Complexity on the Periphery: A study of regional organization at Banavasi, c. 1st – 18th century A.D.

by

Uthara Suvrathan

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Anthropology)
in the University of Michigan
2013

Doctoral Committee:

Professor Carla Sinopoli, Chair
Emeritus Professor Thomas R. Trautmann
Professor Henry T. Wright
Emeritus Professor Norman Yoffee

Dedication

For Amma and Acha

Shetty pushed me through a couple of intense weeks of survey. Saumya Varma and Nivedita Nath bravely faced snakes. I also thank Hanumanthappa, Shilpa and Mahati Gollamudi. U. Srinivas got me set up and provided our trusty Ambassador. Kamalakar uncomplainingly drove us, over roads good and bad.

I have fond memories of many individuals in Banavasi and Sirsi who made the months of my stay there pleasant and welcomed me into their homes and fields. Dr. Rauf in Banavasi allowed me access over his lands and never failed to feed us. Numerous nameless individuals shared a variety of fruits and vegetables from their fields when they saw us trudging through. The staff at the Hotel Panchavati made my stay very comfortable and were unfazed by trunks full of ceramics.

Several friends have provided a constant source of support and companionship. I would especially like to thank Jyoti for half a lifetime of friendship; Dalal, for concerts and dancing; Howard and Hemanth for fun (and cigars); Sudipa, who can always make me laugh; Anshu for companionship and swimming in distant LA and Jaspreet for good times in the co-op. Hemanth and Liz shared the excitement and stress of fieldwork and dissertating. Marcy provided a calm home environment (with pet-therapy); and Aude and Rachel made the Asian Range a fun place during my last semester writing in Ann Arbor.

My family (or rather, both my families) have always been supportive and encouraging. My mother was with me on my first visit to Banavasi and remained unperturbed when my ceramics took over the house. My father has always been interested in my work and someday, I will follow his advice and write an experiential ethnography of Banavasi! Aparna sets a high standard and remains my favorite sister. Valiamma's home always provided a safe haven for recovery from the semester.

Finally, I thank Puru who saw me through many moves, much travel, three seasons of fieldwork and cheerfully put up with a peripatetic partner.

Table of Contents

List of Figures

List of Tables

List of Appendices

List of Abbreviations

A.R.I.E.	Annual Report on Indian Epigraphy
ASI	Archaeological Survey of India
E.C.	Epigraphia Carnatica
E.I.	Epigraphia India
I.A.R.	Indian Archaeology: A Review
M.A.R.	Mysore Archaeological Report
S.I.I.	South Indian Inscriptions

Chapter 1
Preliminaries

1.1 Complexity on the periphery: a case study of Banavasi

My dissertation studies the organization of small but long-lived complex polities located on the peripheries of larger states and empires in early peninsular India. Through an examination of local socio-political, religious and economic processes within the context of wider inter-regional interaction, my approach questions created dichotomies between core and peripheral areas by highlighting the complex nature of interregional interaction and the development of socio-political complexity in these so-called peripheral areas.

Traditionally, in South Asian historiography, the core areas of political and economic complexity are considered to be the densely populated river valleys of northern and southern India, especially the valleys of the Indus and the Ganges in the north and the rice growing area watered by the Kaveri in Tamil Nadu. Forms of complex socio-political and economic organization outside these areas have often been considered peripheral. The development of regional complexity in peripheral areas in peninsular India remains poorly understood due to scholarly preoccupation with studying the establishment or disintegration of large secondary states and empires in what have been considered 'core areas', and the causal role played by these states and empires in developments outside their cores. In peninsular India, these much studied states and empires include the Satavahanas (1st c. BC – 1st c. AD) with their core area in the western Deccan, the Chalukyas of Badami (550-750 AD) in the Malaprabha river valley, the Rashtrakutas (750-950 AD) in the Godavari-Bhima river valleys and the Chalukyas of Kalyani (10th-12th centuries) in the Tungabhadra river valley (Figure 1-1, Figure 2-2).

Recent anthropological studies of the organization of states and empires, however, have increasingly shifted the focus from developments in core areas of state and imperial formation to local conditions in peripheral regions outside or on the edges of these larger systems (Alcock, et al. 2001; Elson and Covey 2006b; Jeske 1996; Morrison 2001; Sinopoli 2001). Reconsiderations of several imperial systems in South Asia have even suggested that the nature and extent of authority and centralization in these polities was less extensive (and perhaps more complex) than

1

previously argued (Seneviratne 1978; Seneviratne 1981; Sinopoli 2001; Sugandhi 2003; Sugandhi 2008).

My project is, at its core, a case study through which I discuss anthropological questions about the nature of the organization of social, political and religious complexity outside core areas of secondary state and imperial formation in peninsular India. During my discussion, I integrate archaeological and textual data in order to trace the complex pattern of interaction with external core areas along with regional and local socio-political and religious developments. My goal is to evaluate and develop preliminary models of peripheral socio-economic and political development.

The specific focus of my work is the settlement of Banavasi (75° 5` E, 14° 33` N), the fortified capital of a regional kingdom in peninsular India which is located in modern state of Karnataka (Figure 1-1). The site has a complex history that dates to at least the beginning of the first millennium AD and continues to be occupied today. By the beginning of the first millennium AD, large parts of the areas south of the Gangetic Plain, commonly known as the Deccan, were being organized into complex political systems, including large states such as that of the Satavahanas. During this early period, there was extensive settlement and a small fort at Banavasi, which might have been incorporated in the Satavahana Empire, and was the seat of a local elite ruling family.

Subsequently, at the apex of its importance, from the fourth to the seventh centuries AD, Banavasi was a center of the regional kingdom of the Kadambas. Before and after this period, Banavasi was the locus of numerous intermediate elite groups who maintained complex relationships of allegiance or opposition to several successive states and empires that controlled large parts of southern India up to the 18th century. During this long period, Banavasi was occasionally appropriated as a regional administrative center by various dynasties, but more often remained on the periphery of developments elsewhere in the peninsula. The site also emerged as a local sacred and pilgrimage site before gradually declining in importance to its current classification as a 'village'.

The first goal of my research at Banavasi was to investigate how the settlement functioned in its immediate hinterland. A central component of my research therefore was a systematic full-coverage archaeological survey conducted over the course of three field seasons

from 2009 to 2012. Along with a team of four to five members, I systematically surveyed a twenty-five square kilometer block centered on the early fort at Banavasi. I also conducted a more targeted survey in a similar sized block around the adjacent, roughly contemporaneous lower order center of Gudnapura, located roughly two kilometers northwest of Banavasi, in order to develop comparative data and to begin to understand the site-hierarchy of the region.

Most of the previous archaeological work at the sites I am studying has either focused on the monumental remains or on limited excavations aimed at understanding the site chronology. A systematic survey allowed me to move beyond this site-specific approach in order to consider larger questions about the function of the sites in their hinterlands and identify patterns of change over time in socio-political organization at Banavasi. I argue that the constructed landscape is closely linked to specific historical and spatial contexts in a complex and dialectic relationship. A study of the present day archaeological landscape therefore allowed me to retrieve some of these specific socio-political and religious configurations over time. I was especially concerned with patterns of change over time in political and religious organization at Banavasi.

My second goal was to identify, if possible, the nature of local elite authority in the area, including their interaction with imperial systems and/or other elite groups. I expected to be able to analyze my survey data to trace some of the economic, social, political and religious mechanisms through which regional and imperial elite groups established and maintained their authority in the Banavasi area. Moreover, an important component of my research is the complementary consideration of archaeological and epigraphical data in the study of regional organization. Historically, Banavasi is known as the capital of an early regional dynasty, that of the Kadambas. In this dissertation, I move away from a focus on dynastic sequences by analyzing a corpus of inscriptions issued by this early elite family in order to trace the mechanisms by which they established and maintained their kingdom from the fourth to the seventh centuries AD (Chapter 7).

However, these and other local and regional processes need to be situated within larger macro-scale processes and interactions, specifically, the establishment of authority by larger, expanding states and empires. My third goal therefore was to situate the patterns identified in the archaeological landscape at Banavasi within the context of larger peninsular wide developments, specifically the formation of larger imperial systems elsewhere in the peninsula. I was interested

not just in the specificities of the regional survey data collected over three seasons, but also in placing the patterns of regional organization identified through this data within the broader known historical and archaeological context of peninsular India. For instance, I was interested in the influence of imperial architectural forms and religious traditions in the Banavasi area.

  This dissertation combines an archaeological investigation of a 'peripheral' area, along with a critical examination of epigraphical sources in order to evaluate anthropological models of the nature of the organization of complexity outside core areas of secondary state and imperial formation. Ultimately, I seek to highlight both the dynamism of regional socio-political and economic processes, including the agency of local elite and non-elite groups in the development of regional complexity, as well as the nature of interaction with external 'core' areas in a small geographic region over a long span of time.
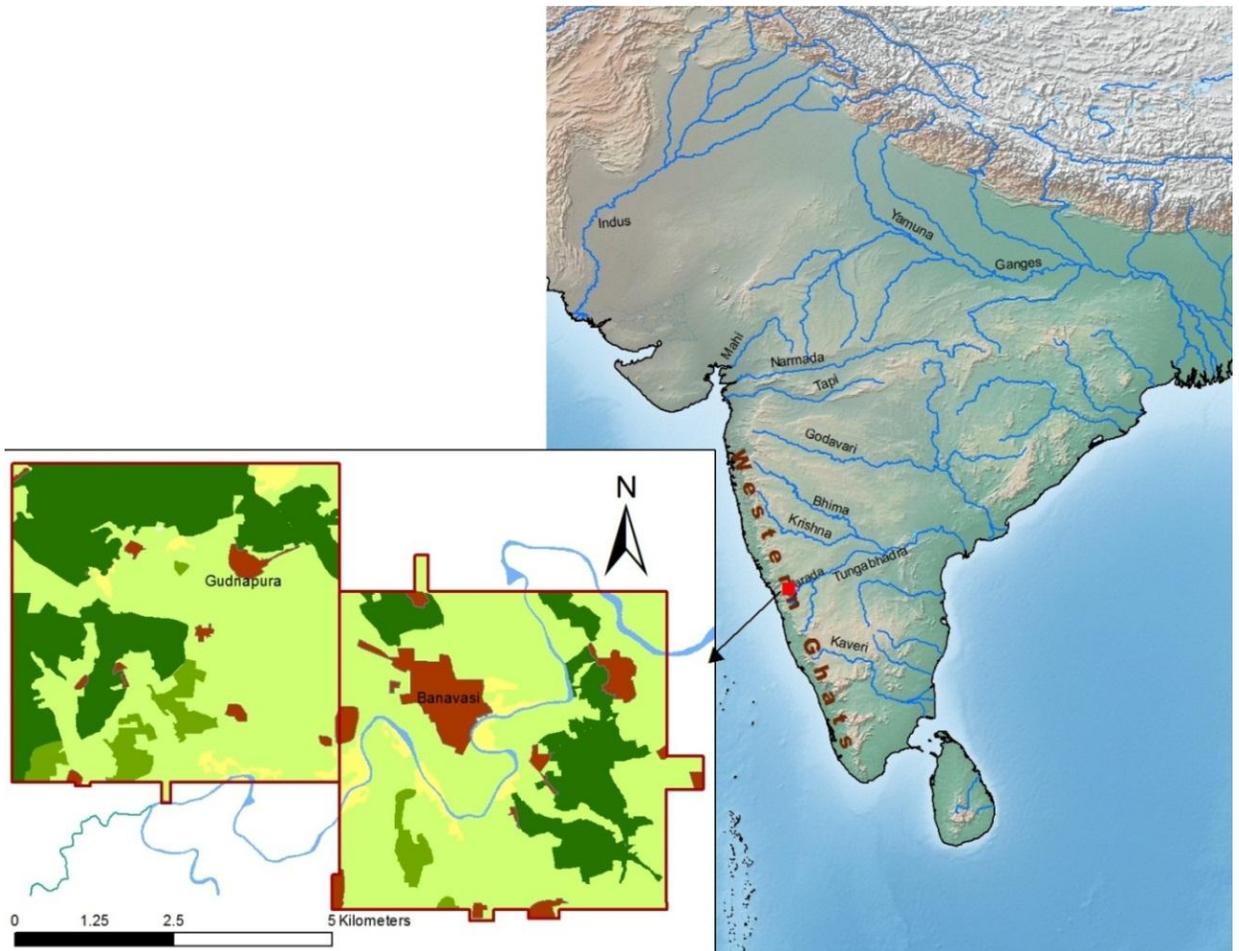
Figure 1-1: Location of Banavasi and Gudnapura

1.2 Outline of chapters

I set the stage for my discussion with an overview of the historical framework in Chapter 2, focusing on peninsular south India in general and Karnataka in particular from the early centuries AD to the 18th century. I start by situating the study of this region within larger historiographical traditions in South Asian history and archaeology. The traditional historical approach to peninsular India has often placed the region on the periphery of socio-political and economic developments in northern India, explaining trajectories towards complexity as a result of diffusion from the north. A long tradition of the study of inscriptions in South Asia has also contributed to a distinct emphasis on the reconstruction of political history and dynastic chronologies. Archaeology provides a corrective to this traditional approach. At the same time, archaeology in South Asia has deep roots in a culture-historical approach and much of the temporal and typological categories prevalent today derive from this early tradition.

The discussion in this chapter introduces some specific regional problems of periodization, typology and the development of sociopolitical complexity that I will repeatedly refer to in subsequent chapters. In the same vein, I also briefly survey the available sources of evidence for the study of Banavasi, archaeological, inscriptional and historical. I conclude this chapter with an overview of what we know of the history of Banavasi.

In chapter 3, I continue my theoretical discussion by moving away from the regional to the general. In this chapter, I provide an overview of the relevant anthropological literature that informs my work. The relationship between the development of early states and empires and socio-political developments along the peripheries of early states has been the focus of much anthropological thinking. I draw on extensive anthropological theory seeking to understand the interaction between complex polities, specifically, core-periphery models, as well as on recent work on the organization of complex polities at the edges of larger states and empires (Chase-Dunn and Hall 1991a; Chase-Dunn and Hall 1991b; Cusick 1998; Jennings 2006; Morrison 2001; Morrison and Sinopoli 1992; Ohnersorgen 2006; Parker 2002a; Schortman and Urban 1992; Schortman, et al. 1986; Smith and Montiel 2001).

I also draw upon more recent work on intermediate elite groups and regional trajectories towards complexity to inform my research (Conlee 2003; Elson 2006). In complex societies, regional elites establish and maintain their political authority through multiple economic, social,

political and religious strategies and practices. However, these and other internal processes need to be situated within larger macro-scale processes and interactions, specifically, the establishment of authority by larger, expanding states and empires.

I am also influenced by archaeological studies of the landscape which have proved to be a useful method both to structure archaeological investigation (in my case, systematic regional survey) and to analyze the resultant data (Anschuetz, et al. 2001; Attema, et al. 1998; Attema 2002; Attema, et al. 2002; Bevan and Conolly 2002-2004; Kantner 2008; Oliver 2011; Schreiber 2005; Sinopoli 2006). My research is an extension of the increasing emphasis on the value of regional studies and surveys in the understanding of long-standing questions regarding the political formations and regional and inter-regional dynamics by highlighting distinctive processes of sub-regional development (Abraham 2002; Abraham 2003; Abraham 2008; Abraham 2009; Begley 1981; Begley 1983; Begley 1988; Sinopoli and Morrison 1995; Sinopoli and Morrison 2007; Sinopoli and Morrison 2008). As such, it contributes to eventual interregional comparisons of archaeological and historical patterning in peninsular India through the analysis of variables that reflect long term regional trajectories towards socio-political complexity in contexts of varying levels of interaction with core areas of state formation/ imperial development.

Throughout this chapter, I show how archaeological investigation grapples with the study of varied spatial and temporal scales. I argue that the consideration of both archaeological and inscriptional data allows me to engage with both the local and regional scales of analysis in my study of Banavasi.

Having laid the background in these two introductory chapters I move from the general and theoretical to the specific and methodological. In Chapter 4, I trace the geographical context of Banavasi and Gudnapura and outline the methodology of my systematic survey at the sites. I also briefly highlight the results of my survey, including the site categories identified, and discuss in some detail the temporal classification that I have developed.

Chapters 5 and 6 form the core of this dissertation and contain a detailed discussion of my survey data. In Chapter 5, I trace the complex religious landscape of the survey area. This analysis serves as a proxy for the study of patterns of patronage by imperial and intermediate elite groups. By extension, these patterns also allow me to comment on the nature of political

authority and organization in the region. Moreover, a consideration of architectural traditions and religious practice in the area allow for a discussion both of local traditions and of a variety of linkages with external core areas of religious and architectural innovation.

Chapter 6 carries my discussion of the survey data further and focuses on the habitational landscape, both elite and non-elite. I start by discussing the civic ceremonial construction identified in the area. At one end of the monumental scale are fortifications, most notably that enclosing Banavasi. My survey at the site has resulted in the first accurate map of this structure. I discuss its construction and possible date(s) in some detail and compare it with other defensive structures identified on survey. In doing so, I am able to comment on the development of political authority and conflict. At the other end of the scale are small constructions, such as laterite block platforms which often delineate routes of movement.

Among the most ubiquitous constructed features of the landscape in Karnataka are the numerous reservoirs and other water management features. While difficult to date since they are often still in use, a brief review of the features documented in my survey allows me to comment on the organization of agriculture and the socio-political implications of water management in the area.

Finally, I briefly discuss settlement patterns. As I discuss, the landscape has been greatly disturbed due to intensive agricultural activities, regular flooding and dense population densities and many of the ancient and medieval habitations are located underneath modern settlements. However, along with the dateable monumental architecture discussed in this and the previous chapter, it is possible to broadly trace historical settlement patterns in the survey area.

Chapter 7 widens the gaze and makes an argument for a multi-disciplinary approach, drawing on some of the issues raised in earlier chapters. First, I engage with the issue of multi-disciplinarity by addressing the broader historiographical debate concerning the relationship between history and archaeology in the study of the South Asian past. I seek to blur the line between text and history and material culture and archaeology by appropriating inscriptional data as an assemblage worthy of archaeological analysis. In this chapter, I consider a well-defined corpus of early Kadamba inscriptions found throughout peninsular India but largely concentrated in Karnataka. I also briefly survey the inscriptions found on survey around Banavasi.

Second, I make an argument for studying the archaeological landscape at different scales. In this case, my analysis of the early Kadamba inscriptions raises some questions about the extent of their authority and level of political consolidation that is not visible at the sub-regional scale of my survey around Banavasi. I briefly refer to later imperial inscriptions published from Karnataka in order to emphasize this point.

Chapter 8 draws together the themes discussed in the preceding chapters in order to paint a picture of the trajectories of socio-political and religious complexity at Banavasi. I conclude by arguing that regional nodes such as Banavasi were important arenas of the creation and display of political alliances both between elite groups at different levels in the political hierarchy and between political groups and a Brahmanical religious complex.

Chapter 2
History and historiography: introducing the study area

2.1 An introduction to the Deccan

In this chapter, I provide a broad historical framework for the Indian peninsula in general, and for north and central Karnataka in particular, while highlighting the major historiographical issues in the study of the region.[1] I also briefly discuss the important historical and archaeological sources for the study of the Banavasi region and conclude with an overview of history of the Kadamba dynasty.

The Deccan, where my research focuses, has most commonly been defined as the land south of the Vindhya Mountains down to the confluence of the Krishna and Tungabhadra Rivers (Parasher-Sen 1993b: ix-xi; Sircar 1971; Yule and Burnell 1903: 301-302). The term 'Deccan' is an Anglicized version of *dakshin* (lit. 'south' in Sanskrit)and traditionally is not taken to include the extreme south of Indian peninsula (Bhandarkar 1895; Parasher-Sen 1993b; Raychaudhuri 1953). The core of the Deccan consists of the modern states of Maharashtra, Karnataka and Andhra Pradesh. The region has a distinct physical geography. To its north lie the wide alluvial plains of the Ganges and Indus Rivers and to the south are the narrow coastal plains and river valleys of the modern states of Kerala and Tamil Nadu. Geologically, the Deccan is composed of ancient metamorphic rock forming hills, with plateau areas between in the north and south. In the middle lies volcanic bedrock (the Deccan trap) which has formed a plateau eroded by several rivers (Fuller 2008: 694-695).

2.2 The Deccan in History and Archaeology

2.2.1 Polities on the periphery: language and texts

In south Asian historiography, the Deccan has often been seen as peripheral to economic and political developments in the 'core' areas of primary state formation in the northern Gangetic Plains and further south in the Kaveri Delta.

---

[1] A point of clarification might be in order here. The site I am studying is located in the modern Indian state of Karnataka, erstwhile Mysore. However, the polity centered at Banavasi participated in economic and political processes that extended beyond the boundaries of this state. Therefore, my starting point is a consideration of the history and historiography of peninsular India and its place in the Indian subcontinent.

Early investigations into the origins of political and economic complexity in the region emphasized the role of external actors and forces. Thus, historians postulated that civilization in the Deccan only emerged as a result of 'Aryanization' or 'Sanskritization' (Bhandarkar 1895: 3; Sastri 1955; Yazdani 1960), imposed from the north. This theory drew heavily on 18th and 19th century colonial narratives of Indian history. The identification of the common origins of Sanskrit and the European languages by William Jones in the 19th century, combined with contemporary European theories on the correlation between race and language led to a belief in the existence of an Aryan race that migrated from Central Asia to the Indian subcontinent in the second millennium BC, bringing with them both an Indo-European language and the beginnings of "civilization" (Chakrabarti 1982: 328-329; Chakrabarti 2000: 669-670; Trautmann 1997).

Additional support for this theory came from the modern linguistic map of the subcontinent, with its concentration of languages belonging to the Indo-European language family in the north and of Dravidian languages in the peninsula. In this scenario, the speakers of the Dravidian languages were seen as belonging to the race of people displaced by the fair skinned Aryans - the dark skinned *dasyus* mentioned in the Vedic texts (Trautmann 1997: 206). In the Deccan, an Aryan civilizational framework was then taken to be introduced through conquest by a northern political elite. In particular, considerable emphasis has been placed on the role of the Mauryan state[2] apparatus in providing the external stimulus that led to the development of secondary states in the region (Seneviratne 1978).

Drawing on a tradition of Orientalist inquiry that emphasized the importance of textual sources for understanding the culture and history of the Indian subcontinent (Trautmann and Sinopoli 2002), early research on peninsular India focused on an examination of a large corpus of Sanskrit texts,[3] inscriptions and foreign accounts to delineate the historical framework of the region (Bhandarkar 1895; Raychaudhuri 1953; Rice 1909; Sastri 1955; Yazdani 1960). Scattered references to places, people and geographic features in these texts were scrutinized in order to

---

[2] This primary state with its core area in the northern Gangetic plain is dated to the fourth to second centuries BC.
[3] These include the extensive corpus of ritual and philosophical literature contained in the Vedic texts (dated between 1500 BC and 500 BC); the major Sanskrit epics of the *Ramayana* and the *Mahabharata* (dated between 500 BC and 500 AD) and the texts known as the *Puranas* (composed and compiled over an extensive period of time from the early centuries AD to the 14th c.).

construct the historical boundaries of the Deccan and populate the region with various tribal groups mentioned in the texts (Karmarkar 1938).

The analysis of texts composed primarily in the northern part of the subcontinent contributed to a strong historiographical tradition that explained political and economic developments in the peninsula in terms of the diffusion of cultural traits and ideas from the north. A second important trend was the emphasis placed on the reconstruction of the political history of the major and minor dynasties of peninsular India using textual sources or inscriptions (Fleet 1882; Gopal 1982). These works tend to emphasize political developments and especially the formation of empires. The establishment of the Satavahana Empire in the first century BC with its core in the western Deccan, for instance, is taken to mark the "emergence of the Deccan as a distinct centre of political power" (Chakrabarti 1999: 275).

2.2.2 Inscriptions and the creation of History

"To arrive at a just conception of the past annals of the countries, therefore, no better or indeed other way existed than to collect copies of all the inscriptions wherever they could be discovered, and to combine their historical contents into a consecutive narrative." (Rice 1909: viii).

Beginning with the writings of James Mill in the mid-nineteenth century, the 'Hindus'' lack of a historical consciousness, as reflected in the absence of written works of history became a common trope (Ojha 2008: 232). This perceived absence was considered to be filled by the tens of thousands of inscriptions found throughout the subcontinent, and particularly in southern India. Despite recent critiques (Thapar 1984; Trautmann 1997), the belief that there is "no Indian history *sans* epigraphy" (Ramesh 1985b: 1) persists in various forms in historical writings on South Asia (see similar statements in Ritti 1985).

During the early nineteenth century, Lord Arthur Wellesley, governor of Mysore and Seringapatnam in the British East India Company, commissioned three surveys to collect topographical, natural and agricultural data about the newly conquered Mysore kingdom of Tipu Sultan (Robb 1998: 186). These surveys -- of Colin Mackenzie, Benjamin Heyne and Francis Buchanan -- covered the region from the Tungabhadra River in the north to the Nilgiri Hills in the south, including large sections of the modern states of Karnataka, Andhra Pradesh and parts of Tamil Nadu (Lewis 2005: 557-558).

For Mackenzie, part of the value of his survey lay in documenting "the Inscriptions, Grants & other Documents" collected to trace the "Progress" of History from at least the eighth century and perhaps even earlier (Robb 1998: 199). The information thus gathered on systems of government and religion, land tenure and social classes prevalent in the south for centuries was seen as being of great utility for the imperial government.

During the course of these surveys, and especially that of Mackenzie, copies of thousands of inscriptions were made (Gopal 1985b: 41). Other collections were made by British administrator-historians, most notably by Francis Buchanan (1807a; the existence of Buchanan's collection is cited in Fleet 1878a: 4), Sir Walter Elliot (Elliot 1837; Elliot 1838) and J. F. Fleet (1878a; 1878b; 1882), epigraphist to the colonial Government of India who collected nearly a thousand inscriptions from north Karnataka (Gopal 1985b: 43-44; Ritti 1985: 60-61). Limited copies of a photographic records of inscriptions by Henry Dixon and C. Hope were also published in this period (Fleet 1878a: 4-5), and were included by Rice and Fleet in their analyses (Fleet 1875; Fleet 1878a; Fleet 1882; Rice 1879; Rice 1897; Rice 1909). From 1872, part of Elliot's collection was illustrated and published in volumes of the newly established *Indian Antiquary* (Fleet 1878a: 5).

The first systematic epigraphic survey, however, was conducted by B. Lewis Rice, the first Director of the Department of Archaeological Researches established by the Government of Mysore in 1884. Under his direction, a Government order instructed all *Amildars* (local administrators) in each district to collect details of inscriptions in their *Taluks* (administrative district) in tabular form (Gopal 1985b: 44-46). The texts, including transliterations and translations of over 3000 inscriptions, were published in 12 volumes in *Epigraphia Carnatica* from 1894 and 1905.

Most of the publications of early inscriptions seem to have been reproductions of ink impressions, inked or un-inked estampages and photographic records (Fleet 1905: 309-310) which were then touched up by hand (Fleet 1905: 308-309).

Glimmerings of a more critical consideration of both the creation of this inscriptional database and of the context of creation of the inscriptions themselves are largely absent from most of the early historical studies that were based on these inscriptions. Inscriptions were understood transparently as "obviously for the guidance of posterity" (Ritti 1985: 58) and their

study was used as a means to an end: the reconstruction of dynastic history. While this fascination with dynastic history is not unimportant and remains a recurrent theme in epigraphic studies, over time, inscriptions have increasingly been individually and collectively mined to address more diverse concerns (Ritti 1985: 63-68). For instance, inscriptions have been analyzed for information on numismatics (Gupta 1985; Murthy 1985; Murthy 1997a); religious activities; economic history; administrative history; art and architecture (Asher and Gai 1985; Bolon 1992; Katti 1985; Ramesh 1985a; Tartakov 1985; Verma 1985); and for their contributions to the study of language and literature. Here I focus my attention on a single issue that remains central to the study of inscriptions as historical sources: the creation and legitimization of dynasties.

Prior efforts at developing dynastic chronologies have been limited by a commitment to simple linear histories. "It was not until I became possessed of a great number of these inscriptions, and endeavoured to arrange them chronologically, that I derived any useful results from them." (Elliot 1838: 194). In the early 19th century, the 'oldest race' in the Deccan was considered to be the Chalukyas (Elliot 1838: 197). Gradually, as more inscriptions were discovered and deciphered, the historical landscape of the peninsula began to be populated by numerous dynasties, large and small.

In one of the surprisingly few critiques of the practice of 'rationalizing' the inscriptions of a number of rulers of unclear date and lineage into 'dynastic superstructures', Henige (1975) uses the examples of several dynasties/lineages including the Alupas of south Kanara, the early Pallavas of Kanchi, Vishnukundins of the eastern Deccan, to show how the inscriptional data often did not justify the organization of rulers into elaborate temporal and genetic relationships. This "will to dynasticize" (Henige 1975: 534), he argues, has led to the elevation of groups of rulers into long-lived dynasties on very insubstantial grounds.

The establishment of the early Kadambas as the first independent kingdom of the Karnataka region owes its origin to this process of 'dynasticization' (Fleet 1882; Gopal and Tharanatha 1996; Moraes 1931; Pai 1933; Pai 1934a; Pai 1934b; Rice 1879). However, as I will show in Chapter 7, inscriptional genealogies are not necessarily king lists (Henige 1975: 548) and a more critical consideration of the inscriptions of the early Kadambas will highlight the complex nature of their authority.

This focus on texts and political processes has structured much of the historical narrative on peninsular India and continues to remain a prominent historiographical theme. As such, archaeological sources were often used in early historical writings to illustrate arguments based on an analysis of texts and inscriptions or in brief sections on the art and architectural styles of specific dynasties (Parasher Sen 2000).

2.2.3 Archaeology and 'culture'

Archaeology in the subcontinent was also greatly influenced by other branches of Orientalist inquiry that heavily emphasized the importance of textual studies (Lahiri 2005-06: 5). Archaeological fieldwork was pioneered by British administrator-scholars, often with the aim of using archaeological material to substantiate the image of ancient India as depicted in textual sources. One of the earliest preoccupations in South Asian archaeology was with the text based understanding of the historical geography of the subcontinent. For instance, under Alexander Cunningham, the Archaeological Survey of India in the second half of the 19th century undertook nearly two decades of exploration to identify historical sites that had been mentioned in ancient texts, particularly the fifth and seventh century AD writings of two Chinese travelers to India (Chakrabarti 1982: 332-333). Moreover, systematic surveys and collections of antiquities were closely linked to the British colonial enterprise and their need to gather information about their subject lands and peoples (Lahiri 2000: 688). One tradition in archaeological studies that continues to be important today, therefore, was the systematization and description of archaeological data. Despite the colonial context of this work, archaeological research during the colonial period contributed greatly to our understanding of the historical geography and archaeological history of the subcontinent.

Regional historical and archaeological studies continued apace after independence (Panja 2002: 5-6). The dominant theoretical approach in South Asian archaeology was culture-historical with an emphasis on stratigraphy, typology, distribution and dating (Lahiri 2005-06: 9). The primary units of analysis were distinct 'cultural' units characterized by a unique combination of material culture traits and considered to represent a specific spatial and temporally bounded ethno-linguistic group (Johansen 2003; Parasher-Sen 2007b: 50). This approach involved the building up of local or regional culture sequences (chronologies) and identifying their spatial extent, as well as their movement through time and space. It relied on the notion of cultures as

recurring series of assemblages of distinctive artifact types (pottery fabrics, stone tool types etc.). Within this theoretical approach, culture change and especially the development of socio-political complexity in peninsular India were primarily attributed to the diffusion of people and their ideas (Johansen 2003: 198).

This historiographical tradition influenced many investigations into the study of South Asian society and culture. "[T]he record [of] *in situ* of material traits" such as settlement patterns, pottery, food, dress, house types etc. were considered crucial to other attempts at classification, including in the census of India (Balasubramanyam 1967: iv).

Another underlying theme is implicit in a considerable amount of archaeological and historical writing on peninsular India: the preoccupation with the reconstruction of political history/ dynasties had translated into an assumption that major political elite groups can be associated with a specific material culture constellation (hence, the Satavahana level).

This latter issue is, at one level, one of terminology but also draws on the early archaeological preoccupation with the reconstruction of culture areas. The presence of a specific constellation of material culture traits or even of a few diagnostic traits has often led to the association of a particular archaeological level with a specific dynasty. For instance, the presence of Northern Black Polished Ware (henceforth NBPW)[4] or punch marked coins led to the classification of a level as 'Mauryan', the presence of a particular brick size to the identification of a 'Satavahana' level, and so on.

This implicit quest for the presence or absence of specific (royal) elite groups who were considered central to the historical development of a region, especially if they were mentioned in textual sources, is problematic to say the least. Significant though they may have been, dynastic changes cannot necessarily be correlated to artifactual markers. Recent work has questioned the widespread assumption that a change in political elites is necessarily reflected in a change in material culture (Varma and Menon 2008).

In my thesis, I am particularly concerned with smaller, intermediate elite groups and the communities in which they lived. Very often, groups such as the Kadambas were prominent in

---

[4] A typical, highly polished, fine ware dated to between the seventh century BC and first century BC in the Gangetic Plains. While this ware is primarily found in the northern part of the subcontinent, it has been reported from peninsular India as well, and is taken to indicate some form of contact with the north.

inscriptional data or texts, but if we follow a traditional culture-historical approach it is not be easy to associate them with a particular constellation of material culture traits. In such a case, are they to be considered archaeologically and/or historically invisible? I argue that such groups may be visible archaeologically when we look critically at multiple categories of evidence, for instance, inscriptions, landscape use, monumental architecture and religious architecture. As I will discuss in greater detail in Chapter 3, anthropological perspectives on center/periphery dynamics and the archaeology of regional landscapes are of great use in understanding the archaeology of Banavasi.

As briefly discussed in the previous section, the relationship between history and archaeology in South Asia is complicated. Nevertheless, the complementarity of archaeological and historical sources is increasingly being recognized (Junker 1998; Kohl 2006). I therefore also argue in Chapter 3 in favor of the value of using multiple lines of evidence, using both archaeological and textual (particularly from inscriptions) data.

In this overview of early research on the Deccan I have sought to highlight prominent historiographical trends that are both useful in understanding the early literature on the region and that continue, to a certain extent, to feature in current discussions. In the next section, I provide a brief overview of the sources available for the study of peninsular India, and Karnataka in particular.[5] Some of these sources will be discussed in greater detail in subsequent chapters.

2.3 Sources for the study of peninsular history

2.3.1 Texts

While India's lack of a written history is a common refrain in several early works on ancient South Asia (Bhandarkar 1895: i), in accordance with the historiographical preoccupation with texts, early studies of peninsular Indian history devoted considerable effort to examining

---

[5] The modern state of Karnataka is a linguistic one formed based on a concentration of Kannada speaking people by the States Reorganization Commission (1953-56). Even though these regions are relatively modern constructs, modern historical and archaeological research in South Asia has tended to focus on the history of a particular state as numerous histories of Karnataka attest to (Kamath 1991; Lahiri 1995; Murthy 1978; Murthy 2000; Murthy and Ramakrishnan 1977; Nagaraju 1990; Saletore 1936; Sastry 1998; Sundara and Bhatsoori 1990; Z. K. M. 1979). Banavasi is located in the state of Karnataka but participated in networks that extended beyond the modern boundaries of this state. The relevant sub-region for understanding the historical processes that Banavasi was implicated in was the north western Deccan, including the modern state of Karnataka as well as parts of erstwhile Mysore and Bombay presidency.

traditional Sanskrit literature for references the history and geography of the Deccan. The ill-defined term *dakshinapatha* ('the southern land') or variations thereof, and descriptions of the location and inhabitants of the southern region were relentlessly pursued through classical Sanskrit and Pali literature (Bhandarkar 1895; Raychaudhuri 1953; Yazdani 1960).

The majority of these texts were composed and later compiled by a limited group of authors located in the northern part of the subcontinent, considerably limiting their utility to understanding the south. However, the texts are interesting for reconstructing the ancient historical geography of the subcontinent and tracing the increasing geographical knowledge of peninsular India, as well as the gradual acceptance of regions considered beyond the pale of Brahmanical culture.[6] The oldest surviving texts are the immense corpus of Vedic literature, including the four Vedas (the *Rig, Sama, Yajur* and *Atharva*) and the associated *Brahmanas* (prose explanations of the Vedas), *Aranyakas* (containing interpretations of sacrificial rituals) and the *Upanishads* (philosophical treatises), collectively dated to between 1500 BC and 500 BC (Singh 2009: 17-18).[7]

The texts of the late centuries BC and first millennium AD show increasing familiarity with peninsular India and the dynasties there. These include the Pali *Tipitaka* (the Buddhist canonical texts composed between the fifth and third centuries BC); the Jaina canonical texts (*Agamas*) of the fourth/fifth centuries AD, the Sanskrit epics of the *Ramayana* and *Mahabharata* (composed between the fifth/fourth centuries BC to third/ fifth centuries AD respectively) and the *Puranas* (Singh 2009: 18-26). The 18 *Mahapuranas* (great *Puranas*) and numerous *Upa-puranas* were composed over a long period of time from the late centuries BC to well into the 13th/14th centuries AD and are almost encyclopedic compendiums of myth, religion, geographic information and genealogical information. The dynastic lists in the *Puranas* have been

---

6 In early Sanskrit literature the two fundamental regional divisions are *dakshinapatha* and *aryavarta* (taken to refer broadly to the region from the Himalayas to the Vindhyas, although the boundaries vary slightly from text to text). Traditionally, people living outside *aryavarta* were considered outside the norms of 'Aryan' civilization and culture and were looked down upon. The term '*arya*' was used by the authors of the early Sanskrit (a language belonging to the Indo-European family) to describe themselves, hence the use of the term 'Aryan' to describe these people. These texts came to form the basis of later Brahmanical ritual and culture(Possehl and Witzel 2002: 392).

[7] When the earliest of these hymns were written the focus of Brahmanical culture was the region between the Ganges and the Kabul rivers. Over the course of the composition of these texts, the authors' geographical awareness increases to the Gangetic plains and at least parts of the northern Deccan.

extensively used to reconstruct the history of several dynasties in South Asia. However, since the lists vary considerably between the *Puranas*, they are best used in conjunction with other lines of evidence, such as inscriptions.

The final category of texts on the ancient Deccan includes those that were composed by foreign travelers to the subcontinent or those that were composed outside the region. Among the earliest are the anonymous *Periplus Maris Erythraei* (Periplus of the Erythaean Sea) of the mid first century AD; Megasthenes the Greek's account of his travels in the Mauryan Empire (third century BC); the travel accounts of the Chinese pilgrims Faxian and Xuanzang (fifth and seventh centuries AD, respectively) and the Pali Buddhist chronicles of Sri Lanka (*Dipvamsa* and *Mahavamsa*) dated to the fourth-fifth centuries AD. It is from these texts that we get some hints of the importance of Banavasi in the Buddhist tradition and its location within a larger Indian Ocean trading network.

From the 10th century onwards there are a number of accounts by travelers from the Arab world and from Europe, especially, after AD 1500, from Portugal. From a much later period are a few books by British administrators and travelers to the peninsula (Anonymous 1791; Arthur 1902; Bowring 1872; Elliot 1871). These take the form of travelogues and often contain useful descriptions of antiquities encountered along the way, reconstructions of regional histories and records of newly discovered inscriptions. They are valuable for reconstructing the medieval and early modern archaeological landscape of peninsular India and the region around Banavasi.

2.3.2 Inscriptions

Inscriptions, either on copper plates or on stone, have formed the primary source for the study of ancient and medieval Karnataka and, as discussed above, from the early 19th century there have been several attempts to record, translate and analyze them (Elliot 1837; Fleet 1878a; Rice 1879; Rice 1909). For the study of the Kadambas of Banavasi several relevant inscriptions were issued by multiple dynasties. The Kadambas of Goa and Hangal issued their own inscriptions and copper plate grants, and there are a few inscriptions of the Gangas, Pallavas, Vakatakas, early Rashtrakutas and Chalukyas that refer to the Kadambas.

The majority of inscriptions are carved on a variety of stone surfaces, both prepared (pillars, slabs, temple walls etc.) and natural outcrops or boulders. These inscriptions primarily record donations to temples or social groups, but several are commemorative in nature, being

inscribed on a hero or sati stone or on *nishidis* (commemorating the death of a Jaina monk). Others record the construction of lakes, tanks, canals wells and other structures.

Less common are inscriptions on copper plates, which are almost exclusively donative in nature. They usually follow a set formula, beginning with an invocation to the patron deity of the donor; followed by a detailed genealogy of the donor, especially if s/he is royal and a list of officials to whom the contents of the charter are addressed. This information is followed by details about the recipient of the donation and the gift to be given (in most cases, land). The grant often concludes with imprecations invoked against disregarding the terms of the charter (Gai 1992c: 212-214).

Scholars have estimated that over 30,000 published and unpublished inscriptions have been recorded in Karnataka alone (Gopal 1985b: 46). The earliest inscriptions from the Deccan are in the Brahmi script, which appeared in the third century BC across the subcontinent and was the parent of all later Indic scripts (Salomon 1998: 17). The best known Brahmi inscriptions are the edicts of the third century BC Mauryan ruler Ashoka found in a distinct cluster in the central Deccan, in the modern states of Andhra Pradesh and Karnataka (Ritti 1991; Sugandhi 2003: 229-230). Other early stone inscriptions in south India include a few Satavahana/ Satakarni inscriptions and the Chandravalli rock inscription of the early Kadamba king Mayurasharma. These early inscriptions too are in the Brahmi script and vernacular Prakrit[8] language.

