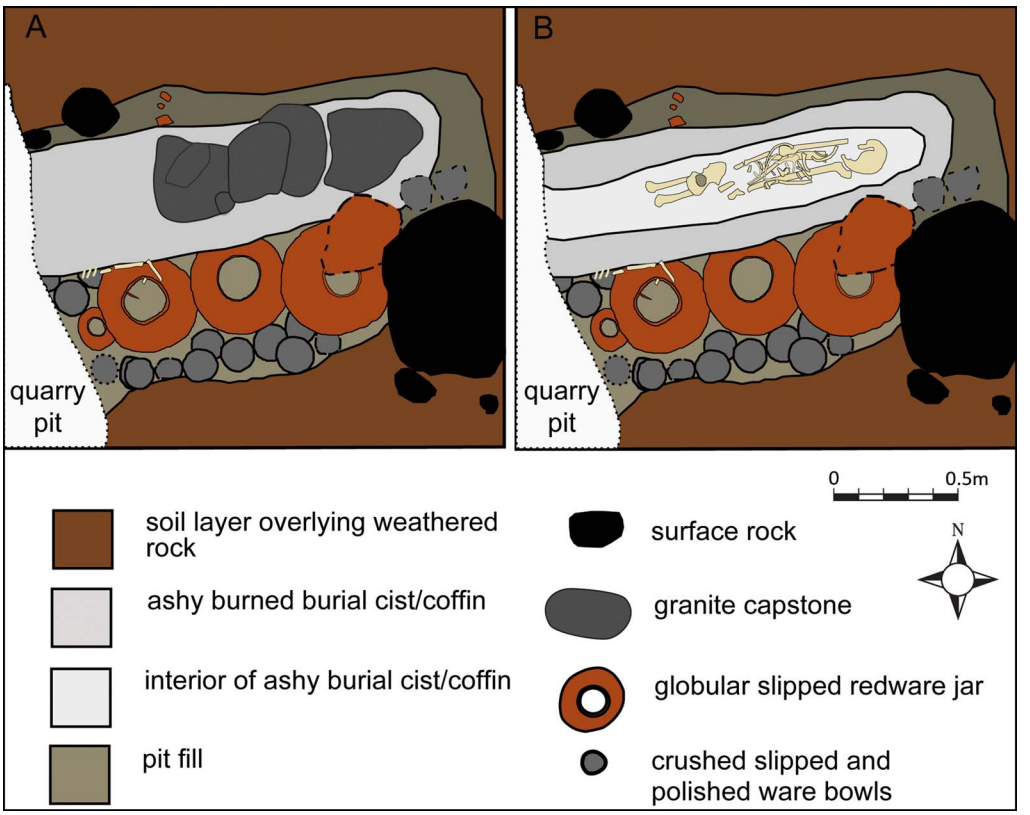


Figure 9. Burial 19: unexcavated burned organic coffin, with overlying capstones (A); partially excavated coffin, with excarnated skeletal remains exposed (B) (figure by the authors).

Discussion

The developments in mortuary rituals that begin at MARP-79 by at least the Neolithic IIB (Table 1) document a diversification in the ways that regional communities commemorated and memorialised their dead. Here, we approach the social history of mortuary practices at MARP-79, and the South Deccan generally, by considering mortuary rituals and their instantiation in the creation of enduring places (e.g. cemeteries, grave and memorial features), as assemblages of materials, knowledge, practices and people—both living and dead (Johansen & Bauer 2018; Bauer & Johansen 2020). As assemblages, mortuary rituals constitute histories of relationships and interactions between humans and things, in which materials play important roles in social relations organised around death and the disposal of the dead. Indeed, for more than a century, anthropologists and sociologists (e.g. Hertz 1960; Metcalf & Huntington 1991; Fahlander 2020) have acknowledged that mortuary ritual centres around a problem constituted by the material properties of the human corpse: that of decay and decomposition. Yet, it is the confluence of these material and biological processes with culturally inflected practices, values and knowledge systems (e.g. metaphysical logics, eschatological beliefs) that provides the historically situated context for socially meaningful

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Figure 10. Burial 20: partially exposed in section prior to excavation (above), bone pendants in situ *(left below), exposed skeletal remains (below centre) and excavated copper bracelet (below right) (figure by the authors).*

perceptions and experiences of death (cf. Bauer & Kosiba 2016). Hence, while mortuary ritual addresses the physical problem of the human corpse, it also encompasses a historically situated, culturally inflected social and metaphysical problem of death. Through the mediation of cultural practices and social relationships, this provides a venue for a wider politics through which social affiliations and differences may emerge (see Bauer 2015; Johansen & Bauer 2011, 2018).

