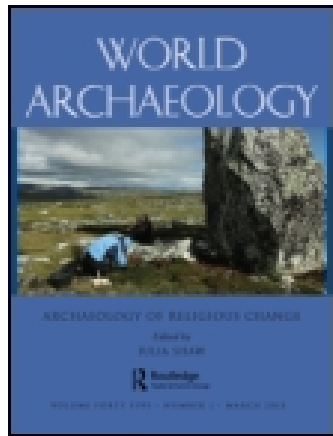


This article was downloaded by: [NIAS - Indian Institute of Science Campus ]

On: 02 March 2015, At: 20:37

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office:  
Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



## World Archaeology

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rwar20>

### Can the tinai help understand the Iron Age Early Historic landscape of Tamilnadu?

Smriti Haricharan<sup>a</sup> & Naresh Keerthi<sup>a</sup>

<sup>a</sup> National Institute of Advanced Studies

Published online: 23 Sep 2014.



CrossMark

[Click for updates](#)

To cite this article: Smriti Haricharan & Naresh Keerthi (2014) Can the tinai help understand the Iron Age Early Historic landscape of Tamilnadu?, *World Archaeology*, 46:5, 641-660, DOI: [10.1080/00438243.2014.953709](https://doi.org/10.1080/00438243.2014.953709)

To link to this article: <http://dx.doi.org/10.1080/00438243.2014.953709>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

# Can the *tinai* help understand the Iron Age Early Historic landscape of Tamilnadu?

Smriti Haricharan and Naresh Keerthi

## Abstract

The Iron Age-Early Historic landscape of southern India has been subject to scholarly study and scrutiny for over a century now. There is much variation in the chronology, typology and understanding of sites from this period. This paper looks at the habitation, burials and habitation-cum-burial sites of the Iron Age-Early Historic period, from the northern part of Tamilnadu, India. Historians have also used the *Sangam* texts of classical Tamil, which are believed to be contemporaneous with the archaeological sites considered, to understand the society and culture of this period. However, most of the previous literary and archaeological researches have progressed parallel to each other, thereby resulting in different perspectives for the same research questions. This paper uses the excavated sites from northern Tamilnadu as a case study to explore the possibility of combining archaeological and literary-historical approaches, while examining the advantages and limitations of each approach.

## Keywords

*Sangam* Literature; Tamilnadu; Iron Age-Early Historic Habitation; Iron Age-Early Historic 'Megalithic' burials; *tinai*.

## 1. Introduction

The anthologies of ancient Tamil poetry, popularly referred to as '*Sangam*' literature have featured prominently, in very many ways, in the formulation of the Tamil cultural and linguistic identity, in the Tamil peoples' formulation of their history, and also as a source material for understanding the *lebenswelt* of the so called *Sangam* age (Tieken 2001). This is partially because of a long standing engagement of the traditional Tamil scholars with this literary corpus, and partly because of a revival of interest in the publication, dissemination of, and scholarly engagement with the anthologies during colonial times (Rajesh 2014).

Of the material from the *Sangam* literature used by historians to research the Iron Age-Early Historic (henceforth IA-EH) period, the notion of the *tinai* has been very influential. Selby (2008, 24) says that a *tinai* is a concept which is very difficult to translate, and in a sense is the ‘artistic space circumscribed by the poets along with everything contained therein’. The *tinai* has been treated as a critical tool in understanding the economic and social life of the contemporaneous people.

This paper does not aim to validate or invalidate the use of *Sangam* literature in the research of the IA-EH period; rather it is aimed at exploring a methodological approach to the problem of relating literary evidence to archaeological data. Further, it debates on whether the existing research on the *tinai* system, which is mentioned in the *Sangam* literature, is reflected spatially in the archaeological data from excavated sites. It also explores the various interpretations by recent studies of the *tinai* system.

## 2. *Sangam* literature as a historical source

*Sangam* literature has occasionally been used in to complement archaeological data. There have been previous studies which have integrated the literature with archaeological data, such as Champakalakshmi’s (1975) which has explored place names from literary evidence in context with the habitation sites excavated from the Early Historical (henceforth EH) period. Srinivasan (1946) has compared the IA-EH burials to those mentioned in the *Sangam* anthologies. The composition of the *Sangam* poems (if not their compilation into anthologies which may have been at a later date) has been dated to the period 300 BCE–300 CE. Though this dating is still debated by a few scholars, it is accepted by most (Sastri 1966; Sivathamby 1974; Stein 1977; Pillai 1984; Narayanan 1988; Zvelebil 1992; Alalasundaram 1996; Heitzman 2001; Rajan 1999; Abraham 2003; Hart 2004; Selvakumar and Darsana 2008).

The process of the transfer of the poems from an EH oral form into manuscripts, and the continuance of these now ‘textualized’ works, in the hands of manuscript copyists and scribes is liable to much manipulation and violence to the literary corpus both in terms of form and content. It is also known that the palm leaf manuscripts were not always well preserved or copied and a lot of data has been lost (Zvelebil 1992; Heitzman 2001).

### 2.1 *The Tinai system*

Selby (2008) argues that the rhetoric of the *Sangam* poets aims to weave a shared domain of the individual’s inner landscape and the geophysical ambience through the device of the *tinai*. She thus posits not only the enmeshing of the personal *agam* and public *puram* themes, but argues for the same seamless continuity between the emotional and ecological elements of *tinai*. Can we accept the *tinais* at face value as referring either to physiographic, eco systems or landscapes; or should we consider them to be literary tropes? The *Tolkappiyam*, a *Sangam* text of grammar and poetics, mentions five (major) *tinais*: *Marutam*, *Kurinji*, *Mullai*, *Neytal*, *Palai* (Rajayyan 2005). The regions of *kurinji* (forested hills), *mullai* (pastoral tracts), *marutam* (wetlands or marshes) and *neytal* (littoral), each identified by the name of a typical botanical specimen endemic to that ecological niche, are more or less permanent *tinais*. Selby (2008) describes the dryland/scrub (*palai tinai*) as a temporary arid physiography that may appear in

any region, when water is scarce. Keeping this in mind, this study does not represent any region as being exclusively in the *palai tinai*.

Rajan (1999) interprets the *tinai* as an index for people who share a homogeneity based either on behavioral or physiographic traits. Till the 1970s the *tinai*s were seen as distinct phases in the evolution of early economic practices (Devadevan 2006). The *Tolkappiyam* prescribes a set of eco-aesthetic domains which are also poetic templates for describing specific cultural and emotional landscapes (Gros 2010). It is possible that the concept of *tinai* was expanded and reinterpreted by later commentators. As Selby (2008) points out, the *Sangam* anthologies were rediscovered by U. V. Caminataiyer in the late nineteenth century. She further states that it was he who edited them and added a more lucid commentary on them, and further established the notions of *tinai* (context) and *turai* (theme).

The *marutamakkal* [denizen of the Marutam zone] were identified from the commentaries of the *Sangam poems* as mainly agriculturists, the *kurinjimakkal* mostly as semi agriculturists, the *mullaimakkal* as being pastoral, *neithamakkal* as largely fishermen and the *palaimakkal* as the hunter-gatherers (Iyengar 1982; Sivathamby 1974). However, these terms referred to the habitat characterization of the landscape and not the geography.

An alternate reading of the *tinai*s, as being literary frames that offer metaphorical purchase to connect the various emotional states with feminine energy (*anangu*) and in turn linking this with the calendar and the cycle of seasons in the Tamil realm is given by Dubianski (2000). The literary evidence points to a complex system of kinship, clan and various modes of habitation such as *kudi*, *cheri* and *nadu* (Selvakumar and Darsana 2008). This paper attempts to explore the possibility of the physiographic divisions interpreted by previous research as being an indication of socio-cultural and economic differences.

However, the ecosystems as we find them today cannot be taken as being the same 2000 years ago. Stable isotopic studies carried out on samples from the Nilgiris mountains, which fall just outside the study area, suggest that between 6000–3500BP this region of southern India underwent a change, signifying lower rainfall levels and a relatively arid climate (Sukumar, Suresh, and Ramesh 1995). Sukumar, Suresh, and Ramesh (1995) state that their results are corroborated well by data regarding global paleoclimate changes. With respect to the region formerly called the Chengalpattu District of Tamilnadu, Mencher (1994) says that the nature of this region is such that any type of complex agriculture was rendered possible only by construction of irrigation works. He also states that during the colonial period, pre-existing canals were strengthened in 1857 and 1877, hence it is possible that many of the tanks and catchment areas were in existence since the Pallava period.