With some stylistic variations (most notably Southern Box Headed), Brahmi continued to be the primary script used in inscriptions up to the sixth century. There is a gradual transition to the use of the Sanskrit language by the fourth century and then to Kannada by the sixth century, although bilingual Sanskrit-Kannada inscriptions continued to be issued for several centuries after this period (Katti 2003: 146). The earliest copper plate grants in Karnataka belong to about the fourth century AD and are primarily in Sanskrit and written in the southern variant of the Brahmi script (Gai 1992: 214). From the sixth century, the Kannada script began to develop from Brahmi and by the 11th-12th centuries, the modern day Kannada script and language was well established (Ritti 1991: 303-305). By the period of the Badami Chalukyas and the Rashtrakutas

---

[8] Sanskrit and the older Pali and Prakrit are languages belonging to the Indo-Iranian branch of the Indo-European family of languages. Kannada, on the other hand, belongs to the Dravidian language family which today is largely restricted to southern India. The scripts for all these languages derive from Brahmi.

(sixth century AD onwards), most inscriptions were written in Kannada. However, some records continued to be written in Sanskrit, or a mixture of Sanskrit and Kannada, and there are even a few Tamil and Telugu inscriptions found in the Karnataka region.

2.3.3 Archaeology

Archaeological research in the peninsula has a long history, beginning in the early 19th century when British antiquarians first began to record 'antiquities'. Early efforts include some very important work on prehistoric sites by Robert Bruce-Foote; as well as work by numerous other individuals who collected inscriptions and excavated a few early sites (particularly Iron Age megaliths) (Chakrabarti 1982: 329-330; Korisettar and Rajaguru 2002: 247-248; Pappu 2008). Subsequent archaeological work in the Deccan focused on the documentation and description of the art and architecture of important historic sites and the identification of archaeological 'cultures', as well as studies on the spread of Buddhism and its monumental remains (Korisettar and Rajaguru 2002: 248; Parasher-Sen 2007a: 232-233).

Beginning in the 1930's, the foundations of the archaeological history of the Deccan began to be laid. Numerous district-wide surveys were conducted, primarily by the Archaeological Survey of India, leading to the identification of sites ranging from the prehistoric to the medieval (see Korisettar and Rajaguru 2002 for a survey of archaeological research on the prehistoric in Karnataka). Among the important excavations of this early period were M. H. Krishna's and Wheeler's excavations at Brahmagiri and Chandravalli which provided a stratigraphic sequence from the Neolithic into the historic period (Wheeler 1947-48). While recent work has revised Wheeler's chronology for South India (Begley 1983; Begley 1988; Begley 1991b; Morrison 2005), his work at these sites laid the basis for the relative chronology and ceramic typology of peninsular India that succeeding archaeologists relied upon.

There have been several subsequent excavations of Early Historic period sites (many of which show a long period of occupation preceding the 'Historic'), for instance, at Maski, Hallur, Banavasi, Vadgaon Madhavpur, Sannati (Murthy 1991; Murthy 2000). For the later, medieval period, early archaeological research was initially limited to the survey, recording and uncovering and conservation of standing monuments (Mate 1990), a trend that is changing with several problem-oriented research projects (Lewis 2005; Lewis 2006; Lewis and Patil 2003; Morrison 2001; Sinopoli 2003; Sinopoli and Morrison 1995; Sinopoli and Morrison 2007).

While most of the archaeological research in peninsular India continues to follow the culture-historical tradition established by Wheeler, recent archaeological research is increasingly asking new questions and adopting new approaches to the study of material culture (Abraham 2002; Abraham 2003; Abraham 2008; Bauer, et al. 2007; Kadambi 2012; Korisettar and Rajaguru 2002; Morrison and Lycett 1997; Paddayya 1973; Paddayya 1982; Paddayya 2008; Pappu 1974; Pappu and Deo 1994; Sugandhi 2003).

Below, I provide a broad historical overview of the period of my research from the first century AD to the 18th century AD, highlighting some of archaeological and historical research in the north-western Deccan (i.e. modern day Karnataka, including the Banavasi area). More detailed discussions of the archaeology of the Banavasi area is presented in Chapter 4.

2.4 Periodization in South Asian history

2.4.1 The Early Historic: the beginnings of complexity

The period I am studying has traditionally been subdivided into the 'Early Historic' (for peninsular India, dated to the late centuries BC/early centuries AD to the sixth/seventh century AD) and the 'Early Medieval' (seventh to 13th century AD), with historians postulating different modes of socio-political and economic organization for each of these periods.

The Early Historic period is dated as beginning approximately in the middle of the first millennium BC in the northern part of the Indian subcontinent, and has been considered a period of great socio-economic and political change marked by the emergence of territorial states and empires (Chakrabarti 1999: 264; Chattopadhyaya 2003: 39). The development of more complex forms of political organization is evident in the rise of fortified urban centers and the development of a multi-tiered settlement hierarchy, the growth of craft specialization, the introduction of metallic coinage and later that of writing, the rise of new religious sects and the growth of inter-regional trade extending beyond the subcontinent. Diagnostic archaeological features of the period include - the increasingly common use of iron and of baked brick, the appearance of distinctive ceramics (notably the Northern Black Polished Ware), and the development of new architectural and artistic styles (Allchin 1995: 335-341; Chakrabarti 1999: 262-278, 318).
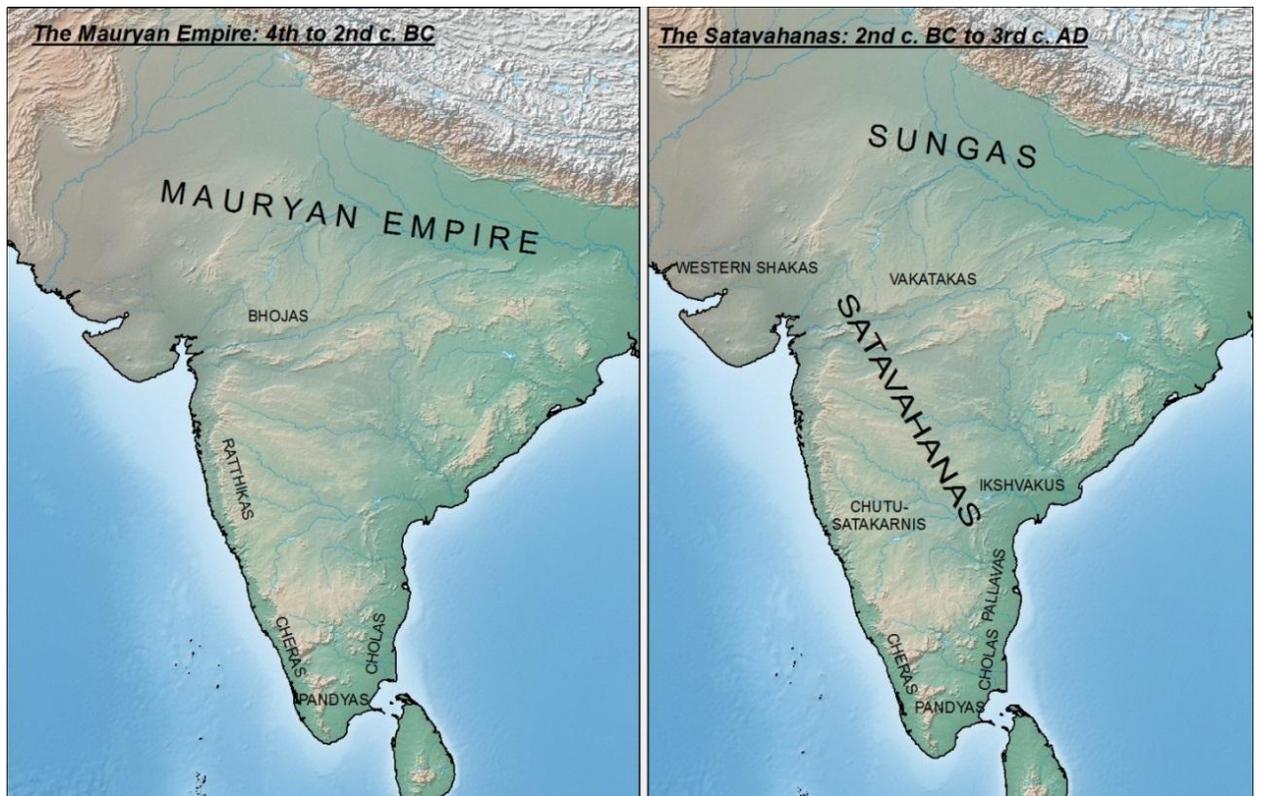
Figure 2-1: Early Dynasties in South Asia, fourth century BC to third century AD

These changes in the Gangetic plains are seen as resulting in the spread of settlements and the expansion of trade into what were considered peripheral regions, such as the Deccan (Ray 1989: 438). The Early Historic phase is thus considered to date slightly later in the Deccan and the cultural traits listed above are often seen as spreading to peninsular India as a result of a variety of external processes. The dominant culture-historical approach emphasized processes of diffusion in initiating historical change, especially the role of the Mauryan Empire in the Deccan. Seneviratne (1981), for instance, suggests that the Mauryan state apparatus provided the external stimulus to already extant megalithic societies that led to the rise of secondary states in the region.

The core of the Mauryan state was located in the Gangetic plains and at its maximum extent, probably extended some amount of control from the north-western part of the subcontinent (Afghanistan, Baluchistan and the Indus Valley) to the middle of the peninsular region (Figure 2-1). The inscriptions of the Mauryan king Ashoka are found as far south as the

states of Andhra Pradesh and Karnataka where eleven sites have been identified (Sugandhi 2003).

Early scholarship on the Mauryas portrayed the state as highly centralized with a uniform system of administration extending to every part of the empire. Recent research on the Mauryan state has argued for considerable geographic variability in administrative control (Fussman 1987-88; Thapar 2006). No easy correlation can be made between the presence of an imperial polity and specific archaeological evidence at Early Historic sites in the region (Sinopoli 2006: 331-332). Reconsiderations of the Ashokan edicts in the Deccan have focused on their role in the assertion of imperial authority more than as an indication of direct imperial control of the region (Sugandhi 2003). Ceramics like the Northern Black Polished Ware (NBPW) and punch marked coins that have been taken to indicate a Mauryan presence are found in limited quantities and at very few sites in the Deccan, and while they are useful as temporal markers (NBPW is generally argued to date from 700/600 – 200 BC), they can in no way be correlated to Mauryan rule (Sinopoli 2006:331; Sugandhi 2003:234). The locations of the edicts suggest that Mauryan presence in the region might have been restricted to locations of resource extraction (for instance, gold or diamond mines) (Lahiri 1992:388-389; Ray 1985: 16).

While there might not have been direct imperial control, networks of interaction with the northern part of the subcontinent were important components of Early Historic Deccan political and economic processes. Three important phenomena can be identified: the spread of writing, the spread of Buddhism and the growth of routes of communication. The Ashokan edicts are the earliest identified inscriptions in the Deccan, and are written in the Brahmi script (but in a Magadhi dialect of the Prakrit language). While the origin and development of this script are not well understood, it is interesting that the earliest post-Mauryan inscriptions in the Deccan continue to be written in this script or regional variations thereof and the language is a typical north Indian Prakrit (Allchin 1995: 335-337).

Most of the early inscriptions in the Deccan record donations to Buddhist institutions and historical writings have postulated a close connection between Buddhism, trade and state formation. Following its birth in the Gangetic plains in the first half of the first millennium BC (Ray 2006: 304), the spread of Buddhism to the peninsula is traditionally linked to the proselytizing zeal of Ashoka in the third century BC (Shastri 2001: 2). While none of the

hundreds of stupas Ashoka is said to have constructed in the region can be irrefutably identified, the spread of Buddhism does seem to be closely linked to political patronage. Most notably, the Satavahana rulers of the western Deccan were prominent patrons of Buddhist institutions during the first century BC to the third century AD. The construction of cave-temples in the western Deccan is closely correlated to the political fortunes of the dynasty and the spread of Buddhist structures towards the eastern Deccan follows its territorial expansion (Heitzman 1984; Ray 1986: 86-87).

There is evidence to show a close correlation between the location of Buddhist monastic sites and trade routes or ports, as well as with areas of secure agricultural production (Morrison 1995b: 214-17; Ray 1999: 200-202). While there is little evidence for the direct participation of the monks in trade, it has been suggested that Buddhist thought stimulated trade and urbanism by its liberal approach to economic occupations like trade and, as the predominant institutionalized religion of the time, promoted cohesiveness among emergent social groups (Ray 1985: 15-16; Ray 1999:202-204). Heitzman argues that Buddhist practice, especially donations to monastic institutions, played an integrative role as a field for political action where different social groups could both legitimize their positions and maintain status differences through ostentatious display. This was especially important in the socio-political and economic context of the Early Historic with its multiplicity of networks (Heitzman 1984).

Finally, inter- and intra- regional trade circuits became increasingly important during the Early Historic phase in the Deccan, beginning at least by the late centuries BC (Ray 1985; Ray 1989: 444-448). Archaeological evidence for long distance trade with north India is limited, but present, in earlier "prehistoric" periods (Lahiri 1992 333-349, 352-360, 388-391). It has been argued that Mauryan exploitation of the mineral resources of the Deccan contributed to the development of trade routes overland and along the coast connecting these interior sites to the urban centers of the north (Ray 1985: 18, 35). Banavasi, for instance, was located on a possible route from Karnataka to the coast and from there to ports such as Sopara or Baruch (Ray 1985: 16). Whatever the cause for the expansion of trade, it was based on established structures of craft specialization and exchange within the Deccan (Lahiri 1992: 390-391; Morrison 1995b:212-213).

Trade, agricultural intensification and the legitimization provided by Buddhism are all among the processes that have been implicated in discussions on the development of secondary states and of urbanism in several regions of the Deccan during the beginning of the Early Historic (Parasher-Sen 1999; Ray 1986). The first of these was the Satavahana state with its core in the Krishna - Godavari basin (Figure 2-1). The origin, chronology and structure of this state remains hotly debated, but it can broadly be dated to the second century BC to the third century AD (Shastri 1987).

The Satavahanas were succeeded by a succession of several large states, located in different core areas in the Deccan: the Chalukyas of Badami (550-750 AD) in the Malaprabha river valley, the Rashtrakutas (750-950 AD) in the Godavari-Bhima river valleys, and the Chalukyas of Kalyani (10th-12th centuries) in the Tungabhadra river valley (Figure 2-2). While these larger political formations have been the major focus of study, throughout this entire span, peninsular India was characterized by numerous smaller "chiefdoms" and states that wielded almost independent authority over their territories, but at times owed allegiance to larger states and empires. These smaller dynasties have been called 'minor dynasties', 'feudatories' or '*Mahamandaleshwaras*'.

The 'minor dynasties' have fascinating trajectories. Many occupied small sub-regions throughout the Deccan for considerable periods of time despite being periodically eclipsed by larger states. One of the most important was the Kadamba Dynasty, who ruled for several centuries over the western regions of peninsular India. From at least the fourth century AD to the early modern period, branches of this family ruled over the western and northern districts of Karnataka (Dharwar, Shimoga, Karwar, Bellary and Raichur districts) and Goa. Other documented dynasties included the Gangas in the upper Kaveri valley (fourth to 11th century), the Alupas in along the west coast (fifth to 15th centuries), and the Shalankayanas, among many others.

It does seem that paths toward complexity took a different route in the Deccan than in the Gangetic basin of north India. Recent analyses of archaeological and inscriptional data have emphasized internal processes of change, including the emergence of local polities and economically differentiated sub-regions preceding the rise of larger states and empires in the

Deccan (Chattopadhyaya 2003; Parasher-Sen 1993a; Parasher-Sen 1996; Parasher-Sen 2000; Parasher-Sen 2007a).

The intensity of interaction with the north (as reflected in the spread of Buddhism, Jainism or the Mauryan presence) varied from sub-region to sub-region, as did the nature of urbanization. The changes in this early period are increasingly seen as deriving not from administrative integration, but at most from interaction with north Indian 'culture zones' which contributed to the emergence of localities in the Early Historic period (Chattopadhyaya 2003: 40-41). This interaction could, at times, take the form of the 'Brahmanization' of tribal areas accompanied by caste formation (Kapur 2005: 14)

While systematic archaeological surveys focused on this period are few and far between (Erdosy 1988; Lal 1984) and have tended towards an enumeration of sites in an area, a few archaeological studies have highlighted the dynamism of regional polities and the diversity of political and economic networks (Morrison 1997b; Parasher-Sen 1993a; Parasher-Sen 1993b; Smith 2001b). For north India, this limited regional archaeological picture, along with evidence from texts, suggests a landscape of variable population density, with nodal cities playing key roles as political capitals and loci of production, exchange, and consumption (Smith 2001b).

While this process of the formation of localities occurred between the second century BC and the middle of the first century BC, the rise of local dynasties like the Kadambas in the post Satavahana period can be seen as a continuation of ongoing historical processes. It is unlikely that the Satavahana state, established using these pre-existing local networks, was able to, or interested in, completely exterminating these groups. As will be discussed in greater detail in Chapter 7, the study of intermediate elite authority provides important insights into the historical development of specific sub-regions of the peninsula.

2.4.2 The medieval: decline and disintegration

The study of intermediary levels of socio-political organization is central to the academic discussion of a later period, typically termed the 'Early Medieval' (or Early Middle) and dated from approximately the seventh to the 13th centuries AD. If the Early Historic phase is taken to be marked by the rise of state level polities, the succeeding period has been seen as one of the proliferation of small regional polities and the development of intermediate levels in the political hierarchy, especially in the period after 1000 AD. In the Deccan, the increasing hierarchization

of political authority has been identified under the Chalukyas of Vatapi (sixth to eighth centuries AD), the Rashtrakutas of Manyakheta (eight to tenth centuries AD) and the Chalukyas of Kalyani (10th- 12th centuries AD) (Champakalakshmi, et al. 2002: 27; Talbot 1994).

The tendency to view the development of peripheral polities in South Asia as a sign of the weakness of the centralized body politic is characteristic of the feudalism model that has been applied to early medieval South Asia (Jha 2000b; Nandi 2000b; Sharma 1995; Sharma 2001). In this model (discussed in greater detail in Section 3.4.2), the proliferation of small kingdoms and states has been interpreted as a sign of the disintegration of the earlier centralized states and caused by the increasing number of land grants to Brahmanas or officials as service or secular assignments. This period is therefore seen as one of political decentralization and the decline of a presumed previously existing centralized authority due to the rise of a hierarchy of semi-independent feudal landholders who increasingly came to restrict a free peasantry (Sharma 1995; Sharma 2001).

The presence of feudalism in a South Asian context has been rejected by several scholars (Mukhia 1995). A few detailed case studies of specific regional states have led to alternate characterizations of states in medieval South Asia. For the Chola state, with its core in the Kaveri river valley of Tamil Nadu, Stein (1969; 1980; 1995) postulated a segmentary political system, where authority was fully exercised only at the core, fading away into ritual sovereignty in the intermediate and peripheral areas. This distinction between ritual suzerainty and political sovereignty is an interesting one for the Early Medieval period, where the role of religious institutions in state formation is coming under increasing scrutiny (Chattopadhyaya 1995: 207-213; Kulke 1995b: 42-43).

While providing some insights into developments in the Early Medieval period in certain parts of the subcontinent, the growth of regional societies and polities need not always be considered a sign of weakness or incipient feudalism. Many recent historical and archaeological works have highlighted both the richness of regional economies (Hall 1977; Hall 1999a; Hall 2001; Heitzman 1991; Heitzman 2001) and the dynamic nature of the growth of regional polities and their complex interaction with intermediate elite groups in this period (see Heitzman 1995 for the Chola state; Talbot 1994; see Talbot 2001 for the Kakatiya state in Andhra).

Processes of state formation including trends towards centralization, have received increasing attention (Chattopadhyaya 1995; Heitzman 1987a; Kulke 1995a). Chattopadhyaya identifies three major historical processes that were of importance from AD 700 to 1300 and are relevant to my analysis of the later history of Banavasi: the horizontal and vertical expansion of state society from a dynastic core; the incorporation of tribal peoples and territories into state infrastructures; and the integration of local religious cults and practices into larger (political and religious) ideologies (Chattopadhyaya 1985; Chattopadhyaya 1995). In the Early Medieval period, the expansion of state society was accomplished by several processes, including the spread of lineages in their varied local bases (Chattopadhyaya 1985: 18); the growth of agrarian settlements and caste formation (Chattopadhyaya 1995: 213-214); and the bureaucratization and increasing penetration of dynastic authority in select local economies through a network of royally patronized religious institutions and land grants to officials (Heitzman 1987a; Heitzman 1991; Heitzman 1995).

Newer research on both the Early Medieval and the Early Historic periods therefore has moved away from overarching models to focus on regional trajectories (See discussion in Section 3.4 for an overview of recent regional research). The emphasis is on spatially and temporally sensitive processes where both the centralization of political authority and the rise of intermediate elite authority could occur at different times in different sub-regions. To lay the framework for my discussion of one of these sub-regions, I conclude this chapter with an overview of the history of Banavasi and the Kadamba dynasty to highlight the complexity of some of these processes.

2.5 The Kadambas and Banavasi

2.5.1 Early history: stupas and kings

Banavasi (75° 5` E, 14° 33` N), was the fortified capital of a regional kingdom in peninsular India. This settlement, still occupied today, is located in the Sirsi Taluk of Uttara Kannada District of Karnataka. The earliest epigraphic record referring to this location is the second century AD Banavasi inscription of Haritiputra Satakarni, King of Vaijayanti (Banavasi), dated to his 12th regnal year. The inscription records a donation by the king's daughter of a naga, tank and *vihara*.

Banavasi occupies an impressive place in Buddhist hagiography and is closely associated with the figure of the Mauryan emperor Ashoka (c. 273-234 BC). The Ceylonese Pali chronicle *Mahavamsa* of the fourth century AD states that Ashoka sent the monk Rakkhita to Banavasi to propagate Buddhism in the region, and that numerous monks under Mahathera Chandragupta were sent from Banavasi to participate in the consecration of a stupa built by the Sri Lankan King Dutthagamani (Gopal 1985a: xi). The Chinese traveler Xuanzang, writing in the seventh century AD, recorded the presence two monasteries and three stupas in Konkanapura (taken to refer to Banavasi) (Moraes 1931: 255-256).

In traditional historiography it has been assumed that Banavasi was included in the Mauryan Empire (Moraes 1931: 5). However, as discussed above, the nature of the Mauryan presence in the Deccan is much debated and it is now increasingly being accepted that, despite the presence of some inscriptions in the region, the area was not under the direct territorial and administrative control of the Mauryas (Sugandhi 2003; Sugandhi 2008). There is no clear archaeological evidence for Mauryan presence or influence in the region around Banavasi.

Inscriptions from the 11th century onwards tended to associate the Kadambas with kings of northern India and with lineages mentioned in the epics or the *Puranas*. For instance, some inscriptions link the family to the Nandas of Pataliputra who preceded the Mauryas and were located in the Gangetic plains in the fifth and sixth centuries BC (Lalitha 1983: 22-23; Moraes 1931: 3; Sircar 1937-38: 119). During the excavations at Banavasi one square silver punch marked coin found in a stratigraphic context dated to a pre- Satavahana period has been taken as evidence of Mauryan contact (Murthy, et al. 1997: 79-81). This association remains debatable. Apart from the punch marked coin, a few coins of known pre-Satavahana elite groups have been found at Banavasi, including three Chutu coins and one *maharathi* coin (Murthy 1973: 289-291; Murthy, et al. 1997: 79-93). In the Deccan these groups have been identified in certain regions in the centuries immediately before the rise of the Satavahanas Dynasty and probably continued to maintain their presence even after its rise.

From at least the second century AD, it seems likely that Banavasi was a capital of a branch of the Satavahanas, the Chutukulananda Satakarnis. The Nasik cave inscription of Gautamiputra Satakarni of the first quarter of the second century AD refers to the orders of the king when his victorious army camped at Vejayanti (identified with Banavasi) and was issued to

an officer at Govardhana or Nasik (Gai 1992c: 72-73). In the third or fourth century Malavalli stone pillar inscription, the Kadamba grant immediately follows one by Vinhukada Chutukulananda Satakarni who is called *Vaijayanti puraraja* ('the king of the fort of Banavasi') (Gai 1996: 3-7). Moreover, a short memorial inscription of the queen of the Satavahana king Shivashri Pulumavi (dated to the second century AD) and a donative inscription of the 12th regnal year of Chutukulananda Satakarni have been found at Banavasi (Murthy, et al. 1997: 27-30). Several lead and copper punch-marked coins of the Chutu rulers have been found throughout Karnataka and record the existence of other rulers of this lineage including Mulananda and Sivalananda (Ganesh 2008: 22-32).

There is a tradition that the Chutu- Satavahanas might have been succeeded by the Pallavas, with their core in the Kaveri-Vagai river valley in northern Tamil Nadu and southern Andhra Pradesh. The fifth century Talagunda inscription of the Kadambas records that the first Kadamba ruler Mayurasharma came into conflict with the Pallavas who, having being defeated by him, recognized him as the king of the region stretching from the western ocean to Prehara (Mahalingam 1964). There is however, no other evidence that the Pallavas controlled the Banavasi region (Pai 1933).

2.5.2 The Early Kadambas (325-540 AD)

The early Kadambas under Mayurasharma established their regional kingdom around Banavasi in the early decades of the fourth century. There are several mythical tales about the origins of the Kadamba family. Most of the legends associate the dynasty with a branch of Brahmanical religion that gave pre-eminence to the deity Shiva. One of the most common legends referred to frequently in epigraphs attributes a divine origin to the dynasty and identifies a son of Shiva and Parvati variously named Mukanna, Trinetra or Jayanta Trilochana as the progenitor of the dynasty (Rice 1909: 21).

Apart from these legendary links, most of the reconstruction of the political history of the dynasty comes from epigraphic sources, primarily the inscriptions of the early and later Kadambas. The early Kadamba inscriptions are mainly in Sanskrit, while after the eighth century, Kannada largely replaced Sanskrit as the dominant language. The Talagunda inscription of Shantivarma mentioned above is widely accepted as providing a reliable genealogy of the dynasty (Gai 1996: 64-68; Rice 1909). The first king Mayurasharma was succeeded by his son,

Kangavarma; grandson, Bhagiratha; great-grandsons, Raghu and Kakustha and the latter's son, Shantivarma. Since the early grants are dated only by the ancient system of seasons or in regnal years, it is difficult to extrapolate exact dates for the kings and the genealogy is still debated. I will discuss this issue in greater detail in Chapter 7.

The early Kadambas ruled for over two centuries, and based on the find spots of their inscriptions, the territorial extent of the early Kadamba dynasty appears to have covered the present day districts of Uttara Kannada, Belgaum, Shimoga, Bellary and Chitradurga in Karnataka. Their capital for most of this early period was at Banavasi, then called Vaijayanti in their inscriptions (the name 'Banavasi' began to be more commonly used under the Chalukyas of Badami)(Gai 1992b: 74). After Kakusthavarma, it is argued that the kingdom was divided between his two sons, Shantivarma and Krishnavarma (Sisodiya 1978: 110). The former ruled at Banavasi and the latter at Triparvata. Based on some inscriptions, scholars argue that the branch based at Triparvata were subordinates of the Vaijayanti/ Banavasi branch (Sircar 1936: 303).

2.5.3 Incorporation within successive empires and the continuity of the Kadamba lineage (seventh century onwards)

It is known from inscriptions that the Chalukya king Kirtivarma (566-597 AD) subdued the Kadambas (Rice 1909: 23) and administered the area through several intermediaries, including the Alupa family who were allied to them through marriage (Murthy 2002: 22). Subsequently, by the mid-eighth century, the Rashtrakutas, former feudatories of the Chalukyas established an empire, which at its greatest extent covered most of peninsular India (

Figure 2-2). Banavasi now lent its name to an administrative unit named after it---Banavasi 12000. In the tenth century, the Rashtrakutas were in turn overthrown by the later Chalukyas of Kalyana who appointed governors to administer the province, some of whom claimed a Kadamba lineage. With the decline of the later Chalukyas in the last quarter of the 12th century, the Banavasi area changed hands frequently as the Kalachuris (12th century), the Hoysalas (11th to 14th century) and the Sevunas (12th-14th century) fought for control of the region.
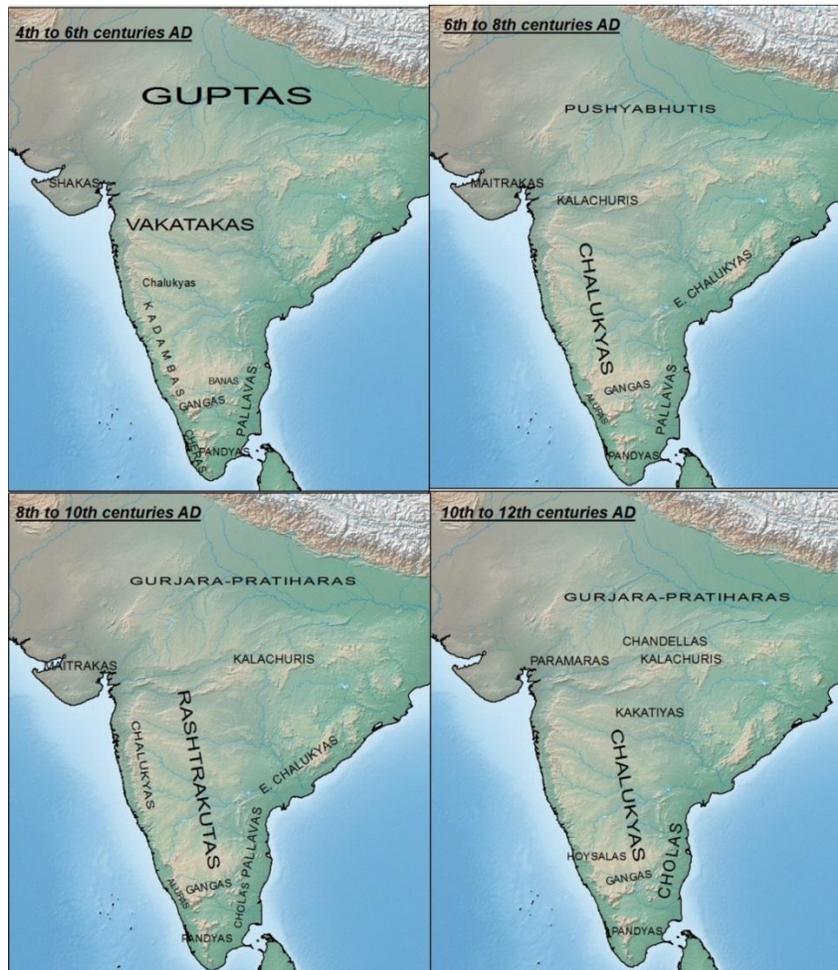
Figure 2-2: Major dynasties in South Asia, fourth to 12th centuries AD[9]

References in epigraphic sources seem to indicate that for a period of four centuries after the early Kadambas, members of the Kadamba lineage continued to maintain a significant presence in the region along with other intermediate elite groups[10], either as subordinates of larger political units or as rulers of small semi-independent principalities (Gopal 1982: 27). Although details are not known, it appears that Kadambas continued to be prominent in the area around Banavasi, the Aihole inscription of the Chalukya king Pulakeshin II (610-642 AD) records his siege of Banavasi (Gai 1992b: 75). There are references to kings named Kundavarma,

---

[9] Figure 2-1 and Figure 2-2 is adapted from the online version of Schwartzberg's *A Historical Atlas of South Asia* (Schwartzberg 1992; http://dsal.uchicago.edu/reference/schwartzberg/).
[10] For instance, the eighth century Mavalli inscription of the reign of Govinda III Rashtrakuta reveals that at least three individuals ruled Banavasi 12000: Madanaga Arasa, Ereyanga and Rajaditya Pallava Nolamba (Adiga 2006: 12).

32

Madivarma and Madhuvarma, all of whom are arguably Kadambas rulers (Rice 1909: 27). Moreover, there is reference to the Kadamba princess Divambika or Divalabbarasi being married to the Pallava Nolamba king Vira Mahendra (reigned 878-890).

2.5.4 The Return of the King(s)

In the 10th century, regional Kadamba lineages were once again established as local rulers in various areas. The Kadambas of Hangal ruled for more than two centuries from the latter half of the 10th century to the beginning of the 13th century in parts of Karwar, Dharwar and Shimoga districts. In the same period, the Kadambas of Goa ruled as subordinate elites along the western coast (11th-13th c.), the Kadambas of Bavalnad ruled in Mysore district in the 11th century, the Kadambas of Nurumbada (Dharwar) in the 11th-12th centuries, the Kadambas of Chandavara (12th-13th centuries), and there was yet another Kadamba family (Karadikallu) in the Raichur district (Gopal 1982: 27-82).

These later Kadamba dynasties constructed a rhetoric of kingship by drawing on an already extant mythic tradition and the known existence and regional prominence of the early Kadambas in their inscriptions in order to construct the early (legendary) history of their families -- a legitimizing tactic used by many a dynasty. However, inscriptions of the 12th century Kadamba lineages give slightly different mythical stories of their origin and genealogy than those referenced in the early inscriptions (Sircar 1971: 13-16, 213f, 269f). The dynasty continued to maintain its hold in the region until the rise of the Vijayanagara Empire in the 14th century.

The Kadambas of Goa and Hangal as well as some of the smaller Kadamba families claimed the hereditary title of '*Banavasi puravaradhishvara'* or 'Lord of Banavasi' (Lalitha 1983: 7). However, of all the later Kadamba families, it is likely that only the Kadambas of Hangal ruled over the Banavasi region or Banavasi-12000 as it was then called. They were, however, not independent rulers but owed allegiance to the larger empires mentioned in the previous section. The first ruler of the Hangal dynasty[11] administered the Banavasi division and

---

[11] There is debate about the first ruler of this lineage. According to Moraes (1931: 88-89), the first ruler, Irivabedangadeva ruled over Banavasi 12000 as a subordinate of a Chalukya king, Chattigadeva who was defeated by the Rashtrakutas. B. R. Gopal (1982: 31-32) argues that the first ruler was Chattiga who administered the Banavasi division for the Chalukya ruler, Taila II.

the Shantalige 1000 division towards the end of the 10th century or early 11th century under the Chalukyas of Kalyani (Gopal 1982: 31).

That the Kadambas were one of several intermediate elite families is clear from inscriptions dating from the same period that refer to other local rulers throughout the area. The Chalukyas also seem to have appointed their own governors in the region (Gopal 1982: 41-42). For instance, we have *Mahasamanta* Shobhanarasa administering the Banavasi province among others in 984 AD and *Samantakesar* Bhimarasa governing Banavasi *nadu* in 995 AD (Gopal 1982: 31).

These local elite rulers and their courts were powerful enough to participate in imperial Chalukya politics. For instance, we know that in the latter half of the 11th century, Kadamba Kirtivarma supported Chalukya Vikramaditya VI against his elder brother Someshvara II, who then commanded one of his officials (*Dandanayaka* of 12 *samantas*) to besiege the fort of Banavasi (Gopal 1982: 37-38). When the later Chalukyas were overthrown in the 12th century, their successors (the Kalachuris, Yadavas and Hoysalas) were not able to completely subordinate these feudatories. In some of the Hangal Kadamba inscriptions, the Kadamba ruler assumed the imperial title of *Chakravarti* while in others he is referred to as *Mahamandaleshwara*, a subordinate title (Desai 1959: 44).

2.5.5 Banavasi as region: Banavasi 12000

With the establishment of Banavasi as the capital of the early Kadambas there are increasingly numerous references to the town in inscriptions. Epigraphic references to the urban center ('*nagara*') of Banavasi date to the fifth century, when the Birur copper plates identified it as the capital of the Kadambas. This term is used as a suffix for the site in inscriptions and copper plates well into the Early Medieval period. After the eighth century, these references describe Banavasi as the capital of the province known as Banavasi 12000. By the time of the Rashtrakutas, Banavasi-*mandala* was defined as the area between the Varada and the Tungabhadra Rivers, and in their inscriptions this region was also termed Banavasi 12000 or Banavasi *nadu* (Ritti 1996: 36).The earliest reference to this province is found in an inscription from Didgur belonging to the early Chalukyan ruler Kirtivarman II (744-757), in which an individual named Dosi is said to be ruling the division (Gai 1992b: 75). This province continued

to be named throughout the early medieval period in the inscriptions of Chalukyas of Kalyani, the Hoysalas and the Rashtrakutas.

In pre-eighth century Karnataka politico-geographical units were termed *rashtra* (district), *vishaya* and *desha*. This terminology changed in the period following the eighth century when the term *nadu* began to be used. This change may be linked to a parallel change from the predominance of Sanskrit copper plate inscriptions to the increasing use of lithic inscriptions in Kannada which would explain the more common use of the vernacular term *nadu* as opposed to the earlier Sanskrit terminology, although the latter continued to be used in post eighth century copper plate inscriptions (Adiga 2006: 10).

Apart from the change in terminology in the post eighth century period, the *nadus* increasingly began to be assigned a numerical suffix, a practice that was present, though rare, in the preceding period. The meaning of these suffixes has been the subject of some debate and no consensus has been reached. For the Tamil region, where plentiful epigraphic evidence has enabled a fuller mapping of the location of the *nadus*, Subbarayalu and Stein have argued for their agrarian origin (Stein 1980; Subbarayalu 2002). In both Tamil and Kannada, the term *nadu* has the generic meaning of 'a planted, cultivated country', as opposed to forested, uncultivated areas (*kadu*). It has been suggested that the suffixes stood for the revenue yield of the area computed in cash terms (Adiga 2006: 14-15; Moraes 1931). Other explanations of the numerical suffix have included their referring to the number of villages contained in the territory or the number of fighting men provided to the central ruler.

As B. D. Chattopadhyaya has pointed out, the distribution of ruling lineages in the Early Medieval period does not necessarily correspond to static territories (Chattopadhyaya 1995: 218). Nonetheless, in certain cases a lineage name could become associated with a specific territory. For instance, the core of the Ganga kingdom in the Kolar and Bangalore districts was named Ganga-6000, and later Gangavadi 32000. Similarly, when the Nolambas came to power in the same region, it came to be known as Nolambavadi. In the case of the Kadambas, their capital city lent its name to a territorial unit, although there are some references to Kadamba-*mandala* as a distinct unit. The *nadus* came to have a strong identity despite the frequent changes of ruling lineages. Banavasi-12000, for instance, continued to be known as such for several centuries despite seeing several changes in ruling dynasties during which Banavasi was no longer the

capital. Such units could be integrated into larger administrative units with the rise of that lineage as a supra-local power (Chattopadhyaya 1995: 219-220). In the case of Banavasi-12000, even in periods when the Kadamba lineage was relegated to the position of an intermediate elite authority, the unit continued to be used in the administrative structures of the larger state authority to who they owed allegiance.

This continuity was possible because it seems that each ruler followed the administrative customs established by his predecessors (Dikshit 1957). Moreover, there is some evidence from inscriptions of the 10th-12th centuries AD that local community groups played an important role in administrative organization (including the setting of tax dues) and in social and economic activities such as temple and road construction etc. at the village or town level. These groups included the merchants (*nakaras*), brahmanas (*mahajanas*) and farmers (*gavundas*) (Dikshit 1957: 59).

Between the 14th and 17th centuries, the Vijayanagara Empire united large parts of peninsular India (Figure 2-3). The Banavasi administrative unit continued to be identified as a distinct entity till at least the end of this period, if not later (Ritti 1996: 36). As in the preceding periods, local rulers (*nayakas*) continued to flourish within the overarching Vijayanagara administrative system, and exercised authority in various sub-regions of Karnataka, including over the Banavasi area (Sastri 1955). After the fall of the Vijayanagara Empire in the mid 17th century, the Banavasi area came under the control of the chiefs of Sonda, who ruled over a small kingdom in coastal Karnataka. Finally, in the early 18th century, the area came under the Mysore kingdom of Haider Ali and Tipu Sultan. These rulers were eventually defeated by the British.

Figure 2-3: Major Dynasties, 12th to 18th centuries AD

2.6 Discussion

This brief history of Banavasi shows several interesting processes at work, which will be taken up for discussion in subsequent chapters. First, is a recurrent pattern of the formation and dissolution of large states -- the Chalukyas, Rashtrakutas, Hoysalas and so on. These large states exercised varying levels of control over numerous smaller polities and territories. In many cases, the boundaries of these smaller polities fluctuated considerably over time, expanding or contracting in an inverse relationship to the fortunes of the dynasties that sought to control them.

Secondly, therefore, the political hierarchy was complex and multi-tiered. Throughout the entire sequence was the continuous historical sub text of the continuity of smaller intermediate elite lineages in specific sub-regions. These lineages were surprisingly persistent over several centuries and seem to mimic, at a smaller scale, the organization of the larger polities.

In this dissertation, I examine the organization of the regional capital of one of these long-lived lineages, the Kadambas. Just like the lineage it was originally associated with, Banavasi's fortunes fluctuated over the centuries. In order to trace long-term development at this site, it is necessary to examine both local developments as well as larger regional processes, associated with larger, cycling states and empires. In the next chapter, therefore, I discuss my theoretical and methodological approach that allows me to undertake such a study.