By the twentieth century BC, there is archaeological evidence at MARP-79 for a diversifying set of mortuary rituals that assembled new knowledge, practices and materials, including the earliest known use of slipped and polished fine ware serving vessels and terracotta sarcophagi and, later, copper and iron artefacts (Figure 6). Taken together, these new assemblages expanded the range of social and symbolic resources involved in attending to the problems

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

of death and the corpse, providing a range of material and procedural possibilities for Neolithic communities to commemorate and memorialise their dead at any given time. The inclusion of recently developed ceramic wares and vessel forms, terracotta burial sarcophagi, and constructed and combusted organic mortuary coffins likely involved a growing number of participants, and possibly wider networks of exchange or future obligations with others (e.g. kin, acquaintances, neighbours). Likewise, the raising and slaughter of animals and the provisioning and preparation of other types of foods and beverages for funerary feasts would have provided further opportunities and challenges in negotiations over access to social and symbolic resources. Variation in the residues of these ritual mortuary assemblages suggests that some inequalities of access to productive resources may have developed from the Neolithic IIB onwards.

Yet the archaeological remains of these diversifying mortuary assemblages do not simply mirror or reflect the rank or status of the deceased, as per the epistemological logic of an earlier cultural-evolutionary archaeology (e.g. Binford 1971; Saxe 1971). These new materials and practices appear to have been mobilised in strategic ways into commemorative assemblages that included people, living and dead, with the potential to galvanise and instantiate old and new social relations emanating from the problem presented by the recent dead. It was through these ritual mortuary assemblages that historically contingent social relations of affiliation and difference were negotiated and constituted by and for the living (e.g. Bauer 2015; Bauer & Johansen 2020).

Empirically, these observations also challenge earlier culture-history arguments that suggested Iron Age 'peoples' were migrants or invaders from regions north of peninsular India, who introduced a developed set of megalithic mortuary practices *c.* 1200 BC (cf. Leshnik 1974; Allchin & Allchin 1982). Our radiocarbon assays of individual burials have allowed us to identify variation in mortuary practices and explore how their localised diversification over time incrementally developed into the more punctuated and often resource- and labour-intensive megalithic burial practices of the subsequent Iron Age, when a diversity of megalithic commemorative features are distributed across most of south India (Darsana 2010; Haricharan *et al.* 2013; Mohanty & Thakuria 2014; Rajan 2015). We have also recorded the earliest dated use of slipped and polished ware serving vessels, centuries earlier than previously documented (Figures 4 & 6–8), further challenging the idea that these wares first accompanied megalith-building migrants from the north. These wares and forms would be used in commensal mortuary ritual for hundreds of years at MARP-79 through the ensuing Neolithic period and into the Iron Age, when their use would expand to quotidian consumption practices in settlement contexts across south India (see Sinopoli 2016).

The early use at MARP-79 of terracotta sarcophagi, burning, excarnation and, later, stone slab capping and cairn packing, are all further elements of mortuary variability observed in later Iron Age and Early Historic period megalithic burial practices, the origins of which we can now conclusively trace to Neolithic ritual mortuary assemblages of the second millennium BC in south India. Less well documented, undated burials from Ramapuram and Tekkalakota (Nagaraja Rao & Malhotra 1965; Indian Archaeology: a Review 1984) suggest that the gradual *in situ* development of Neolithic mortuary ritual observed at MARP-79 was not an isolated phenomenon. These results together demonstrate that there was not a static and monolithic Neolithic 'culture' that can be easily characterised and conveniently assigned to arbitrarily defined periods—an observation pertinent to archaeologists working within the parameters of regional culture-histories both in South Asia and in other regions of the world.