### 3. The IA-EH archaeological record: concerns with terminology and temporality

As with the literary evidence the archaeological data has its own encumbrances. A common problem seen in archaeological practice is one of typological inconsistency – be it of the burial typology or the pottery classification. This is captured best by Whittaker, Caulkins, and Kamp (1998, 131): ‘Archaeologists tend to assume that everyone means pretty much the same thing when they use a well-established type name.’

Mohanty and Selvakumar (2002), for the purposes of their research define megalithism in the peninsular Indian context, as being about more than burials. They use this term to refer to all the

burials and monuments of the Iron Age and Early Historic period and also the habitation sites with Black-And-Red (hence forth referred to as BRW) pottery without megaliths. The problem in this region (northern Tamilnadu) for the period between 300 BCE and 300CE, is in identifying the cultural material belonging to ‘this’ period. Due to the scanty availability of scientific dates, and the continuance of BRW over a long period of time, the distinction between the IA and EH periods is not clear (Haricharan, Achyuthan, and Suresh 2013).

Banerjee (1965) points out that iron was not simultaneously produced all over India, despite being of great importance in the Iron Age. He considers the ‘megalithic’ iron artefacts to be major markers of iron use in South India and suggest that they were introduced from northern parts. He also states that IA can be thought to be from 800 BCE to 200 CE in India. Begley (1986) states that the first occurrence of Rouletted Ware is coincidental with the local IA cultural deposits though the latter varies in its artefactual association and chronological position.

Many of the excavation reports vary in content, amount of information given as well as what is excluded from the reports, they are subject to the excavator’s personal descriptive methods (Selvakumar and Darsana 2008). At Kanchipuram, the excavators have divided the stratigraphy into Phase I and Phase II, of which Phase I is further divided into Phase IA and Phase IB. As Champakalakshmi (1975) points out with the example of this habitation site Phase IA and Phase IB seem to differ very little in terms of cultural material, except for superimposition of structural material. However, the authors are aware of certain inherent problems with the data collected. In sites like Siruthavoor, which contains IA-EH burials, the number of burials at the site exceeds five hundred, but only eight were excavated (Haricharan, Achyuthan, and Suresh 2013). Thus the excavated information is obtained from 1.6% of the complete available material which then means information we have is far from representative of the whole site. Considering how unique and variable the megalithic burials even within a particular site are, this leaves us blind to a lot of information. Nevertheless an attempt has been made to try to compare and understand the excavated material. To limit some of these disadvantages the material collected has been restricted as far as possible, according to the excavators reports corresponding to similar time period – i.e., IA-EH – and to a limited geographic area, i.e., *Thondaimandalam*.

#### 4. Choice of study area: *Thondaimandalam*

It is known from epigraphy and inscriptions that the ‘*mandalam*’ in *Thondaimandalam* refers to an administrative division. The earliest reference to *Thondaimandalam* is from around 500 CE and the origin of the term has been debated over (Subbarayalu 2005; Alalasundaram 1996; Aiyer 1917). We also know that some of the IA-EH burials can be dated well into 500 CE (Haricharan, Achyuthan, and Suresh 2013). Brubaker (2001) has also segregated this region in his study, using archaeological data-mainly IA-EH burial typology, implying that the administrative division of the Pallavas could be based on earlier socio-cultural distinctions. Considering these different aspects this study has used this region as a distinct study region. This is also a region which has been explored and excavated extensively and the sites have been reported since the pre independence era (Rajan 2010).

*Thondaimandalam* (Fig. 1) refers geographically to the Chittoor, South Nellore, Chingleput and North and South Arcot districts (Subbarayalu 2005). The other three districts refer to the

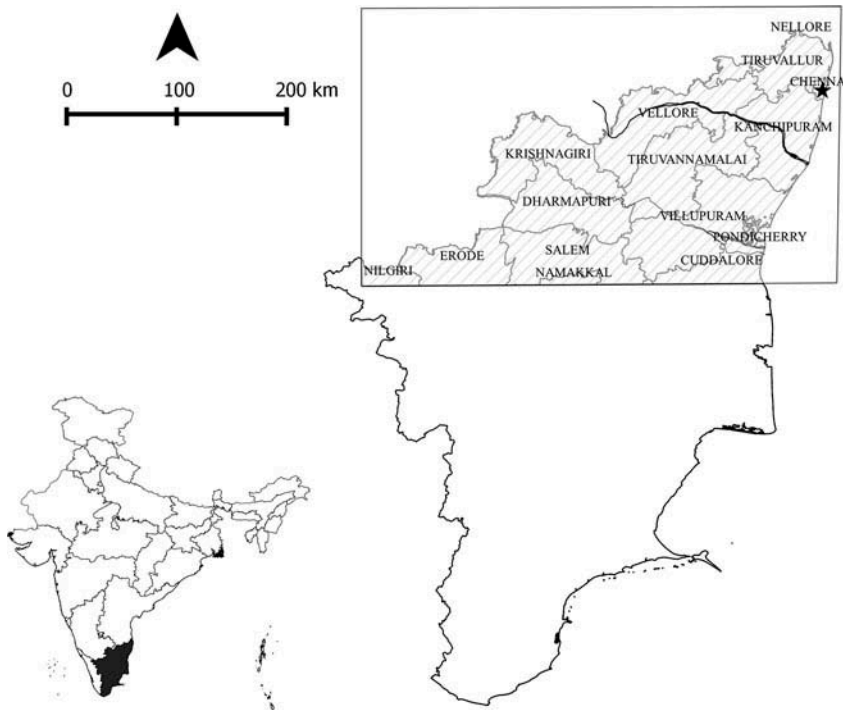


Figure 1 The study area: Thondaimandalam.

present day districts of Vellore, Kanchipuram, Villupuram, Krishnagiri, Dharmapuri, Thiruvallur and Tiruvannamalai Districts (Francis 1988). While the paper refers to Chittoor and Nellore districts and the sites excavated in this region, the scarcity of material published in this region, especially regarding its location has led to its exclusion from the map created for this study.

##### 5. The *tinai* and the archaeological data: the methodology

The methods of the field archaeologist are highly reductive and empiricist, while the historian that relies on literary and epigraphic material employs a different hermeneutics, and a different lens. This paper attempts to bridge this gap, and to explore the viability of integrating archaeological, literary and physiographic data a sample area of Tamilnadu has been selected for the purposes of this study. Excavated IA-EH sites have then been located on a map of Tamilnadu which includes physiographic divisions corresponding to the five *tinai*s (see Fig. 1). The map was created using data of landform classification (mapsof.net), which divided this regions into the Eastern Ghats, Nilgiris, Tamilnadu uplands, inland plain, riverine landform and marine landform. The Eastern Ghats and marine landform clearly fell into the category of Kurinji and Neytal respectively. Average mean rainfall data was collected for the period of 1901 to 2010, at a spatial resolution of 0.5 degree latitude x 0.5 degree longitude global grid (from esrl.noaa.gov). The data implies that within the last hundred years the rainfall levels of the area covered by Neytal and Marutam is higher than that of Kurinji and Mullai tinai's (Table 1). This data