Chapter 3
Theoretical and methodological approaches

As discussed in the previous chapter, Banavasi is located in what has been considered a peripheral zone in the Deccan. My research seeks to evaluate and develop theoretical frameworks that allow the study of both external factors (for instance, the dynamics of imperial control and concomitant social, political and economic changes) and regional processes in order to examine long-term organizational strategies in the Banavasi area. In this chapter I discuss some of the theoretical perspectives that I draw on in my archaeological research in the Banavasi area.

I start with a consideration of anthropological discussions on the 'core-periphery' concept, as well as theoretical writings that consider the organization of 'peripheral' but complex polities. I aim to distance myself from approaches that privilege the influence of distant core areas on peripheral regions by incorporating local and regional socio-economic and political processes (for instance, the nature of control over land; the development of craft specialization etc.), and particularly the role of intermediate elite and non-elite groups in regional organization. At the same time, I feel that a nuanced consideration of core-periphery relationships is essential to understanding macro-regional processes and interconnections.

I then define my approach and the unit(s) of study in my dissertation by situating my survey within anthropological discussions of the 'landscape'. In this section, I also discuss my approach to the sources discussed in Chapter 2 and briefly comment on different scales of analysis. I conclude this chapter with a discussion of a few specific models and case-studies of socio-economic and political organization in 'peripheral' areas. Several of these studies draw on some of the larger theoretical issues I have highlighted. I will return to some of these models in subsequent chapters and in my conclusion.

Throughout my review of selected trends in anthropological and archaeological thought, I especially highlight those that explicate my own approach and methodology. Therefore, from among an extensive and varied corpus of studies, the ones I discuss serve to illustrate the larger anthropological framework within which I place my work, as well as the specific questions I ask

and the archaeological and historical variables I consider important in addressing these questions.

3.1 Anthropological approaches to 'center' and 'periphery': World-Systems theory and beyond

World-Systems approaches establish the basic premise that past cultures did not exist in isolation and begin to formulate cross-culturally applicable models of the nature of this interaction between core and peripheral areas. These models provide a useful spatial framework for addressing unequal political and economic relations (Attema 2002; Chase-Dunn 2005; Chase-Dunn and Hall 1991a; Chase-Dunn and Hall 1991b; Chase-Dunn and Hall 1993; Hall 1986; Hall and Dunn 1993; Ohnersorgen 2006; Schneider 1991).

Anthropological approaches to relationships between core and peripheral areas draw heavily on Immanuel Wallerstein's World-Systems theory (WST). In Wallerstein's conceptualization, the World-System is one in which multiple cultural systems, linked by a division of labor that made them inter-dependent, were united into a single entity (Wallerstein 1974). Two types of World-Systems were identified: world-empires, which were unified by a single political system, and world-economies, where cores with complex political structures and technological superiority exercised political and economic control over pre-state or incipient state level peripheral areas in order to exploit the labor and natural resources they contained (Wallerstein 2004). In Wallerstein's later formulations he argues that the only true world-economy was a capitalist one from the 16th century. However, World-Systems perspectives have been fruitfully applied in archaeology to a variety of spatial and temporal contexts, not just the modern world system (Blanton and Feinman 1984; Frank 1993; Glatz 2009; Hall and Dunn 1993; Jennings 2006; Jennings and Alvarez 2001; Joffe 2002; Lau 2005; Ratnagar 2001; Smith 2001a).

A primary tenet of World-Systems approaches is the economic interdependence of societies within a system. A corollary to this postulate is the deliberate marginalization and maintenance of an underdeveloped economy in the peripheries. When applied in archaeology, under-development is the more problematic concept and Wallerstein's original formulations have been modified and extended. For instance, research has moved away from the initial preoccupation with the extractive nature of economic interactions between a center and periphery

to consider the place of trade and other economic interactions within larger non-economic sociopolitical processes at both the regional and macro-regional levels (Edens 1992; Schortman and Urban 1994; Schortman, et al. 1986).

Several case studies also diverge from Wallerstein's emphasis on the centrality of trade in necessities to highlight the importance of prestige items in interregional exchange and their role in the maintenance and display of social and political control (Blanton and Feinman 1984; Brumfiel and Earle 1987; Friedman and Rowlands 1977; Schneider 1977). Recent studies argue that access to foreign goods (and not necessarily control of trade) was important in the maintenance and display of regional political authority (Bacus 1999; Redmond, et al. 1999). Increased interaction could also be indicative of the formation of larger networks created by a regional polity's incorporation into more complex systems. For instance, work in Southeast Asia on the varying nature of informal power relations between lowland complex polities and upland peripheral groups emphasizes the role of the exchange of prestige goods in establishing unequal socio-political relationships between 'central' and 'peripheral' zones, as well as within the periphery (Grave 1995). Factional competition for prestige goods networks that incorporated the periphery has been the concern of other scholars (Brumfiel and Fox 1994).

Unlike formal economic models that consider ancient economies as generated by strong political entities that emphasized the role of luxury goods as main priorities of exchange, other scholars have focused on material culture studies of trade networks in ordinary goods. These researchers have addressed the roles of such goods as essential components in the growth of early complex societies and as providing integrative mechanisms that had more permanence than political entities (Alcock, et al. 2001; Smith 1990; Smith 2001a).

There is also a growing recognition of the great variety of interconnections and subsystems operating within interacting socio-political entities and the importance of considering specific historical conditions under which different kinds of core/periphery relations, not only hierarchical and unequal but differentiated, could develop (Beekman 1997; Chase-Dunn and Hall 1991a; Edens 1992; Jennings 2006; Kepecs and Kohl 2003; Rice 1998; Schortman and Urban 1992; Wilkinson 1991). For some scholars, the systemic interaction between intermediate level peer-polities (or autonomous socio-political entities) is of primary interest in initiating developments towards socio-political complexity (Renfrew 1986; Renfrew and Cherry 1986).

Within a complex polity, such as an empire for instance, it is increasingly being recognized that interaction between cores and peripheries take a variety of forms, ranging from direct territorial control with a dominating territorial and military apparatus to more hegemonic control and indirect administration with some amount of economic domination and tribute exaction (Alcock, et al. 2001; Jennings 2003; Jennings and Craig 2001; Morris 1998; Morrison and Sinopoli 1992; Ohnersorgen 2006; Parker 2003; Smith and Montiel 2001). Among the range of possible forms these interactions could take, Santley and Alexander (1992) have argued for a dendritic political model of exchanges between cores and peripheries without overt political control. The concepts of contested or negotiated peripheries, semi-peripheries or 'active' peripheries are also gaining increasing currency in the anthropological literature (Chase-Dunn 1988; Cline 2000; Hall 2012; Kardulias 2007; Stein 1999; Stein 2002). Several studies draw on these and other concepts to highlight the idea that peripheral regions (and people) are not passive, but often had the ability to negotiate with core areas to their advantage (Kardulias 1996; Kardulias 1999; Morris 1998; Morris 1999; Wells 1996).

At the same time, there is the recognition that changes in the level of incorporation of peripheral areas within expanding state or imperial polities could have profound effects on both the incorporator and the incorporated (Hall 1986). The effects of incorporation within an imperial system on the peripheries have been the focus of archaeological study in several regions (Brumfiel 2006; Glatz 2009; Jennings and Alvarez 2001; Kuznar 1996; Morrison and Sinopoli 1992; Parker 2002a; Parker 2003; Smith 1986; Usman 2000; Vanhaverbeke, et al. 2008). Among other developments, there has been some considerable amount of work on how the expansion of states contributes to the intensification of warfare both between the states and peripheral peoples as well as among the people(s) of the periphery (Chase-Dunn and Hall 1993: 865; Cohen 1984; Ferguson and Whitehead 1992a; Ferguson and Whitehead 1992b).

Chase-Dunn and Hall (1993) argue for a wider definition of World-Systems than Wallerstein's, which can be more usefully applied to pre-capitalist periods. In their definition, "intersocietal networks (e.g., trade, warfare, inter-marriage) are important for the reproduction of internal structures of the composite units and importantly affect changes that occur in these local

42

structures" (Chase-Dunn and Hall 1993: 855). In addition to their typology of World-Systems,[12] Chase-Dunn and Hall suggest that there are four types of boundaries in these systems: a boundary of information or cultural flows; a boundary of luxury or prestige goods flows; a boundary of political/ military interaction and a boundary of bulk goods flows (Chase-Dunn and Hall 1993: 858-859; Hall 1999b: 7).

In this conceptualization then, inter-societal interaction is not restricted to Wallersteinian economic processes, but includes social and political dimensions as well (Chase-Dunn and Jorgensen 2003; Schortman 1989; Urban and Schortman 1999). Numerous archaeological studies model political, social and economic interactions of various kinds and in various contexts, both within a broad core-periphery framework (Champion 1989; Gottman 1980; Rowlands, et al. 1987; Schortman and Urban 1992) and outside of it, concentrating on boundaries or culture contact (Cusick 1998; Green and Perlman 1985).

World-Systems theorists have been concerned with identifying long-term cycles of expansion and contraction of the system, often involving an oscillation between centralization and de-centralization of political organization (Chase-Dunn and Grimes 1995: 399-414; Hall 1999b: 9; Modelski and Thompson 1999). Recent anthropological studies that take into consideration changes over time in the forms of the organization of imperial and state systems have added a new dimension to the questions being asked (Alcock, et al. 2001; Feinman and Marcus 1998; Glatz 2009; Sinopoli 1994; Sinopoli 2001). There is an increasing recognition that early states were not static. Not only could there be multiple, overlapping cores (Kohl 1987; Kohl 1992) but the core areas of political consolidation change over time, as these states (and non-state polities) themselves often experienced periods of consolidation, expansion and breakdown; during this latter phase, former provincial regions could become independent (Feinman and Marcus 1998; Marcus 1998; Redmond, et al. 1999). This recognition of change over time is especially important for the Banavasi region as the region cycled through phases of independence and incorporation into larger political systems, which in turn were not stable but were located in different areas at different points in time.

---

[12] This typology is based on societal complexity and mode of production in order to identify four types of World-Systems: kin-based mode; tributary mode; capitalist and socialist (Chase-Dunn and Hall 1993: 857-858).

While core/periphery approaches provide a starting point for thinking about the Banavasi area in terms of the larger social, political and economic interaction networks of which it was a part, the implicit assumption in many World-Systems models that contact with more complex external systems was the main driving force of sociopolitical development is problematic. While a World-Systems perspective is useful for thinking about larger scale interactions, I recognize that developments in the periphery are not merely dependent on changes in the 'core'. Therefore, my approach is also influenced by recent studies on the role of intermediate elite groups in the development of regional complexity in 'peripheral' regions which emphasize their active role in inter societal interactions. I turn to these studies below.

3.2 Centering the periphery: the study of intermediate elite groups and peripheral polities

In research on peripheral areas, it is important to balance an awareness of external interactions of various kinds with the study of specific local conditions and regional socio-political processes. Research should also consider the active participation of regional socio-political and economic groups in the structuring of interactions and socio-political institutions in both the core and the periphery. As mentioned above, several studies, even within a World-Systems rubric, have focused on developments in peripheral regions and the active role of agents in the periphery (Chase-Dunn and Hall 1991b; Feinman 1996; Feinman and Nicholas 1990; Goldstein 2000; Hall 1986; Jeske 1996; Kardulias 1996; Morrison 2001; Rice 1998; Schortman and Urban 1994; Usman 2000).

Recent studies have begun to address the significance and nature of intermediate elite group agency in states and empires. Intermediate elites have been defined as non-ruling elites, who are lower down in the decision making hierarchy of a state but are often located within specific regional systems (Elson and Covey 2006b). Recent research, particularly on early New World states, has explored how such elites engage in resistance to external control or collusion with and cooption by imperial authority (Berdan 2006; Brumfiel 1994; Brumfiel 2006; Brumfiel and Fox 1994; Conlee 2003; Conlee 2004; Conlee and Schreiber 2006; Covey 2006; Covey 2008; Elson 2006; Elson and Covey 2006a; Marcus 2006; Morris and Covey 2006; Smith 1986; Spencer and Redmond 2006; Tung and Cook 2006; Wells 1996; Wernke 2006). Some scholars even see the development of complexity in regions peripheral to core polities, often due to elite

resistance at a regional level to incorporation by imperial elite, as the foundation for the formation of new core polities (Chase-Dunn 1988; Chase-Dunn 2005; Chase-Dunn and Hall 1993; Gailey and Patterson 1988; Gledhill 1988: 24; Joffe 2002; Kohl 1992; Parker 2002a; Schortman, et al. 1986; Spencer and Redmond 2006; Wilkinson 1991). Such approaches provide a useful corrective to core-periphery models' top-down perspective.

3.2.1 Identifying elite agency in the archaeological record

There have been several discussions of the archaeological criteria for identifying the presence of imperial structures both in the core area of imperial formations, as well as in provincial regions (Alcock, et al. 2001; Kadambi 2012; Morrison 2001; Morrison and Sinopoli 1992; Sinopoli 1993; Sinopoli 1994; Sinopoli 2001; Sinopoli 2003; Sinopoli 2006; Sinopoli and Morrison 1995; Sinopoli and Morrison 2008; Smith and Montiel 2001; Smith 2001a). Drawing on these, I expect that imperial control at Banavasi and its hinterland will be reflected archaeologically in a variety of ways, including evidence for administrative and military control, economic extraction and centralized ritual activity. During periods of local autonomy, I expect to find a tendency towards regional styles in architecture, ritual activities and material culture. Of course, as will be discussed in subsequent chapters, not all of these variables will be (or can be) recovered. My methodology, introduced in Section 3.3, also limits the lines of evidence that I consider. Here, I merely outline the possible archaeological indicators of different forms of regional socio-political organization, some of which provide a useful background for discussions of the archaeological data from Banavasi. The consideration of these indicators is helpful in any regional study as it provides a preliminary framework for the study of regional development.

Regional settlement patterns, iconography and style, economic patterns and architecture can be used archaeologically to gauge the extent of imperial involvement as well as to trace the trajectories of local, regional processes. The establishment of an imperial ideology and ritual infrastructure has been seen as playing an important role in the expansion and consolidation of large states and empires, often accompanied by the decline of local traditions (Farrington 1992; Jennings 2003; Jennings and Alvarez 2001; Smith and Montiel 2001). In South Asia, the spread of Brahmanical ideology and labor intensive structures (temples) often accompanied the spread of centralized systems (Appadurai 1977; Appadurai and Breckenridge 1976; Heitzman 1987a; Heitzman 1991), submerging or subsuming local traditions and cults such as snake worship

(*naga* stones). Study of the spatial distribution and architectural affiliation of religious and other monuments in the landscape provides insights into imperial territorial hegemony as well as control by local rulers (Covey 2006; Covey 2008; Ohnersorgen 2006).

These and other patterns can be identified archaeologically. Direct administration, for instance, could entail changes in settlement patterns due to the establishment of administrative centers, shifts in economic activities and an increased use of imperial art and iconography. Indirect administration would be less likely to result in the reorganization of settlement patterns and the distribution of imperial styles might be more restricted. The construction of large reservoirs and other water management schemes have been seen as reflective of increasing political authority (Lucero 1999) and also serve as a proxy for tribute exaction and increased agricultural productivity. On the other hand, local group or non-state (for instance, temple) participation in the organization of water systems has also been recognized (Davison-Jenkins 1997; Lane 2009; Lansing 1987; Mosse 1997; Sharma 2009; Shaw and Sutcliffe 2003).

The functions of ancient urban centers range over a wide variety of specialized political, economic and ritual activities (Marcus 1976; Smith 2006). As complexity within a polity increases, the center can take on a more specialized function as an administrative or ritual center, while during a breakdown of political centralization it might take on more generalized functions. Temporal changes in many documented urban centers reveal cycles in the consolidation and breakdown of states (Marcus 1998). Therefore, I argue that changes in the spatial organization and infrastructure at the site of Banavasi, documented archaeologically, should be indicative of changes in regional political organization. For instance, the construction of (or additions to) fortifications may reflect the relative degree regional political integration or external threat.

Evidence for military conquest and/or increased militarization as a result of external threat can also be documented archaeologically through the identification of watchtowers and/or fortified sites which can be related to the presence of or resistance against external authority. Moreover, I propose that external military activity was concentrated at the regional capital and a few strategic locations, such as Banavasi. During times of external control and/or periods of political instability, competing regional elite strongholds might be dispersed or located away from the center of external (imperial) authority at Banavasi.

I also argue, following Monica Smith (2003b), that ancient urban centers[13] were "interaction loci" and the foci of a variety of networks. Smith uses concepts drawn from social network analysis[14] to explain the increasing importance of urban centers in Early Historic India. In a context of increasing population and instability[15], cities are seen as acting as "small worlds", enabling connectivity between a large number of points and thus playing a role in promoting social stability (Smith 2003b: 269-272). Cities, Smith argues, both enable and compel the creation of social networks. Whatever the initial impetus for their formation, the city is sustained by these social networks in contexts where the exchange of information is deemed crucial. Such information (for instance, the creation and display of a particular identity) is manifested in material remains and there lies the importance of network analysis for archaeologists -- in that archaeologically recoverable patterns of the creation of social, political and religious networks can be identified.

Smith's approach is an important divergence from earlier trends in the study of urbanism in Indian history that has tended to focus primarily on textual sources that provide an idealized and prescriptive picture of urban form. A focus on (the creation and maintenance of) networks provides a corrective to a long tradition in South Asian historiography linking the creation of urban centers to the machinations of a superior political authority. Moreover, it also allows us to circumvent the practice of identifying a list of (archaeologically identifiable) 'urban' traits to examine how cities actually operate (Childe 1950; Ghosh 1973).

---

[13] I do not enter here into the vast and complex literature on the origins and nature of urban centers. For my purposes, I consider Banavasi a dense nucleated population with several of the typical characteristics of ancient urban centers in South Asia (including, but not limited to a concentration of population, monumental architecture, craft specialization (Smith 2006)). As will be briefly discussed in chapter 6, while the early settlement at Banavasi falls within the parameters of an Early Historic urban center, in later periods Banavasi can at most be classified as a large town. Moreover, while it is correct that in most cases urbanization and state formation are strongly correlated, I treat them as two different measures of socio-political development. Therefore, the presence of a densely populated center at Banavasi is not necessarily taken to indicate state formation. Instead, as discussed in this section, Banavasi is seen as the locus of multiple, archaeologically identifiable, networks, several of which allow me to discuss processes of political consolidation or legitimization, social complexity and religious patterns.

[14] Social network analysis is a social science technique, drawing from mathematical network analysis, that enables a graphic way of delineating how people are connected to one another.

[15] The growth of trade networks and the rise of the population are identified as crucial new factors in Early Historic India that led to the growing importance of networks and the small worlds. One could speculate on whether other factors too played a role in such a development, for instance, increasing mobility, social change, the rise of new social and economic groups etc.

Banavasi therefore can be seen as a space that provided a variety of groups an arena to create and display (through the creation/use of portable objects and the organization of space) social networks (Smith 2003b). There are a variety of possible archaeological correlates of the numerous networks of which Banavasi was the locus. The presence of fortification walls for instance, implies a certain level of elite mobilization of labor and other resources, as well as encoding the creation of a distinct urban identity. Additions to the fortifications could occur in contexts of increasing competition or the consolidation of elite authority. Similarly, the organization of religious space within and around an urban center could be contested, and the presence, absence, nature or location of religious structures provides information on complex patterns of legitimation, patronage and even conflict. I discuss the organization of sacred space at Banavasi in Chapter 6.

Michael Coe (1961) argued that in 'tropical forest civilizations' such as the Khmer and the Maya, the wide uniformity of crops and difficulties of transport prevented the emergence of true urban centers, but the presence of an agricultural surplus could support elites and craft production. The typical central settlement in these cultures was a royal cult and administrative center, like Angkor Wat, which was supported by labor and agricultural surplus diverted from the hinterland and which administered its territories through a strong bureaucracy operating from provincial capitals (Coe 1961: 70-73). Although for Coe, cult centers frequently changed with changes in dynasty, the importance of religious centers as an enduring location is highlighted when I discuss the sacred landscape in the Banavasi area in Chapter 6.

For a modern period, William Skinner's (1964; 1965a; 1965b) is an approach that studies the economic organization of central places at the regional level. Skinner drew on central place models in order to argue that rural marketing structures in pre-modern China served to integrate diverse peasant communities. Skinner argued for the existence of an interlocking network of hierarchically organized market towns, where lower level systems were oriented to multiple larger systems and thereby integrated local economies with regional economic structures (Skinner 1964: 31). Market integration in this scenario therefore "reinforced and completed" more discrete administrative structures which tended to be located in towns, which were also higher up in the economic/market hierarchy (Skinner 1964: 8, 31). These marketing systems are seen not only as economic structures but as a social community where social networks and

alliances were created and maintained (Skinner 1964: 32). The place of ancient markets and marketing systems in emergent elite authority has also been the focus of archaeological investigation (Rathje and Sabloff 1973; Shaw 2012).

Banavasi and its hinterland then can be studied not just from the supra-regional perspective of World-Systems approaches, but also by analyzing the regional and local networks of which Banavasi was a part. While a World-Systems perspective allows us to avoid overly restrictive models of socio-political organization by taking into consideration interactions with external 'core' areas, a perspective that acknowledges the importance of regional socio-political and economic organization - including the role of intermediate elite groups - balances the former's emphasis on external 'cores'.

At a heuristic level, my research at Banavasi can be situated within, or defined by, the analysis of three levels of interactions. First is the interaction between Banavasi and the larger politico-economic entity to which it was affiliated (whether a state or an empire). As discussed in Chapter 2, these 'cores' were numerous and shifting. The second level is the interaction between Banavasi and other entities at a similar level of socio-political organization. This heterarchical level (Crumley 1995) is perhaps the most difficult to access with clarity. There is little comparative archaeological data on regional centers adjacent to and contemporaneous with Banavasi, although considerable work has been done on other, later dynastic and imperial capitals and regional centers in Karnataka (Kadambi 2012; Lewis 2006; Lewis and Patil 2003; Sinopoli and Morrison 2005). In Chapter 7, I discuss other possible regional nodes with which Banavasi was connected in the Early Historic period and especially during the time of the early Kadamba dynasty, but once again the limited availability of comparative data restricts my discussion of these sites. The third level of interaction shaping my analysis is the interaction between Banavasi and its immediate hinterland, including the lower order center of Gudnapura and, in a later period, the village of Thigani (Chapter 6) both located in my survey area. These different levels of analysis -- local, regional, supra-regional -- are the central consideration of my dissertation. As I argue below, a systematic survey of Banavasi and its hinterland, as well as the study of other lines of evidence (most notably inscriptions) will allow me to focus on these three scales.

3.3 Defining the unit of study: on scale and the 'landscape'

3.3.1 Why survey?

The starting point of my research was an interest in the long-term temporal and spatial dynamics of Banavasi as a regional center. I consider Banavasi and its immediate hinterland a unit, a "perceived segment of the time space continuum differentiated from others on the basis of one or more defining characteristics" (Schwartzberg 1967: 93) and am concerned with how this relatively arbitrarily defined space functioned even as the states or empires it was part of expanded, contracted or disappeared. In the previous two sections, I argued that my research draws on insights from World-Systems theory and anthropological studies of intermediate elite groups and regional polities, to place Banavasi within larger regional and supra-regional networks while at the same time giving importance to regional developments including the role of local elite groups. In this section, I place my survey of Banavasi and its hinterland within anthropological approaches to regional survey.

Studies of settlements and their contexts have a long and rather complex history in South Asian archaeology. The earliest archaeological approach was rooted in textual studies and historical geography and involved the identification of important ancient sites mentioned in ancient South Asian texts (Cunningham 1854; Cunningham 1871; Cunningham 1879; D'Anville 1759; Stein 1929; Tieffenthaler, et al. 1786). The identification of places and spaces (geographical areas and concepts) in textual sources and their comparative study has continued to be a strong historiographical tradition (Ali 1966; Chattopadhyaya 1984; Chaudhuri 1955; Dey 1899; Law 1954; Morrison 1970). Many of these studies discuss regional classifications (be they economic, social, religious, political/territorial or geographical) and reconstructions of the ancient landscape, settlement patterns and routes of movement as reflected in ancient texts or epigraphs, or in place names (Bhardwaj 1973; Goswami 1984; Pandey 1963). This tradition continues in recent works that attempt to reconstruct the spatial organization of territorial units in ancient and medieval South Asia from references in early texts (Dallaporta and Marcato 2010). It is only relatively recently that archaeological data has been widely used to reconstruct the historical geography of the subcontinent (Chakrabarti 2001; Chakrabarti, et al. 2003; Schwartzberg 1992).

Outside the subcontinent, following Willey's pioneering work in the Viru valley (Willey 1953), investigations of settlement patterns through archaeological survey were fruitfully applied in both the New and Old Worlds (Adams 1965; Adams 1981; Barker 1996; Bintliff 1997; Bintliff 2002; Braidwood 1937; Kowalewski 2008; Parsons 1972; Parsons 1974; Parsons 2004; Wilkinson 2000). These surveys examined not just settlements but also their wider contexts, and became a primary means to collect regional data on site size; distribution and function; change over time; inter-site relationships; artifact distributions and the natural and built environment in a variety of historical contexts. Methodologically, while there has been discussion of sampling techniques in archaeological survey (Nance 1983; Plog 1978; Plog, et al. 1978; Schiffer, et al. 1978), the use of full coverage techniques introduced by William Sanders in Mexico and applied in several other regions (Balkansky 2006; Fish and Kowalewski 1990), was an important development in regional studies. The integration of systemic and processual models, both created by archaeologists and drawn from other disciplines, such as Central Place Theory or site catchment analysis, have also contributed to increasingly theory-driven interpretations of settlement patterns (Crumley 1979; Flannery 1976; Jarman, et al. 1972; Kantner 2008; Roper 1979; Sanders 2001), as have the use of explicitly quantitative methods (Clarke 1977; Hodder and Orton 1976; Wilson and Melnick 1990) and of Geographic Information Systems (GIS) (Aldenderfer and Maschner 1996; Allen, et al. 1990; Bevan and Conolly 2002-2004; Carballo and Pluckhahn 2007; Kantner 2008; Wescott and Brandon 2000; Wheatley and Gillings 2002).

Archaeological surveys increasingly study long-term trajectories and incorporate a multidisciplinary and often multi-scalar approach (Blanton, et al. 1979; Burger, et al. 2002-2004; Feinman and Nicholas 1990; Kowalewski 1990; Montmollin 1988; Spencer and Redmond 2001) In some cases, these approaches derive from an *Annaliste* approach with an emphasis on short-term events, medium term socioeconomic cycles and long-term regional trajectories (Knapp 1992; McCorriston and Harrower 2005; Storey 1999: 209-212).

Apart from the larger regional approaches summarized above, considerable recent work has focused on smaller spatial contexts concentrating, for instance, on specific sites and their immediate hinterlands (Alcock 1991; Bintliff and Snodgrass 1988b; Martens, et al. 2008; Pasquinucci and Menchelli 2008; Rautman 2008). Several archaeological investigations of settlements follow Blanton's (1976) extremely useful argument in favor of a regional approach

51

to the disposition of central institutions (both economic and related to the decision making hierarchy) on the landscape, instead of attempting a classification of settlements into known 'types' which might not be cross-culturally valid (Joffe 1998; Wiley 1979).

Although a later development in South Asia, from the late 1970's onwards (Chakrabarti 2001: 25), regional settlement pattern studies were conducted in various parts of the subcontinent and covered a range of issues. Makkhan Lal in his village to village survey of Kanpur district of the Ganga-Yamuna Doab (Lal 1984), George Erdosy in the Allahabad district of modern day Uttar Pradesh (Erdosy 1988), K. Rajan in parts of Tamil Nadu (Rajan 1994) and Rafique Mughal in the Punjab and Sindh regions of modern Pakistan (Mughal 1997) were primarily concerned with documenting settlement distributions and the reconstruction of site-size hierarchies, and in the case of Mughal, the functional classification of sites. For instance, Erdosy identified a five-tier settlement hierarchy at the Early Historic kingdom of Vatsa in north India, including the political capital at 50 hectares, secondary centers with processing or administrative functions at 10 to 50 ha, minor manufacturing centers between 6 to 10 ha, primary administrative settlement at 3 to 6 ha and villages below 3 ha in size. Erdosy suggests that this hierarchy existed in other kingdoms of north India and is indicative of an "integrated network of settlements" (Erdosy 1988).

Other regional surveys addressed issues of subsistence ecology (Chattopadhyaya 1996; Dhavalikar and Possehl 1974; Murty 1989; Paddayya 1973; Paddayya 1982; Shinde 1985) and site catchment analyses (Pappu 1974; Pappu 1988; Pappu and Deo 1994). More recent survey based archaeological investigations target the urban morphology and hinterlands of small and large regional centers and settlements as for instance, at the Vijayanagara period capital near Hampi in modern day Karnataka (Fritz 1986; Fritz, et al. 1984). Among the most notable is Carla Sinopoli and Kathleen Morrison's multi-year extensive regional survey around Vijayanagara, covering an area of 650 sq. km and (Morrison 2001; Morrison and Sinopoli 2005; Sinopoli 1993; Sinopoli 1995; Sinopoli and Morrison 1995; Sinopoli and Morrison 2006; Sinopoli and Morrison 2008; Sinopoli and Morrison 2005). These and other studies (Bauer 2010; Fogelin 2003; Kadambi 2012; Sugandhi 2008) follow an explicitly anthropological approach and address multiple complex issues of regional social, political, economic and religious organization.

Several surveys locate settlements within their larger regional and supra-regional contexts as, for instance, Monica Smith's systematic surveys at the town of Kaundinyapura and city of Sisupalgarh where local trading networks, that provided not just luxury but household goods, have been identified (Smith 2002a; Smith 2002b; Smith 2001b). Blanton's concept of competition at disembedded centers (or ceremonial sites located in marginal territory) has been applied by Coningham for mid-first millennium AD Sri Lanka (Coningham 1995). Coningham argues that forest complexes of Buddhist institutions served as special function centers, for instance, as the foci of inter-regional military alliances between elite groups (Coningham 1995: 238).

Recent work in Myanmar (Burma) has identified a network of fortified sites along a section of the southern coast, dating to the second half of the first millennium AD (Moore and Win 2007). The locations of these sites indicated their role both in local water management through landscape modification and their possible participation in maritime and land trade routes (Moore and Win 2007: 227-228). Moreover, the spatial distribution of archaeological sites is being used to reconstruct ancient routes of movement (trade or pilgrimage) within the subcontinent (Bhardwaj 1973; Chakrabarti, et al. 2003; Deloche 1993; Deloche 1994; Lahiri 1992; Sarma 1990-91).

Increasingly, survey data is being used to construct models of regional socio-political development. For instance, extensive survey in the hinterland of the Early Historic - Medieval city of Anuradhapura in Sri Lanka has identified a variety of small, ephemeral sites which might have been home to small farming or pastoral communities as well as numerous monastic sites, small production sites (with slag), megaliths and reservoirs (Coningham, et al. 2007). The site categories identified, however, do not correspond to commonly accepted settlement hierarchies including those identified by Erdosy or those advocated in early texts like the *Arthashastra* (a treatise on statecraft compiled in north India in the late centuries BC or the early centuries AD) or even to the elaborate administrative hierarchy known from the early Brahmi inscriptions from the region (Coningham, et al. 2007: 714). The surveyors therefore argue that a site hierarchy based entirely on site size ignores the importance of religious centers which, though small, might wield greater political and economic power than larger settlements (Coningham, et al. 2007: 714-715). They proposed a tentative model of a theocratic geo-political system where a network of

53

Buddhist monastic sites performed the administrative, economic and political functions of larger towns, imposing a unified ideological system (and control) over the largely mobile population of their hinterland (Coningham, et al. 2007: 716-717).

In this brief review, I have highlighted how South Asian archaeologists have examined the spatial organization of material culture in order to reconstruct social, economic and political patterns and processes. Among the new paradigms that have added richness to archaeological survey and regional studies is that of landscape archaeology. Studies of the landscape have a long history in geography and in the British archaeological tradition (Ashmore and Knapp 1999: 3-5; Johnson 2007; Roberts 1987) and continue in a long tradition of attempts to grapple with the spatial organization of the archaeological landscape.

3.3.2 The landscape

Despite calls for a common paradigm and terminology (Anschuetz, et al. 2001), recent archaeological approaches to landscape are sufficiently divergent, and draw upon a multiplicity of theoretical frameworks, to make a brief summary difficult (Hicks and McAtackney 2007; Hirsch 1995; Hirsch and O'Hanlon 1995; Johnson 2007; Layton and Ucko 1999; Stewart and Strathern 2003b). Here I highlight a few important themes, focusing primarily on those I find thought provoking and useful for my study.

Recent archaeological studies have drawn heavily on the post-processual critique of New Archaeology to emphasize qualitative approaches to past landscapes and the intrinsic role of humans in creating and 'experiencing' the landscape (Ashmore and Knapp 1999; Bradley 2002; Bradley, et al. 1994; Tilley 1994). Research also draws heavily from structural Marxism and practice theory to emphasize the idea that landscapes are socially constructed, and to envisage a dialectic of human interaction with both constraining and enabling (material) structures.

From this perspective then, landscapes are not seen merely as a background or determinant of human action but as constituted only when people engage with the world around them, experiencing and altering it. Material structures are seen as both the medium and the outcome of social practices, as well as affecting perception (Crumley 1999). 'Constructed' landscapes (Ashmore and Knapp 1999: 10-12), formed by the physical alteration of the earth's surface by human activity, therefore are the product of specific historical and local conditions that are continuously open to reinterpretation and subject to reproduction (Dommelen 1999:

278). Drawing from phenomenology, several theorists also emphasize the experiential dimension of structures (Johnson 2012; Owoc 2006; Tilley 1994).

'Place' is a fundamental concept within landscape approaches that encapsulates the central theoretical perspective of this paradigm (Hirsch 1995: 8-13) — of a "socially meaningful and identifiable space to which a historical dimension is attributed" (Stewart and Strathern 2003a: 4). From the point of view of the archaeologist, built (or otherwise altered) space can be considered an artifact (Bagwell 2006: 29), the study of which can inform on past beliefs, compulsions and processes. Below, I briefly highlight a few ways in which structures and places can be critically interpreted to provide a meaningful interpretation of past societies. My basic premise is that individuals and communities conditioned by different religious or ideological forces project different patterns of meaning onto the landscape and these patterns can be analyzed to infer something about past thought and historical processes. Monuments too are not just material objects but the result of historically specific perceptions (and constructions) of place and meaning

Landscape approaches highlight the spatial dimensions of a variety of non-urban settlements and small sites in a landscape (Roberts 2003), as well as the role of movement in the landscape (Bender 2001; Jones 2010). A number of studies have focused on 'sacred' landscapes, examining the role of ideology and ritual belief and practice in shaping the constructed and natural landscape (Crumley 1999; Geller 2006; Layton 1999; Oubina, et al. 1998; Preston 1980; Schreiber 2005; Sinopoli 1993). The use of analytical tools like GIS have enriched the reconstruction of social landscapes, for instance, through the analysis of visibility patterns in the past (Llobera 2007).

While the impact of the natural landscape on culturally constructed structures have been studied (Scarre 2002), scholars argue that the physical landscape need not be explicitly marked in order for it to have a specific meaning to a contemporary society (Fontijn 2007). The meanings and values attributed to the landscape by those living within and shaping it are considered a valid field of study. For instance, the role of human memory (whether preserved in textual, epigraphic or oral sources), in mapping mythic, cosmological and moral principles for a society onto the surrounding landscape has been studied (Crumley 1999; Oubina, et al. 1998; Schreiber 2005; Stewart and Strathern 2003b). This could take the form of attributing a mythical

or sacred significance to natural features, or the conceptualization of a particular region as a coherent unit through time, bound by political, historical or mythical traditions. To a certain extent, as will be discussed in Chapter 5, memory and myth as recorded in the early Buddhist textual tradition identifies Banavasi as an important place in Buddhist cosmology. But from at least the early medieval period, the dominant constructed landscape in the region is Brahmanical.

An interesting development is the study of the contested nature of historical landscapes (both in the past and in the present), as well as studies emphasizing the agency of groups, communities or individuals (Aslan 2006; Ayres and Mauricio 1999; Matney 2010; Steadman 2010). Landscapes can be seen as contexts for the display of social and political authority and even resistance, and the relationship between constructed landscapes and power have been explored in numerous studies (Bender 1993a; Bender 1993b; Fisher 2006; Koontz, et al. 2001; Kosiba and Bauer 2012; Smith 2003a). The consideration of people and place in the landscape has also raised questions of the nature of territoriality or ownership of land and boundaries in the past (Brück and Goodman 1999; Kooyman 2006).

The investigation of temporality remains an intrinsic part of landscape approaches. Important issues involve the examination of the long-term history of built structures and places, the idea that structures too have 'biographies', and that the built environment constrains future landscapes though complex processes of memorialization, remembrance or even forgetting and destruction (Ashmore 2002; Beneš and Zvelebil 1999; Bradley 2002; Fontijn 2007: 80; Joyce 2006; Kumar 1999).

This perspective is a valuable one for my archaeological survey at Banavasi, since, with the best will in the world, it is not possible to merely identify and record structures from a single temporal phase. Instead, the archaeological landscape at Banavasi comprises structures from multiple periods, some of which have been re-used, some destroyed and some forgotten, but all of which resulted from ways of engaging with the landscape. Moreover, the sites themselves are often multi-temporal (Holdaway and Wandsnider 2006), belonging not just to one chronological phase but to many. Throughout this dissertation I deal with the temporal dimension at various nested scales (Gosden and Kirsanow 2006). I classify sites within broad temporal categories as well as by function to create multiple GIS-aided site distribution maps at different historical points in time. A landscape approach, aided by GIS functionality, can allow for the consideration

of a multi-scalar understanding (Fairclough 2006; Harris 2006). Such approaches facilitate the incorporation of multidisciplinary approaches and of lines of evidence that might otherwise be ignored.

As is evident from the discussion above, the study of the spatial dimension of material culture can range from rigorous empirical approaches to more humanistic, if not experiential ones. As discussed above, landscape approaches allow us to consider the distribution and relationship between sites. Without necessarily falling into the extreme self-reflexivity of certain approaches to the landscape, a focus on the landscape in the broadest sense allows us to begin to understand "how various and complex are the ways of human living" (Tuan 1977: 101).

3.3.3 Scales of analysis: sites, settlements, and regions

In the section above I briefly discussed the temporal scale of my research. Here, I discuss spatial scale, which is an intrinsic component of both regional survey and landscape approaches to spatial patterning. Considerable discussion about the unit of analysis in regional survey has highlighted the diversity of sites and settlement types (Brück and Goodman 1999; Burke 2006; Carman 1999; Montmollin 1988; Wandsnider and Camilli 1992; Wobst 2006). Archaeologists frequently present settlements as distinct and circumscribed areas on the landscape. However, artifacts may be distributed irregularly over the landscape and 'siteless' approaches attempt to circumvent problems associated with identifying discrete units of study by analyzing and interpreting artifact distributions directly (Bintliff and Snodgrass 1988a; Dunnell and Dancey 1983; Gallant 1986; Lewarch and O'Brien 1981).

At the same time, 'settlements' and 'sites' are useful analytical categories (Binford 1982). Without entering into a detailed discussion on the nature of archaeological sites, I follow Plog *et. al.* (1978: 389) in defining an archaeological site as a "discrete and potentially interpretable locus of cultural materials".[16] Within this category, I include architectural or sculptural fragments, found individually or in groups. I use the term 'settlement' as a catch-all phrase for an agglomeration of habitation, small or large. As discussed in Chapter 6, due to the continuous

---

[16] While 'non-sites' or "potentially interpretable but not spatially discrete [loci] of cultural materials" (Plog, et al. 1978: 389) were not given site numbers, several were recorded or noticed on survey. Mainly such sites were large agricultural areas that had a non-discrete and sparse ceramic scatter that were the result of medieval and modern manuring practices.

occupation at most villages in the Banavasi region, it is difficult to estimate settlement sizes at different periods of time and I use other proxies to estimate settlement size. I therefore avoid classifying settlements as 'urban' or 'rural' since Banavasi, for instance, might have been an Early Historic city but is now classified as a village.

Sites (and settlements) have a fixed geographical locus. However, they may have multiple temporal locations, depending on whether they were the product of a single moment of human activity or whether they were periodically returned to. I am interested in this spatial and temporal patterning in Banavasi and its hinterland and argue that these patterns can be interpreted. As seen in the theoretical reviews discussed in the previous sections, spatio-temporal archaeological data can be interpreted in a variety of ways.

Drawing from my discussion in Section 3.1, it is also valuable to widen the gaze -- to consider the larger region of which the survey area (and its component sites and settlements) was a part. This is a more complex undertaking since the larger region of which Banavasi was a part was not static. For instance, during the early centuries of the Christian era, Banavasi was affiliated with the Satavahana Empire, either directly or under the control of local subordinate groups such as the Chutus (see Chapter 2). In this period then, the larger region was the western Deccan. Subsequently, by the fourth century AD, Banavasi was one of the centers of the Kadamba kingdom which was a smaller unit extending over most of the modern state of Karnataka. As mentioned above, there is little comparative archaeological data for this supra-regional scale.