https://doi.org/10.15184/aqy.2023.81 Published online by Cambridge University Press

Conclusion

The cemetery at MARP-79 documents important patterns of change and continuity in mortuary ritual spanning nearly 1500 years, from the Neolithic IB (2500–2200 BC) through to the beginning of the south Indian Iron Age, providing the first radiocarbon assays of burials from a Neolithic cemetery. By the turn of the second millennium BC, we observe, alongside the continuity of simple pit burials with diagnostic Neolithic ceramics, the appearance of mortuary rituals that consisted of at least two additional burial assemblages, including excarnated secondary burials placed in combusted organic coffins, and skeletal remains interred in terracotta sarcophagi. This diversification documents a novel set of social and symbolic resources for Neolithic communities through which a politics of social affiliation and difference could be constructed and negotiated through commemorative memorial practices. Our radiocarbon assays of these burials have enabled us to begin to assess how these assemblages developed over the course of the remaining Neolithic period and into the south Indian Iron Age. Without the radiometric analyses of individual mortuary contexts, the interpretation of the MARP-79 cemetery risked analytic collapse into the temporally flattened 'black box' of culture-historical categories, and a misunderstanding of the gradual diversification of mortuary practices as a punctuated transition between arbitrarily defined periods, misidentified by allegedly temporally diagnostic ceramic types (i.e. slipped and polished wares). Rather than an abrupt transition of south Indian mortuary practices at the start of the Iron Age, MARP-79 demonstrates that change and continuity in funerary rituals were localised and long-standing, unfolding over the course of more than a millennium.

Acknowledgements

The *Maski Archaeological Research Project* is a collaboration between the Karnataka Department of Archaeology, Museums and Heritage, and the authors. We thank the Archaeological Survey of India for the privilege and permission to conduct research at Maski (F.1/8/2009-EE; F.No.T17011/239/2018-EE). We extend our sincere gratitude to the American Institute of Indian Studies for their kind assistance and continuous support for the project, and particularly (the late) Pradeep Mehendiratta, Purnima Mehta and Vandana Sinha. Special thanks are also owed to friends, colleagues and project co-directors at KDAMH, including Dr R. Gopal, T.S. Gangadhar, Dr Gavi Siddaiah and N.L. Gowda.

Funding statement

Funding for this research has come from the Social Sciences and Humanities Research Council of Canada (#756-2010-0322; #430-2016-00219); Fonds de Recherche du Québec Société et Culture (#2021-NP-281213); the United States-India Educational Foundation Fulbright-Nehru program (#2018-APE/135); the National Science Foundation (#2017898); the University of Illinois, DePauw University, Stanford University and McGill University.

Supplementary material

To view supplementary material for this article, please visit https://doi.org/10.15184/aqy.2023.81

References

Allchin, F.R. 1960. *Piklihal excavations*. Hyderabad: Government of Andhra Pradesh.

– 1963. *Neolithic cattle-keepers of south India*. Cambridge: Cambridge University Press.

Allchin, B. & F.R. Allchin. 1982. *The rise of civilization in India and Pakistan*. Cambridge: Cambridge University Press.

Bauer, A.M. 2015. *Before Vijayanagara: prehistoric landscapes and politics in the Tungabhadra Basin*. New Delhi: Manohar.

Bauer, A.M. & S. Kosiba. 2016. How things act: an archaeology of materials in political life. *Journal of Social Archaeology* 16: 115–41. https://doi.org/10.1177/1469605316641244

Bauer, A.M. & P.G. Johansen. 2020. Making megaliths and constituting collectives: politics, places, and historicity in prehistoric south India, in H.P. Ray (ed.) *Knowledge traditions of the Indian Ocean world*: 102–26. London: Routledge. https://doi.org/10.4324/9780429321856-8

Binford, L. 1971. Mortuary practices: their study and their potential. *Memoirs of the Society for American Archaeology* 25: 6–29. https://doi.org/10.1017/S0081130000002525

Boivin, N., R. Korisettar & D.Q. Fuller. 2005. Further research on the southern Neolithic and the Ashmound tradition: the Sanganakallu-Kupgal Archaeological Research Project, Interim Report. *Journal of Interdisciplinary Studies in History and Archaeology* 2: 165–90.