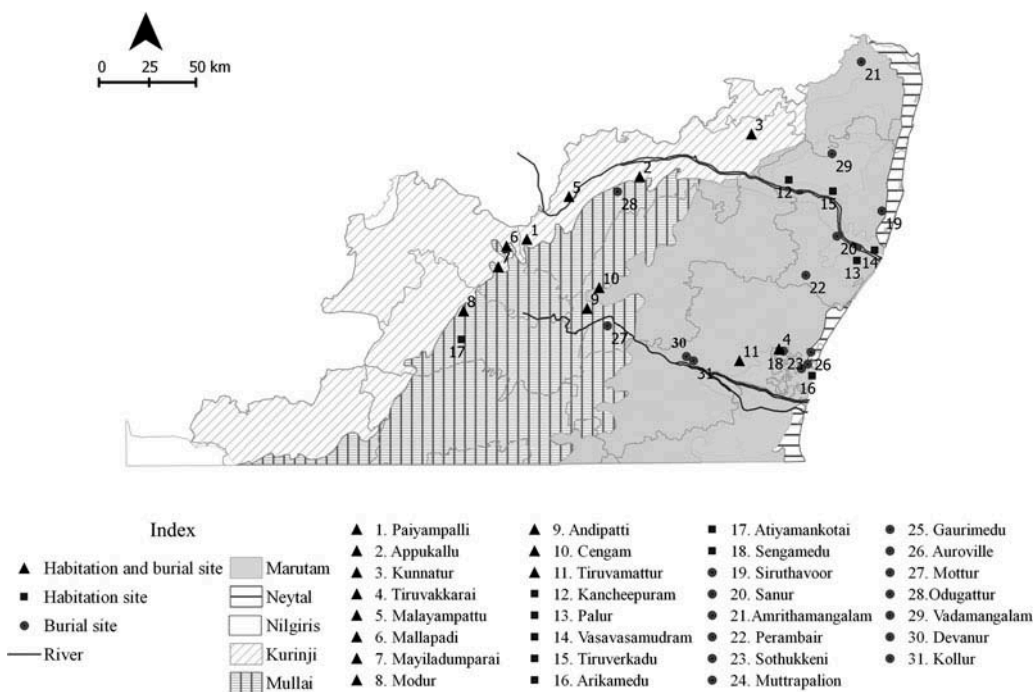
*Table 1* Average rainfall and approximate area for different *tinai*s across north Tamilnadu.

TINAI TYPE	AVG. RAINFALL (MM)	RAINFALL RANGE (MM)	AREA (SQ.KM)
MARUTAM	1096.52	1053.68 to 1154.36	20814
KURUNJI	854.77	809.64 to 1064.24	19390
MULLAI	972.65	895.40 to 1053.68	13708
NEYTHAL	1233.28	1214.44 to 1242.83	1332

reiterated the information from landform classification, and while it is of a much recent time period, the limited paleoclimatic studies in this region indicate that the paleoclimate has not changed drastically over the last 2000 years (Sukumar, Suresh, and Ramesh 1995).

Overlaying this data on the landform map for the study area, the inland plain and riverine landforms were designated as Marutam *tinai*. The Tamilnadu uplands were categorized as Mullai, again keeping in mind that this region is expected to be area conducive for pastoral occupation. In general the Phase I in most of the habitation sites excavated was consigned to the period of 300 BCE to 100 CE, information collected belonged only to the IA-EH period. However since most of these sites were not dated using scientific methods it is subject for debate. For information regarding names and references for all the excavated sites and number of sites in each *tinai* refer to the Appendix.

The archaeological data was listed on an excel database, and all available information was collected from the reported sites. However for certain habitation cum burial sites such as



*Figure 2* Map showing the study area divided into *tinai* forms and overlaid with excavated site locations. Source: Information for map from wikimapia.

Malayampattu which falls within the Kurinji *tinai* the excavation report did not contain information regarding the excavation of the burial sites. The Excel database was then sorted for information regarding the occurrence of various artefacts, this information was then collated in the form of a graph; for convenience the percentage of material was calculated.

### 6. The analysis

The various artefacts from all the habitation and burial sites are depicted on Fig. 3 and what we can see from this is that the distribution of artefacts are different in the case of the *tinais*. In the case of habitation sites, the Neolithic celt is not found in the Marutam and Neytal *tinais*; however, they are found in Kurinji, Kurinji-Mullai and Mullai *tinais*. The other metals in the habitation sites refers largely to copper, which is present in all the *tinais* except Kurinji-Mullai, and the occurrence of gold was reported only in one site in each of Kurinji and Neytal. It is also interesting that at Kudikkadu of the Marutam *tinai*, copper slag, iron slag, and tuyeres were reported, indicating that this was an industrial site; this impression is further strengthened by the occurrence at this site of bead-making debitage. The only difference between the Kurinji and Marutam seems to be that the Kurinji *tinai* does not have any reports of spindle whorls, while the only difference between Marutam and Neytal is that the latter has no reported site with seals. It also appears that these three *tinias* are also the ones in which a larger array of different types of artefacts have been reported. The Mullai and the Kurinji Mullai on the other hand seem

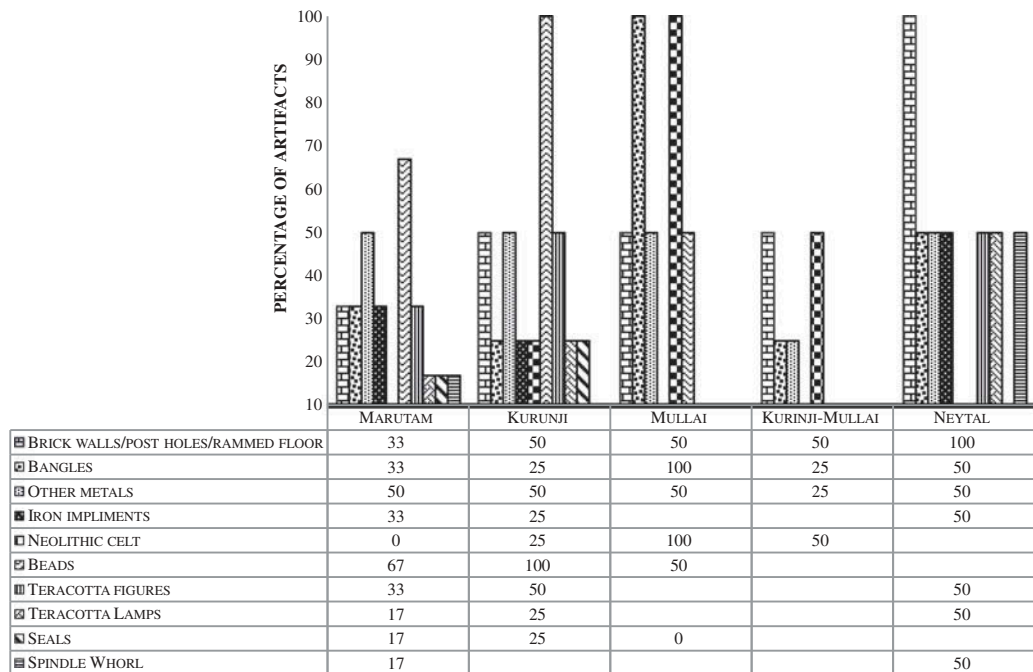


Figure 3 All artefacts from habitation sites across different *tinais* of north Tamilnadu.



similar in that they both report sites which have neolithic celt, copper artefacts, habitation structures/post holes and bangles.

In all the tinais the common artefacts found are the copper artefacts, bangles of shell, terracotta or bone, and habitation structures. The habitation structures include post holes, rammed habitation floors, and bricks or brick walls. In the Marutam *tinai*, Kanchipuram excavations had reported a possible Buddhist stupa and post holes and Kudikadu excavations revealed bricks and brick wall. Similarly in the Kurinji *tinai* the Paiyampalli excavations revealed post holes which formed at oval shape and Kunnatur wherein brick wall, terracotta lined drains, rubble walls and ring wells were reported. In the Mullai *tinai*, at Adiyamankottai, a brick structure had been excavated, and in the Neytal *tinai* Arikamedu was excavated to reveal a well-established and industrial-scale port site, with brick structures. In the Kurinji-Mullai *tinai*, Cengam revealed brick structures, while Appukallu had rammed habitation floors. The types of pottery present in almost all the *tinais* for habitation sites are the same (Fig. 4). The BRW is present in all the *tinais*, any absence is due to lack of availability of information. With the pottery types from habitation sites as well, we see an equal representation of pottery types from Marutam, Neytal and Kurinji, and similar variation with respect to Kurinji-Mullai and Kurinji.