As a case study, in Chapter 7 I consider this larger region in which Banavasi participated, through a study of early Kadamba inscriptions. The selection of this well-defined corpus allows me to study one of the larger regions of which the survey area was a part -- that of the early Kadamba kingdom. The argument for the use of multiple lines of evidence is a common trope in archaeological literature and there have been attempts to integrate the use of multiple sources in regional investigation (Kowalewski 1997). The link between the use of specific analytical and interpretive procedures and the recovery of varying spatial and temporal scales of past behavior has been noted (Gosden and Kirsanow 2006; Lock and Molyneaux 2006: 5), although not often enough. Putting a multi-scalar and multi-perspective approach into practice raises several issues that are specific to the evidence(s) I am studying. I focus on two major lines of evidence:

archaeological data from systematic survey and inscriptions, a category that, I argue, has both textual and material dimensions.

The relationship between text and archaeology has been explored in many studies (Marcus 1992; Morrison and Lycett 1997; Trautmann and Sinopoli 2002). As has been noted for Roman archaeology, "a balanced, dependable method for integrating textual and archaeological data is still lacking" (Storey 1999: 206), and the same is true in South Asia. In my dissertation, I do not seek so much to integrate textual and archaeological data or to confirm or deny one using the other, an undertaking that is fraught with problems, as to use both archaeological and textual data to create varying (spatial and to a certain extent temporal) scales of analysis. [17] I therefore use both archaeological and inscriptional data to integrate the study of various scales of analysis: from site to settlement (pattern) to region. In the next section, I discuss several current models of regional socio-political organization for Early Historic and Medieval South Asia.

3.4 Models of regional political organization: an overview

In the discussion below, I wish to highlight three main themes. The first is the gradual move away from all-encompassing models of large 'core' areas and their incorporation of smaller regional systems, models that are very similar to traditional core-periphery approaches. The consideration (and increasing availability) of other lines of evidence (epigraphic, archaeological, numismatic) has led to the formulation of more complex processual models of regional complexity and dynamism, which incorporate to varying levels the role of intermediate elite groups. The second, and related issue, is that the consideration of specific categories of evidence seems to be closely linked to the models proposed. This raises an issue that I have touched upon earlier and one that I will grapple with throughout this dissertation: different lines of evidence might display different patterns of regional organization. Third, the models are often temporally or spatially contingent, being developed with respect to specific case studies or historical periods.

---

[17] Perhaps this is the place to admit that my bias lies towards emphasizing the materiality of texts. While studying inscriptions in Chapter 7, I emphasize not only their content but the important information to be gathered from their location. I also do not deal with text as text, with all the necessary and specialized knowledge of textual criticism and analysis that is needed to make such an approach valuable.

3.4.1 'Cores' and their 'peripheries'

As discussed above, traditional models of regional political organization in South Asia construct regional socio-political organization from the perspective of centralized, 'core' polities, typically located in north India. The presence of the Ashokan edicts in the Deccan was taken to indicate the extension of the Mauryan Empire into the Deccan. The traditional view is that of a centralized metropolitan state with its core area in north India, which exerted varying levels of authority over dispersed 'peripheral' areas in different parts of the subcontinent, identified on the basis of clusters of edicts (Thapar 2006: 297-300). These core areas are seen as being economically differentiated, with the Deccan viewed as a center of gold mining (Thapar 2006: 298). It is argued that the area was comprised of semi-independent states or pre state societies that developed into states, under the impetus of the economic reorganization provided by the Mauryan Empire.

This view of a more or less centralized pan-Indian empire that covered large parts of the Deccan has been questioned (Fussman 1987-88; Seneviratne 1978; Seneviratne 1981; Sugandhi 2003; Sugandhi 2008). The reconsideration draws heavily upon recent discussions on the nature of pre-colonial states and empires (Alcock, et al. 2001; Claessen and Skalnik 1978a; Claessen and Skalnik 1978b; Sinopoli 1991; Sinopoli 1994; Sinopoli 2001; Thapar 2006). However, the nature of political organization(s) throughout Karnataka up to the third-fourth centuries AD is still a matter of discussion (see Chapter 2 for a more detailed discussion).

3.4.2 The disintegration of the 'core'

Following the period of the Ashokan inscriptions in the third century BC, the next major corpus of epigraphic material I consider in my work are the copper plate grants from about the fourth to fifth centuries AD. These plates record grants of land made by royal donors to a variety of social, religious and political individuals and groups. In recent decades, traditional interpretation of the function of the land grants as extending a widespread and hierarchically organized royal administration into outlying regions (Majumdar 1970; Sastri 1955; Sastri 1957; Sastri 1967) has been replaced by a historiographic perspective that argues that they are instead evidence for the fragmentation and feudalization of medieval kingdoms (Jha 2000b; Sharma 1995; Sharma 2001; Veluthat 1993). This idea of a feudal form of government with military services rewarded by the grant of land had been proposed as early as the 19th century by

Mackenzie and his assistants to explain for the 'irregularities' they found in the distribution of land on their survey (Robb 1998: 202-203).

Later Marxist variants of the feudal model assigned primacy to land grants as the major cause of feudalization from at least the mid-first millennium AD to the 11th century. Proponents of feudal interpretations argue that these land grants were initially made to Brahmanas, temples and monasteries, and subsequently also took the form of secular service grants with the emergence of local, self-sufficient economies. The alienation by medieval kings of more and more fiscal, administrative and judicial rights to the donees, as well as exemption from interference by royal officials, led to the rise of a class of landed intermediaries who encroached on communal village land to reduce a free peasantry to serfdom (Sharma 1995-55; Yadava 2000: 79-120). This decline, the proponents of this view suggest, led to and was further aggravated by a vicious cycle of de-monetization, de-urbanization and the decline of trade (Nandi 2000a: 303-344; Yadava 2000: 92-93). The increasing number of memorial stones registering the heroic deaths of intermediate elite groups from the eighth century is seen as evidence for the process of subinfeudation with an increasing fragmentation of political and economic authority (Nandi 2000a: 304; Sharma 1995: 56).

The inscriptions are also seen as depicting a period of social conflict where the established Brahmanical order was questioned (especially in the period immediately preceding the 'feudal' one) and eventually replaced by a feudal one (Jha 2000a: 8-9; Sharma 2000: 61-77; Yadava 2000: 79-120). The Talagunda inscription of the early Kadamba king Kakusthavarma is often cited in this regard for its lamentation that the Brahmanas were so much feebler than the Kshatriyas (Jha 2000a: 9).

While the feudal model contributed to a move away from static reconstructions by introducing a critical concern with sociopolitical and economic change over time, as discussed in Chapter 2, the model has been critiqued by many historians who question whether such complex institutions can be created 'from above' through administrative and legal measures, unlike in Europe where feudalism emerged from below (Mukhia 1995: 112-113). The existence of serfdom is also questioned and the exploitation of the peasantry is seen as evidence for the ruling class's political and administrative power (Mukhia 1995: 113-114).

3.4.3 Complexity in the 'periphery'

Increasingly, alternatives to this model of decentralization highlight the complexity of regional and sub-regional forms of political, economic and social organization and not merely the decline through decentralization of complex states. Several of these models parallel and draw upon recent anthropological studies of complex societies that integrate textual and archaeological data in order to construct models of heterogeneous competing entities located in specific historical and cultural contexts, and which are not always cross-culturally applicable (Crumley 1995; Small 1995; Stein 1998: 4; White 1995). Concepts of heterarchical organization have been applied to complex societies of the third century BC to third century AD in the Palghat gap in the modern state of Kerala (Abraham 2002) and to the first and second millennium cultures of the Nilgiri hills of South India, where Zagarell suggests that states in South India possessed heterarchical tendencies as well as centralizing ones (Zagarell 1995).[18]

Increasingly, archaeological data is being used to suggest regional trajectories towards socio-political complexity. Parasher-Sen (2000; 1992), for instance, argues that it is possible to identify ecologically distinct and economically differentiated sub-regions within the Deccan during the mid-first millennium BC, each of which showed a distinct trajectory of development towards more complex forms of organization. For instance, the central Deccan was characterized by the small scale production and exchange of iron objects, as well as by the mobilization of resources by the local elite; agricultural intensification was a significant process in the riverine areas of the eastern Deccan, and to a certain extent in the western Deccan; long distance trade networks were a significant factor in the western Deccan and the southern Deccan capitalized on a proximity to mineral resources (Morrison 1995b: 207-210; Parasher-Sen 2000: 242, 246-247).

B. D. Chattopadhyaya (2003) suggests that inscriptional and numismatic evidence can be used to trace pre state 'localities' in second to first century BC peninsular India which were controlled by a stratum of elite, and which, along with the spread of Buddhism facilitated northern imperial control of parts of region, as well the subsequent rise of the Satavahana state.

---

[18] Models of political heterarchy that emphasize the diversity and constantly changing hierarchical position of peripheral complex polities have been extensively applied in Southeast Asia (Crumley 1995; Stark 2006; Stark and al. 1999; Stark and Allen 1998; White 1995). For instance, O. W. Wolters' *mandala* concept postulated that early Javanese kingdoms were characterized by a multiplicity of local political centers and shifting alliances, particularly at the peripheries. Wolters envisaged a patchwork of often overlapping *mandalas* or 'circles of kings' that were often unstable political systems without fixed geographic boundaries (Wolters 1982).

These localities are described as 'centralized polities' or sites representing a proto-state level of complexity with limited control over the immediate surrounding area but interacting with similar sites (Chattopadhyaya 2003: 40-41). They formed at a local level and controlled local resources and networks of production and exchange, probably emerging from the economically differentiated communities of the Iron Age (Parasher-Sen 2007a: 235, 261; Parasher 1992: 463, 465).

Archaeologically, these localities have been identified by the distributions of uninscribed, and later of inscribed punch marked coins. The transformation of ethnic names like Rathika and Bhoja into titles reflecting status (*Maharathi, Mahabhoja*) is taken to further provide evidence of the formation of elite groups at the level of the locality (Chattopadhyaya 2003: 43). P. L. Gupta's analysis of the punch marked coins series has led to a sub-region wise classification of the inscribed coins, by the local elite groups who issued them (Parasher-Sen 1993a: 82-83).

Other models consider regional case studies in order to identify how hierarchy or heterarchy and political authority were structured. Such models include Stein's seminal model of the segmentary state, initially formulated based on his studies of the Chola region and later applied to the Vijayanagara empire as well (1969; 1980; 1985; 1995). In this model, Chola inscriptions were seen not as evidence of direct political control of intermediate and peripheral areas but of ritual sovereignty where grants to locally powerful Brahmanas bound localities to the Chola kings through standardized rituals (Stein 1995: 137-138). According to Stein, direct Chola political authority was exerted only in the core area of the state. This idea of regional and sub-regional loci of authority that were smaller versions of the central state, is extended in Stein's conception of "nuclear areas of corporate institution" (*nadu*) which were ecologically distinct autonomous economic units with Brahmana villages (*brahmadeya*) and extended Sat-Sudra settlements (*periyanadu*) (Stein 1969: 180-1). These nuclear areas were located in the lower courses of the three major rivers of the Coromandel coast and their gradual expansion replaced tribal, pastoral and hunting groups with caste based village societies (Stein 1969: 184-188, 206).

Critiques of the segmentary state model come mainly from scholars of south Indian history, many of whom use statistical analyses of the Chola inscriptions to question whether their rule could be treated as a single unit and to draw attention to attempts at centralization by the

Chola state through administrative and ritual policies involving more direct penetration into local economies (Champakalakshmi 2001; Hall 2001; Heitzman 1987a; Heitzman 2001; Subbarayalu 2002).

Subbarayalu's (1973) identification of hundreds of distinct and semi-independent territorial and administrative units in the Kaveri Delta during the period of Chola rule from 800 to 1300 AD further focused attention on the existence of multiple centers of authority, at least in the Chola region. Subbarayalu concentrates on Cholamandalam or the Chola heartland in the Kaveri delta and explores the significance of the various territorial units like the *nadu/ kurram*, the *valnadu*, the *naduvilnadu* and the *mandalam*. He establishes that *nadus* were agricultural regions which were key territorial units in the Chola Empire. Apart from meticulously tabulating these units, Subbarayalu is also able to document certain historical trends in their development with regard to their structure and organization (Subbarayalu 1973; Subbarayalu 1995; Subbarayalu 2002).

Another major focus of recent scholarly writings has been the gradual expansion of state society from a central dynastic nuclear area. For example, it has been argued that states expanded throughout the peninsula by integrating local pre-state polities through a variety of processes (See also discussion in Section 2.4.2). These include the expansion of caste society and the peasantization of tribal groups leading to an extension of agrarian systems; the improvement of trading networks; the consolidation and spread of local ruling lineages often through the patronage of a network of royal religious institutions; and the incorporation of local cults into a pantheistic supra local structure, among others (Chattopadhyaya 1995: 213-215; Kulke 1995b: 40-41).

Chattopadhyaya draws attention to different foci of organization of political power in early medieval north India and argues that while state society, as represented by local ruling lineages, had expanded into peripheral areas in the post Gupta period, these lineages do not necessarily correspond to static territorial units (Chattopadhyaya 1995: 217-219). Chattopadhyaya sees the structure of early medieval and medieval supra-local polities as based on the *integration* of this substratum of local lineages which could expand, incorporate other lineage territories or even form complex networks within an overarching monarchical form of polity (Chattopadhyaya 1995: 218-221).

The idea of integration is central to the work of Hermann Kulke who conceptualizes early medieval state formation as a multi-stage process involving the foundation of chiefly power in a nuclear area (reflected in the increasing number of epigraphic records and involving both physical coercion and the legitimizing function provided by Brahmanas), the emergence of the early state kingdom through the integration of peripheral areas and adjacent nuclear areas (through alliances or the establishment of feudatory relationships) and finally, the emergence of an enlarged imperial kingdom (Kulke 1995a).

With special reference to Orissa, Kulke highlights the importance of "nuclear areas of sub-regional [political] power" (Kulke 1978: 126) that became centers of future regional kingdoms. Thus he argues that fifth century Orissa witnessed the development of several small principalities and kingdoms that maintained their centers from the sixth to the 11th and 12th centuries AD (Kulke 1977). These kingdoms, he argues, were influenced by the prior incorporation of Orissa in the large empires of the Mauryas (third c. BC), Kharavela (first century BC) and the Guptas (fourth-fifth centuries AD), but essentially developed "from below" (Kulke 1977: 29-30).

Such nuclear regions are seen as part of a continuous process of political development that involved the integration and incorporation of tribal groups rather than their displacement (Kulke 1978: 127). Internally, these small kings aspired to establish a 'Hindu' political order based on the establishment of a system of tax free *agraharas* gifted to Brahmanas around the core. These Brahmanas formed the administrative and religious elite of the kingdom, and contributed to the gradual incorporation of the region into the larger Brahmanical sphere of religious practice and temple architecture (Kulke 1977: 31-32). Kulke argues that the land grants recorded on copper plates played a role both in establishing royal claims to authority and in extending old or new measures of tax collection and administration through a network of Brahmana villages (Kulke 1997).

These nuclear areas were located in fertile river valleys with a settled peasant agricultural economy, and were gradually integrated into a pan-Indian sphere of Sanskrit learning and temple architecture (Kulke 1978: 127). In Orissa, these areas were seen as entering a formative phase in the fifth century and being fully established by the sixth century with clear evidence of numerous little kingdoms and the increase of land grants to Hindu institutions (Kulke 1978: 128). There

also was, argued Kulke, evidence for the royal patronage of local cults and deities and for their 'Hinduization' (or incorporation into the Brahmanical pantheon), since these early kingdoms were dependent on local tribal support and often emerged from small tribal chieftainships (Also Eschmann 1978 for a detailed discussion on the incorporation of tribal deities into the Hindu fold; Kulke 1978: 129-131).

Kulke's model is an extremely interesting one for the early Kadamba kingdom. I argue that the early Kadamba kingdom began as a small sub-regional lineage that was able to develop into a regional kingdom by incorporating several adjacent sub regions through a variety of integrative processes. In Kulke's model, this expansion was facilitated through sheer military strength and the subjugation of subordinate authorities (or their replacement by relatives and trusted allies), as well as by ritual means, including the royal patronage of pilgrimage sites, a systematic settlement of Brahmanas and the construction of imperial temples, some of which are relevant for the Banavasi region (Kulke 1978: 131-136).

In the final section below, I integrate the theoretical reviews and methodological discussion above to suggest a tentative model of regional socio-political organization for the Banavasi area.

3.5 Banavasi as a 'central periphery'[19]

I started this chapter by considering large cross-culturally applicable models. In the discussion above I wished to highlight the argument that interaction between the center and periphery takes a multiplicity of forms that cannot be reduced to arguments for the 'central' control of the 'periphery' or of completely independent development in the periphery. I draw from World-Systems approaches in that I consider interregional interaction of importance and am interested in how the Banavasi region interacted with larger states and empires, as well as with similar small complex polities.

---

[19] World-Systems theorists have discussed the idea of the semi-periphery. A semi-periphery has been broadly defined as one that mixes both core and peripheral forms of organization where institutional features are intermediate between the forms found in these two areas, is located between the core and the periphery and often mediates activities between these two areas (Chase-Dunn and Hall 1993: 865-866). Since I argue that Banavasi is a regional 'core', the implication is that it could be classified as a semi-periphery with larger imperial 'cores' above, and 'peripheral' areas below it in the hierarchy. However, my focus on the Banavasi area does not allow me to devote extensive attention toward identifying the nature and extent of the 'cores' or the 'peripheries', or to compare institutional features at different levels of this hierarchy or identify processes of mediation. I therefore do not use the term 'semi-periphery' with respect to Banavasi.

I, however, also follow Gil Stein's (1999; 2002) revisiting of a World-Systems approach, where he argues for the importance of models that identify organizational dynamics instead of structure, by incorporating interregional interaction without necessarily assigning it a primary or systemic role in the development of complexity and by emphasizing the role of individual agency. I am therefore also influenced by studies of intermediate elite groups in order to discuss local processes in the Banavasi area.

Methodologically, my choice of a systematic regional survey with a focus on the archaeological landscape provides the *longue duree* temporal perspective that allows me to trace some of the dynamics of regional organization as the Banavasi area shifted from political centrality to periods when it became a 'periphery' under the control of larger imperial polities. A second methodological emphasis on the consideration of both archaeological and inscriptional data enables me to study both the local and the regional spatial scale. During the discussion above, I also highlighted the material culture categories that allow me to identify varying levels of economic, social, political and religious interaction and organization.

I conclude by proposing a tentative model for Banavasi as a nodal point that draws on several of the theories and models discussed above. In discussing its organizational dynamics, I highlight several factors that place the Banavasi area within a larger set of interactions with external, often cycling, cores, as well as other peripheries and also highlight internal developments in the survey area, frequently influenced by these larger interactions, with an emphasis on how local elite groups structured their power. My focus remains the Banavasi region, so to a certain extent external 'core' areas remain amorphous entities in my discussion in that I make no effort to identify the larger systemic implications in the 'cores' of several of the processes I identify. I concentrate instead on how these interactions/ influences structured the archaeological landscape in the Banavasi area.

First, I argue that, although located in a peripheral area, Banavasi can be considered a regional center of some permanence - a 'peripheral core', if you will. Banavasi, as an ancient center, was the scene of a wide variety of specialized political, economic and ritual activities. As has been shown in several archaeological studies (Marcus 1976; Smith 2006), as complexity within a polity increased, it is likely that Banavasi could take on a more specialized function as an administrative or ritual center while during a breakdown of political centralization it might

take on more generalized functions. Banavasi's importance, I argue, lies in its early development as a regional administrative and especially as a sacred center.

Archaeologically, the sacred landscape of Banavasi reveals several of the complex processes of the legitimation of power, both of intermediate elite groups and of groups higher in the political hierarchy (Chapter 5). By the early medieval period, this involved a relationship of royal/elite patronage and Brahmanical legitimation that was heavily influenced by developments in core areas elsewhere in the subcontinent. Interestingly, this pattern is replicated on a smaller scale in Thigani in the late medieval period. Banavasi provided a space where this interaction between political and religious power could be displayed through the construction of Brahmanical temples or the donation of land.

Second, Banavasi's development also can be closely linked to the presence of an intermediate elite family (or successive families of the same name) that considered (or strategically appropriated) the Banavasi area as their 'core' area. In Chapter 7, I consider some of the networks of alliances with larger political entities and with ones on a similar scale that structured the Banavasi area during the period of the early Kadambas, when it was one of their regional capitals.

Finally, I highlight the temporal aspect. The value of heterarchical models for the Banavasi region is the recognition that Banavasi's position in the political hierarchy was not static. While it was located in a peripheral area, it cycled in and out of being a regional center. As will be discussed in Chapter 6, I identify some changes in the internal organization and infrastructure at the site of Banavasi and at adjacent second-tier centers which reflects, archaeologically, changes in regional political organization including the possibility of factional competition between intermediate elite groups. The periodic incorporation of the Banavasi area in larger imperial systems, for instance, was probably accompanied by some amount of conflict as is reflected in the presence of hero stones commemorating death in battle (Chapter 5).

In this chapter, I have acknowledged my debt to many lines of thought, my methodology and my preliminary attempts at formulating a dynamic model of regional organization based on the case study of Banavasi. I will revisit several of these ideas throughout my discussion and in my conclusion (Chapter 8). In the next chapter I describe my survey at Banavasi and construct a chronological framework for analyzing my data.

Chapter 4
Survey at Banavasi: introducing the project and outlining a chronology

4.1. History of Research at Banavasi

As discussed in Chapter 2, the presence of an ancient town at Banavasi was long known from references in Buddhist Pali texts and early inscriptions. Archaeological investigations in the area, however, have been limited to explorations[20] and a few small-scale excavations. In this chapter, I briefly outline the history of previous archaeological research in the Banavasi area. I then describe the methodology adopted for my survey in the area. I conclude this chapter with a discussion of the chronology I use to classify the sites identified on survey.

Characteristic of most research on Banavasi has been a focus on structural remains (especially temples) or inscriptions, both privileged as being easily dated and providing crucial information on dynastic chronology. This preoccupation spills over into the few excavations at Banavasi and Gudnapura, where very often cultural phases have been classified by dynastic labels, for instance, 'Chutu' or 'Satavahana'.

Brief references to the temples and inscriptions of Banavasi are found in early European surveys of the region (Buchanan 1807c: 229-238; Burgess and Cousens 1897: 188-189; Campbell 1883: 261-266). In 1928-29, one of the earliest historical surveys was undertaken by the Rev. H. Heras and George Moraes who toured the 'Kanarese districts of the Bombay Presidency' in search of Kadamba remains (Heras 1929). At several villages, including Banavasi, they recorded temples and sculptures and took rubbings of unpublished inscriptions. Many of these were later published by Moraes (Moraes 1931).

The Archaeological Survey of India has continued the tradition of village-to-village district wide surveys. Results of their fieldwork are published annually in the ASI series *Indian Archaeology: A Review*, containing short notes on archaeological sites, structures and inscriptions in Uttara Kannada district, including the Banavasi-Gudnapura area (I.A.R. 1970-71: 68; I.A.R. 1983-84: 46-47). Academic archaeologists have also done limited work in the region.

---

[20] In the unofficial archaeological terminology of South Asia, 'explorations' refer to unsystematic village-to-village surveys and the recording of noticeable antiquities.

For example, S. S. Malwad and H. D. Sankalia conducted surveys for the Kannada Research Institute in 1955-56 and identified 'three or four' possible Stone Age sites near Banavasi; however, their precise locations were not published (I.A.R. 1955-56: 5).

More relevant to my research, several Early Historic sites are known from the region. These include the ports of Honnavar, Bhatkal, and Basrur along the Karwar coast; Hattiangadi (Dakshina Kannada), a town site with brick fortification and structures and Haigunda, an island on the river Sharavati with structures dating from the first to third century AD (Gowda 2006: 107-108). However, apart from Banavasi and Gudnapura, none of these sites have been excavated or surveyed in any detail.

An early exploration of coastal Karnataka from Goa in the north to Udupi in the south by S. R. Rao of the south-western Circle of the ASI and A. Sundara in 1968-69 included a survey of the mounds in and around Banavasi (I.A.R.1968-69: 24). They dated the site to at least the third century BC based on the finds of Iron Age Black and Red Ware, Polished Black Ware and Red Ware and molded bricks (Patil 2006: 235-236). However, apart from a brief reference in the annual report for that year, there is no detailed information on their survey.

In 1971, Sundara undertook another survey of coastal Karnataka and Uttara Kannada district. In the Banavasi-Gudnapura area he identified Iron Age ceramics at Kantraji and Early Historic sites with characteristic pottery and brick bats at Harishi, Iduru and Mutalkoppa and a brick structural mound of the second-third century AD at Kadagodu (Patil 2006: 237-238; Sundara 1979: 165-166). Sundara also mentions several hemispherical mounds in the Banavasi-Gudnapura area. Near Banavasi were mounds named Kanchi Mane (BNV VI), Umi Gudda, Handi Kandi, Kagi Gudda (BNV IV); Handaki Gudda near Thigani village (probably BGRS 26, brick structure on hill, see Section 6.1.1.2); mounds in Haluru Byana and a large brick mound in Kadagodu (BGRS 71) (Sundara 1979: 164-165). Finally, a later survey in the Uttara Kannada district by S. S. Nayak identified megalithic stone circles in Mutalkoppa, a small village approximately three kilometers south of Banavasi (I.A.R. 1983-84: 47). Most of these sites and mounds cannot be identified today. They have either been destroyed or the names are no longer remembered.

Limited excavations have been conducted at Banavasi and Gudnapura. Over three seasons from 1969-1972, small scale excavations were conducted by the Department of Ancient

History and Archaeology of Mysore University under the direction of Dr. M, Seshadri and in collaboration with the Karnataka State Department of Archaeology (Murthy, et al. 1997).

Following a straightforward culture-historical, the main aims of this early excavation were to understand the antiquity of Banavasi, and especially of the Early Historic period at the site (Murthy, et al. 1997: 55). The excavators also wished to ascertain the 'Asokan or Mauryan connection with Banavasi', as well as its relationship with the Satavahanas and the state of Buddhism in Banavasi as made out by the Buddhist texts (Murthy, et al. 1997: 55). An immediate concern was the excavation of a mound (BNV I) that was being destroyed due to the removal of burnt brick to use in the construction of a bridge over the river Varada.

During the excavations eight trenches were laid in and around the modern village of Banavasi, numbered BNV I through VIII (Figure 4-1)[21]. The excavations established a sequence of occupation from the early centuries of the Christian era up to the present day (Murthy, et al. 1997: 56-70). Two apsidal brick structures were exposed in trenches at BNV I (known locally as 'Doni-gudda') and BNV VI. Both have been dated to the 'Satavahana period' (second century AD) due to the diagnostic ceramics found and the use of brick of a typical fabric and size (45×26×7.5 cm) that are dated to that period (Murthy, et al. 1997: 71-78; Seshadri 1970-71).The nature of the structures is still a matter of debate. It has been suggested that the first, larger structure on the banks of the Varada was a Buddhist *chaitya* (Murthy 2002: 272). However, a 'Skanda'[22] sculpture (similar to second century AD sculptures from Nagarjunakonda) found during the excavations of the second structure indicates that it might have been a Brahmanical temple (Murthy 2002: 273; Murthy, et al. 1997: 76).

---

[21] The locations of the excavation units have been estimated from a rough map provided in the brief excavation report since no GPS locations were given (Murthy, et al. 1997). The location of BNV VIII is especially uncertain.
[22] Skanda is the name of a deity popular among Hindus, and is considered the first-born son of the god Shiva. Interestingly, Skanda finds a place in the Buddhist tradition as a Boddhisatva.
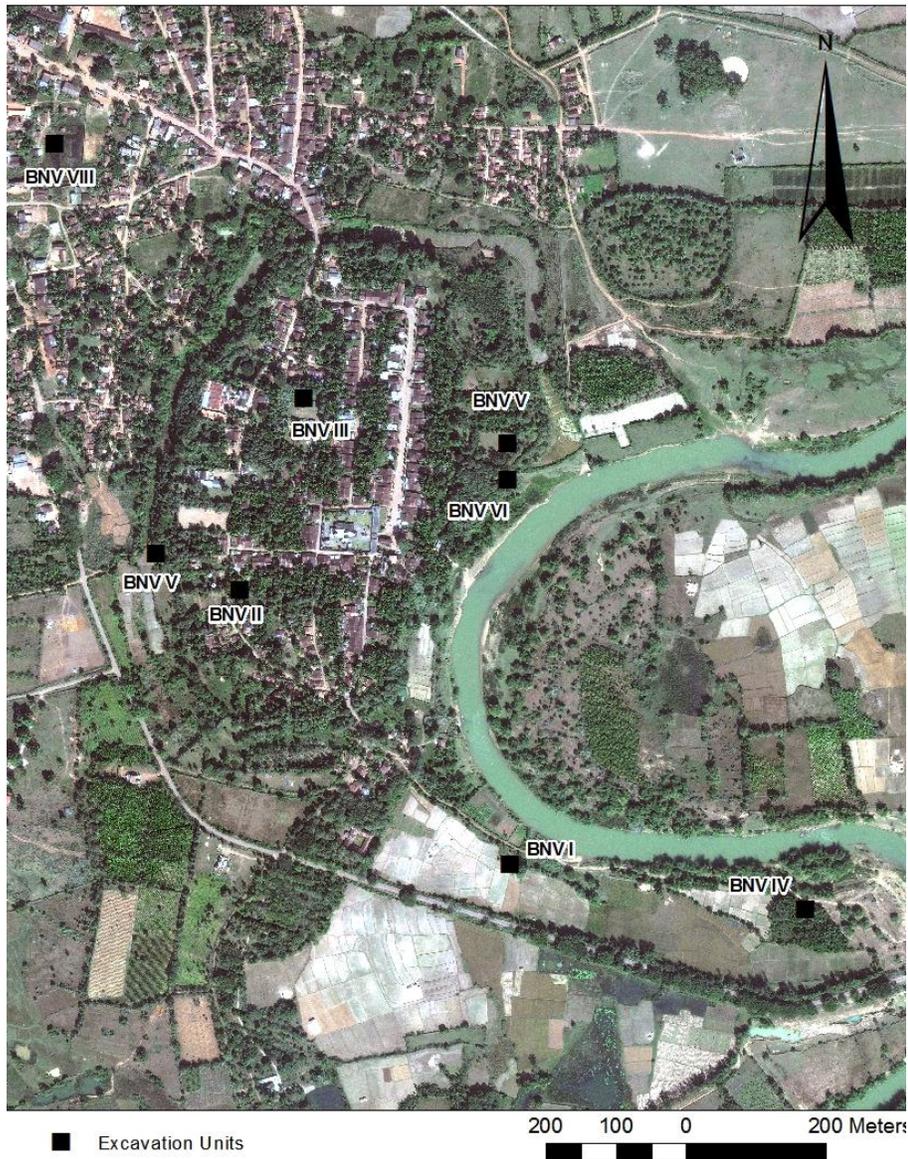
Figure 4-1: Excavation units at Banavasi, 1969-70

Artifacts found during the excavation include terracotta figurines similar to those from Early Historic levels at sites such as Sannati, as well as Black and Red Ware, Red Ware, one sherd of Northern Black Polished Ware (NBPW), Rouletted Ware, a variety of decorated pottery, and Satavahana coins, most indicating a date for the site in the early centuries AD (Murthy 2002: 274-276). A bead making mold with Brahmi letters dated paleographically to the third century BC (Murthy and Patel 1998: 91-92) and two Mauryan punch marked coins hint at an even greater antiquity for the site (Murthy 2002: 274-276).

In 1994-96, K. P. Poonacha and the Bangalore Circle of the ASI conducted two seasons of trial excavations within the fort of Banavasi. The locations of these units are unclear. The excavators identified a four-fold sequence of cultural assemblages from the early Chutus through the Satavahanas and Kadambas to the post Kadamba period (I.A.R. 1994-95: 40-41; I.A.R. 1995-96: 42-45).

The adjacent site of Gudnapura was excavated by the Bangalore Circle of the ASI over five seasons from 1988-95 (I.A.R. 1988-89: 36-39; I.A.R. 1989-90: 43-45; I.A.R. 1990-91: 31-32; I.A.R. 1993-94: 67-68; I.A.R. 1994-95: 41-43). The focus was on the area next to the Virabhadra temple (BGRS 202) in order to correlate the structures to the fifth-sixth century AD inscription of Kadamba Ravivarma found nearby (I.A.R. 1988-89: 37). Several brick and laterite[23] block structures, believed to be part of a large architectural complex, were exposed below the 12th century Jaina temple[24] standing at the site. The complex has been dated to the 'Kadamba' period (fifth-sixth centuries AD). It was interpreted as a palace-temple complex containing the temple to Kama ('*kama-jinalaya*'), a platform for dance performances, two dance halls ('*nartana-mandapa*') and several auxiliary structures, many of which are mentioned in the inscription above (I.A.R.:41-43).

It should be noted here that there is still debate about the interpretation of the Gudnapura inscription. There is no consensus on whether the temple mentioned in the inscription was built to the Brahmanical deity Kama or Manmatha (Gai 1992a: 224-229; Gai 1996: 110-111) or to the Jaina deity Bahubali (Gopal 1973: 66-67). While the detailed report of the excavation has not been published, it is likely that the complex was comprised of structures built at different times. As noted briefly by the excavators, a large burnt brick structure could be assigned to phase preceding the construction of a *trikuta*[25] structure built of laterite blocks since some of the later walls abut but are not bonded into the earlier ones (I.A.R. 1989-90: 44; I.A.R. 1990-91: 31-32). The earlier rectangular, east-facing, two roomed structure was subsequently identified as the temple to Kama and the adjacent structures as part of a palace complex (I.A.R. 1994-95: 41-43).

---

[23] Laterite refers to a variety of iron-rich rock-like and soil-like products that develop as a result of the chemical weathering of the parent rock (See Section 6.3).
[24] Now converted into a Virabhadra temple.
[25] A *trikuta* temple is one which has three shrines, each with a distinct superstructure, and with each typically facing in different directions.

The structures at the site seem to span from the Early Historic to the Late Medieval periods based on the finds of flat and multi-cusped Early Historic roof tiles and Late Medieval black and red wares (I.A.R. 1988-89: 39; I.A.R. 1989-90: 44-45).

4.2. Banavasi-Gudnapura Regional Survey (BGRS)

4.2.1 Geography

Over three summer seasons from 2009 to 2011 I directed a systematic survey of approximately 50 sq. km centered on Banavasi and Gudnapura. As discussed in Chapter 2 and above, Banavasi has long been known as a socio-political center dating to at least the Early Historic period. Banavasi remains the largest village in the survey area and lies on the main Sirsi-Sorab road. Smaller paved and unpaved roads connect Banavasi to the several small villages that surround it (Figure 4-4).

As mentioned above, recent excavations at Gudnapura exposed a large building complex, some of which might date to an early period. Moreover, an important early Kadamba inscription (dated to the fifth or sixth centuries AD) was found in the village. A preliminary reconnaissance of the area in 2008 confirmed the presence of an Early Historic ceramic scatter at Banavasi and possibly at Gudnapura, as well as extensive early and late medieval construction at both sites.

The survey area was selected to include both settlements in order to be able to collect regional data around a center and comparative data from a possible lower order center. As discussed in Chapter 3, one of the scales of analysis I am interested in is Banavasi's immediate hinterland. The survey area was defined by two 5×5 km blocks, the first centered on Banavasi (Block 1, 'B') and the second on Gudnapura (Block 2, 'G') (Figure 4-2). A UTM[26] grid (for zone 43N) was overlain on this area, dividing it into one square kilometer blocks. Within each 25 square kilometer blocks, these smaller units were numbered from 1 through 25.

As base maps the survey used topographic maps from the Survey of India (1: 50,000, Nos. N/2 and J/14, surveyed in the 1970's) and Google Earth images. Satellite imagery was obtained from Worldview-2 (pan sharpened natural color, .5m resolution, from December 21,

---

[26] The Universal Transverse Mercator (UTM) is a two dimensional geographic coordinate system based on the WGS84 ellipsoid that divides the earth into sixty zones.

2010) for Block 1 and Quickbird (pan sharpened natural color, .6m resolution from May 21, 2005) for Block 2.
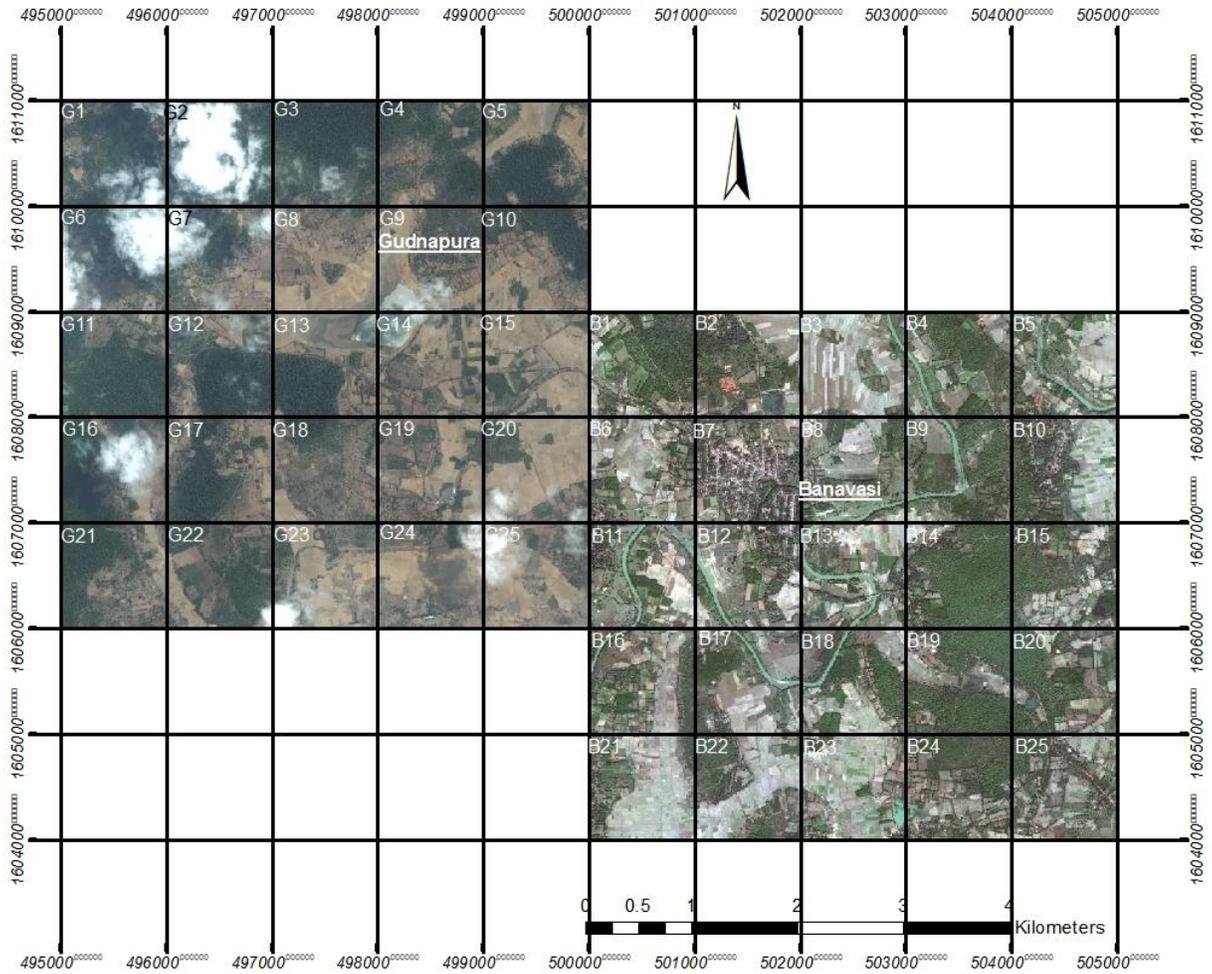
Figure 4-2: The Banavasi-Gudnapura Survey Area

The Banavasi-Gudnapura survey region is located in an area of undulating topography just east of the steep Western Ghats, a region that is also known as the *malnad*. It is characterized by low, forested hills, interspersed by relatively flat areas often with alluvial deposits (Figure 4-3). The underlying bedrock is classified as the Dharwar craton comprising gneisses and greenstone-granite belts, often overlain by lateritic formations (Govt. of India 2006: 2-3, 14-15). The area is drained by the River Varada, a perennial east flowing tributary of the Tungabhadra River, which meanders through the survey area and curves to run along the east fort wall of Banavasi.

Forest cover ranges from dense mixed deciduous and evergreen forest to sparse scrub. An area of approximately 140 hectares in the immediate vicinity of Banavasi have been classified as 'Reserved Forest' and contains several species of trees used for timber, including varieties of teak and rosewood (Balasubramanyam 1967: 3-4). Bamboo is ubiquitous and some amount of sandalwood is also found. A comparison between the Survey of India maps and current satellite imagery shows some recent encroachment of forest area due to the expansion of agriculture. The rich clay and lateritic soils of the area are rain-fed or irrigated by reservoirs and canals and divided into numerous fields. The primary crop is a single *kharif*[27] harvest of rice (Balasubramanyam 1967: 36). Other cash and plantation crops are also cultivated, for instance, horse-gram, ground-nut, pepper, cardamom, pineapple and areca.