Boivin, N. *et al.* 2018. The emergence of agriculture and pastoralism in the northern Maidan region of south Deccan, India, in R. Korisettar (ed.) *Beyond stones and more stones: domestication of the Indian subcontinent, Volume 2*: 95–126. Bengaluru: Mythic Society.

Bronk Ramsey, C. 2021. OxCal 2020 version 4.4. Available at: https://c14.arch.ox.ac.uk (accessed 17 September 2022).

Darsana, S.B. 2010. Megalithic burials of Iron Age–Early Historic Kerala. *Man and Environment* 35: 98–117.

Devaraj, D.V., J. Shaffer, C.S. Patil & K. Balasubramanya. 1995. The Watgal excavations: an interim report. *Man and Environment* 20: 57–74.

Dhavalikar, M.K. 1984. Towards an ecological model for Chalcolithic cultures of central and western India. *Journal of Anthropological Archaeology* 3: 133–58. https://doi.org/10.1016/0278-4165(84)90010-2

Fahlander, F. 2020. Becoming dead: burial assemblages as vitalist devices. *Cambridge Archaeological Journal* 30: 555–69. https://doi.org/10.1017/S0959774320000116

Foote, R.B. 1979 [1916]. *Prehistoric and protohistoric antiquities of India*. Delhi: Leeladevi Publications.

Fuller, D.Q. 2006. Agricultural origins and frontiers in South Asia: a working synthesis. *Journal of World Prehistory* 20: 1–86. https://doi.org/10.1007/s10963-006-9006-8

– 2005. Ceramics, seeds and culinary change in prehistoric India. *Antiquity* 79: 761–77. https://doi.org/10.1017/S0003598X00114917

Fuller, D.Q., N. Boivin & R. Korisettar. 2007. Dating the Neolithic of south India: new radiometric evidence for key economic, social and ritual transformations. *Antiquity* 81: 755–78. https://doi.org/10.1017/S0003598X00095715

Haricharan, S., H. Achyuthan & N. Suresh. 2013. Situating burials in the Iron Age–Early Historic landscape of south India. *Antiquity* 87: 488–502. https://doi.org/10.1017/S0003598X00049085

Hertz, R. 1960. A contribution to the study of the collective representation of death, in R. Needham & C. Needham (trans.) *Death and the right hand*: 27–86. New York: Free Press.

Indian Archaeology: a Review. 1983. Excavation at Rampuram, District Kurnool. *Indian Archaeology 1980–81: a Review*: 3–8. New Delhi: Archaeological Survey of India.

– 1984. Excavation at Rampuram, District Kurnool. *Indian Archaeology 1981–82: a Review*: 3–8. New Delhi: Archaeological Survey of India.

– 1985. Excavation at Rampuram, District Kurnool. *Indian Archaeology 1982–83: a Review*: 3–6. New Delhi: Archaeological Survey of India.

Johansen, P.G. 2014. Early ironworking in Iron Age south India: new evidence for the social organization of production from northern Karnataka. *Journal of Field Archaeology* 39: 256–75. https://doi.org/10.1179/0093469014Z.00000000086

– 2019. On the cusp of social change: iron working and cattle keeping at Bukkasagara at the onset of

the south Indian Iron Age in northern Karnataka. *Archaeological Research in Asia* 18: 55–67. https://doi.org/10.1016/j.ara.2019.02.003

JOHANSEN, P.G. & A.M. BAUER. 2011. Introduction: reconfiguring 'politics' in the reconstruction of past political production, in P.G. Johansen & A.M. Bauer (ed.) *The archaeology of politics: the materiality of political practice and action in the past*: 1–29. Newcastle: Cambridge Scholars.

– 2018. On the matter of resources and techno-politics: the case of water and iron in the south Indian Iron Age. *American Anthropologist* 120: 412–28. https://doi.org/10.1111/aman.13053

KORISETTAR, R., P.C. VENKATASUBBAIAH & D.Q. FULLER. 2002. Brahmagiri and beyond: the archaeology of the southern Neolithic, in S. Settar & R. Korisettar (ed.) *Indian archaeology in retrospect: prehistory archaeology of South Asia*: 151–237. New Delhi: Manohar.