When we look at the graphs from the burial sites, interestingly spindle whorls are present in Kurinji and Mullai. In respect to metal artefacts other than iron, copper artefacts, these have been reported from Kurinji and Mullai sites, while the Marutam and Neytal have bronze and gold artefacts (Fig. 5). The iron artefacts and bones from burials are reported from all the *tinais*, and in all instances the bones are secondary in nature, and in some cases skulls and long bones

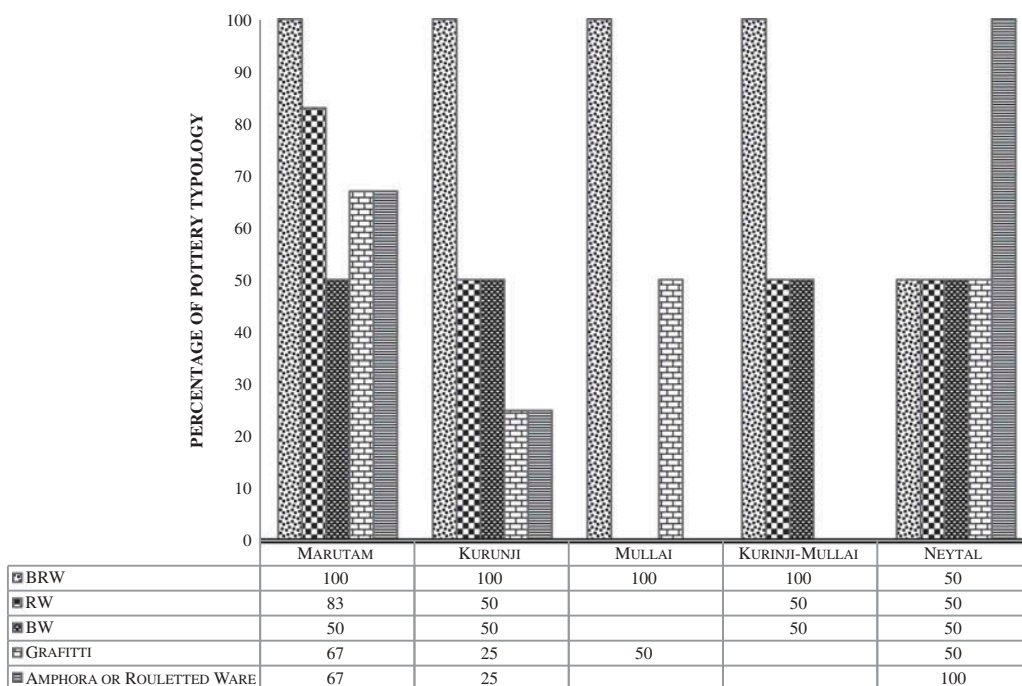


Figure 4 Pottery types from habitation sites across different *tinais* of north Tamilnadu [BW: Black Ware; RW: Red Ware].

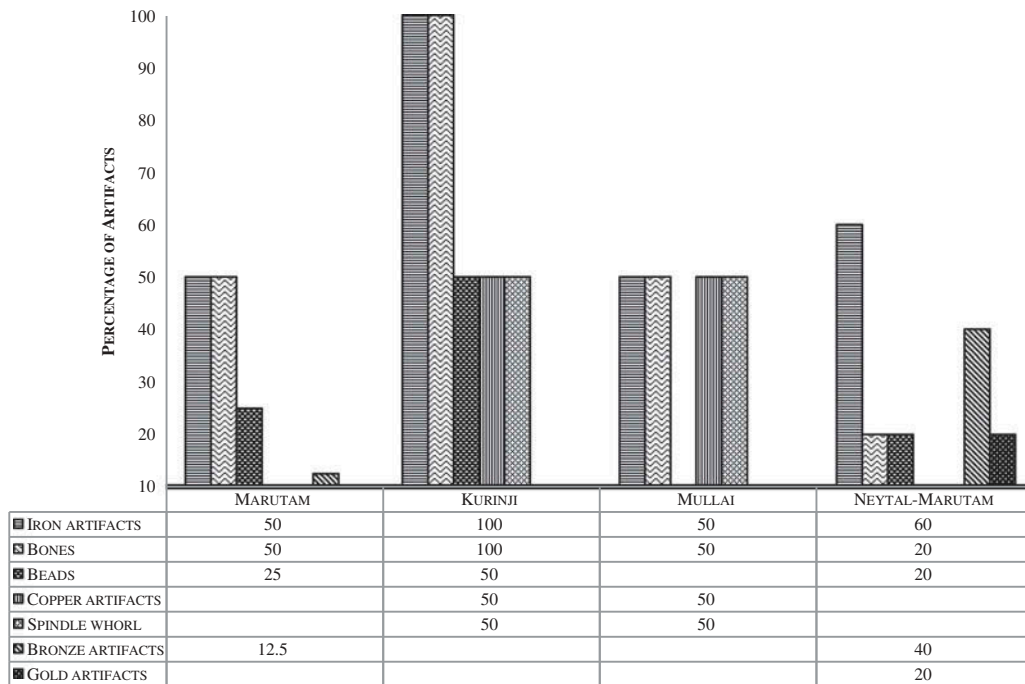


Figure 5 All artefacts from burial sites across different *tinai*s of north Tamilnadu.

have been reported. In terms of the type of burials which are present in each of the *tinai*s, cairn circles, urn/sarcophagus and cists are represented in the Mullai and the Kurinji does not have urn/sarcophagus and instead has the dolmen with circle (Fig. 6). However, both the Neytal-Marutam and the Marutam *tinai*s have cairn circle, dolmen, dolmen with circle, cist, cist with circle and urn/sarcophagus. Similarly when we look at the type of iron artefacts represented in the *tinai*s, we find that the sickle is the only implement that is represented in the Neytal-Marutam and Marutam *tinai*s but not seen in the Kurinji (Fig. 7). The spearhead is the only type of implement located in all the various *tinai*s. There is also a uniform occurrence of different pottery types throughout the various burial sites from different *tinai*s (Fig. 8).

One of the obvious aspects which emerge from these graphs is that the artefacts found in the habitation sites differ from those in burials. Clearly in the case of spindle whorls and metals other than iron this is an aspect which can be highlighted. The fact that the occurrence of artefacts within each *tinai* differs and yet there are over all patterns emerging while comparing different *tinai*s is also something to be further discussed. For example in the case of the artefacts from excavated burial and habitation sites as well as type of burials and iron artefacts, the Kurinji, Mullai and Kurinji-Mullai *tinai*s share more commonalities as opposed to the Marutam, Neytal and Neytal-Marutam. The data is sparse in the case of Kurinji and Mullai burials, mainly due to lack of available information regarding these sites from the excavation reports, and due to this the analysis is limited to understanding the presence or absence of different artefacts rather than quantity. However, the fact that these patterns persist across various types of classifications of objects and typology needs to be considered. It would seem that the sites are not all uniform in terms of absence or presence of artefacts; however, the similarity between Kurinji and Mullai

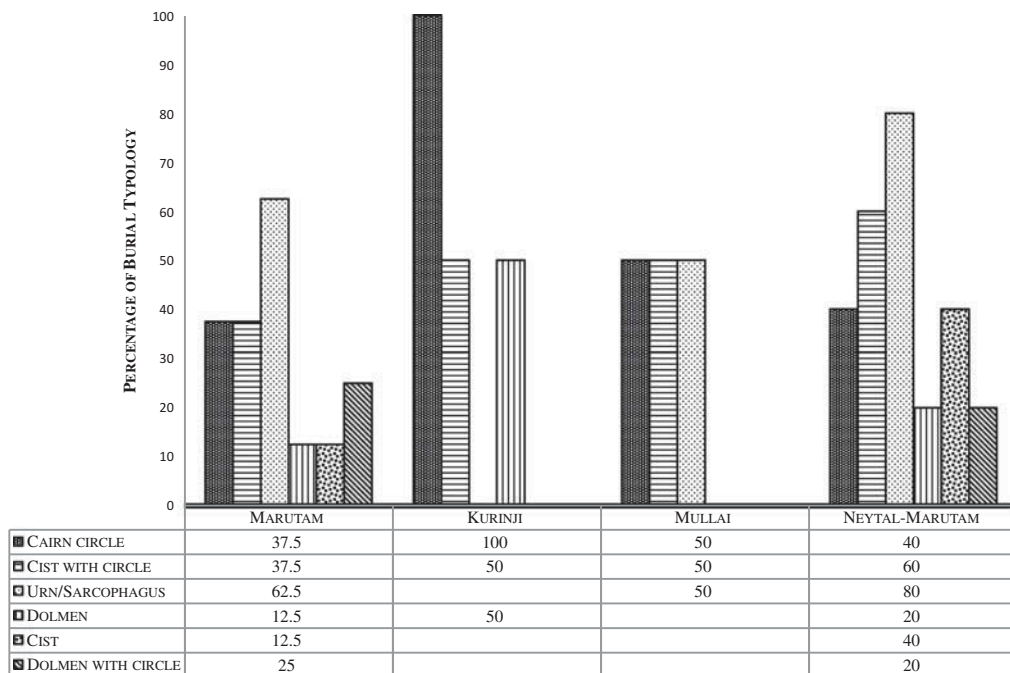


Figure 6 Burial types across different *tinai*s of north Tamilnadu.