Figure 4-3 below, depicts the modern land cover of the survey area. I have used this map as the base map for all the maps generated in subsequent chapters. I have done so in part to indicate how current land use might have impacted my survey strategy and results, as will be discussed below and in subsequent chapters.
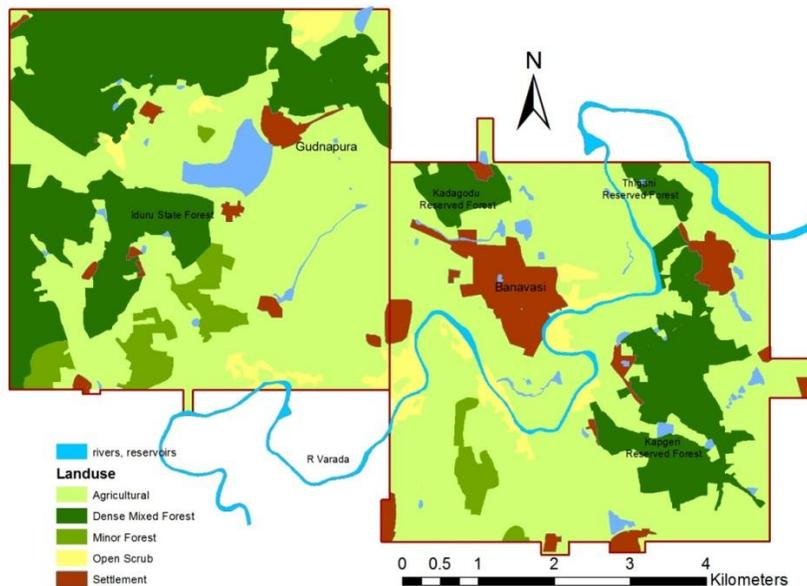
Figure 4-3: Banavasi-Gudnapura Regional Survey: Land cover map

---

[27] Typically, *Kharif* crops are sown by the beginning of the south-west monsoons in June-July and harvested in winter.
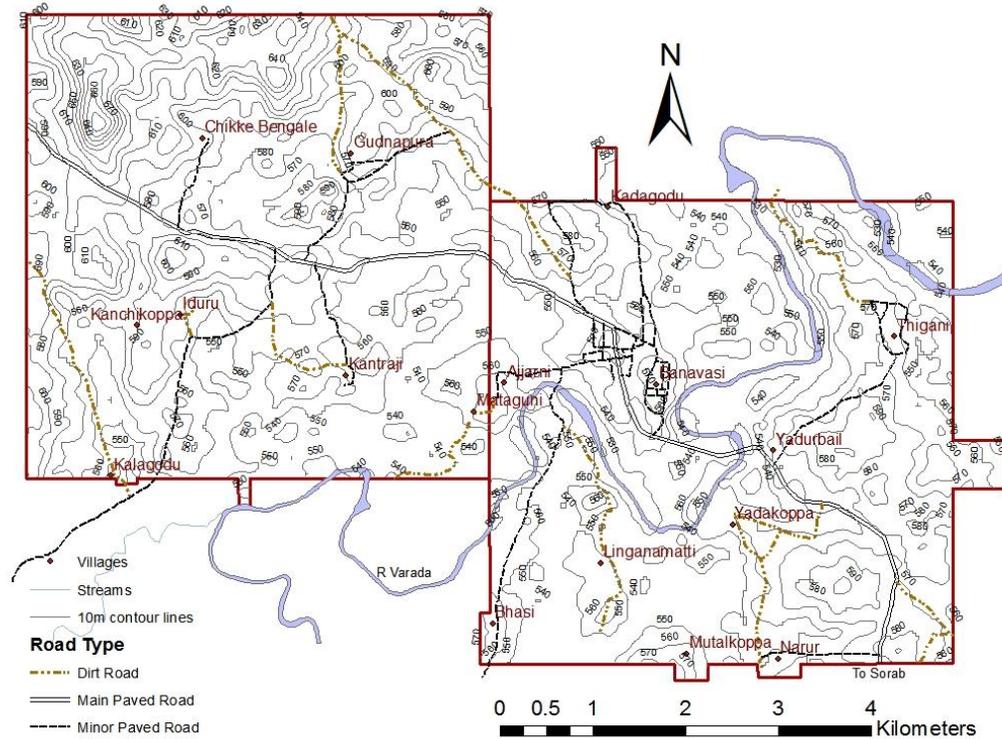
Figure 4-4: Banavasi-Gudnapura Regional Survey: Villages and Contours

4.2.2 Survey Methodology

The Banavasi survey block was systematically surveyed by a team of three to four members spaced 20 meters apart, following survey methodologies developed by the Vijayanagara Metropolitan Survey Project (Sinopoli and Morrison 2006; Sinopoli and Morrison 2008) and applied elsewhere in peninsular India (Fogelin 2003; Kadambi 2012). I wished to ensure complete coverage and enable the identification of even small sites. Modern boundaries (roads, field boundaries, walls) were used to parcel each square kilometer block into smaller units, which were individually surveyed, with transects oriented along cardinal directions. In some cases, dense forest areas were inaccessible and could not be systematically surveyed. In areas where it was difficult to walk regular transects, we followed informal dirt tracks or paths through the forests. Over 90% of the survey of the Banavasi block was completed over 16 weeks in 2009 and 2010; recording more than 200 sites.

Based on the results of the Banavasi survey, a more targeted survey was conducted in the Gudnapura block. This strategy was adopted due to time constraints and the expected (and

77

observed) lower density of sites in this area. I also wanted to cover a larger area, including villages at a distance from Gudnapura to collect data on a possible third tier of small sites. Moreover, the village of Gudnapura has been disturbed by previous and ongoing excavations conducted by the ASI.

During my survey in the Banavasi area, I noticed that sites tended to be concentrated in certain areas, specifically within contemporary villages and on the outskirts of habitation, next to reservoirs and occasionally, on accessible hill tops (Figure 4-5). Large agricultural tracts typically did not contain many sites, and those that were found tended to be located along the margins of these areas. The premium placed on arable land, centuries of intensive agricultural activity and the periodic flooding of these low-lying areas have all probably contributed to the absence or poor preservation of sites in these areas.
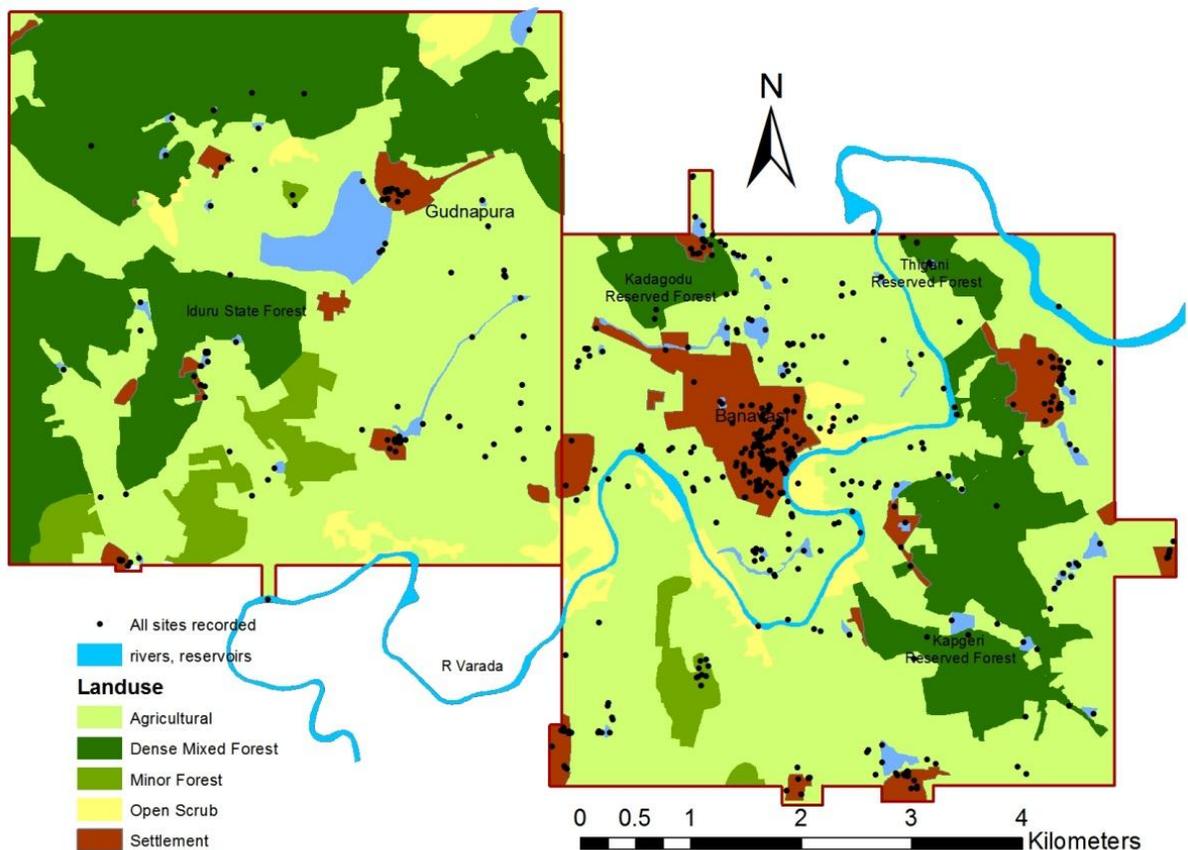
Figure 4-5: All sites recorded in the survey area

Therefore, during my survey of the Gudnapura block, I decided to exclude field areas where sites were not expected. I limited my systematic survey to villages, hill tops and field boundaries. Moreover, to enable me to complete the work in the time available, certain categories of small sites were not recorded in detail. I had noticed in the Banavasi block that Naga stones were ubiquitous in small shrines outsides homes and in fields. As discussed in Chapter 5, the stones are of varying sizes and depict one or more snakes in relief. These sculptures are nearly impossible to date and I decided not to assign site numbers to the Naga stones in the Gudnapura block so as to be able to focus on larger sites more relevant to my research questions.

A total of 355 sites were recorded in the survey and each was assigned a unique number (Appendix 6 su,,arises all the sites recorded on survey).[28] Large sites with multiple associated structures, ceramic scatters or architectural fragments were divided into separate numbered features. Each site was described on a standardized field form, recording information on GPS location, size, geographic setting (topography, slope, soil type) and present land-use (cultivation, water sources, erosion/disturbance, historical function, presence/absence of ceramic scatters and their nature and density, and probable date (Appendix 1).

A handheld Garmin 60CSX GPS was used to locate every site. Sites were also photographed and mapped using a Brunton compass and pace measurements or using the GPS. All maps were made with reference to true north after correcting for declination (based on data given in the Survey of India maps).

Following fieldwork, sites were classified by date and possible function and were tied into a geo-referenced ArcGIS database with separate layers containing data on sites, architectural remains (identified both through the survey and known from the published literature), inscriptions, historical maps, landforms, water sources and other geographic data. The survey data was displayed on base maps created from remote sensing imagery and contemporary geographic data. Land use patterns were digitized from Survey of India maps, correcting from recent satellite images and ground truthing. Ten meter contour lines for the area were derived from ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) Global

---

[28] A few of the sites were located outside the boundaries of the survey blocks, especially if a village was bisected by the block boundary. In such cases, interesting sites immediately outside the blocks were recorded.

Digital Elevation Models (GDEM). The analysis modules available in the ArcGIS software suite have been used to analyze the collected data and examine temporal changes in the use of the landscape in the survey area, as will be discussed in detail in Chapters 5 and 6.

Where surface artifacts were visible, surface collections were made. After determining the site boundaries based on the density of the sherd scatter, architectural remains and other features; and depending on the terrain and nature of land cover an appropriate collection strategy was determined. My initial strategy was to completely collect small sites (less than 20 square meters) and to collect a 30% systematic sample from larger sites. However, in the field, this strategy had to be revised for several reasons.

First, the vast majority of sites are located in areas that are still in use, making systematic collections difficult. These included agricultural fields, sacred sites still in worship and areas of modern habitation or construction. The few sites that were completely abandoned had been considerably disturbed by agricultural activity or looting. In several cases, we had to quickly record and make judgment collections from sites that were being destroyed. For instance, BGRS 207 was a possible stupa site that was being leveled to expand agriculture; were only able to record the outlines of the site and collect a few sample intact tiles.

Second, I began to question the value of making extensive collections. As will be discussed in some detail in Chapter 6, the surface ceramics were often extremely eroded. Their primary importance lay in allowing us to broadly date sites from diagnostic ceramic types and forms. Due to the disturbed nature of most sites, information in intra-site variability was limited. Moreover, we began to discover that roof-tiles were often temporally diagnostic, but collecting large quantities of similar (and heavy) tiles was not helpful.

Ultimately, our strategy involved the careful recording of site boundaries and disturbance, sherd densities, on-field identification of ceramics and the judgment collection of diagnostic ceramics and sample tiles. Extensive collections were only made at sites that were in danger of being destroyed or at large, multi-period sites. For instance, BGRS 46 is an extensive Early Historic mound and scatter south of the Banavasi fort that is being leveled to build a college. We made several collections across the mound on days when there was no construction activity at the site (or on lunch breaks!). Most of the data on intra-site patterning from BGRS 46 will be useful for future excavations plans.

4.3. Time and space: classifying and dating sites

During the Banavasi- Gudnapura Regional Survey, we recorded 355 sites and over 600 individual features.[29] In chapters 5 and 6, I discuss spatial and temporal patterns in the archaeological landscape of the survey area. Through a consideration of these patterns I investigate the historical development of religious and political organization at Banavasi, a theme that is continued in Chapter 7 using a very different dataset - inscriptions. Below, I discuss the methodology used to classify and date the sites.

All of the sites were classified into eight main categories, which will be discussed in some detail in the next two chapters: Sacred, Commemorative, Habitation, Production, Agricultural, Public, Inscriptions and Miscellaneous. This initial classification of sites was a simple one and in many cases, sites were multipurpose, or their use changed over time. For instance, abandoned laterite quarries could subsequently serve as water storage features or tanks. Where appropriate, I dealt with this issue by assigning each site and feature a primary-use category and a secondary-use category.

Where possible, sites were also grouped into temporal categories. The classification of sites both by use and date highlights the dynamic nature of the historical landscape in the survey area. Sites cannot be considered static entities, easily assigned to a specific spatial and temporal location. Not only were places used and reused over time but their uses could change dramatically, as in the above mentioned example of quarries being converted to tanks.

In most cases, sites could only be broadly classified as falling within temporal brackets that spanned a couple of centuries. Therefore, based on the historical discussion in Chapter 2, four periods were identified and sites were grouped into these phases (and sub-phases, where possible) (Figure 4-6).

The first phase (I) covers the period from the second or third centuries BC to the seventh century AD and can be broadly termed the 'Early Historic'. This phase was further divided into two sub-phases. The first (A), from the late centuries BC to the fourth century AD marks the beginnings of complex organization. During at least the early part of this phase, the region might

---

[29] Out of these 355 sites, approximately 20 were sites that we were not able to find on survey but which had been recorded by earlier scholars. Such sites included the early excavation units in Banavasi and a few inscriptions that had been published but are now not in their original locations.

have been included in the Satavahana Empire and was probably administered by the Chutus, a local intermediate elite family. In the second sub-phase (B), from the fourth century to the early seventh century AD, the Kadamba family established itself at Banavasi.

During phase II, from the seventh to the 14th century AD (the Early Medieval period), the region was incorporated under several successive empires (See Section 2.5, for a detailed discussion of the history of the Banavasi area). Throughout this period, the region became entangled in larger contests for authority waged across large parts of peninsular India. Nonetheless, it seems likely that day to day control of the Banavasi region lay in the hands of a strong substratum of smaller intermediate elite groups. The survey area lies in what came to be known in this period as Banavasi-*nadu* or Banavasi- *mandala*, an administrative unit that covered the southern part of modern day Dharwar district, the western part of North Kanara and the northern parts of Shimoga Districts (Kan 1995: 524).

It is difficult to fine-tune temporal clarity in order to delineate archaeological or architectural sub-periods within this long expanse. At a very general level, it is possible to differentiate between the temple architecture of the early and the later Chalukyas. Rashtrakuta temples are also architecturally distinct from the early Chalukya temples, but very few were built in northern Karnataka (Foekema 2003: 13). During the 11th and 12th centuries, there was a noticeable increase in temple construction under the later Chalukyas (Foekema 2003: 13). Therefore, I have defined two tentative sub-periods for this second phase: seventh to mid-eighth century (A), and the mid-eighth to 14th century (B). As will be discussed below, while it is possible to group temples into earlier or later sub-periods, it is often difficult to group other sites into these sub-periods and in many cases they can only be placed in the larger Early Medieval phase.

The establishment of the Vijayanagara Empire in the 14th century marks the beginning of the third phase (III), the 'Late Medieval', dated between the 14th and the 18th centuries. This phase can also be divided into two sub-periods (A and B). In sub-period A, spanning the 14th through 16th centuries, the area remained under the control of intermediate elite groups under the overlordship of the Vijayanagara rulers. After the fall of the Vijayanagara Empire, the Banavasi region was ruled by the Chiefs of Sonda and their feudatories up to the 18th century (B). In the

final, fourth phase (IV), dating from 1800 to 1947, the region came under the control of Tipu Sultan and then the British.

Figure 4-6 presents the bare outlines of the historical trajectory of the Banavasi region. Like previous scholars, I employ dynastic history to structure a preliminary and easily identifiable temporal framework. As will be discussed in Chapters 5 and 6, archaeological data allows us to populate this framework with numerous other, often overlapping, patterns. Some of these patterns fit into this temporal trajectory while others are more difficult to pin down into a neat linear trajectory. Together all form part of the complex socio-political and religious landscape of the region.

With this temporal framework as the background, in the next chapters, I present the results of my archaeological survey in the Banavasi-Gudnapura area. I first turn to a discussion of the sacred and commemorative landscape in Chapter 5. I outline the development of religious structures and sites in the area and situate them within larger processes of religious and political organization. I especially highlight the close connections between political authority and religious institutions, and how these interactions are manifested archaeologically in the survey area. In Chapter 6, I continue my discussion of the wider inhabited landscape by examining defensive and agricultural sites, as well as settlement organization. Throughout these chapters, my concern is with reconstructing the socio-political organization of the regional center of Banavasi in the context of changing interactions with core areas, and with other peripheral areas located both in peninsular India and in the northern half of the subcontinent.
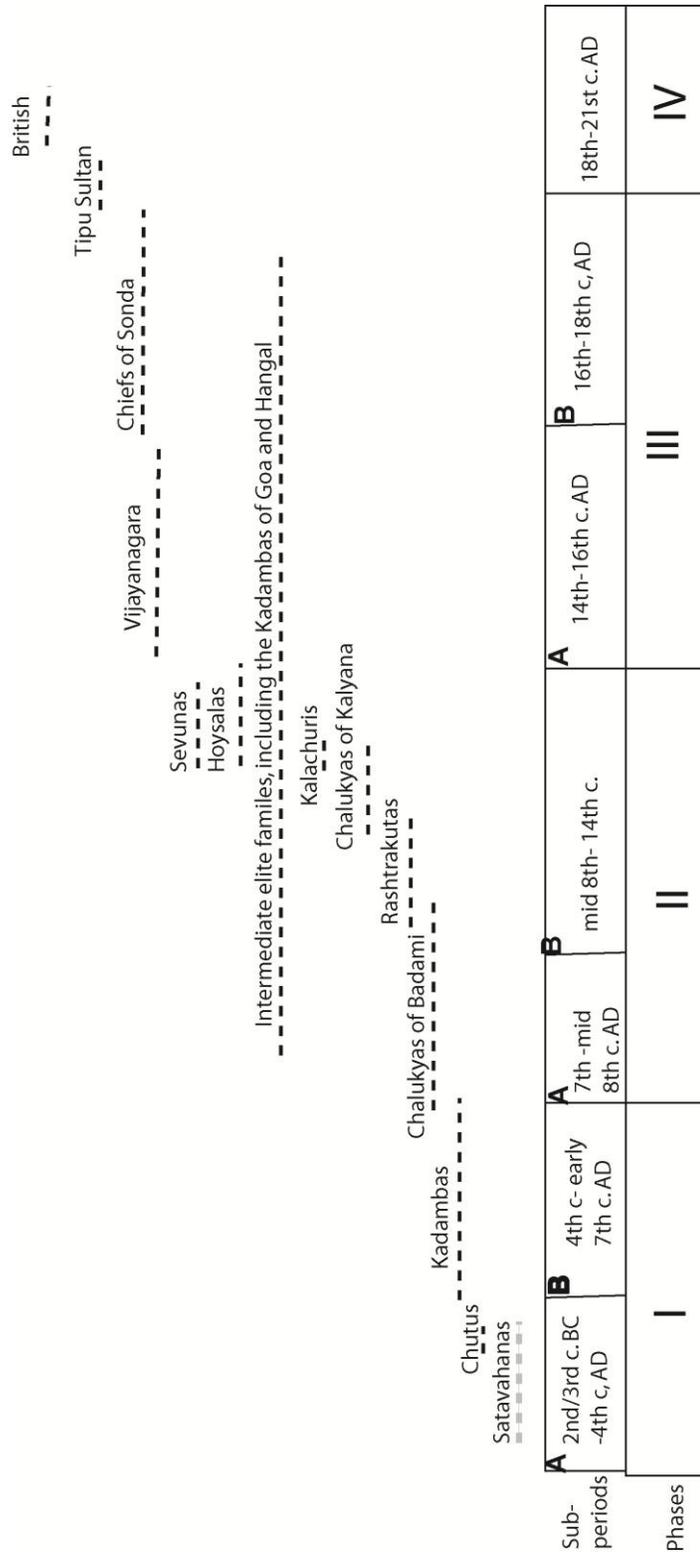
Figure 4-6: Temporal phases in the Banavasi area

Chapter 5
Sacred and Commemorative Landscapes

5.1 Religious sites

The majority of sites found in my survey are sacred constructions, dedicated to both the major religions of the subcontinent (i.e., Vaishnavism, Shaivism, Jainism) to folk traditions. It is important to note that there is no necessary clear and impermeable division between these two. The complex and often reciprocal relationship between 'Little Tradition' (village, folk, lower caste) and 'Great tradition' (Brahmanical, elite, pan-Indian; after Redfield 1955) has been much discussed in South Asia (Nath 2001; Singer 1955; Staal 1963). Considerable attention has been devoted to the processes by which small, local deities were incorporated into the Brahmanical tradition (Eschmann 1978; Hegewald and Mitra 2008; Kulke 1977; Murthy 1997b; Singh 1993).

Architectural and iconographic evidence in the survey region indicate the coexistence of a variety of religions and sects, as well as what might be called 'Great' and 'Little' traditions. The processes seen in the survey area however cannot be reduced to a simple incorporation of the 'Little' local cults within the 'Great' Brahmanical religion and its associated Sanskritized worldview (Pollock 1996). As will be discussed below, while Brahmanical temples came to dominate the religious landscape, small, local shrines continued to dot the survey area and competing sects continued to occupy a small but prominent place in the religious landscape of the survey area.

Today, the dominant religion in the region is Hinduism, with a strong Shaivite leaning. Banavasi is the focal point of this tradition and the central Madhukeshwara temple in the village is a place of pilgrimage, drawing visitors from the larger Karnataka region. Outside of Banavasi and in adjacent villages, the Lingayat sect (see below) is fairly strong. While there is only a single functioning Jaina temple in the survey area today, there is considerable evidence that this religion had a wider sway from the fifth to sixth centuries to about the 16th century. Earlier, before the fifth century, it is likely that Buddhism was also practiced.

Underlying these religions lay a strong substratum of smaller folk cults and practices, whose material remains are extremely difficult to date. As I elaborate below, the importance of

these various religions and belief systems fluctuated considerably over time and was often closely linked to patronage by the dominant political authority. Below, I delineate the changing sacred (and commemorative) landscapes in the survey area, and through this discussion also examine issues of political organization, especially as it pertains to elite legitimization tactics and patronage. I also explore the interaction of the survey area with external core areas, as reflected in the level of adoption of pan-subcontinental architectural styles and religious traditions.

5.1.1 Early Religious Practice: Buddhism

While the majority of extant religious structures documented in my survey belong to Hinduism, Jainism and the Lingayat sect, early textual traditions suggest a close connection between Banavasi and Buddhism, a connection that is also borne out by some early inscriptions. The Sri Lankan Buddhist chronicles in Pali dating to the early centuries AD (the *Dipavamsa* and *Mahavamsa*) record that following a Buddhist council at Pataliputra, missionaries were dispatched to several regions, including Vanavasi (Shastri 2006: 71).

Three early inscriptions inform on the presence of Buddhist practice at Banavasi. A Prakrit Ikshvaku inscription from Nagarjunakonda in the modern state of Andhra Pradesh dated to the third or fourth centuries AD records the visit of Buddhist monks from Sri Lanka to Vanavasi among many other regions (Vogel 1929-30: 7-8, 23). Another inscription from the same place and period records the construction of a *vihara*[30] by Kodabalasiri, daughter of Shri Virapurushadatta, sister of the (Ikshvaku) king Vashishthiputra Sri Ehuvula-Chamtamula, and the queen of a unnamed king of Vanavasaka (Vogel 1929-30: 5-6, 15, 24-25). The third inscription is from Karle in modern Maharashtra, and records the construction of a *shilagraha* (stone chamber?) by a merchant from Vaijayanti (Ritti 1989: 316).

At Banavasi itself, archaeological evidence for Buddhism is limited. A second century AD inscription commemorates the queen of the King Vashishthiputra Shiva Sri Satakarni. This inscription is recorded on a rectangular slab with an eroded *chaitya*[31] motif on the top and a pointed base (to affix to a socket) (Murthy, et al. 1997: 27). A third century AD inscription from

---

[30] *Vihara* is a Sanskrit and Pali term for a Buddhist monastery or row of monastic cells.
[31] A *chaitya* is a Buddhist structure that houses a *stupa*, which is a hemispherical memorial tumuli of brick, stone or earth. *Stupas* are held to house the remains of the Buddha or other Buddhist relics, and typically have a circumambulatory path around it.

Banavasi records the construction of a tank, *vihara* and *naga* by Nagashri, the daughter of the Chutu king, Vishnuskanda Satakarni (BGRS 280, Feature 21) (Appendix 5).

The early excavations at Banavasi uncovered two apsidal brick structures that are very similar to Buddhist structures known as *chaityas* found elsewhere in the subcontinent (Murthy, et al. 1997: 71-78). However, there is no conclusive evidence (images or inscriptions) that these structures were associated with Buddhist worship. As noted in Chapter 4, the presence of a *skanda* image near one of the structures might indicate a Hindu affiliation. H. P. Ray (2004) has been argued that apsidal shrines were part of a religious architectural tradition that dated back to the second century BC and included Buddhist and Hindu structures as well as those of local cults. Even if these apsidal structures were not Buddhist, they belong to an early, possible pre-fourth century architectural tradition in the region.

On survey, ten possible stupa sites were identified (Table 5-1).[32] Since these sites have not been excavated and most are overgrown or disturbed by agricultural activities, their identification is necessarily tentative.[33] I have identified them as possible stupas due to their distinctive circular shape and evidence that they are structural mounds. All have some evidence of brick construction and a few have scatters of flat red tiles with distinctive shapes that date them to the early centuries AD (Chapter 6).

---

[32] One of the early excavation units at Banavasi was a circular 'mound' located outside the fort wall (Murthy, et al. 1997). This site, BNV IV, contained a circular 3.5 m high mound entirely of yellow clay and the excavators concluded that it "did not represent any human activity or habitation" (Murthy, et al. 1997: 63). No ceramics were found, but there were fragmentary sections of walls in the fill, some of which were constructed using the typical bricks of the Satavahana period. The location of BNV IV is only known from a single (and unclear) map (Murthy, et al. 1997: 57). I am fairly sure, however, that during our survey the site recorded as BGRS 355 is identical to BGRS IV. BGRS 355 consisted of an extremely disturbed and overgrown mound with broken brick and ceramics in section. The dimensions could not be estimated. I have included BGRS 355 in Figure 5-2 (labeled 'Possible Early Historic structure') below since the structural remains from the 'clay mound' date to this period. Moreover, I recognize that a 'Buddhist' landscape need not merely consist of the typical *stupa* structures. For instance, Fogelin's research at the Early Historic Buddhist monastery of Thotlakonda in Andhra Pradesh has uncovered a complex ritual and memorial landscape that included cairns, reservoirs, walls, food processing areas and a number of other non-*stupa* sites (Fogelin 2003). Also, Maloney (1968), referred to in the footnote below, mentions two *stupas* 'below the town, one of which might be BGRS 255.

[33] The anthropology and history of *stupas* in the subcontinent is a complex and fascinating one. Here, I want to mention that several of the mounds identified as *stupas* have looter's holes on the top. From travelers accounts of at least the 17th and 18th centuries, we know that the 'topes' were often mined for reliquaries by the straightforward method of digging a hole in the top, down to the relic chamber. While the looter's holes in the Banavasi *stupas* cannot be dated, it is an interesting remnant of a memory/ belief that there might be 'treasure' in the center of these structures.

Figure 5-1: BGRS 240, possible *stupa*

While the presence of 'mounds' and '*stupas*' in the Banavasi area has been occasionally mentioned (M.A.R. 1931(M.A.R.): 52; Maloney 1968: 204)[34], only BGRS 71 has been recorded and described (Sundara 1979: 166). This mound is currently extremely overgrown and has a modern shrine on its top. In 1971, Sundara noted that in size and texture, the bricks date to the second to third century AD. He described the lower section of the mound (1-1.5 m) as 'sticky earth' and from 2.5 m upwards recorded a series of broken brick rows for a height of more than three meters. The bricks were cemented by a mud mortar in the lowest and highest courses and by clayey earth in the middle section for about 20 – 25 cm (Sundara 1979: 166).

---

[34] Maloney briefly mentions two *stupas* below the town, next to the river. One is said to be built in two stages, one of which used large bricks. This structure is said to have been largely destroyed by the Public Works Department for work fill. The second is described as a 'mound'(Maloney 1968: 204).

Most of the *stupa* sites are located near Banavasi, but outside of the main settlement (Figure 5-2), a pattern that is frequently found in South Asian Buddhism. In fact, the sites are distributed such that they surround the early settlement. Since the diameter of the sites could only be estimated, sites were grouped into two categories: less than 25 m diameter and 25 m and greater diameter. The four largest structures seem to have been placed to overlook possible routes of movement into Banavasi.

In Sri Lanka, Buddhism's introduction in the third century BC has been considered to be the catalyst that supported the transformation of "undifferentiated societies into a single powerful kingly polity". This emergent polity was closely interconnected with the formerly ascetic Buddhist monastic organization that emerged as a species of feudal landlord (Coningham 1995: 223). The close connection between Buddhism and political authority has been discussed in several studies (Harrell 1995; Tadanao and Edwards 1995). As will be seen in Chapter 7 however, there is little evidence for early Kadamba patronage of this religion. Nonetheless, the inscriptions mentioned above suggest that several of the pre-Kadamba rulers might have patronized Buddhism. Moreover, Banavasi occupied a place in Buddhist sacred geography as contained in early texts and likely occupied a place in the Early Historic Buddhist pilgrimage network of peninsular India.

Table 5-1: Possible Stupa Sites

BG RS	Approx. diameter (in meters)	Current height (in meters)	Description	Later Use
13	30	2.5	Circular mound of brick and earth construction.	7-8 unshaped quartzite rocks embedded on the mound near the base of the south side in a roughly east-west alignment. Their purpose is unknown and no other alignments are visible.
21, Feat. 1	15	1.35	Roughly circular mound of brick and earth construction. The sides and top of the mound are greatly disturbed and have been altered in places to accommodate the agricultural fields around it.	Few unshaped stones embedded in the earth on the top of the mound along the western side. Currently worshipped.
21, Feat. 3	22	2.5	Oval mound 120 m to the south west of BGRS 21, Feature 1. There are a few fragmentary bricks visible embedded in the sides and surface. On the top of the mound, is a slightly higher mounded area	Stone alignments on the mound. Along the eastern side are two large, roughly shaped rectangular stones (85 × 50 × 50 cm; 60 × 45 × 40 cm). One is a crystalline stone, the other might be basalt. Along the southern side is an alignment of

BG RS	Approx. diameter (in meters)	Current height (in meters)	Description	Later Use
			approx. 3 × 3 m in area in which are embedded five or six more unshaped crystalline stones in no noticeable alignment. The dimensions vary greatly (50 × 20 × 5 cm - 18 × 14 × 7 cm) and the stones are currently being worshipped.	unshaped but roughly rectangular cream colored crystalline stones (average size: 30 – 35 × 20 × 10 cm) deeply embedded in a row.
46	25	1	In the northeastern corner of a large Early Historic scatter south of Banavasi is a low circular mounded area. The surface of the mound is irregular and contains a moderate scatter of eroded red flat tiles (dating to the early centuries AD) and some red ware.	
71	50	4-5	Large circular mound, approximately 50 m in diameter and four to five meters high. The mound is constructed of brick and packed earth and is now completely overgrown with grass and scrub and disturbed by later construction.	Medieval sculptural fragments incorporated into modern laterite block shrine constructed onto the mound (BGRS 71, feature 1). Looters hole on the top.
84	17	1.3	Irregular, roughly circular mound, very disturbed by surrounding agricultural activities.	A moderate-dense scatter of fragmentary brick visible in the sides.
207	17	1.22	Circular structural mound which was recently leveled to extend agriculture. The dimensions can only be estimated.	Moderate but intermittent red ware (primarily tiles) and brick scatter which are greatly eroded/ fragmentary due to the leveling of the mound.
209	17	1	In the uncultivated southwestern section of the field described as BGRS 209. The top is overgrown by grass and small scrub.	Several fragmentary brick are embedded on the surface.
240	38	5.20	Large circular mound, overgrown with grass and shrubs. Very fragmentary brick is visible on the surface. The top of the mound has a larger amount of gravel.	A small pit (now overgrown) has been dug into the top, perhaps a looters pit.
265	21	3-4	Roughly circular mound surrounded by agricultural fields. The sides have been straightened to accommodate the fields and the surface is	Looters hole on the top.

BG RS	Approx. diameter (in meters)	Current height (in meters)	Description	Later Use
			extremely overgrown. There is brick embedded in the sides and top.	
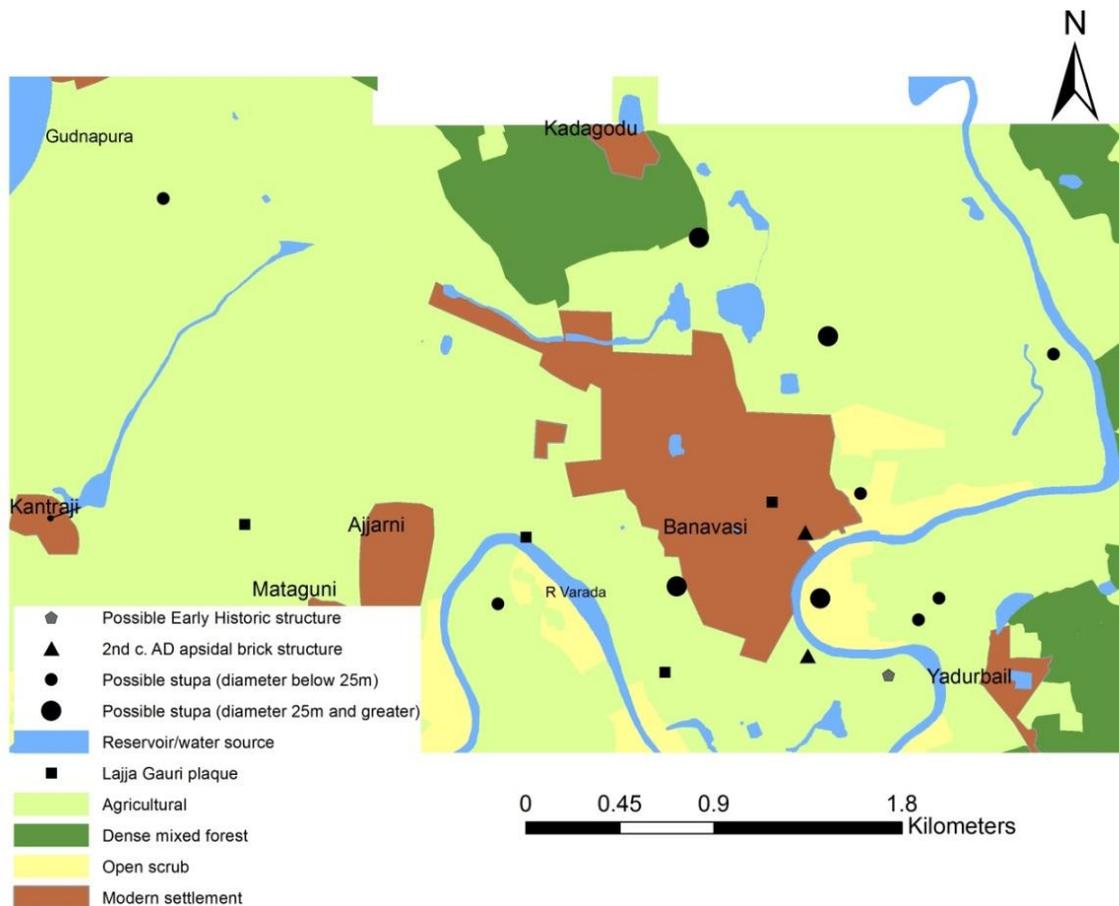
Figure 5-2: Possible stupas in the survey area

5.1.2 Religion and Architecture: the 'Great' tradition(s)

5.1.2.1 Religious Developments

A large proportion of the architectural and sculptural remains in the survey area can be classified as 'Hindu', a term originally coined in the 19th century to refer to a distinct community of belief and practice (Lahiri and Bacus 2004: 313). Within this all-encompassing term lies considerable diversity in belief, ritual and practice. By the second to third centuries AD, there had developed two distinct theistic approaches --- Vaishnavism, which emphasized the

predominance of the god Vishnu, and Shaivism, which maintained the preeminence of the god Shiva. Both had their own sets of beliefs, practices and pantheons.

From at least the seventh and eighth centuries AD, Shaivite ritual practice was increasingly systematized and took on a recognizable pan-Indian form (Fleming 2009: 451-452). This tradition was particularly important in the Banavasi area, and the majority of early temples are Shaivite, with a central lingam and adjacent Nandi figure.[35] Within the larger Shaivite tradition, however, were several groups. The Smarta followers of the Advaita system of Shankaracharya (781-820 AD) worshipped five main gods, but gave preference to the worship of Shiva. The Pashupatas, Kapalikas and Kalamukhas (who were important from the seventh to the 14th centuries), worshipped various aspects of Shiva (especially as Bhairava) and also the fierce forms of the goddess (Kali or Chamunda).

Throughout the Early Medieval period, several of these sects, which had begun as local traditions, were absorbed within the Shaivite tantric tradition and within the Virashaiva movement (Verghese 1995: 4-7). In northern Karnataka by the last quarter of the 12th century, this new sectarian ideology posed a real threat to Jainism and Brahmanism. The Virashaivas or Lingayats disavowed Vedic ritualism and practice (including the wearing of the sacred thread), believed that their founder Basava (a minister of the Kalachuri king Bijjala) was an incarnation of Nandi and were against the worship of iconic images. Post 12th century texts and inscriptions especially record the conflict between Vira Shaiva followers and the Jainas, and instances of the destruction of Jaina monuments (Dibbad 2011). Reformed Vaishnavism too experienced an impetus in post 11th-12th century Karnataka (Verghese 1995: 6-7), although it did not leave much impact in the Banavasi area.

Apart from these two major traditions, followers of the Shakta cult worshipped the female principle as the supreme deity This sect became increasingly important in the post 10th-12th century period. The 10th to the 13th centuries is also considered the heyday of Jainism in Karnataka, characterized by the flourishing of Jaina literature, art and architecture (Murthy 2011). As will be seen in Chapter 7, there is evidence that the early Kadamba rulers were patrons

---

[35] The lingam represents the god Shiva and consists of a three-part pillar placed within a square or circular base. The Nandi is a seated bull, considered the mount of Shiva, and placed in an attitude of worship in front of the lingam.

of Jainism from the sixth to the eighth centuries AD. However, in the survey area no structural remains of Jaina temples date to this early period.

5.1.2.2 Structure and Iconography: An Overview

Traditional temple architecture in the survey area falls within the broad category of the 'Karnata-Dravida' tradition, characteristic of Karnataka and large parts of the Deccan and distinct from the 'Tamil-Dravida' tradition found in Tamil Nadu and adjacent regions and the 'Nagara' style of northern India (Hardy 2001). This tradition took on a characteristic form in the temples constructed by the early Chalukyas and continued into the 13th and 14th centuries when, with the establishment of the Vijayanagara empire, a new style was created (Hardy 2001: 181). Temples built during the rule of the early Chalukyas are the earliest surviving stone structures in Karnataka, but their sophistication bears witness both to a preceding long architectural tradition from at least the seventh or eighth centuries and to the beginnings of a distinct regional style (Tartakov 1980: 39-40).

Twelfth and thirteenth century Karnata-Dravida temples consisted of one or more small square structures (*vimana*) enclosing the sanctum which housed the deity. In bigger temples, the *vimana* opened off square or rectangular pillared halls which were open or partially enclosed (*mandapas*). Larger temples with multiple *vimanas* were enclosed by walls (*prakaras*) with elaborate gateways in cardinal directions. This central *vimana* is typically surmounted by a pyramidal tower composed of distinct horizontal stories carrying miniature cells or pavilions, capped by a simple dome (Tartakov 1980: 68) and often with a projecting horseshoe arch motif on the front of the superstructure (*sukhanasi*). The ceilings of porches or *mandapas* are relatively flat, constructed of horizontal slabs supported by beams or pillars, or later of diagonal arrangements of piled slabs or corbelled domes (Hardy 1995: 36). Over time, this basic style saw increasing elaboration, including the evolution of complex orthogonal and stellate floor plans and the development of densely tiered superstructures (Hardy 1995).