KRISHNA SASTRY, V.V. 1979. The ashmound excavations at Hulikallu. *Andhra Pradesh Journal of Archaeology* 1: 47–55.

LESHNIK, L. 1974. *South Indian 'megalithic' burials: the Pandukal Complex*. Wiesbaden: Steiner.

MCINTOSH, J. 1985. Dating the south Indian megaliths, in J. Schotsmans & M. Taddei (ed.) *South Asian Archaeology 1983*: 467–93. Naples: Istituto Universitario Orientale.

METCALF, P. & R. HUNTINGTON. 1991. *Celebrations of death: the anthropology of mortuary ritual*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511803178

MOHANTY, R.K. & T. THAKURIA. 2014. Early Iron Age megalithic culture of Peninsular and south India, in D.K. Charkrabarti & M. Lal (ed.) *History of ancient India III: the texts, political history and administration 'til 200 BC*: 343–78. New Delhi: Aryan Books.

MOORTI, U.S. 1994. *Megalithic culture of south India: socio-economic perspectives*. Varanasi: Ganga Kaveri.

MUSHRIF, V., N. BOIVIN, R. KORISETTAR & S.R. WALIMBE. 2003. Skeletal remains from the Kudatini-sarcophagus burial. *Purutattva* 33: 74–83.

NAGARAJA RAO, M.S. 1984 [1971]. *Protohistoric cultures of the Tungabhadra Valley*. Delhi: Swati.

NAGARAJA RAO, M.S. & K.C. MALHOTRA. 1965. *The Stone Age hill dwellers of Tekkalakota*. Poona: Deccan College Post-graduate and Research Institute.

PADDAYYA, K. 2001. The problem of ashmounds of Southern Deccan in the light of Budihal excavations, Karnataka. *Bulletin of the Deccan College Post-Graduate Institute* 60–61: 189–225.

– 2019. *Neolithic ashmounds of the Deccan: their place in the archaeology of Peninsular India*. New Delhi: Aryan Books.

RAJAN, K. 2015. Iron Age megalithic monuments of Tamil Nadu, in K. Basa, R. Mohanty & S. Ota (ed.) *Megalithic traditions in India: archaeology and ethnography, Volume 1*: 241–62. New Delhi: Aryan Books.

REIMER, P. *et al.* 2020. The IntCal20 Northern Hemisphere radiocarbon age calibration curve (0–55 cal kBP). *Radiocarbon* 62: 725–57. https://doi.org/10.1017/RDC.2020.41

SAXE, A. 1971. Social dimensions of mortuary practices in a Mesolithic population from Wadi Halfa, Sudan. *Memoirs of the Society for American Archaeology* 25: 39–57. https://doi.org/10.1017/S0081130000002537

SHINDE, V. 1994. The Deccan Chalcolithic: a recent perspective. *Man and Environment* 19: 169–77.

SINOPOLI, C.M. 2016. Ceramic change and ceramic use in late prehistoric South India: evidence from Kadebakele (Koppal District, Karnataka), in V. Lefèvre, A. Didier & B. Mutin (ed.) *South Asian archaeology and art 2012*: 291–304. Turnhout: Brepols.

SUBRAHMANYAM, R. *et al.* 1975. *Nagarjunakonda (1954-60), Volume I*. New Delhi: Archaeological Survey of India.

SUNDARA, A. 1969–1970. A new type of Neolithic burial in Terdal, Mysore State. *Puratattva* 3: 23–33.

– 1975. *The early chamber tombs of South India: a study of the Iron Age megalithic monuments of northern Karnataka*. Delhi: University Publishers.

THAPAR, B.K. 1957. Maski 1954: a Chalcolithic site of the Southern Deccan. *Ancient India* 13: 4–142.

WALIMBE, S.R. & K. PADDAYYA. 1999. Human skeletal remains from Neolithic ashmound site of Budihal. *Bulletin of the Deccan College* 58–59: 11–47.

WHEELER, R.E.M. 1948. Brahmagiri and Chandravali 1947. *Ancient India* 4: 181–231.