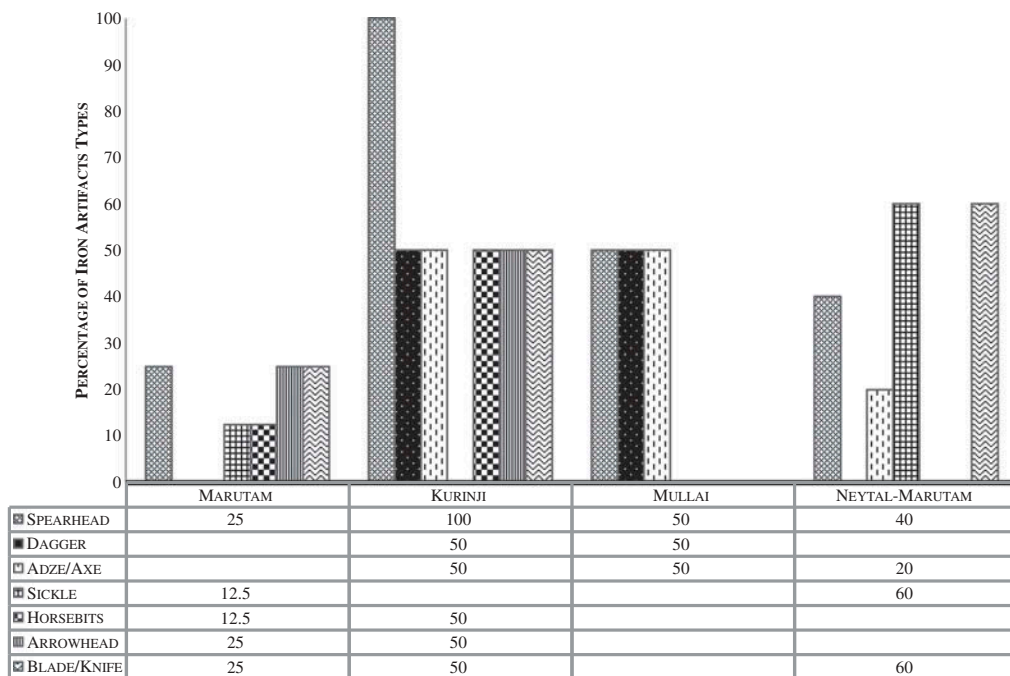


Figure 7 Types of iron implements from burial sites across different *tinai*s of north Tamilnadu.

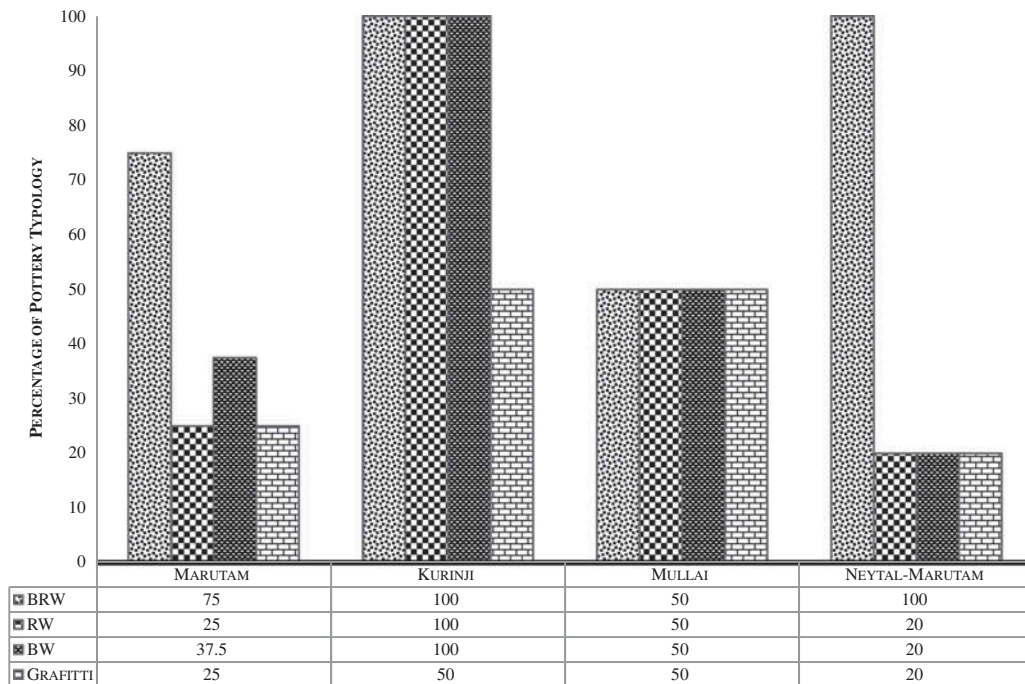


Figure 8 Pottery types from burial sites across different *tinai*s of north Tamilnadu [BW: Black Ware; RW: Red Ware].

or Neytal and Marutam can be explained in terms of their shared factor of the landscape within which they are located. As Champakalakshmi (1999) has pointed out, both the *Sangam* literature and the archaeological evidence point towards interactions and even trade between the occupants of different landscape. While the physiographic or landscape may be indicative of popular occupational choices, it would be simplistic to argue that this choice was exercised ubiquitously.

However, the lack of scientific dates for these sites is problematic. Scientific dates available for the study area of this paper are from the sites of Adiyamankottai (180±125 CE), Appukullu (350±145 BCE), Kanchipuram (480±125 BCE to 1070±120 CE), Payampalli, (1725±110 BCE to 1140±195CE) and Siruthavoor (330±51 BCE to 619±28 CE) (Possehl 1989; Haricharan, Achyuthan, and Suresh 2013). Except for Kanchipuram wherein the occupation of the site continues well into the medieval period, and Payampalli which has a distinct Neolithic phase before the IA-EH/‘megalithic’ phase, all other sites are considered as Early Historic sites. As Menon (2008) points out, in the context of the EH period in India, the regional spatial and temporal variations have to be taken into consideration. Chattopadhyaya (2008) significantly points out that one of the aspects as yet not answered for this ‘phase’ is whether the distribution pattern of EH centres is limited only to areas where the ‘megalithic’ burials and EH habitation centres overlap, or if the EH is much more extensively spread. Of these mentioned sites, Adiyamankottai falls in the Mullai *tinai*, Appukallu in the Kurinji-Mullai, Kanchipuram in the Marutam, Payampalli in the Kurinji and Siruthavoor in the Neytal-Marutam. Most of these dates are for habitation sites, with the exception of Siruthavoor. Even the earliest dates available for

these sites range from 480±125 BCE to 180±125 CE. Payampalli's early phase dated to 1725 ±110 BCE has been classified as a Neolithic phase and has not been included in the study. In most of the excavation reports the phase recorded as 300 BCE to 300 CE has been designated as EH, and this designation of a span of 600 years without finer classification demands revision.

## 7. Observations

Despite all the hurdles discussed in this paper previously, the analysis of the excavated material does suggest a pattern in the variation of material based on landform. Whether this is a reflection of the *tinai* system or general landscape adaptation by the IA-EH inhabitants needs to be further researched. There is a discrepancy between subject of reports for habitation and burial sites. The habitation sites consistently have less information, for example in the typology of iron artefacts. However, while the burial sites, especially when reported in conjunction with the accompanied habitation site, have less information, details for type of iron implements excavated or type of burial found at the site are more commonly reported. The fact that the type of iron implement located in Marutam and Neytal is different from Mullai and Kurinji is of some value. However, what does emerge from looking at the excavated material is that within each *tinai* there are sites which are different. For example, Kudikkadu does seem much more like a production site; similarly Arikamedu which has been systematically excavated does provide much more information with regards to internal and external trading activities.