The Shaiva temples built in this tradition typically have a monolithic sculpture of a large bull, Shiva's mount, Nandi, most often placed facing the sanctum from outside the hall (*ardhamandapa*). The bull is normally shown as seated and is adorned with numerous garlands and other jewelry on the head, shoulders and legs. Stylistically, Nandi figures in Karnataka are adorned with one or more garland(s) around the neck and another one that loops behind the

hump (Dhaky 1972: 187). From the 10th century onwards, starting with the Chalukyas, Nandi figures were increasingly decorated and ornamented and often polished to a high shine (Dhaky 1972: 189-190). By the 12th or 13th centuries, Nandi figures had become much larger, as seen in Banavasi's Madhukeshwara temple which contains a huge monolithic Nandi.

The establishment of the Vijayanagara Empire in the 14th century introduced a new idiom of temple architecture. This tradition, which appeared in large parts of the imperial core area by the 15th century, drew on the Tamil-Dravida tradition with its elaborate gateways (*gopuram*) and concentric courtyards (Branfoot and Dallapiccola 2005: 261; Kanekar 2010: 130). Also in this period, new deities began to be worshipped, which are iconographically distinct from earlier cults. For instance, Kala-Bhairava, a terrible aspect of Shiva, is depicted as a standing figure accompanied by a dog, holding a sword (*khadga*) and skull-bowl with attached dangling head (*kapala*) in his lower arms and a trident (*trishula*) and hourglass shaped drum (*damaru*) in his upper arms (Verghese 1995: 22). Bhairava was rarely worshipped as the central deity of a temple, more often, as in BGRS 266, he occupied a sub-shrine within a temple to the goddess Kali (Figure 5-3).[36]

Figure 5-3: Kala-Bhairava, BGRS 266

---

[36] Bhairava as a *kshetrapala* (one who protects places (of worship) is also found in the Jaina tradition and is iconographically very similar to Brahmanical conceptions (Bhattacharya 1995: 61-67).

Virabhadra, another destructive form of Shiva, was especially popular during the Vijayanagara and later periods. The cult of this militant god, created in traditional stories in order to destroy a (Vedic) sacrificial place, gained acceptance among the Virashaivas who normally disapproved of image worship (Verghese 1995: 23-24). Virabhadra is typically depicted as a standing image with a sword (*khadga*), shield (*khetaka*), bow (*dhanus*) and arrow (*bana*) in his four arms. Other iconographically new deities included Kartikeya (the second son of Shiva, depicted with a peacock) and Hanuman, the heroic monkey god. Hanuman was especially ubiquitous in the core area of Vijayanagara rule and was typically shown in profile in a heroic striding pose with his tail curved over his head, right hand lifted and left placed near the hip holding a flower or a branch, as in BGRS 276 (Verghese 1995: 91-92).

The Early and Later Medieval periods were also times when distinct regional architectural traditions developed. Of interest for the Banavasi region is a temple architectural style that evolved along the Karnataka coast in the 13th-14th centuries, and was exemplified by the temples at Bhatkal. These rectangular temples drew on a tradition of timber construction and have pyramidal or flat stone roofs often with deeply projecting eaves and barred stone screens enclosing the entire temple (I.A.R. 1971-72: 99; Branfoot and Dallapiccola 2005: 266).

5.1.2.3 The survey area: local voices and regional traditions

A central problem in the study of temples in the survey area is the extent to which they have been and continue to be renovated (Table 5-2). In several cases, earlier superstructures have been replaced by modern cement construction and large sections of the temples have been whitewashed and painted over. Moreover, only the central Madhukeshwara temple contains inscriptions recording the construction of shrines or *mandapas*, enabling us to date them securely.

I have been able to broadly classify the temples in the region into three temporal phases: pre 14th century, 14th to 17th century and 17th century into the present day. Before discussing the characteristics of each phase, I would like to raise three broad themes to which I will keep returning during this discussion (and indeed, throughout my thesis). First, in the Banavasi area it is important to strike a balance between perspectives that emphasize the centrality of the 'periphery' and those that highlight the influence of external 'centers'. I feel that a consideration of issues of agency, (architectural) style and life-history enables me to strike just such a balance.

Second, the use of dynastic labels to classify and make sense of art, architecture and history is an all pervasive and often unconscious practice in South Asian historiography. There has therefore been a tendency to classify temples by a specific dynastic style, and I have done this myself above. The assumption is that artistic and architectural styles evolved first in a specific dynastic core and then spread outwards, following the territorial expansion of that dynasty. Questions of 'inheritance' (of a specific style) or 'inspiration' then become central (Sundara 1972) and the primary agents or patrons of temple construction are seen to be kings (as the primary actors of dynasties). A corollary to this form of argument is that 'local' styles are inferior copies of sophisticated imperial forms. As Radcliffe notes about Banavasi's central Madhukeshwara temple: "Local patronage…is also likely for…Banavasi [judging by its] architectural and sculptural debasement" (Radcliffe 1981: 484).[37]

However, architectural style is increasingly being seen as a continuously evolving tradition that allowed for innovation and improvisation (Hardy 2001: 197). Each temple was a unique combination of the structural, decorative and stylistic traits of its time (and region) (Tartakov 1980: 91). As Cohen suggests for Nolambavadi, monuments in smaller sub regions need to be recognized not merely as "the commingling of "influences" from the larger and more familiar dynasties, but, rather as autonomous local expressions revealing a dialectical response to neighboring monuments and not a simple subordination to them" (Cohen 1997: 18). I will therefore attempt to highlight both the presence of pan-Karnataka architectural and sculptural styles, as well as the dynamism of local traditions. Moreover, recent studies have highlighted the great diversity in temple patronage in Karnataka, identifying a variety of elite groups who played a role in temple construction (Hardy 1995: 157).

Third, the tendency to classify temples by the dynastic period of their construction also tends to underplay the use of structures over a long period (Branfoot 2007). Temple construction is not a one-time event, instead, many temples are complex structures with long life-histories, often spanning the rule of multiple dynasties. A case in point is the central Madhukeshwara temple in Banavasi, as will be discussed below. The vast majority of temples in the survey area

---

[37] Radcliffe might, of course, have been adversely affected by a panel showing a pair of copulating monkeys that occupies a prominent position on the *vimana* of the Madhukeshwara temple.

are still in worship and many show clear evidence of having seen several phases of construction (Table 5-2).

In the discussion that follows, I have avoided dynastic labels while attempting a temporal classification of the temples in the survey area. At the same time, certain artistic or architectural conventions have been identified as current during the rule of specific dynasties. For instance, the exterior walls of the Madhukeshwara are decorated with seated Nandi figures, alternating with linga-*pithas*, set within Saracenic-type arches, a motif that is characteristic of the Vijayanagara period (Meister and Dhaky 1986: 237-238). When referring to a dynasty therefore, I am concerned with specific styles or motifs commonly used during the period of their rule without necessarily implying a direct correlation between a particular dynasty and a specific temple in the survey area.

5.1.2.3.1 Temple architecture, first phase: pre- 14th century

The first phase of temple construction in the Banavasi region occurred before the 14th century (Figure 5-4). It has been argued that during the earlier Kadamba period (fourth to seventh centuries), structures were constructed of materials like wood and brick and have therefore not survived (Radcliffe 1981: 17). There is certainly some evidence for eroded brick sub-structures beneath early stone structural temples in the region (BGRS 118, 232 and 261, 'Early Shaiva Temples' in Figure 5-4 above). Recent research has shown that while stone increasingly became the primary material for temple construction over time, brick continued to be used (along with stone) well into the 12th century (Hegde 1999: 74-75). However, in BGRS 232 and 261 (the sites closest to Banavasi), brick was clearly used in a constructional phase preceding the stone structures. In both cases, the stone temples date after the tenth century and seem to have been built over brick construction, now only visible as fragmentary brick below the plinths of the temples. BGRS 118 (the site located closer to Gudnapura) is a completely ruined brick structure, with a few sculptural elements (including a Nandi, and perhaps a buried linga) scattered about. There is also a small associated scatter of early flat red roof tiles (Type 3, seventh to 16th centuries; see Chapter 6).
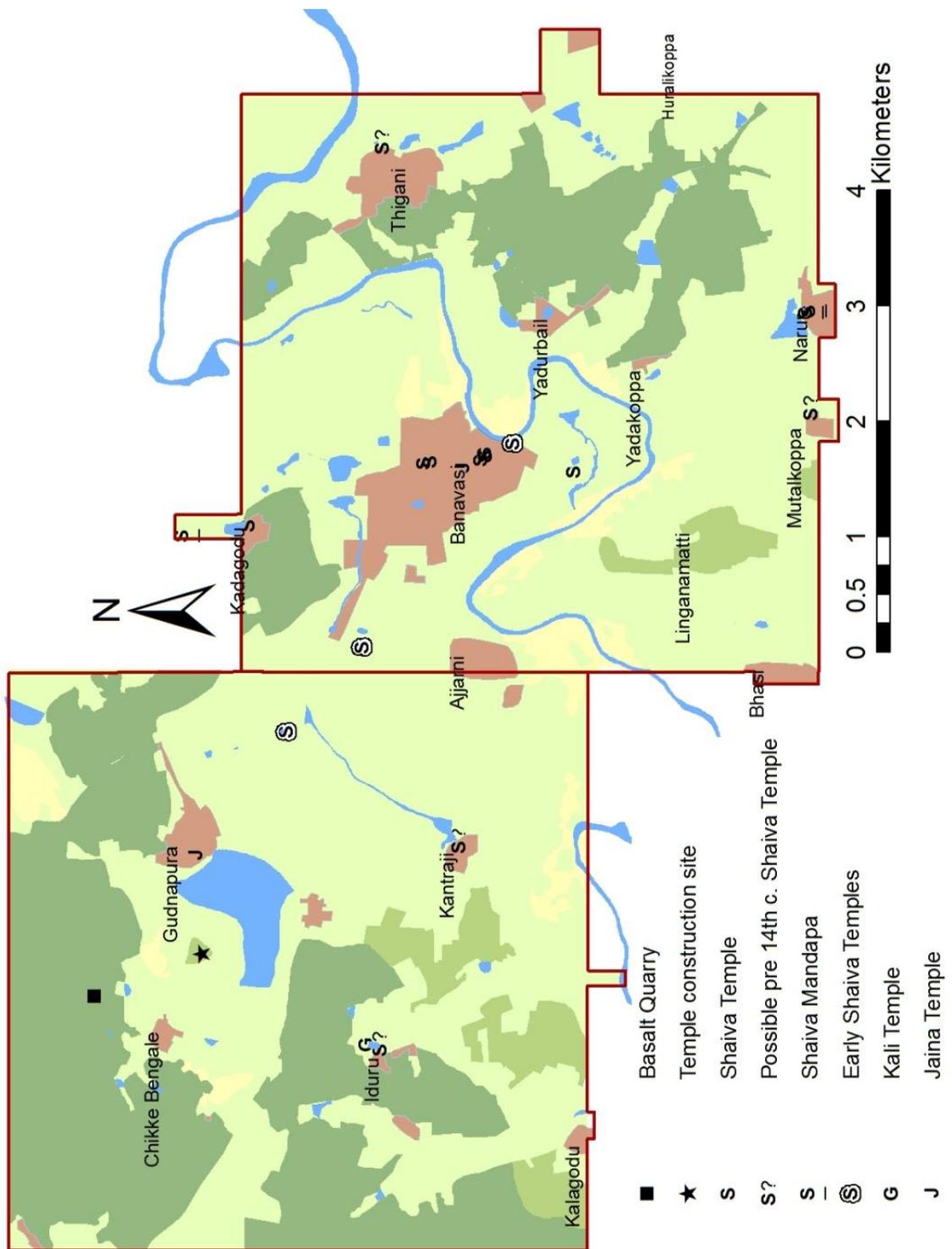
Figure 5-4: Temples, First Phase (Pre 14th century)

I propose that these three temples mentioned above represent a possible pre 10th century phase of construction, and had a Shaivite affiliation.[38] It is also likely that some temples that seem to date from a later (post 10th century period) were originally constructed in an earlier period. For instance, in the central Madhukeshwara temple in Banavasi, there is some evidence for early architectural and sculptural elements which can be dated to the seventh or eighth centuries (Table 5-2). Most of the current temple, however, dates to a later, post-12th century period.

The majority of standing structural temples date after 1000 AD. With the establishment of the Later Chalukyan Empire in AD 973, temple building activity accelerated over large parts of Karnataka (Hardy 1995: 156). I argue that temple construction in Banavasi was a result of a conscious adoption or adaption of larger Karnata-Dravida styles, and not merely the imposition of an 'external' style or the creation of a distinct regional tradition. While early temples in the survey area fall within the Karnata-Dravida stylistic tradition, they often have a distinctive regional form, perhaps deriving from the establishment of regional workshops.

In the Banavasi area, for instance, the more elaborate tiered superstructures found in the core areas of Chalukya Dravida architecture (for instance, at Badami, Aihole, Mahakuta; Kadambi 2012) are not present. Instead, most temples have a square, pyramidal *shikhara* with horizontal step-like levels and simple rectangular projections instead of elaborate decorative motifs (Bhat 1996: 61-62). Traditionally, this style has been called 'Kadamba-Nagara *shikhara'* due to its prevalence in what is considered the Kadamba region of northern Karnataka, and its similarity to northern (Nagara) temple styles.

However, this terminology has been questioned. The earliest examples of this style are first found outside the Kadamba core area in early Chalukyan centers such as Aihole (Bhat 1996: 62-63; Meister and Dhaky 1986: 57). There is no evidence linking this form of *shikhara* construction to the early Kadambas of Banavasi. Increasingly, this style is being termed 'Phamsana'(Dhaky 1996: 238; Meister and Dhaky 1986: 57), and it is now considered a widespread tradition in temple architecture found in several areas including Karnataka, Gujarat and Orissa (Hardy 1995: 276). In post 10th century northern Karnataka, temples with Phamsana

---

[38] This is of course, by no means certain. The sculptural fragments and later structures at the site are Shaivite but the original affiliation of the sites is unclear.

superstructures do seem to be a distinct regional form that drew on mainstream Karnata-Dravida traditions and are commonly found in the territories under the control of later Kadamba intermediate elite groups. In Banavasi, several temples with Phamsana superstructures draw on larger Karnata-Dravida elements such as a front projection (*sukhanasi*) on the tower and typical domed Dravidian cupolas (Bhat 1996: 62; Meister and Dhaky 1986: 57).

The Phamsana form is a less complex alternative to elaborate traditional superstructures (Hardy 1995: 286). The exterior walls of Phamsana shrines were relatively plain with minimal molding or recessing (Hardy 1995: 287). The interior ceiling of the *vimanas* of these early temples often had a distinctive design formed by beams placed in a series of rotated squares with a central cavity or square slab containing a floral motif (Hegde 1999: 78-79. 101) (Figure 5-5).

Figure 5-5: Ceiling with rotated squares, BGRS 278

In the survey area, the temples that can be dated to the first phase (Figure 5-4) are primarily Shaiva. Unlike the stupas of an earlier period (and the three early brick structures mentioned above), all are located within settlements. The structures are of basalt and have a relatively simple plan, consisting of a central, east-facing, square *vimana* housing a linga. Several of the temples within or close to Banavasi have one or two rooms leading into the sanctum, including a small enclosed pillared entrance hall and a central antechamber (See Figure 5-6 with typical Phamsana roof). These temples have more decorative elaboration, with distinctive carved pillars and central floral motifs on the ceiling. Most temples outside of

Banavasi are simple single roomed structures, often with no extant superstructures. In all cases, the exterior walls are plain and undecorated.
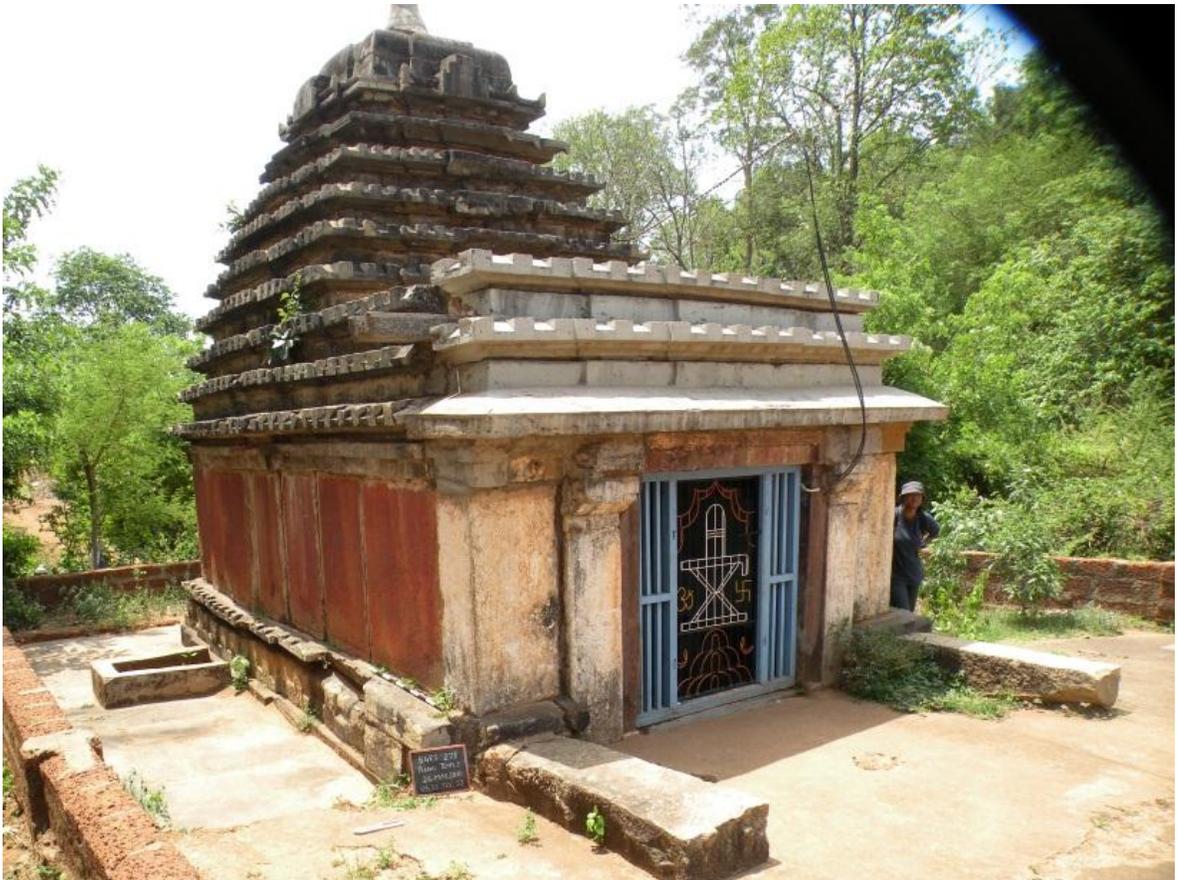
Figure 5-6: BGRS 278, Shaiva temple of the first phase (pre- 1400 AD)

As mentioned above, the original plans of temples in the survey area are often difficult to identify due to subsequent reconstruction. In Figure 5-4, a few temples have been marked with a question mark since it is difficult to date them with certainty. However, they have been tentatively dated to this early period on the basis of sculptural fragments in the vicinity, the visible remnants of the original architecture[39] and references to early structures at these sites in the historical literature (Sundara 1979). The majority of Shaiva temples dated to this period contain early lingas, characterized by simple rounded forms with austere stepped bases (*pithas*) (Figure 5-7).

---

[39] Even if the walls are painted, the typical rotated squares ceilings of this period are often visible.

Figure 5-7: Early Type of Linga (BGRS 261)

In addition to the enclosed temples, three open *mandapa*s were also documented on survey (Figure 5-8). These are simple structures consisting of four crudely carved pillars supporting a simple stepped roof formed by beams placed in the common rotated square pattern and housing a linga. These open shrines are located in smaller settlements at a distance from Banavasi and represent a lesser investment of labor than the large walled temples. At the same time, these structures allowed for greater visibility of the deity and might indicate greater accessibility and decreased Brahmanical control of religious practice outside the core.

Figure 5-8: BGRS 96, *mandapa* shrine, Period I

Apart from the Shaiva temples, one goddess shrine and two Jaina temples can be dated to Period I. BGRS 266 is a Kali temple located at a distance from Banavasi and will be discussed in greater detail in Section 5.1.4 below. The two Jaina *basadis* are located in Banavasi and Gudnapura, both early centers of Kadamba authority. The inscriptions of the early Kadambas (Chapter 7) indicate that they extensively patronized Jainism as well as Shaivism. The *basadi* within Banavasi (BGRS 149) has been completely renovated. But its initial construction dates to the 10th or 11th century (Murthy, et al. 1997: 57). BGRS 202 in Gudnapura has been renovated by the ASI, however the core of the early structure is apparent and can be dated to the 12th century (I.A.R. 1994-95: 41). The structure is very similar to the early Shaiva temples in the project area and consists of a square sanctum with an antechamber and pillared hall. Unlike the Shaiva temples, the *basadi* faces north and is located on top of the early structural complex (fourth-fifth centuries AD) recently excavated by the ASI. (Chapter 4).

Little is known about temple patronage in this period since none of the early temples have any donative inscriptions recording their construction. There are, however, three 11th and 12th century inscriptions located in the Madhukeshwara temple which record grants by intermediate elite groups of the Kadamba family ruling under the later Chalukyas (Appendix 5: BGRS 280, Features 17, 18 and 19). At least two of these grants record donations to the Madhukeshwara temple itself.

It is interesting that none of the early temples in the survey area reproduce the complex imperial styles found in the core areas of the Chalukyas or Hoysalas. This is consistent with the limited inscriptional evidence recording grants to temples by intermediate elite groups rather than the imperial rulers themselves. Instead of imperial styles, a regional architectural idiom dominated. These regional styles drew upon imperial styles and religious traditions, and both local and imperial dynasties had strong Shaivite affiliations. The concentration of larger temples in Banavasi and smaller ones outside this regional center might reflect differences in patronage between imperial officials located at Banavasi and local elite groups.

There is evidence that at least the smaller *mandapa* - shrines were built in the area, using locally available raw materials. BGRS 210 is a temple construction site located close to the secondary center of Gudnapura and to a basalt quarry (Figure 5-9). This site contains unfinished columns and other architectural fragments that are similar to those used in the finished *mandapa-*

shrines. The presence of a regional sculptural tradition is also borne out by references to sculptors from Banavasi working on some of the major Chalukya and Hoysala temples in Belur and other major temples sites in Karnataka (Settar 1992: 85, 97, 99, 101, 134).

Figure 5-9: BGRS 210, *mandapa*-shrine construction site, with close-up of architectural elements (Inset)

5.1.2.3.2 Temple architecture, second phase: 14th to 17th centuries
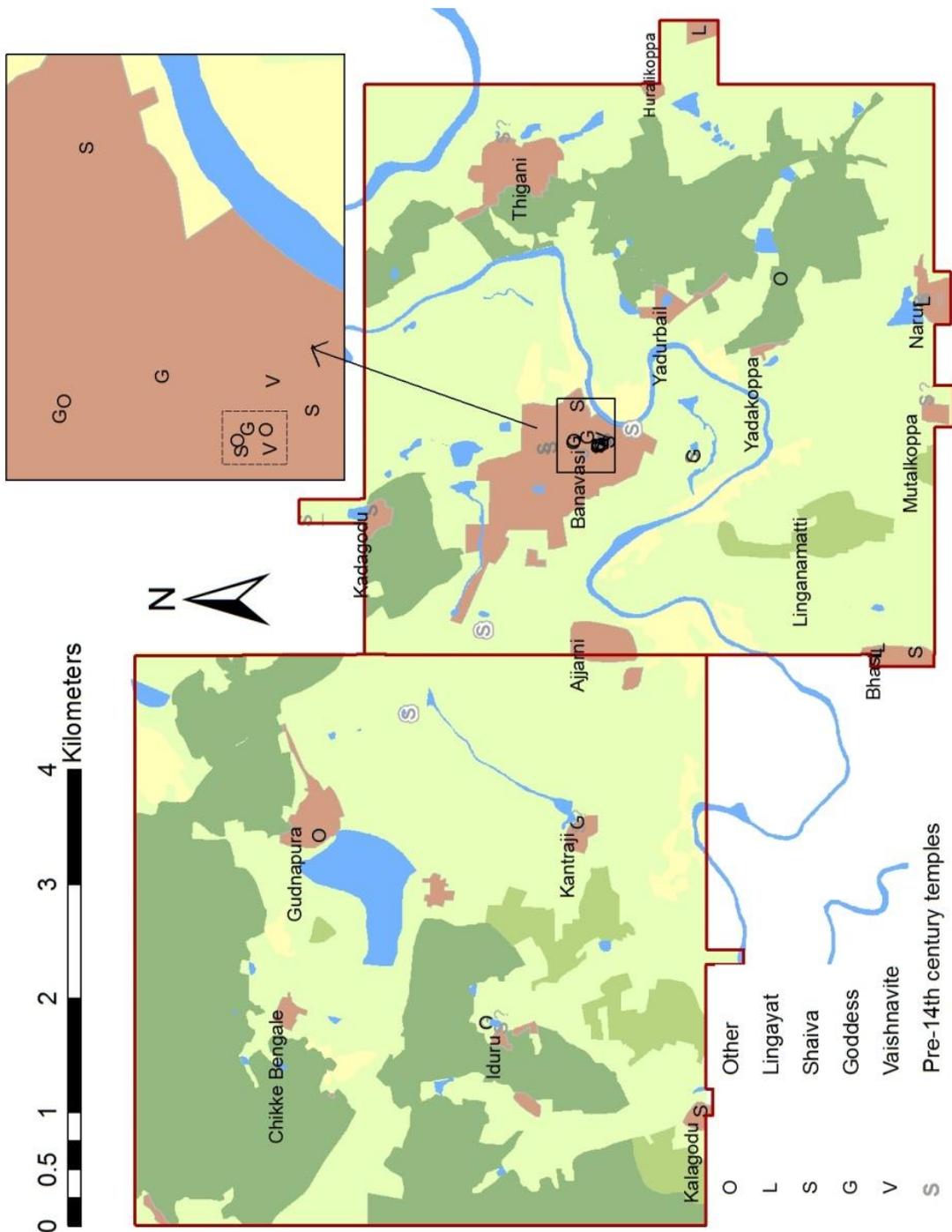
Figure 5-10: Temples, Second Phase (14th-17th century) (Inset: Temples within Banavasi)

The second phase of temple construction can be dated to between the 14th and 17th centuries (Figure 5-10). During this period, the Banavasi area came under the control of intermediate elite groups ruling under the Vijayanagara Empire. Toward the end of this period, with the decline of the empire, Banavasi came under the control of the independent Nayakas of Sonda.

The architecture of this phase marks a distinct change from the preceding period. First, there seems to have been a decline in the construction of new temples. The temples built in this phase are mainly small single roomed temples or sub-shrines. Apart from extensive construction in stone in the Madhukeshwara temple and smaller temples within Banavasi, several temples in this period are of laterite block construction with tiled roofs. Second, patronage and constructional activity was concentrated in existing temples and seems to have increased; perhaps because we have more inscriptional evidence from this period.[40] The two Goddess shrines outside Banavasi are small sub-shrines appended to existing Shaiva temples. Similarly, a sub-shrine to Kala-Bhairava is attached to the Kali temple in Iduru.

The Madhukeshwara temple in Banavasi especially saw the construction of numerous small shrines around the central temple. There is some indication that the Madhukeshwara temple became a regional pilgrimage center during this period. A 13th- 14th century inscription in Kannada, Telugu, Tamil and Nagari on one of the pillars in the temple (BGRS 280, Feature 7) records the visit of Vibhuti Gauraya, disciple of Panditaradhya of Oruganti (S.I.I.1988: No. 357; A.R.I.E. 1935-36: no. 128). Bas reliefs of devotees with label inscriptions (on the temple floors) mention several names, possibly of those who visited the temple (Murthy, et al. 1997: 34).

The concentration of activity at this temple is also borne out by the numerous donative inscriptions from this period located within the temple precincts (Appendix 5). The primary donors are intermediate elite groups ruling under the Vijayanagara kings, including the Nayakas of Sonda who become independent after the decline of the empire. These donations, by numerous elite groups, indicate some level of competition for political dominance, where cult temples provided legitimacy in return for patronage (Appadurai 1977; Appadurai and Breckenridge 1976). As has been argued elsewhere in South Asia (Heitzman 1987b; Heitzman

---

[40] It is likely that most (if not all) of the temples dating to the preceding period were still in worship. In Figure 5-6, in the interests of clarity, temples from Period I are labeled in grey.

1991; Talbot 1991), it can also be suggested that the growth of the temple as a regional pilgrimage center provided an arena for the display of competing claims to authority in this period.

Apart from donations by members of political elite groups, there is some evidence for the involvement of local families. Several 16th century label inscriptions (Appendix 5; BGRS 280, Features 12, 28, 29, 30, 31, 32, 33, 34, 35) on the outer walls of the temple record multiple generations of names of members of the Vodeya family of Banavasi-sthala, Bijarane-sthala and Kadugoda-sthala. A few of the inscriptions mention their devotion and one a possible grant (S.I.I. 1988: Nos. 357, 389, 393-400; A.R.I.E. 1935-36: nos. 133-141). It is likely that the inscriptions refer to a priestly family involved in the administration of the temple.

Third and finally, there is clear evidence for the rise of new cults. Several of the new temples are to deities previously unknown in the region, including Virabhadra and Hanuman, who were extensively patronized by the Vijayanagara rulers. Small Vaishnava temples (to Madhava and Narasimha) were built next to the Madhukeshwara temple complex. While Banavasi itself remained a center of the Brahmanical Shaivite tradition, a few of the surrounding villages have simple Lingayat temples.[41] These temples are very difficult to date since they have been reconstructed in modern times and often contain an aniconic central deity. I have classified them within this second period of temple activity, but they probably belong to the latter half of the period and perhaps even in the post 17th phase (Phase III, discussed below). Complex processes of competition and appropriation are also seen in the Jaina *basadi* in Gudnapura (BGRS 202 mentioned above), which was now converted to a Virabhadra temple.

---

[41] These temples contain aniconic stones or small images of nandi (Basavanna). On survey, conversations with the Lingayat priest in the village of Bhasi (to the south of Banavasi) indicated a certain amount of conflict between the two groups. It seems that worship in Lingayat temples is conducted by their own priests and brahmanas are not allowed within. At the same time, Lingayat priests claim right of access into the sanctum of the Madhukeshwara (normally restricted to brahmanas), rights which are periodically curtailed by the brahmana priests.

5.1.2.3.3 Temple construction, phase III: 17th century onwards
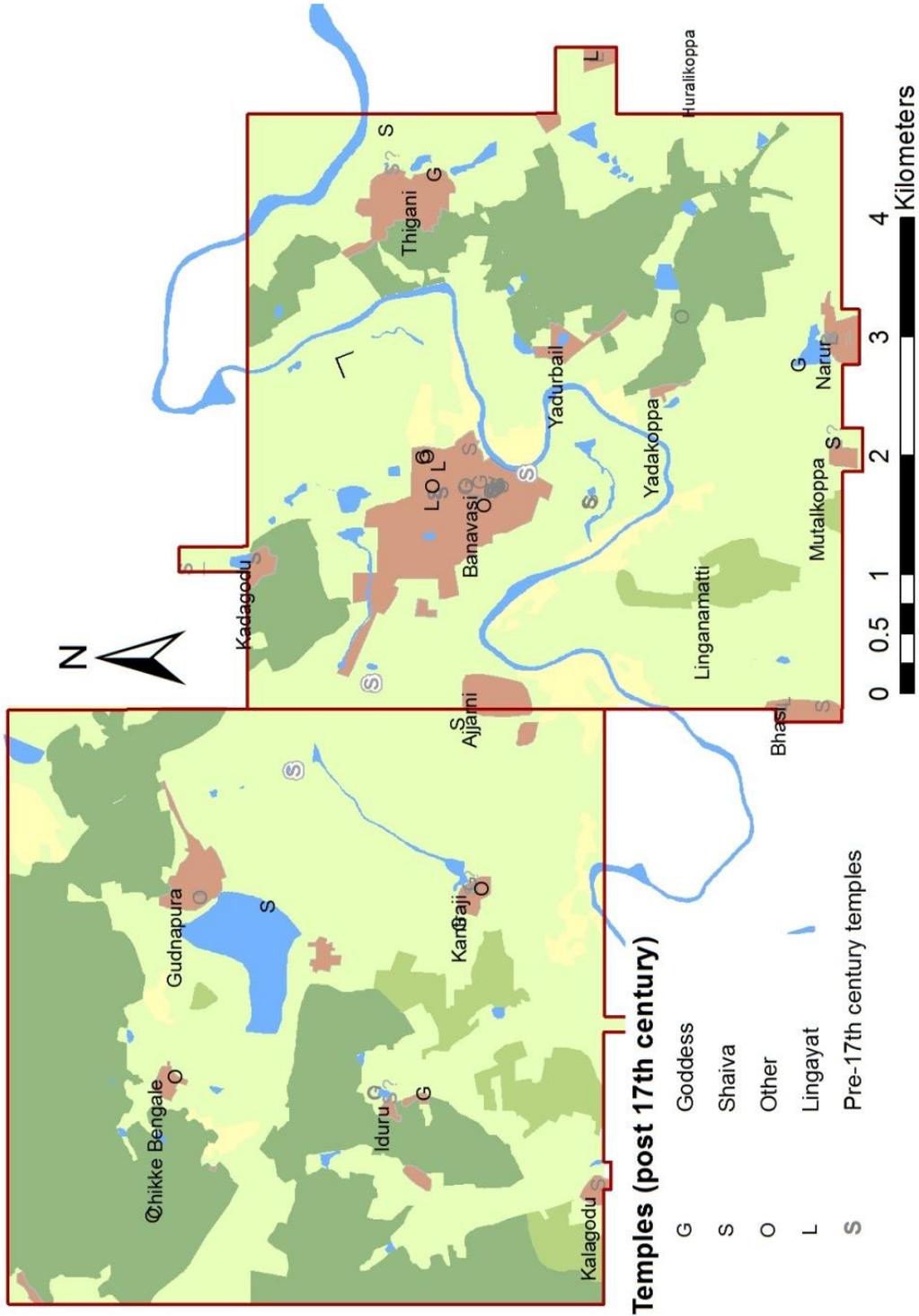
Figure 5-11: Temples, Third Phase (Post 17th century)

The final phase of temple architecture in the survey region is the post 17th century period (Figure 5-11). Most of the extant temples continued to be in worship, although at least one of the earliest *mandapa*-shrines seems to have been abandoned. While Shaiva temples still predominated, several new Lingayat temples were built. For the first time, a few of these non-brahmanical temples were also built within Banavasi. Banavasi however continued to remain the center of brahmanical tradition and the new Lingayat temples are primarily located outside the fort wall and in other villages.

Most of the new temples built in this period were dedicated to local, village gods such as Mariamma and other village tutelary deities. While the brahmanical stone temples in the larger villages (Thigani, Narur, Mutalkoppa) continued to be worshipped, most of the villages (large and small) now contained a temple to a local deity. While much has been written about the appropriation of local deities and cults within the Brahmanical tradition in an earlier period, the growth of local cults/gods/goddesses in this period is noteworthy. One can only speculate that this development was linked to the decline in the inter-dependence between political/ kingly authority and brahmanical legitimization—a connection that was clearly seen in the patterns of temple construction and grant-giving in the preceding periods.

Table 5-2: Temples in the Survey Area

BGRS #	Village/ Main Deity	Date	Construction Phases
19	Thigani/ Shiva[42]	- Modern - Post 10th -12th c.	- Temple under extensive reconstruction (laterite block). - Older stone slabs, possible early linga (Later Chalukya?).
39	Thigani/ Mariamma	- Late medieval/ Early modern (post 17th c.)	- Wooden painted image of 'fierce' goddess.
57 Adi-Madhukeshwara	Banavasi/ Shiva	- 5th-6th c - 10th -11th c. - 15th-18th c.	- Early linga? (Murthy, et al. 1997: 44). - Use of cylindrical early pillars and 12th c. additions (Dhaky 1996: 238). - Structural additions Keladi style in imitation Hoysala (M.A.R. 1931(M.A.R.): 52).
57, Feat. 2	Mahishasuramardhini	- 14th -16th c.	- Image is Vijayanagara period (M.A.R. 1931(M.A.R.): 52).
96 (& Feat. 1)	Narur/ Shiva	- 11th-12th c.	- Open *mandapa* plan.
101	Narur/ Marikamba	- Modern	- Wooden 'fierce' goddess.
107	Mutalkoppa/ Shiva	- Modern	- Current structure modern (laterite block)

---

[42] Unless otherwise noted 'Shiva' temples contain an aniconic linga as the main deity.

BGRS #	Village/ Main Deity	Date	Construction Phases
		- 10th-12th c.?	- Possible reference to earlier structure (Sundara 1979: 165); older fragmentary stone slab, linga.
111	Yadakoppa/ Virabhadra	- post 14th c.	- Modern laterite block structure. - Central image probably earlier, Vijayanagara or later.
112	Narur/ Basavanna	- post 14th c.	- Modern temple, painted wooden pillars. - Iconic *nandi* as central image.
118	Shiva	- pre 14th century	- Mound with remnants of brick construction. Early roof tiles (7th-14th c.). - Eroded *nandi*, linga incorporated in bole of tree, scattered sculptural elements.
120	Kadagodu/ Shiva	- pre 14th c.?	- Exterior of temple modern (laterite block). - Sanctum is older stone construction (painted over). Sections of linga probably replaced.
130	Kadagodu/Shiva	- 11th-12th c.	- In ruins and partially buries but similar to BGRS 96.
149	Banavasi/ Jaina	- Modern - 10th-11th c.	- Temple extensively reconstructed. - Reference in (Murthy, et al. 1997: 45).
179	Bhasi/ Basavanna	- post 14th c.	- Modern laterite block structure. - Central image probably earlier, Vijayanagara or later.
180	Bhasi/ Kalabhairava	- post 14th c.	- Modern laterite block structure. - Aniconic stone and very eroded Ganesha (?) as central deity. Lingayat temple. - Keyhole shaped laterite block tank adjacent.
192	Bhasi/ Shiva	- Modern - post 14th c.?	- Currently being extensively reconstructed. - Older linga and sculptural fragments.
198	Banavasi/ Shiva	- Modern - post 15th c.	- Structure is modern. - Nandi appears to be Keladi period (15th-18th). Linga is placed in a circular *yoni pitha*.
202	Gudnapura/ Jaina/ Virabhadra	- Modern - post 14th c. - 12th c.	- Extensive laterite block reconstruction. - Converted to Hindu/Virabhadra shrine. - Early stone structural temple (Jaina).
214	Near Chikke Bengale/ Shanmukha	- Modern - Post 17th c.?	- Structure is modern on recently cleared hill-top. - Central image might be older.
228	Ajjarni/ Basavanna	- Modern	- Dilapidated but modern. - No linga, nandi might be older but is very eroded and partially reconstructed with cement. Similar to early nandi outside BGRS 261.
232	Hale Ajjarni/ Shiva	- Modern - Late medieval - 10th-12th -Pre-19th c.?	- Extensive modern reconstruction and replacement of older shikhara by cement construction. - laterite block enclosing wall. -Original structure Later Chalukya (I.A.R. 1983-84: 46). - Evidence for fragmentary brick

BGRS #	Village/ Main Deity	Date	Construction Phases
			construction below temple.
243	Banavasi/ Mariamman	- Late medieval/ Early modern (post 17th c.)	- Wooden central image of fierce goddess.
245	Banavasi/ Basavanna	- Modern - Post 17th c.	- Modern structure (laterite block). - Original structure might be earlier. Fragmentary floral ceiling finial, eroded nandi and circular *yoni pitha*.
246	Banavasi/ Boothappa	- Modern	
247	Banavasi/ Misc. deities	- Modern	- Shiva-Parvati, Ganesha, Boothappa.
250	Kantraji/ Shiva	- Modern - 10th-12th	- Extensive reconstruction. - Reference to early structure in (I.A.R. 1983-84: 47; Sundara 1979: 165).
250, Feat. 4	Kantraji/ Mahishasuramardhini	- Modern - Post 14th c.?	- Current image is modern. - Possible earlier eroded Vijayanagara period image lying outside.
255	Kantraji/ Gamdamma	- Early Modern	- Sculptural fragments and aniconic stones.
258 Siddhikantheshwara	Banavasi/ Shiva	- Modern - 10th-12th	- Modern reconstruction of Shikhara - Similar to BGRS 259, 261, 278..
259 Kadambeshwara	Banavasi/ Shiva	- Modern - 11th-12th c.	- Extensive reconstruction. - 'Kadamba-nagara'.
260 Neelakantheshwara	Banavasi/ Shiva	- Post 14th c.	- Late-type pillars.
261 Karmadeva	Banavasi/ Shiva	- 4th-5th c. - 11th-12th	- Early type linga and fragmentary sculptures (Sundara 1979: 169). Early brick construction below present structure. - Current structure.
262 Bangareshwara	Gudnapura/ Shiva	- Modern	- Modern structure next to large reservoir.
264	Chikke Bengale/ Gramadevara	- Modern	
266 Kalika	Iduru/ kali	- Modern - 10th-12th	- Structure renovated. - Central deity is older.
266, Feat. 2	Iduru/ Shiva	- Modern - 10th-12th?	- Modern renovations. - Older structure partially visible. Linga type is also early.
266, Feat. 6	Iduru/ Kalabhairava	- Modern - Vijayanagara image?	- sub-shrine in Kali temple.
269	Iduru/ Durgambika	- Early Modern (Post 17th c.)	- Wooden fierce goddess.
270	Kantraji/ Durgambika	- Modern	- Wooden fierce goddess.
275	Banavasi/ Commemorative	- Modern	- Samadhi of head of 'Hale-matha (*monastery*)'.
276	Banavasi/ Hanuman	- Post 14th c.	- Temple is currently being rebuilt but

BGRS #	Village/ Main Deity	Date	Construction Phases
Anjaneya			central image is typical Vijayanagara period and later Hanuman.
277 Banashankari	Banavasi/ Goddess	- Post 14th c.?	
278 Prabhu devasthana	Banavasi/ Shiva	- 10th-12th	
279	Kalagodu/ Shiva	- Post 14th c.	- Possible early lingam?
280 Madhukeshwara	Shiva	- 7th, early 8th c. - 11th c. - post 14th c. (Vijayanagara)	- Original structure under the early Chalukya (mid. Phase)/ Alupa subordinates.(Radcliffe 1981: 333-334).The square pillars with roll-bracketed capital pillars in the interior sanctum closely resemble those in the Jambulinga temple at Badami dated to 699 AD (Tartakov 1980: 68-69, Fig. 9). Hardy argues that this style was commonly used in temple architecture before the 8th century (Hardy 2007: 151). - Addition of *rangamandapa* (hall), eastern and northern entrances (*dvaramandapas*), and a Nandi-*stambha* (flag post) (Dhaky 1996: 237). Free standing elephants at entrances common Hoysala motif, less common in Later Chalukya and Vijayanagara (Kanekar 2010: 139). - Decorative details following Vijayanagara conventions (Dhaky 1996: 237-238), structural additions under the Sonda chiefs (Hardy 1995: 323).
280, Feat. 2	Banavasi/ Narasimha	- 16th c.?	- *Ranga mandapa* constructed by Vijayanagara officer, Padumappa (Murthy, et al. 1997: 44).
280, Feat. 3 Basavalingeshwara	Banavasi/ Shiva	- Sonda period (15th-18th c.)	- (Murthy, et al. 1997: 44).
280, Feat. 4	Ganapati	- Post 14th c.	
280, Feat. 5	Banavasi/ Parvati	- Post 14th c.? - 17th c.	 - *Mandapa* in front of temple built by the Sonda chief Sadhashiva.
280, Feat. 6	Virabhadra	- 14th c.	- Built by Nagappa for a Nakulashiava teacher(Murthy, et al. 1997: 44).
281	Banavasi/ Durga	- Modern - Post 14th c.?	- Modern reconstruction. - Early sculpture but completely covered.
282	Huralikoppa/ Basavanna	- Modern - Post 15th c.	- Present structure. - Earlier nandi, similar to BGRS 198.
283 Allama Prabhu	Banavasi/ Shiva	- Vijayanagara period (post 14th c.) - 12th c. - 9th-10th c.	- Repairs to *Mukha-mandapa*. - *Shikhara* type. - Original structure (Rashtrakuta) (Murthy, et al. 1997: 44-45).
285	Banavasi/ Basavanna	- Modern	

BGRS #	Village/ Main Deity	Date	Construction Phases
287 Tirumala	Banavasi/ Vishnu	- Post 14th c.	