Interestingly, when we compare the metal artefacts from both the habitation and burial sites we notice that iron artefacts are found from all the *tinais* of the burial sites (Fig. 3 and Fig. 4). With respect to the habitation sites, the Palai-Marutam sites have both iron slag or tuyeres and iron artefacts; however, both Marutam and Mullai *tinais* have no iron artefacts. In fact the Marutam seems to yield only copper coins. With regards to pottery types, all the IA-EH burial sites yield BRW and most of them also have Black Ware and Red Ware. This is the case with the IA-EH habitation sites as well; the most striking aspect, however, is the close correlation between Palai-Marutam and Kurinji *tinai*. It also seems to emerge from all this data that the IA-EH habitation sites from the Marutam *tinai* has the least variety. Even with respect to the burial sites, the Palai-Marutam seems to be far more diverse than the Marutam *tinai*. The Marutam and kurinji of the IA-EH burial sites and Palai-Marutam and Kurinji of the IA-EH habitation sites also seem to share similar type of materials.

## 8. Discussion: problems of the synthesis

The term EH is used in a very versatile way in peninsular India, the term often refers to the presence of BRW, iron objects and 'megalithic' burials (Brubaker 2001; Chattopadhyaya 2008). It is also an issue, as Chattopadhyaya (2008, 4–6) points out that the terms megalithic phase, Iron Age period, Early Historic period and BRW culture are often used synonymously and this is an amalgam of type of site, diagnostic pottery and historical terminology. The problem here is not the terminology but the fact that it is therefore much harder to compare 'cultural sequence of an individual site in relationship with other sites' (Chattopadhyaya 2008, 11). Branfill (1885, 719) describes the peninsular Indian physiography as

insular, and subject to the breezy influences of the two monsoons. [It] is an epitome of all India, in its lofty hills and extensive plains, its flooding rivers and dwindling lakes, its fertile flats and sterile wastes, its tropical jungles and its scrubby wilderness.

He refers to the whole of southern India or what was then the Madras Presidency, however this encapsulates all the different eco-systems referred to as *tinai*s in the *Tolkappiyam*. Iyer (1948) points out the *ulagam* niches referred to in the *Tolkappiyam* can be seen (not just all over India but) in almost all regions in the world.

One of the first issues which we attempt to draw attention to in this paper is that there is a lack of clarity in the interpretation of *tinai*. While attempting to understand the mythopoetic and semiotic layers of *tinai*, it may be useful to consider Ingold's (1993) notion of temporality, as being a set of nested temporal cycles, which constitute the 'landscape'. The *Sangam* landscape is indeed a varied set of enmeshed ecosystems, which themselves are dynamic and subject to seasonal and other changes, which have concomitant changes in the 'taskscape' or the regimen of activities undertaken by the inhabitants. The *tinai* has been interpreted by the medieval commentators, and further has been developed by modern historians in very different semantic trajectories. The commentators have ascribed the *tinai* for each verse, not the poets; and the *tinai* allocation is an important part of the commentators' interpretative apparatus.

As Gurukkal (2012, 77–91) eloquently points out, the *tinai*s have a multi-layered semiosis. It is apparent that there are at least three stages in the semiotic life cycle of the *tinai*, the first stage being marked by its use by *Tolkappiyar* and the *Sangam* poets, wherein it is a soft category, and is used to describe landscapes in the rich, composite sense detailed by Ingold (1993). The second stage is that of the later commentators such as *Ilampuranar* and *Naccinarkkaniyar*, who have presented the *tinai*s as forming a complex, somewhat prescriptive paradigm of codes, which is the key to understanding all the levels of signification – ecological, cultural and emotional. Given that the medieval commentators themselves were temporally as distant from the poets, as we are from them today; there is bound to be a change in their conceptualization of the *tinai*.

As earlier observed, the landscape is liable to several kinds of change – as a consequence of seasonal variation, and even due to anthropogenic causes. The archaeological data when applied to the *tinai* divisions seem to indicate that the material evidence does not fit into the system as neatly as expected. There is a need to collect information from excavated material, which has not been published, paleoclimatic studies and a more micro regional analysis. What is required at this stage is not merely generalized statements but a more concerted effort to integrate the information from these varied sources. Much as described in the literary evidence, there is variation in terms of size of habitation, and even period of occupation. Fig. 2 also shows that the occurrence of habitation cum burial sites is more prevalent in the Kurinji-Mullai *tinai*s, while the Marutam and Neytal have a segregation of burial and habitation sites. Any assumption that all the habitation and burial sites within a *tinai* exhibit the same type of socio-cultural or economic system would be a mistake. The *Sangam* literature points to a vibrant society which is not uniform, but rather varied and different. Instead of using the literary evidence in a literal fashion, it may be more useful to triangulate data from landscape-level archaeology in connection with the literary evidence to produce a cogent, coherent picture of early South Indian archaeology.

### Acknowledgements

We thank Prof. Rajan Gurukkal and Dr Darsana Selvakumar for their suggestions to the initial draft of the paper, and the anonymous reviewers for their comments which substantially contributed to the paper. We would also like to thank Prof. Raman Sukumar and Sandeep Pulla for helping us with the rainfall data used in this paper.

Smriti Haricharan  
National Institute of Advanced Studies  
[smriti.haricharan@gmail.com](mailto:smriti.haricharan@gmail.com)

Naresh Keerthi  
National Institute of Advanced Studies  
[nakeerthi@gmail.com](mailto:nakeerthi@gmail.com)

### References

- Abraham, S. A. 2003. "Chera, Chola, Pandya: Using Archaeological Evidence to Identify the Tamil Kingdoms of Early Historic South India." *Asian Perspectives* 42 (2): 207–23.
- Aiyer, K. V. S. 1917. *Historical Sketches of Ancient Deccan*. Madras: Modern Print Works.
- Alalasuandaram, R. 1996. *Tamil Social Life, C. 250 to 700 AD*. Madras: New Century Book House.
- Badhreenath, S. 2011. *Excavations at Siruthavur*. New Delhi: Archaeological Survey of India.
- Banerjee, N. R. 1956. "The megalithic problem of Chingleput in the light of recent exploration." *Ancient India* 12: 21–34.
- Banerjee, N. R. 1965. *The Iron Age in India*. New Delhi: Munshiram Manoharlal.
- Banerjee, N. R. 1966. "Amrithamangalam 1955: A megalithic urn-burial site in District Chingleput, Tamilnadu." *Ancient India* 22: 3–36.
- Banerjee, N. R., and K. V. Soundararajan. 1959. "Sanur 1950 and 1952: A Megalithic site in Dist. Chengalpattu." *Ancient India* 15: 4–42.
- Begley, V. 1986. "From Iron Age to Early Historical in South Indian Archaeology." In *Studies in the Archaeology of India and Pakistan*, edited by J. Jacobson, 207–317. New Delhi: Oxford and IBH.
- Begley, V. 1996. *The Ancient Port of Arikamedu: New Excavations and Researches, 1989–1992*. Pondicherry: Centre d'histoire et d'archéologie.
- Branfill, B. R. 1885. "Notes on the Physiography of Southern India." *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 7 (11): 719–35.
- Brubaker, R. 2001. "Aspects of Mortuary Variability in the South Indian Iron Age." *Bulletin of the Deccan College Post-Graduate and Research Institute* 60–61: 253–302.
- Champakalakshmi, R. 1975. "Archaeology and Tamil Literary Tradition." *Puratattva* 8: 116–17.
- Champakalakshmi, R. 1999. *Trade, Ideology and Urbanization: South India 300 BC to AD 1300*. New Delhi: OUP.
- Chattopadhyaya, B. 2008. "Early Historical in Indian Archaeology: Some Definitional Problems." In *Archaeology of Early Historic South Asia*, edited by G. Sengupta and S. Chakraborty, 1–14. New Delhi: Pragati Publications.

- Deshpande, M. N., ed. 1974. *Indian Archaeology 1970–71: A Review*. New Delhi: Archaeological Survey of India.
- Deshpande, M. N., ed. 1975. *Indian Archaeology 1971–72: A Review*. New Delhi: Archaeological Survey of India.
- Deshpande, M. N., ed. 1978. *Indian Archaeology 1972–73: A Review*. New Delhi: Archaeological Survey of India.
- Devadevan, M. V. 2006. “Lying on the Edge of the Burning Ground: Rethinking Tinais.” *Journal of the Economic and Social History of the Orient* 49 (2): 199–218.
- Dubianskiĭ, A. M. 2000. *Ritual and Mythological Sources of the Early Tamil Poetry*. Vol. 8. Groningen: E. Forsten.
- Francis, W. 1988. *Gazetteer of South India*. Vol. 1. New Delhi: Mittal.
- Ghosh, A., ed. 1957. *Indian Archaeology 1956–57: A Review*. New Delhi: Archaeological Survey of India.
- Ghosh, A., ed. 1964. *Indian Archaeology 1961–62: A Review*. New Delhi: Archaeological Survey of India.
- Ghosh, A., ed. 1965. *Indian Archaeology 1962–63: A Review*. New Delhi: Archaeological Survey of India.
- Ghosh, A., ed. 1967. *Indian Archaeology 1963–64: A Review*. New Delhi: Archaeological Survey of India.
- Ghosh, A., ed. 1969. *Indian Archaeology 1964–65: A Review*. New Delhi: Archaeological Survey of India.
- Ghosh, A. 1989. *An Encyclopaedia of Indian Archaeology*. New Delhi: Munshiram Manoharlal.
- Ghosh, A., ed. 1993a. *Indian Archaeology 1953–54: A Review*. New Delhi: Archaeological Survey of India (reprint).
- Ghosh, A., ed. 1993b. *Indian Archaeology 1954–55: A Review*. New Delhi: Archaeological Survey of India (reprint).
- Ghosh, A., ed. 1993c. *Indian Archaeology 1955–56: A Review*. New Delhi: Archaeological Survey of India (reprint).
- Ghosh, A., ed. 1993d. *Indian Archaeology 1957–58: A Review*. New Delhi: Archaeological Survey of India (reprint).
- Gros, F. 2010. “The Concept of Tinai: Tolkappiyam and Cankam Poems.” In *The Earliest Complete Grammar: Studies in Tolkappiyam*, edited by P. Marudanayagam, K. U. Sivamani, and M. Dominic, 299–309. Chennai: Sekar Pathippagam.
- Gurukkal, R. 2012. *Social Formations of Early South India*. New Delhi: OUP India.
- Gururaja Rao, B. K. 1972. *Megalithic Culture in South India*. Mysore: University of Mysore Prasaranga.
- Haricharan, S., H. Achyuthan, and N. Suresh. 2013. “Situating Megalithic Burials in the Iron Age-Early Historic Landscape of Southern India.” *Antiquity* 87 (336): 488–502.
- Hart, G. L. 2004. “Syntax and Perspective in Tamil and Sanskrit Classical Poetry.” In *South-Indian Horizons: Felicitation Volume for Francois Gros on the Occasion of His 70th Birthday*, edited by E. Wilden, 219. Pondicherry: Institut Français De Pondichery and École Française D’Extreme-Orient.
- Heitzman, J. 2001. *Gifts of Power: Lordship in an Early Indian State*. New Delhi: OUP.
- Ingold, T. 1993. “The Temporality of the Landscape.” *World Archaeology* 25 (2): 152–74.
- Iyengar, T. R. S. 1982. *Dravidian India*. New Delhi: Asian Educational Services.
- Iyer, E. S. V. 1948. *Tolkappiam – Porulatikaram Vol. I – Part I*. Chidambaram: The Annamalai University Press.
- Joshi, J., ed. 1990. *Indian Archaeology 1985–86: A Review*. New Delhi: Archaeological Survey of India.
- Joshi, M. C., ed. 1993a. *Indian Archaeology 1988–89: A Review*. New Delhi: Archaeological Survey of India.
- Joshi, M. C., ed. 1993b. *Indian Archaeology 1987–88: A Review*. New Delhi: Archaeological Survey of India.



- Lal, B. B., ed. 1968. *Indian Archaeology 1967–68: A Review*. New Delhi: Archaeological Survey of India.
- Lal, B. B., ed. 1971. *Indian Archaeology 1968–69: A Review*. New Delhi: Archaeological Survey of India.
- Lal, B. B., ed. 1973. *Indian Archaeology 1969–70: A Review*. New Delhi: Archaeological Survey of India.
- Leshnik, L. S. 1974. *South Indian Megalithic Burials: The Pandukal Complex*. Wiesbaden: F. Steiner.
- Mahapatra, S. K., ed. 1994. *Indian Archaeology 1989–90: A Review*. New Delhi: Archaeological Survey of India.
- Mahapatra, S. K., ed. 1995. *Indian Archaeology 1990–91: A Review*. New Delhi: Archaeological Survey of India.
- Mencher, J. P. 1994. “Ecology and Social Structure: A Comparative Analysis.” In *Social Ecology*, edited by R. Guha, 42–81. New Delhi: OUP.
- Menon, J. 2008. “Archaeology of Early Historic South Asia: A Review.” In *Archaeology of Early Historic South Asia*, edited by G. Sengupta and S. Chakraborty, 15–37. New Delhi: Pragathi Publications.
- Mitra, D., ed. 1983a. *Indian Archaeology 1979–80: A Review*. New Delhi: Archaeological Survey of India.
- Mitra, D., ed. 1983b. *Indian Archaeology 1980–81: A Review*. New Delhi: Archaeological Survey of India.
- Mitra, D., ed. 1984. *Indian Archaeology 1981–82: A Review*. New Delhi: Archaeological Survey of India.
- Mohanty, R. K., and V. Selvakumar. 2002. “The Archaeology of the Megaliths in India: 1947–1997.” In *Indian Archaeology in Retrospect, Volume 1: Prehistory, Archaeology of South Asia*, edited by S. Settar and R. Korisettar, 313–481. New Delhi: Manohar.
- Narayanan, M. G. S. 1988. “The Role of Peasants in the Early History of Tamilakam in South India.” *Social Scientist* 16 (9): 17–34.
- Pillai, K. N. S. 1984. *The Chronology of the Early Tamils: Based on the Synchronistic Tables of Their Kings, Chieftains, and Poets Appearing in the Sangam Literature*. Delhi: Asian Educational Services.
- Possehl, G. L., ed. 1989. *Radiocarbon Dates for South Asian Archaeology*. Philadelphia: University of Pennsylvania.
- Rajan, K. 1997. *Archaeological Gazetteer of Tamil Nadu*. Thanjavur: Manoo Pathippakam.
- Rajan, K. 1999. “Archaeology of Tamilnadu-Early Historical Period.” In *Tamilnadu: Archaeological Perspectives*, edited by Damodaran et al., 143. Chennai: Department of Archaeology, Government of Tamil Nadu.
- Rajan, K. 2010. “Mapping Archaeological Sites of Tamil Nadu” In *Space, Time, Place: Third International Conference on Remote Sensing in Archaeology, 17th–21st August 2009*, edited by S. Campana, M. Forte, and C. Liuzza, 393–8. British Archaeological Reports, vol. 2118. Oxford: Archeopress.
- Rajan, K., V. P. Yatheesh Kumar, and S. Selvakumar. 2009. *Catalogue of Archaeological Sites in Tamil Nadu, vol. I and II*. Thanjavur: Heritage India Trust.
- Rajayyan, K. 2005. *Tamil Nadu: A Real History*. Madras: Ratna Publications.
- Rajeev, C. B., ed. 2006. *Indian Archaeology 2000–2001: A Review*. New Delhi: Archaeological Survey of India.
- Rajesh, V. 2014. *Manuscripts, Memory and History: Classical Tamil Literature in Colonial India*. New Delhi: Cambridge University Press India.
- Richards, F. J. 1924. “Note on Some Iron Age Graves at Odugattur, North Arcot District, South India.” *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 54: 157–65.
- Sastri, K. A. N. 1966. *A History of South India from Prehistoric Times to the Fall of Vijayanagar: From Prehistoric Times to the Fall of Vijayanagar*. New Delhi: Oxford University Press.