5.1.3 Popular religion: 'Little' tradition

In the previous section, I focused on what might best be classified as the 'Great Tradition'. In this section, I complicate my discussion by highlighting the presence, and importance, of smaller religious traditions in the survey area (Figure 5-12). Stuart H. Blackburn, in a study of folk religion in India, observed that localization and restriction to specific social groups were distinctive features of these traditions (Blackburn 1985: 257). While the tradition(s) themselves might be geographically widespread, the practice of worship was normally restricted to the village level and usually did not require brahmanical intercession[43].

Throughout South India, folk beliefs populate the landscape with a variety of divine and semi-divine beings, as well as spirits (*bhutas*) and other inimical forces. In many cases, these small sacred sites do not have built shrines. Instead, they could consist of rounded stones, grinding stones,[44] or earthen pots worshipped as forms of the goddess (*Chowdamma*); or places identified as residences of spirits or natural symbols (termite mounds, snake holes). Even constructed shrines to folk deities are very difficult to date since they typically are small makeshift features that house a collection of objects. These can include unshaped stones and miscellaneous architectural or sculptural fragments. In several places in the survey area we identified discarded lingas and pithas, many near flowing water ('Fragmentary Linga' in Figure 5-12). If flaws or cracks developed in these items, they are no longer considered worthy of worship in temples. These discarded lingas sometimes became the focus of smaller folk shrines.

---

[43] A few of the constructed shrines are under the control of brahmanas but tend to be more accessible to non-brahmanas as well.
[44] See Section 6.4.4.1 for a description of the grinding stones found in small shrines.
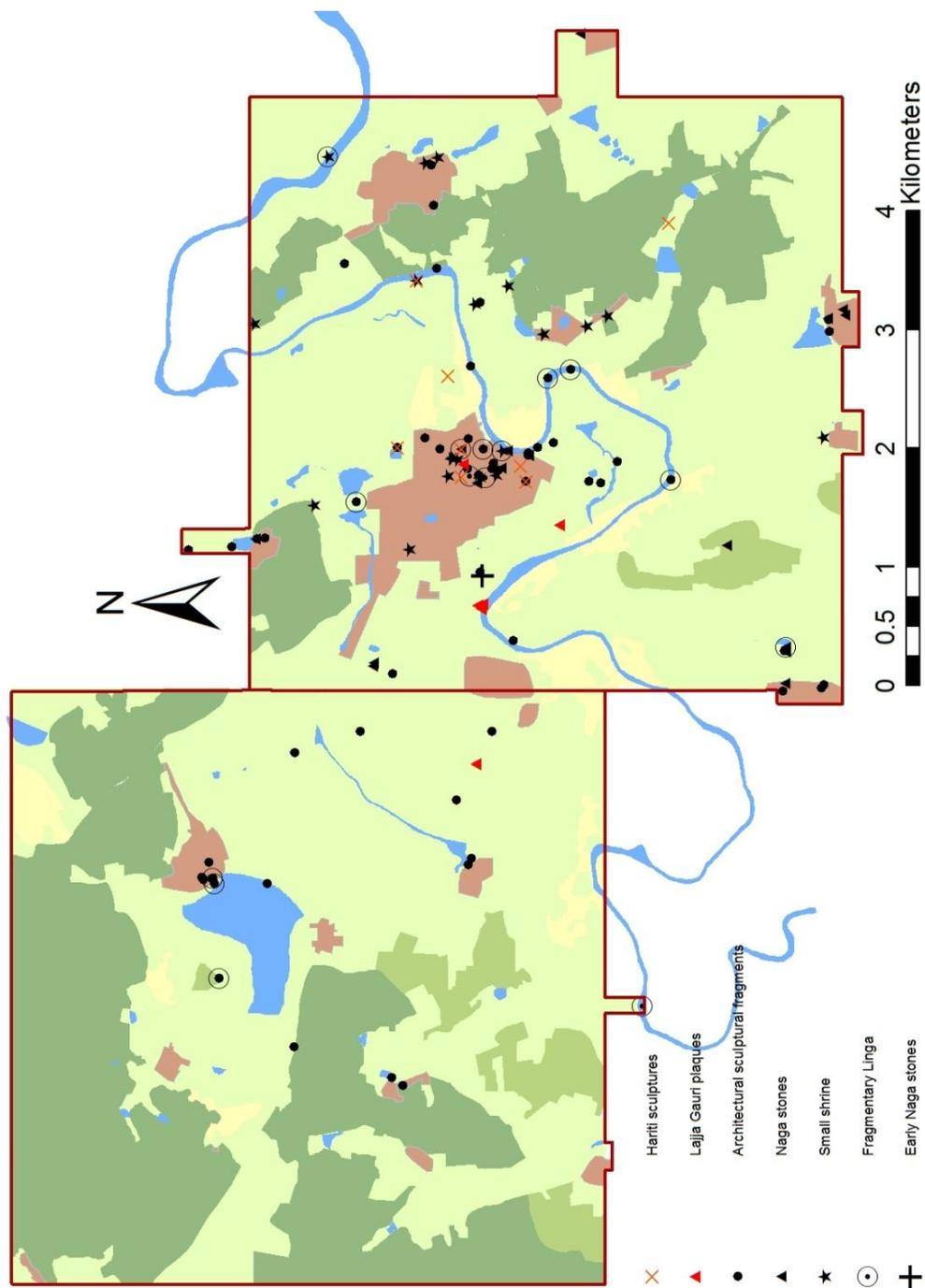
Figure 5-12: Small shrines, folk shrines

Throughout India, and especially in South India, the worship of snakes or nagas is a ubiquitous feature of village religion, and the folk belief in a naga's power over rain and fertility is also found in early Buddhist stories (Bloss 1973). On survey, we recorded over a hundred *naga-kallus* (snake stones) with depictions of snakes in relief on roughly rectangular stone slabs.

They varied considerably in size, iconography and finish. The simplest stones show a single snake with raised hood; more complex forms have multiple snakes, most commonly a pair of intertwined cobras. These stones are normally placed under trees or in small household shrines and their worship is especially linked to a desire for children. Recent work in central India has highlighted the importance of naga stones as part of local agricultural cults. Julia Shaw (2004) has argued that their position in the landscape reflect a close association with agricultural features like dams and a complex relationship with heterodox religions like Buddhism and Vaishnavism.

The earliest dated Naga stone in the project area is a large, finely carved slab located in the compound of the Madhukeshwara temple (BGRS 280, Feature 21). The edges of the slab contains a Prakrit inscription of the twelfth regnal year of Haritiputra Satakarni recording the grant of the naga stone, a tank and a *vihara* (Murthy, et al. 1997: 29-30). Not only does this inscription hint at a possible connection between naga stones and Buddhism and kingship but it also allows us to date the stone to the early centuries AD. A stylistically similar, but un-inscribed and fragmentary naga stone is found next to a small folk shrine (BGRS 158) on the outskirts of Banavasi and can be dated to an early period (Figure 5-13).

Figure 5-13: Early Naga stones: BGRS 280, Feat. 21 (Left) and BGRS 158 (Right)

5.1.4 The many forms of the Goddess: 'Great' and 'Little'

Forms of the goddess have occupied a prominent place in religious practice at the local or regional scale throughout the centuries in South Asia. Goddess worship occurs both at the village level and is at times incorporated within larger Sanskritic traditions. Elgood (2004: 328) recognizes two main forms of village goddesses: cooler earth goddesses associated with fertility and hot, fierce goddesses who needed to be propitiated. It is likely that several of these goddesses had a folk, non-Brahmanical origin. Gradually, certain forms were incorporated within the mainstream Brahmanical tradition, although they often continued to have an ambivalent relationship with orthodoxy. In this section, I trace some of the forms of goddess worship for which we have archaeological evidence in the survey region. I focus for the most part on traditions with dateable sculptural representations.

One of the earliest representations found in South Asia is that of Lajja Gauri. These images depict a recumbent female torso, depicted with a lotus flower or pot for the head, and with her legs bent at the knees and spread on either side of her torso. Numerous names have been applied to this image including Lajja Gauri, Aditi Utanapad, Renuka, Kamala Gangamma, Nagna Kabandha and others (Korisettar, et al. 2010: 113). Similarly, the iconography of this goddess varies considerably.

Carol Bolon (1992: 11-37) has identified four forms of the goddess, showing a movement through time from an early aniconic form to a fully human depiction: I-symbolic Uttanapad pot form with no breasts, arms or head (made only in the south, third and fourth centuries); II- lotus-headed without arms (fourth to ninth centuries); III- lotus-headed with arms (fourth to tenth centuries) and IV- anthropomorphic (made only in Northern India from the sixth to seventh centuries). This typology has been widely accepted although some studies argue for an earlier date for Form I:- from the first to the fourth century AD (Janssen 1993: 463-464).

Four Lajja Gauri images were found on survey (See Table 5-3, Figure 5-12)[45]. All of them were Form I or its variants and can therefore be dated to the early centuries AD, most probably third-fourth centuries AD. There is an unclear reference to a second century BC Lajja

---

[45] A fifth was noticed by Janssen in the Madhukeshwara temple but has not been published. It is also an early type.

Gauri image in the Banavasi area noticed by Sundara (Korisettar, et al. 2010: 105, Table-3). However, I was not able to find the original reference or any image or description.

Table 5-3: Lajja Gauri Plaques

Site No.	Form	Dimensions	Context	Notes
BGRS 85, Feature 1	Form I, plaque	20 × 15 × 2-3 cm	Within small, modern cement shrine (65 ×85 × 62 cm) in corner of fallow field.	Eroded. Not currently in worship. Adjacent Early Historic ceramic scatter in field (BGRS 85).
BGRS 155	Form I, plaque	14 × 21 × 5 cm	In makeshift folk shrine on edge of field.	Extremely eroded and chipped.
BGRS 166	Form I, plaque	18 × 15 × 4 cm	Within modern household shrine located in house backyard, Banavasi.	In worship.
BGRS 225	Form I,	15 × 11 × 4 cm	In makeshift folk shrine on edge of field.	Broken in half.

BGRS 85 and 166 (Figure 5-14), the most complete images found, are typical Form I with the figures in relief on a rectangular plaque. They depict a pot-like lower torso, topped by a lotus flower. At the base of the 'pot' the legs are spread as described above, the entire image symbolizing a *purna-kumbha* or overflowing vase of fortune representing prosperity and procreation (Bolon 1992: 13). The images are eroded. Nevertheless, it is possible to make out anklets on the feet, although other typical decorative elements are not visible (for instance, adornment around the waist, a patterned cloth draped over both thighs, the indentation of the navel). Both of these plaques have unclear incised decorations around the edges. BGRS 85 can be dated to the 'Satavahana period' (second century BC- second century AD) and is of yellow limestone, probably imported from the Early historic site of Sannati in north Karnataka (Janssen, personal communication; Figure 6-27).

Figure 5-14: Lajja Gauri plaques; BGRS 85 (top) and BGRS 166 (below)

BGRS 155 is an extremely eroded and chipped plaque (Figure 5-15). BGRS 225 is broken, with only half the image visible. This image too is in relief, but is not placed against a rectangular background and the outline of the torso is clearly shown, with the feet and toes depicted almost in the round. Given the fragmentary nature of these images they can only tentatively be dated. While they appear to be Form I, it is possible that BGRS 225 might be a later, more anthropomorphized form of the goddess.

Figure 5-15: Lajja Gauri plaques, BGRS 155 (top) and BGRS 225 (below)

The origins of the deity have variously been traced to the Vedic period (Kramrisch 1956), to Roman influence (Sankalia 1960), to an indigenous prehistoric or chalcolithic origins (Nath 1990), or to fertility cults originating in western and southeastern Asia and interacting with South Asian Neolithic and Megalithic cultures (Korisettar, et al. 2010: 115-121). In South Asia, iconic forms of most gods and goddesses are well documented by a plethora of prescriptive texts, such as the *tantras* and *agamas*, as well as in other literature like the epics (Bolon 1992: 2). This goddess however, is not mentioned in any known text. This strongly suggests that she was not an important deity in the mainstream Brahmanical pantheon and might have belonged to a more

local, folk cult associated with fertility perhaps as a village goddess, albeit one found across much of the subcontinent (Bolon 1992: xiv, 63).

By the fourth century, Lajja Gauri seems have become associated in a minor role with the Shaiva pantheon, often placed next to *Saptamatrika* figures (the seven divine mothers; Bolon 1992: 25, 48). In some cases, Lajja Gauri images are included in subsidiary shrines in temples or were carved onto temple walls (in not very prominent locations) (Korisettar, et al. 2010: 99-100). From the seventh century, increasingly anthropomorphized Lajja Gauri images are found at nearly every major Shaivite site in the Early Chalukya core area in the Malaprabha valley and her worship was continued by the Rashtrakutas (Bolon 1992: 24-31; Janssen 1993: 466; Kadambi 2012). However, she remained invisible in Brahmanical texts and contemporary inscriptions. Her images were rarely made after the eighth century, ending entirely by the 12th (Bolon 1992: 48), although older images continued to be worshipped, often as the goddess Renuka-Yellama.

Bolon has noticed regional patterns in the 'Hinduization' of Lajja Gauri, and in her iconography. While there is evidence for royal patronage of this deity by the early Chalukyas to the north, in the Banavasi sub-region at least she was not incorporated into mainstream Brahmanical practice. None of the images are found in temples. Instead, they are found in small, often makeshift folk shrines. None of them are the nearly life-size elaborate form typical of the Chalukyas, but instead are small and portable and could represent some form of votive offering. However, the cult was not a purely local one, since there appears to be some movement of the plaques (as in BGRS 85 above, which was made with limestone from Sannati), perhaps representing an early pilgrimage network. The plaques are still in worship as 'Chowdamma', the local goddess.

As will be discussed in Chapter 7, early Kadamba inscriptions often traced the dynasty's lineage from the goddess Hariti, as do the early Chalukyas in a later period. Hariti is one of the early goddesses that emerged in the Mahayana Buddhist pantheon, perhaps appropriated from a folk tradition (Padma 2011: 5-6). In the Buddhist tradition, she has a demonic and terrible origin as a *yakshi* prone to kidnapping and devouring children. In certain parts of the Deccan, in the post eighth century, Hariti was incorporated within the Shaivite pantheon as a more benign local goddess who was also an aspect of Parvati (Padma 2011: 13). Very often, in the villages she still

is associated with smallpox (as Sitala) and is a fertility deity entrusted with the protection of children. Hariti is portrayed with a child seated on her knee and surrounded by several others.

In medieval and contemporary Banavasi, Hariti does not have a place in the Shaivite pantheon. However, on survey, we found at least nine early sculptures that could depict this goddess (Figure 5-12)[46]. All of them are in round relief, depicting a female figure seated on a plain square *pitha* with the hands placed on the spread knees (Figure 5-16). At least one shows her holding an item (unclear) on one knee. Unfortunately, these chlorite schist sculptures are extremely fragmentary. However, the posture is widely accepted as typical of the goddess Hariti as depicted in sculptures dated to the early centuries AD (Sundara 1990-91). While most are currently incorporated in small folk shrines, it can be suggested that they are remnants of a Buddhist/early Brahmanical tradition in the area.

Figure 5-16: BGRS 122, possible Hariti sculpture

---

[46] BGRS 3, 48, 122, 138, 164, 170, 205, 227, 298. Sundara records two more similar possible Hariti sculptures in the area and dates them to the first-second centuries AD (Sundara 1990-91: 131-132).

While Lajja Gauri and Hariti appear to have been early folk goddesses who did not enter the Brahmanical pantheon, other forms of the goddess became important in the region. The development of a mainstream goddess tradition in the survey area, as in most of Karnataka, can be dated to the post eighth century period. A striking feature of the medieval period was the growth of the Tantric tradition with its focus on the worship of the female principle (*Shakti*), and the proliferation of evidence of goddess worship (especially of Mahishasuramardhini) in the 12th and 13th centuries (Simmons 2008: 25). Goddess cults also seem to have been an integral part of medieval Jaina practice, drawing strongly on the popular substratum of goddess worship in villages and on the Tantric Shakta tradition in the subcontinent (Cort 1987; Singh 1973).

Between the tenth and 13th centuries[47], Jaina cosmology began to distinguish between goddesses living in three celestial realms: in the upper realm were Saraswathi and Lakshmi, goddesses of learning and wealth, who derived from the Vedic tradition; in the middle were a group of 16 *vidyadevis*, a group of largely undifferentiated Tantric deities and in the lower realm were semi-divine, wish-fulfilling *yakshi*[48] attendants of the 24 Tirthankaras (enlightened beings), who were the most important goddesses in the Jaina tradition (Cort 1987: 236; Jawaharlal 2004: 319).

Vatsala Iyengar (2011: 244-245) argues that this development occurred in a period where there was decreasing royal patronage and increasing conflict with other sects, which contributed to the development of a more popular form of the religion. Of these Jaina *yakshis*, Padmavati, Jvalamalini and Ambika (Kushmandini) became the most important, with independent cult followings (Cort 1987: 236). While these later Jaina divinities drew heavily on established Brahmanical iconography (Bhattacharya 1995: 48), a few of them, most notably the goddess Padmavati, were originally lineage deities of powerful local families that converted to Jainism (Cort 1987: 243). It can be noted here that in an earlier period, a fifth-sixth century inscription of the early Kadamba ruler Ravivarma records a grant to the Padmavati temple at Kallili (Gopal 1973).

---

[47] Settar argues for an earlier date of seventh to eighth centuries for the beginning of the cult of Jvalamalini (Settar 1969).

[48] The Jina as originally conceptualized was an aloof deity who could show the way to salvation but would not aid the devotee or answer his prayers. Added to this, the emphasis on the renunciation of the material world and the absence of any rituals led to a very austere religion that was fast having to compete for popular support. The subsidiary deities mentioned above were more accessible divine beings, capable of answering a devotee's prayers.

Among the earliest depictions of the goddess within the Brahmanical pantheon is that of the *Sapta-Matrikas* ('seven-mothers'), who gained prominence in the Chalukya period. This development represents an attempt by the Shaivite tradition to contain and dominate the goddess cult. Typical sculptural representations of the *sapta-matrikas* are panels that depict seven goddesses flanked and contained by a form of Shiva on the left and Ganesha on the right. Despite some regional variations, these panels have a standard form from the seventh to the 11th century (Meister 1986: 242). The seven goddesses typically begin with Brahmani (consort of Brahma) and end with Chamunda (a fierce, gaunt form of the goddess). In between are five divine consorts: Maheshwari (consort of Shiva), Kaumari (Skanda, God of War), Vashnavi (Vishnu), Varahi (Varaha, the boar-headed form of Vishnu) and Indrani (Indra) (Meister 1986: 236). In the survey area, two such panels were found. The original contexts of both are now lost and today they form part of small folk shrines, BGRS 118 and 71 (Figure 5-17).

Figure 5-17: BGRS 118, Feature 2; *Sapta-matrika* panel

By at least the tenth century, independent goddess shrines and temples begin to be built in the survey area (See Figure 5-4 above). The earliest independent goddess temple documented in my survey is BGRS 266. This temple is currently dedicated to the goddess Kali, with a subsidiary shrine to Kala-Bhairava, a fierce form of Shiva. While the temple has been rebuilt in modern times, the central image is early, and can certainly be placed in Period II and probably within sub-period A (tenth to 12th centuries AD). The iconography of this image is interesting

since it does not depict the goddess in one of her more common forms, as Durga or Mahishasuramardhini. Instead, the imagery is very similar both to that of the Jaina goddess Jwalamalini[49] and of Padmavati (Figure 5-18). The goddess is shown seated on a plinth in an almost squatting posture (*ardha-paryankasana*), surrounded by stylized flames[50]. She wears a conical crown and in her four arms holds a sword, trident, drum and fruit or bowl (with dangling human head). Her vehicle had originally been carved onto the plinth below but is now too eroded to identify.

Figure 5-18: Kali image from BGRS 266 (top); Jwalamalini Yakshi from the Virupaksha temple, Aihole (Settar 1969)

---

[49] The iconography of Jwalamalini varies considerably and there is no consensus even in Jaina texts on her attributes and weapons (Settar 1969: 314-317; Shah 1947: 151-154). It is believed that Jvalamalini took on some of the attributes of Mahishasuramardhini as the cult of that goddess became increasingly important (Settar 1969: 311). Similarly, the iconography of Padmavati too varies from text to text and temple to temple (Nagar 1999: 301-308).
[50] This is an iconographic characteristic of Jwalamalini (Jwala=flame). However, it could also depict a stylized snake, in which case it is a typical feature of the depiction of Padmavati.

This image is very similar to depictions of the goddess Banashankari, worshipped in medieval Karnataka by the Kaulas (followers of a Tantric tradition of Shaktism) and propitiated in villages for the success of crops (Hegde 2000: 177-178). There is a later temple to the goddess Banashanakari in Banavasi (BGRS 277), with minor differences in iconography from BGRS 266 (the latter image holds a conch instead of a bowl and the other items are held in different hands) (Figure 5-19). This is a small temple now partially enclosed within a modern house that could date to the latter half of Period II or to Period III.

Figure 5-19: Deity in the Banashankari temple, BGRS 277

By the late medieval period (Period III, 14th to 18th century), several of the main Shiva temples included subsidiary shrines to various forms of the goddess. The most common are temples to Mahishasuramardhini, a powerful form of the great goddess said to have been created by the gods to defeat the demon Mahisha. The legend of this goddess is found throughout India. In the Deccan, the earliest sculptural representation dates to the third century from Sannati and the images increase greatly in number from the post sixth century, Chalukya period (Tartakov

and Dehejia 1984: 313-314). The earliest Chalukya Mahishasuramardhini images depict the goddess crushing or impaling the demon, who is shown in a purely zoomorphic form (that of a water buffalo) (Seshadri 1963: 8-11; Tartakov and Dehejia 1984: 316, 319). From the late eighth century onwards the popularity of this early depiction declined and the demon was increasingly depicted as a small human figure with the horns of a buffalo or shown with a human head emerging from the neck of the buffalo (Tartakov and Dehejia 1984: 320).

BGRS 57 and 250, large Shaiva temples in Banavasi and Kantraji respectively, contain small shrines to Mahishasuramardhini located outside the main temple. Both of the shrines appear to contain sculptures dating to the Vijayanagara period (Figure 5-20).[51] In Banavasi, which continued to be the center of the Shaivite Brahmanical tradition throughout the Late Medieval period, a small temple to Parvati (the consort of Shiva) was built next to the main shrine. This temple is of late Vijayanagara date and an inscription on the pillar records the construction of a *mandapa* by a king of Sonda, Sadashiva Rajendra (M.A.R. 1931(M.A.R.): 54).

---

[51] Isolated Mahishasuramardhini sculptures are found in or next to other temples. However, there are only two small shrines solely dedicated to the goddess. In BGRS 57 (Feat. 2), the goddess is shown in standard form with four arms, with one leg on the ground and the other on the neck of Mahisha (very eroded, form unclear but possibly anthropomorphic). The front left hand holds the creature's head and the right pierces its neck with a staff. The second set of hands hold a conch and wheel (*shanka* and *chakra*). Her lion mount is a small figure tucked away in the bottom left corner. The sculpture currently in the shrine in BGRS 250 (Feat. 4) is of a different form, however an eroded early sculpture is located within the main Shiva temple and is very similar to the one in BGRS 57. This sculpture shows Mahisha in a purely anthropomorphic form (whether he bears horns is unclear) and probably dates to at least the Vijayanagara period. The sculpture currently within the Mahishasuramardhini shrine of BGRS 250 is a late medieval or modern one depicting the goddess with silver inset eyes impaling the demon as a buffalo, although a human figure appears to be emerging from beneath the buffalo. This figure seems to be a copy of an extremely eroded (and perhaps older) sculpture lying outside the temple.

Figure 5-20: Mahishasuramardhini, BGRS 57, Feature 2

By later medieval times and continuing into the modern period (Period IV, 18th century onwards), independent goddess shrines were found in many of the villages surrounding Banavasi. These temples are usually dedicated to Durga or Mariamman, both fierce forms of the goddess. Mariamman is considered the goddess of illness (particularly smallpox) and occupies a place as a 'boundary goddess' for village life (Grahn 2011: 56-57, 66-67). She can take on a variety of aniconic forms and is often worshipped as a rounded stone; or a termite mound in the area. Iconic images of Mariamman and Durga are very similar, depicting a fierce goddess astride a tiger and brandishing a variety of weapons in her multiple arms (Figure 5-21).

Figure 5-21: Examples of Chowdamma (Left) and Mariamma (Right) images

Late iconic images are primarily of wood and are brightly painted. It is possible that similar images from an earlier period have not survived. Smaller household shrines to a more benign form of the goddess known as 'Chowdamma' are also scattered across the landscape. These shrines draw on (and sanitize) medieval iconography and typically show a seated or standing, sari-clad cross-legged female figure with a bowl in one hand and the other with the palm facing out in a gesture of blessing (*varada-mudra*) (Figure 5-21). These local Chowdamma shrines also often had an aniconic representation of the goddess. In several instances, rounded (but unshaped) stones are still worshipped as the goddess Chowdamma.

From a very early period therefore, goddess cults occupied a place in the sacred landscape of Banavasi, and from the medieval period, there was a proliferation of independent temples or small shrines dedicated to the goddess. However, as discussed above, they had a contested relationship with the mainstream Brahmanical tradition. However, in Banavasi and in villages with large Brahmanical temples, goddess shrines were small, separate and clearly subordinate structures (BGRS 57 and 250 discussed above). The majority of temples dedicated to fierce, independent forms of the goddess were located outside Banavasi, and often in villages that do not have large Shaivite, Brahmanical structures. Within Banavasi, the temple to Parvati located within the precincts of the Madhukeshwara temple is clearly subordinate to the main Shiva temple, and the Banashankari temple is a small, household shrine.

5.2 The commemorative landscape

Stuart Blackburn (1985: 255-256) has argued that ideas relating to death are central to Indian religious thought and are as visible in folk religion as in Sanskrit religious texts. Memorial stones are among the most conspicuous features acknowledging the deceased in the landscape in Karnataka from at least the medieval period. There are three main categories of carved, and often inscribed memorial stones: Hero stones (*Viragal*), Sati Stones (*Mahasatikal/ Mastikal)* and Jaina memorial stones (*Nishidhi*).

Hero stones typically are carved rectangular slabs that record the death of a 'hero' in a war on behalf of a king, or in defense of cows, women or the village, or in self-sacrifice for various reasons. The most common type has three panels. The lowest panel depicts the hero in battle, the middle one shows the hero flanked on either side by *apsaras* (celestial women), and the topmost panel depicts him in heaven or worshipping a *Shivalinga* (representing his location in Kailasha or heaven). Elaborate depictions of war in the lowest panel became increasingly common from the Hoysala period onwards (Murthy 1989: 372) and are represented in several hero stones recorded during our survey. In several cases, the spaces between the panels contained inscriptions describing the death of the hero and recording any grant of land made in favor of the family of the deceased.

Unfortunately most of the stones in the survey region are poorly preserved with the inscriptions (if present) largely eroded. Stylistically, I have classified the hero stones recorded on survey into three types.[52]

Type I (A) contains a single panel at the top of a stone slab depicting a central figure flanked by a worshipping figure on the left and a seated nandi on the right (n=2) (Figure 5-22). A variation on this type seems to be simple slabs with inscribed or bas-relief depictions of a linga, occasionally with a seated cow next to it (Type IB/ Linga-mudra, n=30). Often there is a carved sun and moon on the top left and right respectively, indicating that the gift is eternal, a standard motif in post 12th century carved stones in Karnataka (Branfoot and Dallapiccola 2005: 259). These stones are known locally as 'Linga-mudra' stones and some are stylistically similar to hero stones, although more often crudely carved. None of them depict a human worshipper, but it is

---

[52] Of this sample, 3 stones were fragments of complete hero stones, and one is a published stone that is now missing from its original location (BGRS 49, Feat. 12).

likely that they are some form of commemoration, whether of death or of devotion is unclear. I have grouped them as a separate sub-category of memorial stones since their spatial distribution is different from that of the hero stones.

Figure 5-22: BGRS 242, Hero stone, Type IA (Top); and BGRS 62, Linga-mudra stone, Type IB (Bottom)

The second category of hero stones (Type II) varies greatly in size. All depict a single male figure generally carved in relief (n=5, Figure 5-23). At least two of these stones have an eroded and illegible inscription below the figure. The majority of hero stones belong to the final Type III (n=18, Figure 5-23). These are the typical hero stone with multiple panels described above. While single-paneled or two-paneled hero stones are also found in Karnataka, the three paneled one is the most common and the only type found in the survey area.

Figure 5-23: Hero stones--BGRS 91, Type II (Left); BGRS 250, Feature 7, Type III (Right)

Sati stones commemorate the immolation of a woman on the death of her husband. There are two main types of sati stones in the Banavasi region. Perhaps the most common is a stylized representation, consisting of a long pillar with a woman's arm extending from it (Type I, n=22; Figure 5-24). The arm is adorned with jewelry and is placed with the palm facing the viewer such that the upper arm is parallel and the forearm perpendicular to the ground. A full pot (*purna-kumbha*) is shown on top of the pillar, depicting abundance and a sign of auspiciousness.

The stones may also contain small male and female seated figures in relief (depicting the husband and wife) placed on the stone, as well as an inscription.

The second type of sati stone depicts standing male and female figures against a plain background, the woman often with her right arm raised as in the first type of sati stone (n=3). This type of stone variously depicts images of a man and a woman or a man flanked by two women. As in the example shown in Figure 5-24 below, these figures are at times crudely carved. Stylistically, they seem to draw from a local tradition and not from the more polished pan-Karnataka sculptural tradition. The female figures wear elaborate headdresses and wide, pleated skirts and not the elaborately draped garments so often depicted in Chalukya and Rashtrakuta art. I am inclined to date them to a post-16th century period.

Figure 5-24: Sati stones, Types I and II

Nishidhi stones commemorated the death of a Jaina ascetic through the rite of *sallekhana*, involving detachment from the world ending with a fast to death (Settar and Korisettar 1982: 283-287). In Karnataka, this practice was common from the sixth/seventh centuries to the 15th century, with a concentration in the 12th and 15th centuries (Settar and Korisettar 1982: 288). The simplest form of memorialization (Type I; Figure 5-25) to such individuals was a slab depicting the footprints of the deceased in relief (Settar 1986: 189-190). This type of stone has been dated

to an early period, a few having been dated to the sixth and seventh centuries (Sastry 1996: 125). In the Banavasi area, four footprint memorials have been found, two of which are likely Jaina.[53] These are simple depictions of footprints in relief on a now irregular slab and may have had floral or circular designs on either side of the feet. The remaining two might represent Sati memorials as one third depicts the feet of a woman, complete with anklets and toe rings and the other shows the feet of a couple, encircled by a snake (Figure 5-25 below).

Figure 5-25: Nishidhi stones, Type I

From the eighth/ninth centuries onwards, Nishidhi stones took on some of the stylistic features of hero stones, with two or three panels showing the life and after-life of the ascetic (Type II, n=2; Figure 5-26). These panels showed the ascetic in heaven or leaving his body, and scenes where he listened (often with his wife) to the teachings of his *guru*. The final type (III,

---

[53] Possibly Jaina: BGRS 197, Feature 1; BGRS 266, Feature 7. Depicting female feet only: BGRS 243, Feature2. Depicting a couple's feet: BGRS 277, Feature 2.

n=3; Figure 5-26) were rectangular, domed pillars with inset panels once again showing scenes from the life of the ascetic.[54]

Figure 5-26: Nishidhi stones-- BGRS 149, Feature 1, Type II (Left); and BGRS 254, Type III (Right)

Dating these commemorative stones is extremely difficult, especially in cases where there is no inscription. Even the inscribed stones are often eroded and illegible. In some cases, however, the stones can be dated on the basis of paleography. The contents of the inscriptions in the survey area have been discussed in Chapter 7.[55] Broadly, most memorial stones date roughly between the eighth to the 16th centuries or later. I am inclined to place Sati stones belonging to

---

[54] Ten Nishidhi stones were recorded. Two were fragmentary (BGRS 96, Feat. 2; 149, Feat. 3) and three were not found on survey but are published in S.I.I. (BGRS 148, Features 7, 8, 9).

[55] There are a few inscriptions found in Banavasi which have been published but are no longer found in their original locations. These have either been lost, destroyed or moved elsewhere. The contents of some of these inscriptions indicate that they might have been engraved on hero stones. Other hero stones are so eroded and illegible that it is difficult to correlate them to published inscriptions that often give very brief information on location and style. In this section therefore I have confined myself largely to a discussion of style and location. For content, I have discussed all the inscriptions (published and unpublished) found in the survey area in the section below. Where possible I have included their location and style (for instance, whether engraved on a typical hero or sati stone).

Type II in a later period, post 14th century at least and perhaps even post-16th century since they seem to belong to a distinctly local artistic tradition.

Despite this lack of temporal control, other patterns emerge from a study of the memorial stones. Clearly, in the post eighth century period, the Shaiva tradition became increasingly important (this is borne out by the construction of temples as well). Most of the hero stones (and all of Type III) have a clear Shaiva affiliation. There are only two slabs with the depiction of Vaishnava symbols (the conch and the wheel). The Jaina tradition also had a presence in the region but the memorials are much less numerous.

Sati stones are interesting in that they have a sanctity of their own, without necessarily any clear association with mainstream Brahmanical tradition. They are typically located just outside temple compounds or in their own smaller shrines, unlike the hero stones that are usually placed right next to the temple entrance. Also unlike the hero stones, sati stones are worshipped even today as 'Masti-amma', a local form of the goddess. The two Vaishnava stones are also not located within settlements, perhaps reinforcing their distance from the dominant Brahmanical tradition.

The hero stones tend to be located largely within settlements and often within or next to temple compounds (See Figure 5-27).[56] It is interesting that the Linga-mudra stones tend to be scattered away from settlements in agricultural fields. Stylistically, these stones show great variation, are rarely inscribed and seem to represent a limited investment of resources since they are generally poorly finished and crudely carved. I suggest that they might represent non-elite forms of commemoration or devotion. In other contexts, these stones have been identified as boundary markers in agricultural fields (Sinopoli, personal communication).