- Selby, M. A. 2008. "Dialogues of Space, Desire and Gender in Tamil Cankam Poetry." In *Tamil Geographies: Cultural Constructions of Space and Place in South India*, edited by M. A. Selby and I. V. Peterson, 17–42. New York: SUNY Press.
- Selvakumar, V., and S. Darsana. 2008. "Genesis and Development of Urban Processes in the Ancient/Early Historic Tamil Country." In *Archaeology Of Early Historic South Asia*, edited by G. Sengupta and S. Chakraborty, 337–63. New Delhi: Pragathi Publications.
- Sivathamby, K. 1974. "Early South Indian Society and Economy: The Tinai Concept." *Social Scientist* 3 (5): 20–37.
- Sridhar, T. S. 2005. *Excavations of Archaeological Sites in Tamil Nadu – Modur 2004–2005*. Chennai: Department of Archaeology, Government of Tamilnadu.
- Srinivasan, K. R. 1946. "The Megalithic Burials and Urn-fields of South India in the Light of Tamil Literature and Tradition." *Ancient India* 2: 9–16.
- Stein, B. 1977. "Circulation and the Historical Geography of Tamil Country." *The Journal of Asian Studies* 37 (1): 7–26.
- Subbarayalu, Y. 2005. "Some Problems in the Historical Geography of the Tondai-mandalam." Paper presented at Indian History Congress, Santiniketan, December.
- Sukumar, R., H. S. Suresh, and R. Ramesh. 1995. "Climate Change and its Impact on Tropical Montane Ecosystems in Southern India." *Journal of Biogeography* 22 (2/3): 533–6.
- Thapar, B. K., ed. 1979a. *Indian Archaeology 1974–175: A Review*. New Delhi: Archaeological Survey of India.
- Thapar, B. K., ed. 1979b. *Indian Archaeology 1975–76: A Review*. New Delhi: Archaeological Survey of India.
- Tieken, H. 2001. *Kāvya in South India: Old Tamil Cankam Poetry*. Groningen: Egbert Forsden.
- Tripathi, R. C., ed. 1987. *Indian Archaeology 1984–85: A Review*. New Delhi: Archaeological Survey of India.
- Wheeler, R. E. M. 1946. "Arikamedu: An Indo-Roman Trading Station on the East Coast of India" *Ancient India* 2: 17–124.
- Whittaker, J. C., D. Caulkins, and K. A. Kamp. 1998. "Evaluating Consistency in Typology and Classification." *Journal of Archaeological Method and Theory* 5 (2): 129–64.
- Zvelebil, K. 1992. *Companion Studies to the History of Tamil Literature*. Vol. 5. Leiden: Brill.

**Dr Smriti Haricharan**'s main research interest is in the area of megalithic Iron Age burials of Tamilnadu, with specific interest in using geoarchaeological techniques. Her doctoral dissertation work focused on understanding the spatial and temporal patterns of megalithic burials, specifically at Siruthavoor, Tamilnadu. She has been working as a Post Doctoral Associate at NIAS since May 2010. She is currently working on the Iron Age-Early Historic landscape in Telangana, India. Her other interests include public perceptions and participation in Archaeology.

**Naresh Keerthi** is a doctoral student at the National Institute of Advanced Studies. He used to be a molecular biologist before he moved into the area of cognitive linguistics. Naresh has an abiding interest in Indian Bhasha literatures, their relationships with each other, as well as with

the classical literary traditions of Sanskrit and Tamil. His other interests include South Indian classical music and ethnobotany.

## Appendix

<i>TINAI TYPE</i>	<i>LOCATION OF SITES</i>	<i>REFERENCES</i>
<b>BURIAL SITES</b>		
<b>MARUTAM</b>		
1	Sanur, Chingleput District	Banerjee 1956; Mahapatra 1995; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Amrithamangalam, Thiruvallur District	Banerjee 1966; Leshnik 1974; Ghosh 1993b; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Perambair, Kanchipuram District	Joshi 1993a; Gururaja Rao 1972; Ghosh 1989; Rajan, Yatheesh Kumar, and Selvakumar 2009
4	Vadamangalam, Kanchipuram District	Mitra 1983a
5	Devanur, Villupuram District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
6	Kollur, Villupuram District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
7	Tiruvamattur, Villupuram District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
8	Tiruvakkarai, South Arcot District	Tripathi 1987; Ghosh 1989; Joshi 1990; Rajan, Yatheesh Kumar, and Selvakumar 2009
<b>KURINJI</b>		
1	Paiyampalli, North Arcot District	Ghosh 1967; Ghosh 1969; Lal 1968; Lal 1971; Lal 1973; Ghosh 1989; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Kunnatur, Chingleput District	Ghosh 1957; Ghosh 1993c, 1993d
<b>MULLAI</b>		
1	Modur, Palakkodu Taluk, Dharmapuri District	Rajan 1997; Sridhar 2005; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Odugattur, Vellore Taluk, Vellore District	Richards 1924; Mahapatra 1994; Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
<b>MARUTAM-NEYTHAL</b>		
1	Siruthavoor, Kanchipuram District	Badhreenath 2011; Haricharan, Achyuthan, and Suresh 2013
2	Sothukkeni, near Pondicherry	Leshnik 1974; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Muttrapalio, Pondicherry	Leshnik 1974; Rajan, Yatheesh Kumar, and Selvakumar 2009
4	Gaurimedu, Pondicherry	Rajan, Yatheesh Kumar, and Selvakumar 2009

(continued)

*(Continued).*

<i>TINAI TYPE</i>	<i>LOCATION OF SITES</i>	<i>REFERENCES</i>
KURINJI-MULLAI		
1	Appukallu, Vellore District	Mitra 1983a; Tripathi 1987; Joshi 1993a; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Mallapadi, Krishnagiri District	Rajan 1997; Sridhar 2005; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Mayiladumparai, Dharmapuri District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
<b>HABITATION SITES</b>		
MARUTAM		
1	Tiruvakkarai, South Arcot District	Tripathi 1987; Ghosh 1989; Joshi 1990; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Tiruvamattur, Villupuram District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Kanchipuram, Kanchipuram District	Ghosh 1965; Lal 1973; Deshpande 1974; Deshpande 1975; Deshpande 1978, 30; Thapar 1979a, 1979b; Ghosh 1993a; Rajan, Yatheesh Kumar, and Selvakumar 2009
4	Kudikkadu, South Arcot District	Joshi 1993a, 1993b
5	Palur, Kanchipuram District	Thapar 1979a, 1979b; Rajeev 2006; Rajan, Yatheesh Kumar, and Selvakumar 2009
6	Sengamedu, Pondicherry	Ghosh 1964; Rajan, Yatheesh Kumar, and Selvakumar 2009
KURINJI		
1	Andipatti, Tiruvannamalai District	Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Malayampattu, Vellore District	Deshpande 1974; Ghosh 1989; Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Kunnatur Chengleput District	Ghosh 1957; Leshnik 1974; Ghosh 1993b, 1993c, 1993d; Rajan, Yatheesh Kumar, and Selvakumar 2009
4	Paiyampalli, N.Arcot District	Ghosh 1967; Lal 1968, 1971, 1973; Ghosh 1989; Rajan, Yatheesh Kumar, and Selvakumar 2009
MULLAI		
1	Atiyamankottai, Dharmapuri District	Mitra 1983b; Mitra 1984; Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
2	Modur, Dharmapuri District	Rajan 1997; Sridhar 2005; Rajan, Yatheesh Kumar, and Selvakumar 2009

*(continued)*

*(Continued).*

<i>TINAI TYPE</i>	<i>LOCATION OF SITES</i>	<i>REFERENCES</i>
NEYTAL		
1	Vasavasamudram, Chingleput District	Lal 1973; Deshpande 1974
2	Arikamedu, Pondicherry union territory	Wheeler 1946; Leshnik 1974; Begley 1996; Rajan, Yatheesh Kumar, and Selvakumar 2009
KURINJI-MULLAI		
1	Appukallu, Vellore District	Mitra 1983a; Tripathi 1987; Joshi 1993a; Rajan 2009
2	Mallapadi, Krishnagiri District	Rajan 1997; Sridhar 2005; Rajan, Yatheesh Kumar, and Selvakumar 2009
3	Mayiladumparai, Dharmapuri District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009
4	Cengam, Tiruvannamalai District	Rajan 1997; Rajan, Yatheesh Kumar, and Selvakumar 2009