In contrast, hero stones (Type IA, II and III) are much more elaborate, draw on established imperial styles, and are often inscribed. They clearly display an elite heroic ideal. The concentration of these forms of commemorating death in the post-eighth century period also coincides with increasing political flux as the Banavasi area was periodically incorporated into larger political systems (as discussed in Chapter 2). I suggest that these stones may be indicative

---

[56] This pattern, of course, could be a result of their re-location within temple compounds as sacred objects. Some of the Nishidhis are located in Hindu temples.

of a period of increasing warfare and conflict, a suggestion that is borne out by what we know of the political history of the period.
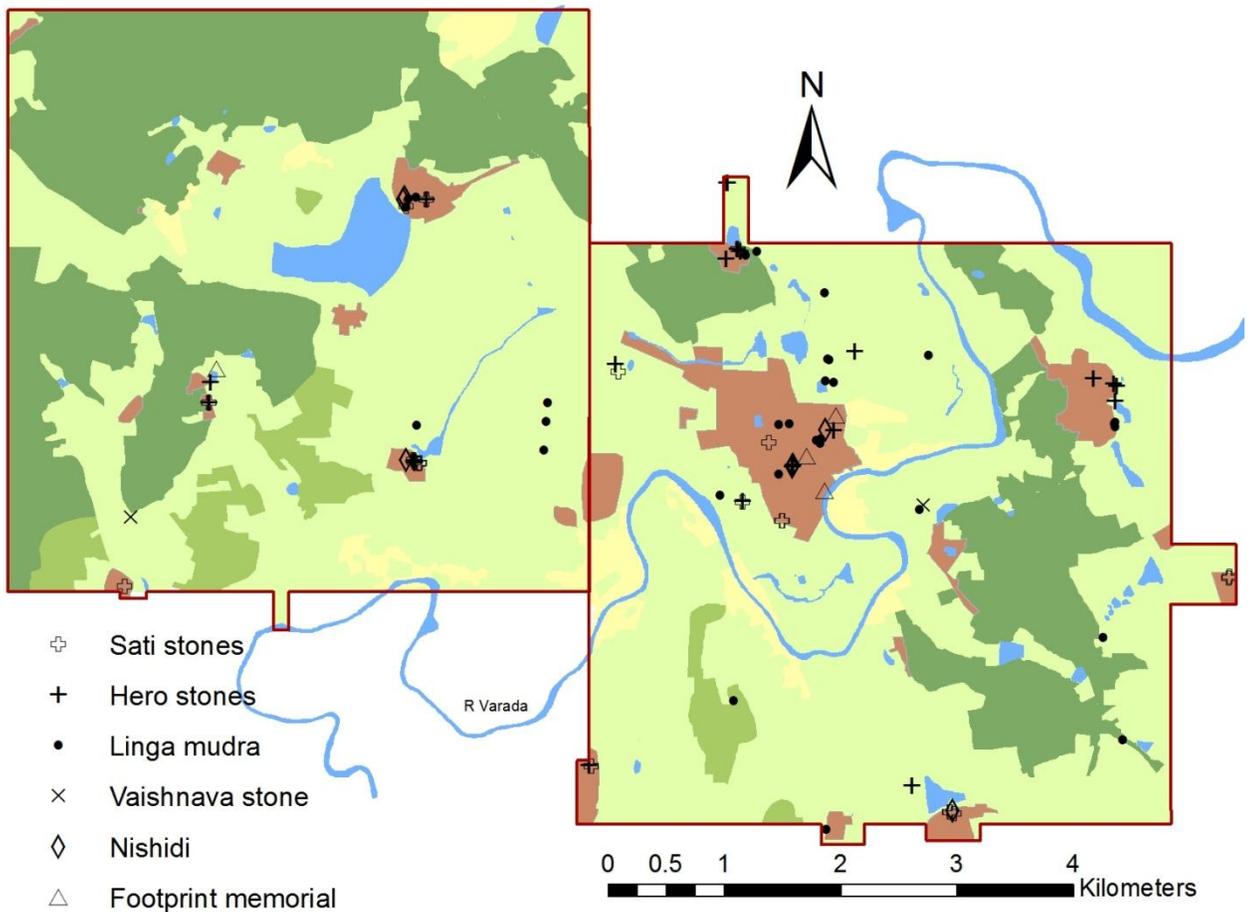
Figure 5-27: Distribution of memorial stones

5.3 Conclusion

The discussion in this chapter begins to populate the four temporal phases initially identified. Even if we cannot date processes precisely, it is possible to work out their broad temporal location and identify clear patterns in the development of the religious and memorial landscape (Figure 5-28). While it is difficult to directly correlate these patterns with our initial four phases (Chapter 4), the latter can be considered as preliminary guidelines within which we can analyze multiple lines of evidence. In conclusion, I wish to highlight several issues that I feel are important, not just with respect to the religious and memorial landscapes discussed above but, by extension, to my questions about political organization at Banavasi.
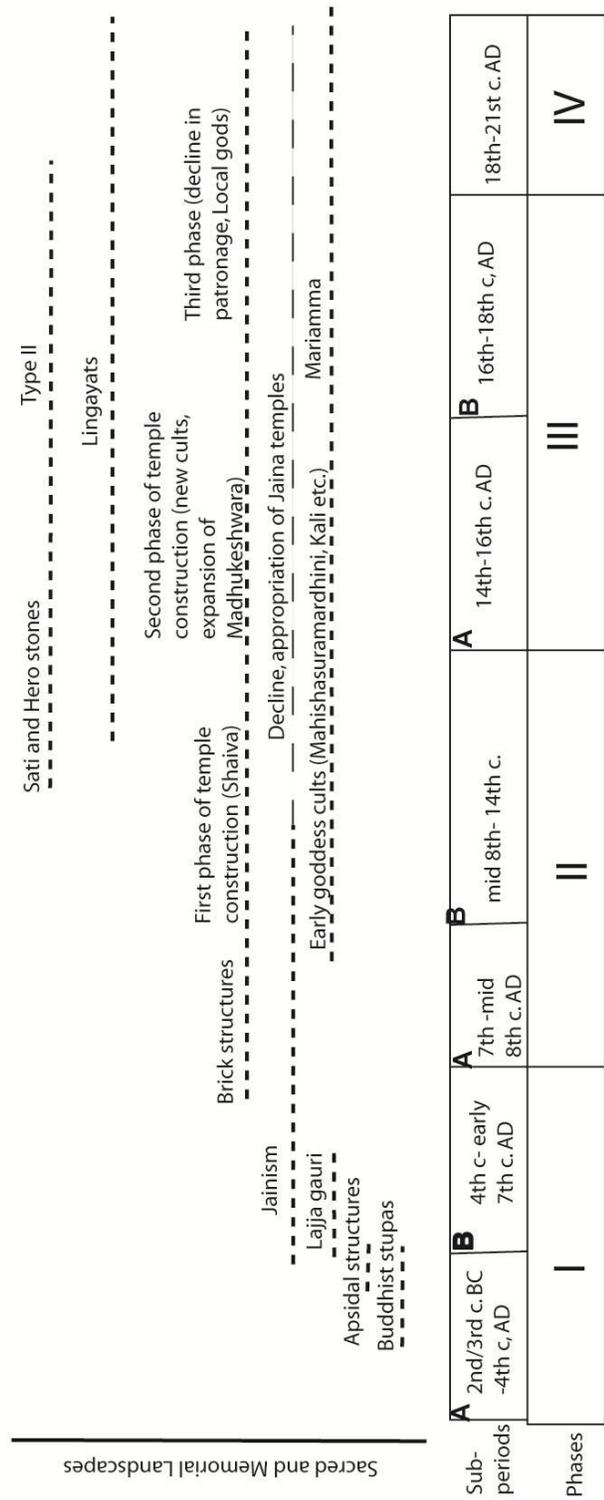
Figure 5-28: Temporal phases revisited: the sacred and memorial landscape of the survey area

Banavasi has long held an important position in Buddhist hagiography. Models of religious change hypothesize that Buddhism (and Jainism) spread from eastern India as part of a larger complex of change including urbanization, new forms of political organization and the spread of intensive agriculture and water management (Shaw, et al. 2007: 171). The Buddhist inscriptions from Karle and Nagarjunakonda mentioned above indicate the presence of a pilgrimage network in which Banavasi participated during the early centuries AD.

While *stupas*[57] are among the earliest religious structures in the region, the excavation of two apsidal structures might indicate the presence of early Hindu religious structures as well. Moreover, the location of the *stupas* outside and encircling the city, suggests that the connection between temporal authority (presumably located within the settlement) and Buddhist religious institutions might not have been straightforward. At the very least, religious and temporal authority occupied distinct spaces on the landscape.

The absence of early Jaina structures in the survey area is interesting given that several early Kadamba inscriptions, dated between the fourth and seventh centuries AD, record grants of land to Jaina individuals or institutions. At the same time, we found several fragmentary Jaina sculptures on survey which might indicate a wider presence of the religion in the survey area. The tension between brahmanical religion and Jainism is clear in the appropriation of the later Jaina temple discussed above.

By the fourth century, Puranic Hinduism was on the rise in peninsular India, and was marked by devotion to a specific deity. In the case of the Banavasi region, the god of choice was Shiva. The establishment of the Brahmanical religion in the Banavasi region seems to have been closely linked to royal patronage, especially between the 14th and the 17th centuries. Imperial and elite inscriptions recording grants to the temple are largely concentrated in the central Madhukeshwara temple and not in other, smaller temples or in temples outside Banavasi. It is likely that royal and elite munificence to specific temples allowed these groups, even if located

---

[57] While I do not want to fall into the error of excessive self-reflexivity and consequent navel-gazing, I identify the circular structures discussed above as stupas in part *because* of the early Buddhist textual tradition that identifies Banavasi as a Buddhist center. Even the excavations at Banavasi have not identified a conclusively Buddhist structure. There is the possibility that the *stupas* included Jaina structures and not just Buddhist ones. The architecture of early Jainism is not as well-known as that of Buddhism but, in north India, there is some evidence that Jaina groups built structures similar to Buddhist *stupas* (Lars Fogelin, personal communication). In a way, this would make sense, given that the early Kadambas seem to have made grants of land to the Jainas.

in external 'core' areas, to establish or maintain their position as inheritors of political authority in the region.

At the same time, temple construction in the Banavasi area was not the result of a simple imposition of a particular regional or dynastic style, but was the result of a complex interaction between external dynastic styles and regional tradition. A hierarchy of temple organization is visible in the area. Banavasi and the larger villages have structural brahmanical temples while the smaller settlements tend to have less elaborate temples and ones to local deities.

Moreover, elite groups in the area did not necessarily only include royal or chiefly families. As mentioned above, inscriptions within the Madhukeshwara temple indicate the presence of a priestly family who were closely associated with the temple over several generations. Groups of brahmanas, therefore, likely held positions of importance in the local social and perhaps administrative hierarchy.

The merging and melding of numerous local, regional and pan-Indian religious traditions left their mark on the landscape of the survey area. The dichotomy between 'Brahmanical' and 'Folk', 'Great' and 'Little' tradition is a recurrent motif in historical literature. Since the 1950's, considerable attention has been devoted to studying the processes of 'Sanskritization', which referred to the adoption of Brahmanical ritual, language (Sanskrit) and taboos especially by upwardly mobile lower caste groups outside the Brahmanical heartlands (Srinivas 1956). However, as Doniger notes, historical religious change involved a much more complex process of two-way interaction and incorporation. This incorporation within a Sanskritic tradition of popular local traditions has been termed 'Deshification' (Doniger 2009: 19). By the middle of the second millennium, this two way process seems to have been increasingly replaced by processes of 'vernacularization', where local languages were patronized and promoted as the cost of Sanskrit, even while they drew upon Sanskrit idiom and conventions (Doniger 2009: 19-20).

Some of these processes can be identified in the Banavasi area. The main temples in Banavasi and the larger villages are primarily Brahmanical, and to a certain extent linked to and supported by elite patronage. At the same time there is a strong undercurrent of local religious traditions from the early Lajja Gauri plaques to the gradual incorporation of goddess shrines within brahmanical temples. On the whole though, gentler forms of the goddess are found in

brahmanical temples, while the fiercer, independent forms are worshipped in temples outside Banavasi or in separate shrines. The present landscape in the survey area, dotted as it is with small, aniconic shrines, naga stones and other sacred spaces that does not always have a constructed component, is a constant reminder of the continuity and presence of local religious practice.

One can speculate that a regional economic and political center such as Banavasi was a shared space for numerous religious traditions and local/regional cults. Instead of looking at the multiplicity of religious traditions solely in terms of conflict or even necessarily of incorporation (although both occur), we can see Banavasi as a stage where the availability of resources and patronage allowed for shared religious space.

The nature of kingship in early India was such that political centers more often than not became religious centers. However, the religious center could take on a life of its own. For instance, after the sixth century AD Banavasi was not the capital of a regional dynasty. The sanctity of the site remained, however, and donations to the central temple continued. Smaller village shrines and temples in the surrounding areas, including non-brahmanical ones, are often linked through a mythic tradition to the main center of Banavasi. The practice of incorporating stone sculptural fragments (often from temples in Banavasi) is small village shrines further spreads the sanctity of the center in the surrounding area. Banavasi also participates in a larger sacred geography through its position in a regional pilgrimage network.

In the next chapter, I continue my discussion of the archaeological landscape in the survey area. I start with a discussion of civic-ceremonial sites. While these sites, which include fortifications, inform on elite authority in the area, my consideration of agricultural and production sites, as well as habitation sites allows me to discuss local non-elite social and economic organization.

Chapter 6
Landscapes of habitation: ceremonial, agricultural and productive

In this chapter, I continue my discussion of the inhabited landscape of the survey area. I focus on three major themes: civic-ceremonial structures, craft and production and habitation and material culture. I take a landscape approach to interpret spatial patterning in the Banavasi area over time. In doing so, I trace the growth and development of the settlement of Banavasi from its origins as a fortified Early Historic center, as well as that of adjacent secondary centers, such as Gudnapura. I am also able to place these developments within the context of larger regional and pan-subcontinental socio-economic and political processes. I begin, therefore, to address the three broad historical issues I am interested in, as mentioned in Chapter 1: the development of Banavasi and its interaction with its immediate hinterland, the nature of elite (local and non-local) authority in the area, and relationship of socio-economic and political processes specific to the Banavasi area to larger regional and subcontinental trajectories.

6.1 Civic ceremonial sites

6.1.1 Fortification and defense architecture

There are two forts in the survey area. One is the well-known structure that encloses parts of the present day village of Banavasi (BGRS 200, Features 1 through 12). This complex structure is likely an early one, dating from at least the early centuries AD but with considerable additions made during later periods.

6.1.1.1 The Banavasi fort

During my survey we completed the first detailed scale map of the Banavasi fort and important structures in the interior (Figure 6-1). In the absence of excavation, I use these data to discuss fort construction and possible dates. The Banavasi fort is located on slightly elevated terrain in a clearly strategic position, with a view of the surrounding countryside. Moreover, the River Varada, partially encloses the settlement, forming a natural defensive feature.

The structure is oval, encloses an area of 26 hectares and is surrounded by a moat. It is located within a sharp curve of the Varada River so that the eastern side of the fort abuts the

141

river. It is likely that the river has shifted its course slightly towards the west over time, since there is some evidence that it now cuts into sections of the easternmost extent of the ancient settlement of Banavasi. The laterite block steps immediately east of the fort wall (BGRS 261) are frequently submerged when the water level rises.

The fort wall is currently overgrown with dense vegetation and residents of the village have encroached upon the top of the wall, demarcating individual house plots by constructing thorn fences. The exterior surface of the fortification is of packed earth, although there is an uneven moderate to dense scatter of extremely eroded brick fragments throughout the length of the wall, which is particularly visible on the top of the wall. The top is uneven but walkable in many sections and the base varies from 20 to over 30 meters in width. The height too varies from seven to more than ten meters (measured from the top of the wall to the interior surface).

The fortification has steep, sloping sides currently overgrown with grass and trees and is encircled by a moat that is currently dry and discontinuous. The exterior side of the fort has a gentler slope than the interior and gradually merges into the base of the moat. Large sections of the base of the moat have been converted into agricultural fields. This contemporary agricultural activity has altered the profile of the moat in several sections, creating an abrupt vertical drop from the base of the fort wall into the moat. It has been argued in cross-cultural contexts that the ideal cross-section of a defensive ditch is V-shaped in order to make it difficult to cross, while drainage ditches ideally have semicircular or shallow trapezoidal ones and irrigation ditches U- or square shaped cross-sections (Keeley, et al. 2007: 88). Today, the Banavasi moat's cross-section is closer to a square with slightly sloping sides. However, it is unclear how much the current flat base of the moat is a function of agricultural activity.

Moat width varies from 10 to 20 meters, the depth varies considerably due to encroachment along the edges and cultivation in the base, but is roughly between seven to ten meters (from the base to the exterior side). The main paved northern road into Banavasi is constructed over the northern section of the moat. Near the southern entrance, the moat is disrupted by the modern paved road into Banavasi. Originally, it seems likely that the moat enclosed the fort on the northern, western and southern sides, while the Varada River formed a protective barrier on the east. The moat was probably originally constructed such to be fed by the

north flowing and a narrow channel connects the moat to the Varada and runs parallel to the eastern side of the fort.
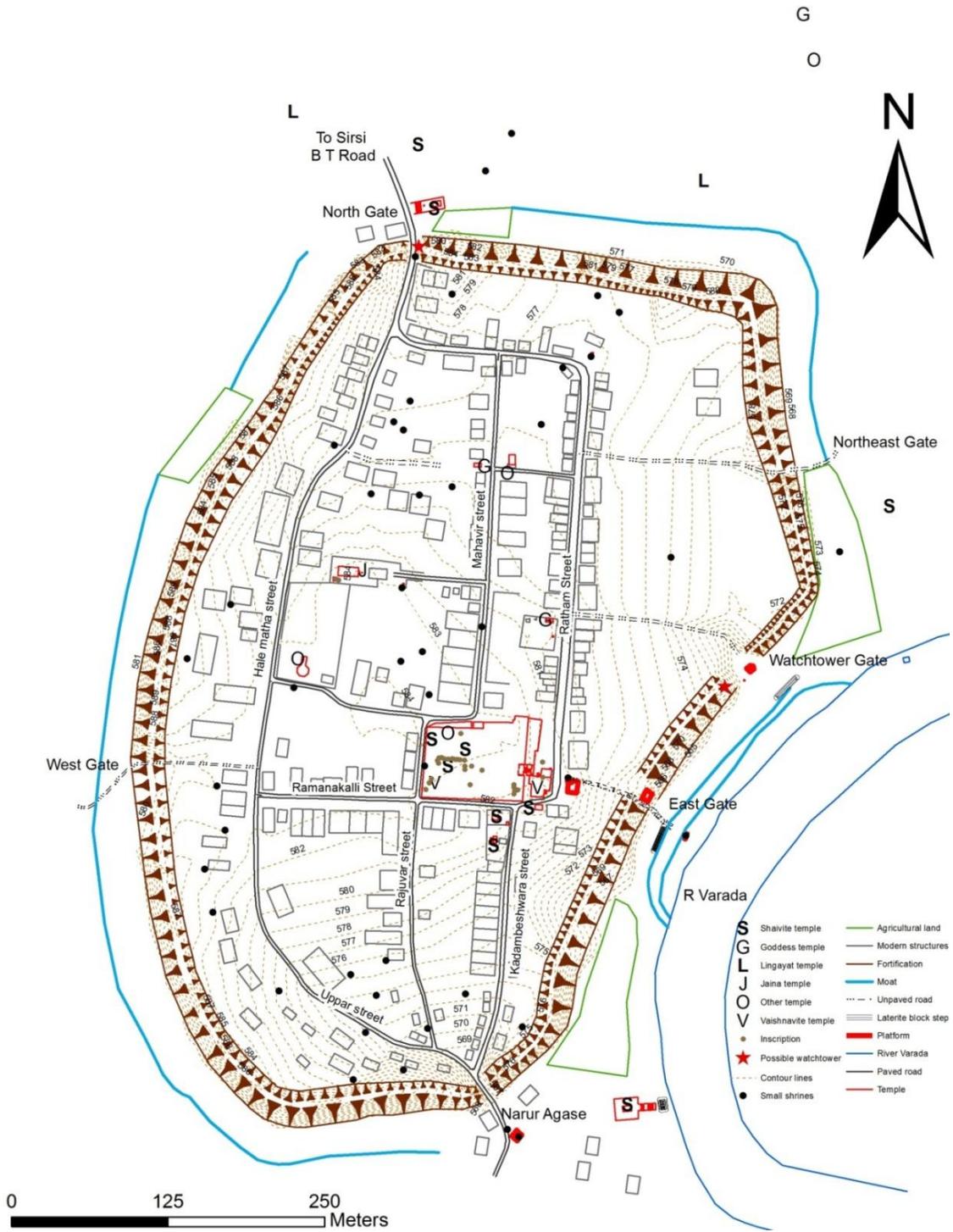
Figure 6-1: Map of the Banavasi Fort

There are two main entrances into the fortified town, north and the south (North Gate and Narur *Agase*, Features 6 and 4, respectively). These main gates, termed '*aguse/agase*' in Kannada, are typically used for public access into the fort from the main routes of movement and for ceremonial processions. Both entrances are faced with large laterite blocks.[58] The west side of the northern is more elaborate, with a brick and laterite block facing wall containing a niche with a small carved deity (Feature 11) (Figure 6-2). The image is of a naga surmounted by Ugra-Narasimha, showing typical iconography common under the Vijayanagara Empire. The close connection between political authority and Hindu religious ideology is also borne out by the location of a Shaivite temple (BGRS 278) immediately outside the north entrance. The remnant of a watchtower on the wall above this entrance and of circular clay bastions dated to the tenth or 11th centuries AD were noted by Joshi in the 1980's (Joshi 1985: 46). Today, these structures are now no longer visible. The southern entrance is marked by a laterite block platform placed immediately outside and containing a folk shrine with naga stones (BGRS 159).

---

[58] On the basis of the visible profiles at the southern entrance, Joshi argues that the fort construction consists of a brick and mud core upto a height of 3 meters, surmounted by a phase of laterite construction for another 3 meters, all of which is capped by a mud layer (Joshi 1985: 44). However, there is no evidence of laterite block construction at any other sections of the fort apart from the entrances. The laterite block construction is used to face the original brick and earth construction, as is seen in the profile of the northeast entrance (Figure 6-4). Joshi also notes the presence of a stone door-jamb and two 'vertical parallel walls in the core' reinforced by a buttress of 'slopy brick construction'(Joshi 1985: 43). Unfortunately, these features are no longer visible. It is likely that the 'parallel walls' were part of the stone facing/ decoration of the south entrance, incorporating a door jamb. Once these surface features were displaced, as is now the case, the original core of the fort (i.e. brick core with packed earth surface) became visible in the profile of the southern entrance, along with the remnants of the laterite block facing (Figure 6-4). This also seems to be the case with Joshi's description of the western entrance.
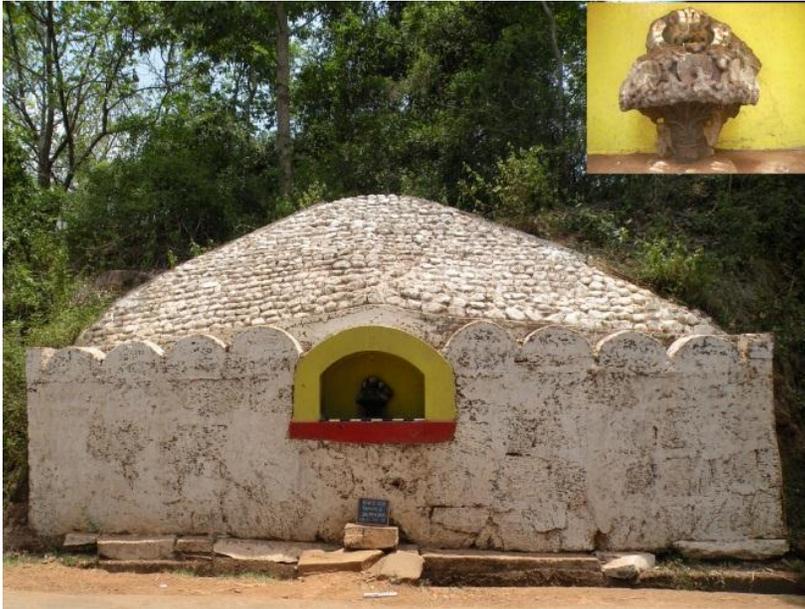
Figure 6-2: North entrance (west side), with shrine inset

Smaller subsidiary gates used by the inhabitants for daily movement into and out of the fort are typically termed '*diddi*' (Patil 1996: 206-207); there are three such small entrances into the Banavasi fort, all associated with unpaved roads. Along the western side is a narrow entrance which is extremely disturbed and eroded (Feature 5). However, the visible profile is extremely interesting for understanding the fort's construction (Figure 6-3). Visible on both sides of the entrance is the brick core of the fort, consisting of well-constructed courses (average brick size: 20-22×19-20×6-9 cm). This core is approximately 18.30 meters wide and 5.70 high (Figure 6-4). Over this core is a packed earth layer. It appears that the brick construction was originally faced with a wall (10×4 meters) of laterite blocks (Joshi 1985: 44), which has now completely disappeared, although there are a few eroded blocks scattered on the path through this entrance.

Figure 6-3: West entrance brick construction and path (inset)

The eastern side of the fort has three entrances (Features 1, 2 and 3 from north to south) (Figure 6-4). The northeast entrance (Feature 1) is a narrow opening leading into the fields to the north of Banavasi. Once again, it has a facing of laterite blocks over the fort's brick and earth core. The east entrance (Feature 2) seems to be more formal, with a laterite block platform that today contains a small folk shrine with naga stones (Feature 8). This entrance was created by cutting through an extensive laterite outcrop, quarried sections of which are also visible along the base of the fort, south of the entrance. Irregular, disturbed courses of brick are also visible. A low retaining wall (probably a modern addition) supports the exterior of the fort wall to the south of the entrance. Half-way up the fort wall immediately south and west of this entrance is a small rectangular cell cut into the laterite, possibly a guard post (Feature 9). Further up, on the top of the wall is a possible watch tower (BGRS 237), likely dating to post 16th century. This eroded and disturbed structure consists of a low platform of roughly-shaped laterite blocks and other

stones (2.50×5.90 meters, 68 cm high) located on an oval mounded area of packed earth (approximately 8×5 meters).[59]

As at the western gate, the narrow dirt track through both of the eastern gates wends its way at an angle, so that there is no direct line of sight from the exterior into the fort, an interesting defensive feature (Figure 6-1). The last gate on the eastern side (Feature 3) consists of a set of shallow steps leading from the Madhukeshwara temple down to the river and a small shrine containing several Shiva lingas (BGRS 197). Another eroded platform adjoins this path (Feature 10).

Also along the east side of the fort are three sets of long laterite block steps (*ghats)* leading down into the river. Two are located next to the east entrance and the watchtower entrance discussed above. The steps outside the east entrance are especially impressive, consisting of several rows of large laterite blocks placed next to the channel feeding the moat and built to extend halfway up the exterior fort wall (BGRS 200, Feature 12). The third is located directly in front of a Shiva temple (BGRS 261) next to the river (Figure 6-1). These are impressive civic structures which would likely have been used daily to access the river and on special religious occasions.

The Banavasi fort has not been studied in great detail. In one of the few investigations into its construction, Joshi identifies three main phases of construction (Joshi 1985; Joshi 1996; Joshi 2006). He argues that in the first phase, dated to what is termed the 'late Satavahana period', when the Chutus were ruling, the fort was constructed entirely of brick of a standard size (45×22×7.5 cm) (Joshi 1985: 43). During the second 'early Kadamba phase', the fort was enlarged with laterite stones, brick and mud. Finally, in the 'later Kadamba period' the northern side was enlarged exclusively with laterite stones. During the excavations at Banavasi, a trench of unclear dimensions was placed near the fort (at an unclear location) in order to determine its construction (Murthy, et al. 1997: 68-69). The excavators also suggested that three phases of fort construction could be identified. During the first phase ('Satavahana' or second century AD), the fort was of primarily brick construction, using the typical bricks characteristic of that period. Subsequently, in the fifth century AD, the fort was repaired or rebuilt using laterite stones, bricks

---

[59] This is probably a late medieval structure (Period III) since the ceramic scatter in the vicinity is primarily grey ware with some typical rim forms of this period, as well as typical later coarse grey curved tiles .

and locally available fine clay. Finally, the third phase of rebuilding occurred in the 12th or 13th centuries or later (Murthy, et al. 1997: 68-69).

I am inclined to agree with the chronology close to the latter sequence. The earliest phase of fort construction does seem to consist of a brick core. Dating the bricks used in this first phase of construction is difficult. Brick sizes range from the typical 'Satavahana' size mentioned above, to 20×20-25×8-9 cm and 20×11×7 cm. These sizes fall within the range of typical Early Historic brick found elsewhere in the subcontinent (Mishra 1997), and are unlike later Vijayanagara period bricks which are smaller (19.5×11.5×3.5 cm) (Fogelin 2005: 580).[60]

Whether the earth covering the bricks dates to the same period is unclear. It is likely however, that at least the initial phase of earth packing occurred in an early period. Similar oval fortifications have been reported from Early Historic sites in the Gangetic plain, for example at Lauriya Nandangarh (Ghosh 1990: 255). Another Early Historic site at Sannati in north Karnataka is enclosed by two concentric arc-like walls that protected one side of the settlement, the other being enclosed in a curve of the river Bhima. As at Banavasi, the walls consist of a structural core of typical Early Historic bricks enclosed within a clay ramp on either side (Joshi 1996: 170).

On the whole, the first phase of fort construction can be placed in Period I (See Chapter 4) and likely in the latter half of this period (i.e., the early centuries AD). While the Banavasi fort might have originally been intended as a defensive structure, by at least the 12th century, other considerations came into play. From this period, the moat was no longer a purely defensive feature in that, even when flooded, it did not entirely encircle the fort. The Pradhu-deva temple (BGRS 278), a structure dating to the 10th- 12th century is located in the moat area, immediately next to the main north entrance of the fort. It is unlikely that the temple was constructed at a location where there was the possibility of its being flooded if the moat filled with water.[61] It is also likely that the main northern (immediately adjacent to BGRS 278) and southern roads into and out of the town were permanent constructions by this period.

---

[60] While Early Historic and later bricks do not reach the standardization of dimensions visible in the much earlier Indus Valley bricks, it is possible to broadly date them on the basis of size. I also rely on the results of excavations at Banavasi mentioned above to date the fort to this period.
[61] Although the temple is placed on a slightly raised area, above the floor level of the moat, the structure would have been partially submerged if the moat filled to its highest capacity.

The laterite block construction appears to be of a later date than the brick core, and is found only at the fort entrances. In all cases, it seems that the blocks were used to face the extant brick and earth construction, and not to otherwise expand or reinforce the fort wall (See Figure 6-4). Although considerably disturbed, the blocks are tightly fitted with regular coursing. Such monumental construction is probably post 16th century, and is similar to monumental architecture under the Vijayanagara dynasty (Period III, sub-phase A). In the same period, there might have been some addition to the clay/ earth packing on the top and sides of the wall. It is also in this later period that the watchtower near one of the eastern gates was constructed, as were the laterite block platforms at several of the entrances.

It has been noted that only certain forms of structures (enclosing ditches, gates and palisades) had unequivocally defensive purposes (Keeley, et al. 2007: 57). In many cases, fortifications might also have had a symbolic function, a visual declaration of a city or ruler's importance. This is clearly the case with some of the features of the Banavasi fort, such as the facing of large laterite blocks at the major and minor entrances and the presence of laterite block platforms at some of the entrances. More than a defensive addition to the fort, this construction seems to be made to reinforce a symbolic connection between political authority and monumentality. The presence at the main entrance of a small Vijayanagara era Ugra-Narasimha shrine and an earlier 10th-12th century Shaivite temple make another sort of connection -- that between political authority and brahmanical religion.

North entrance, west side
(BGRS 200, feature 6)

2 meters

2 meters

7.30 meters

30 meters

West entrance, north side
(Feature 5)

80 cms

3.60 meters

2.10 meters

18.30 meters

35 meters
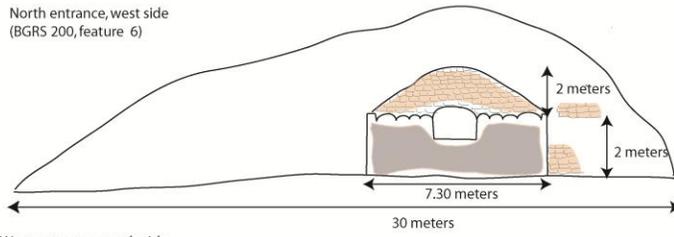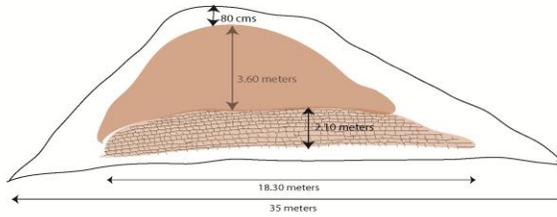
South entrance, north side (Feature 4)

90 cms

5 meters

1.20 meters

1.10 meters

27.80 meters
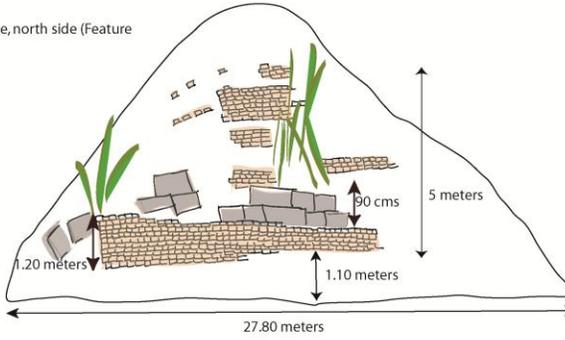
Northeast entrance, south side
(Feature 1)

14.70 meters

5 meters

34.60 meters
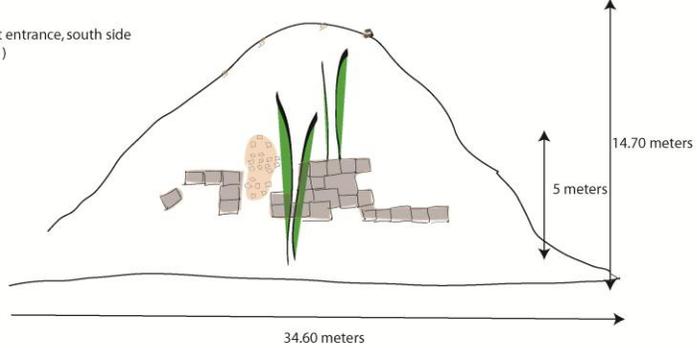
Northeast entrance, profile

14.70 meters
packed earth with
brick core

5 meters
laterite block
facing

ground level
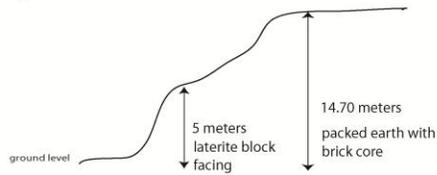
Brick courses

Laterite blocks

Fragmentary brick
with unclear courses

Trees

Figure 6-4: Schematic diagram of fort entrances

6.1.1.2 Other defensive structures in the survey area

The fort at Banavasi remained the primary defensive structure in the survey area until at least the 16th century. After the fall of the Vijayanagara empire in 1565 and before the establishment of British rule in the beginning of the 19th century, numerous small and large rulers and chiefs (Nayakas) fought for control of parts of south India. It is not surprising therefore that many villages in 17th and 18th century Karnataka had defensive structures, including fortifications, walls, towers and ditches (Lewis 2009: 92). These structures were often not very elaborate. Simple earth or dry stone forts with circular towers/bastions in the corners have been reported in villages outside the urban core area of Vijayanagara (Davison-Jenkins 1997: 26-27; Morrison 1994: 543).

The second fortification in the survey area is a later structure dating to the late medieval period (Period II, sub-phase B, post 16th century) and is located in the village of Thigani, to the northeast of Banavasi (Figure 6-7). Whereas in Banavasi a large part of the settlement is enclosed by the fort wall, in Thigani, as in other small villages in Karnataka, a small fort was located in the center of the village (BGRS 41). Locally known as *'koti'*/ 'fort', this structure has 4 to 5 m high walls enclosing a central 73×73 m area, and is oriented roughly north-south, east-west (Figure 6-5). The fort wall is primarily made of packed earth. The walls are overgrown with tall grass and bamboo, but where we could access the top of the wall, it was relatively flat and varied from 1-1.5 m in width.

Four circular bastions along the outside of the fort wall are located roughly at the middle of the southern, western and northern sides and at the northeast corner. The bastions in the middle of the sides measure approximately 11×6 meters, 10×4 meters and 10×6 meters respectively at the top. The northeastern bastion is currently inaccessible due to a dense undergrowth of bamboo. The northern bastion has several courses of loosely fitted stone (average size: $45 \times 34 \times 18$ cm) and laterite blocks (average size: $27 \times 22 \times 14$ cm) embedded in the sides, and especially concentrated from one meter from the base to the top. The southern and western bastions have large roof tiles embedded in their sides for reinforcement. These tiles are the typical late-medieval to early modern curved grey tiles (discussed in Section 6.4below) and help to date the fort.

Traditionally, square bastions have been termed 'Hindu', and circular ones, later and 'Muslim' (Patil 1996: 203). While eschewing the use of religious terminology for architectural features, circular bastions such as these are characteristic of several medieval and early modern forts in Karnataka. Robert Brubaker (2004) in his research on the fortifications at Vijayanagara has argued for two roughly contemporaneous traditions of military architecture in the period. Among other features, he argues that the military architecture at the imperial core of the empire was characterized by square projecting bastions and high walls that derived from a widespread south Indian tradition termed 'Kummata' (Brubaker 2004: 20). The smaller forts surrounding the metropolitan core were roughly contemporaneous, and gradually replaced this tradition. These forts typically had circular bastions and drew on an Islamicate Central Asian military tradition (Brubaker 2004: 455). With its roughly circular bastions, combined with the presence of late medieval or early modern tiles in the walls of the bastions, the fort at Thigani can be dated to Period III, sub-period B (16th to 18th centuries).[62]

Bastions typically have a clear defensive purpose since they provided an area for defenders (Keeley, et al. 2007: 67-68). The Thigani fort, however, is not a significant military structure by any means. It does not enclose large sections of the village today, and probably not in the past. The main entrance is in the middle of the east side and is an 11-12 meter wide opening. At some point, there may have been defensible bastions at the entrance. Currently, however, the fort wall descends in height towards the entrance so that low mounds of earth flank the opening. A second narrow track goes through a narrow entrance in the middle of the western side and is probably a later, informal cut in the fort wall.

Within the enclosing walls,[63] towards the western end of the fort is a roughly rectangular mound, approx. 80 cm high, 15×28 meters in area, which are the remnants of an interior structure. A moat encircles the fort on the southern, western and northern sides. Its depth varies from 1 to 1.30 meters and its width from 3 to 5 meters. On the northern side, the moat has been greatly disturbed by modern construction. A shallow modern ditch (1.4 meters wide, 50 cm

---

[62] I would in fact argue that the Thigani fort was constructed after much of the later additions at Banavasi. While the platforms and *ghats* cannot be dated securely, the use of tightly fitted, large blocks of laterite in the Banavasi fort seem to derive from an imperial Vijayanagara architectural tradition. The north gate shrine too can be dated to this period.
[63] The central area has been converted into a Nilgiri plantation and is also used as a trash dump for the village.

deep) runs parallel to part of the east side (three to four meters away from the wall), from the entrance to the south east corner.

The fort likely provided refuge to the inhabitants of the village in times of conflict. It also probably served as a status marker for local elite groups or families with claims to political authority (or to control of the immediate area near the village) but of relatively limited means, since the structure is not extensive and makes little use of expensive resources like cut stone. Immediately adjacent to the fort is a temple to the goddess Mariamman, enclosed by a laterite block wall in considerable disrepair. The temple itself is a renovated modern structure and the central deity is a large wooden multi-armed goddess, mounted on a lion. Near the temple is a laterite block platform and three inscribed stone slabs (Figure 6-5). All the slabs have the typical linga-mudra incised carving discussed in Chapter 5 (linga with sun and moon on the top). Two of the slabs also have the word 'Thigani..ya…' inscribed in modern Kannada script.

Thigani therefore appears to be a small local elite subsidiary center with a basic defensive structure and a simple civic-ceremonial complex, which reproduced on a smaller scale some of the features found in the Banavasi fort. At the same time, the central location in the village of this temple to the goddess Mariamman, a popular village tutelary deity in Karnataka, is in contrast to the plethora of brahmanical temples in the center of Banavasi. This choice might represent a conscious attempt by local elite groups to differentiate themselves from the higher level elite at Banavasi who had clearly established a complex relationship of patronage and legitimation with the brahmanical mainstream (Chapter 5).
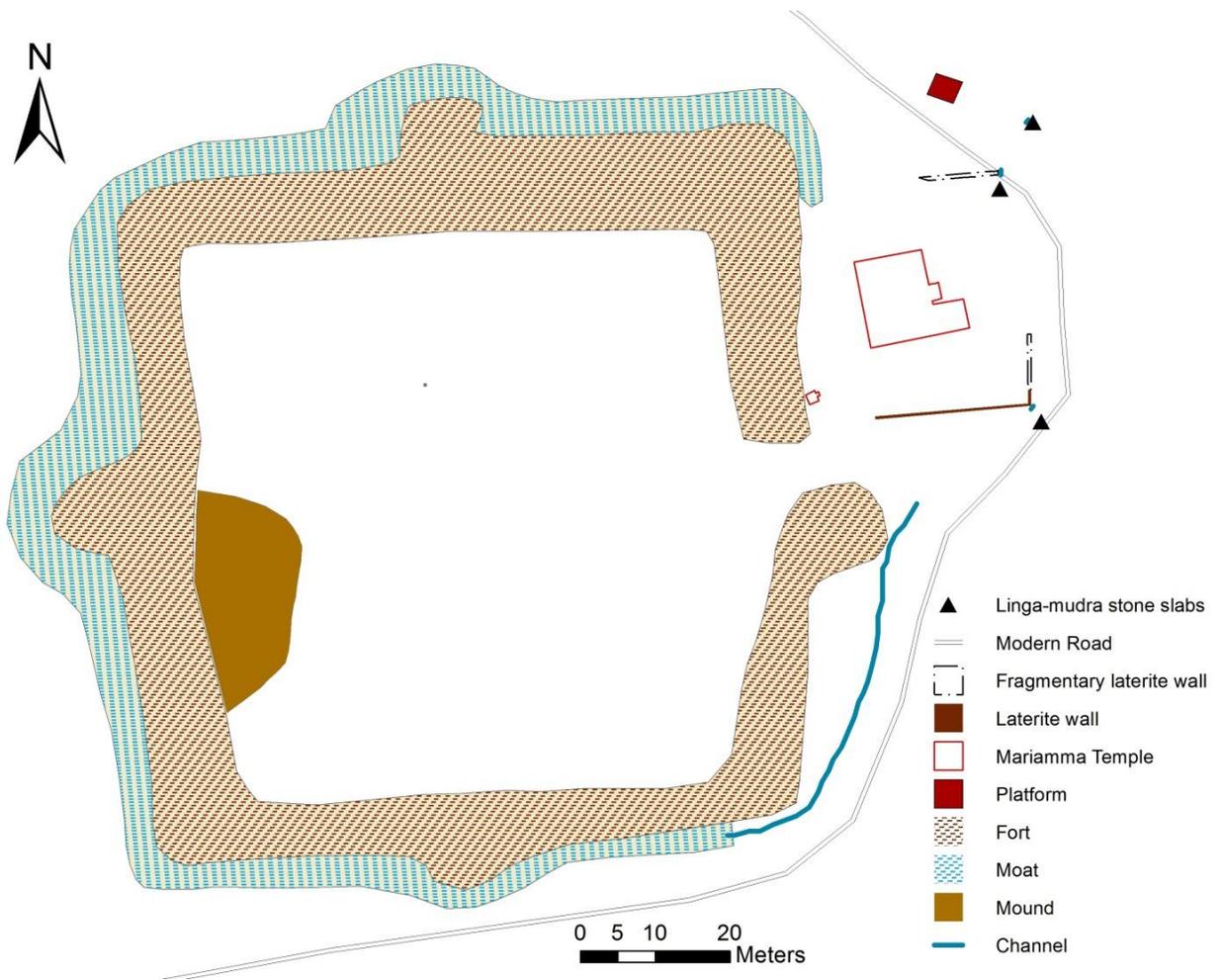
Figure 6-5: The fort at Thigani

Apart from these two forts, part of the defensive strategy in the forested *Malnad* region relied upon taking advantage of the ruggedness of the terrain to seek refuge in forested areas (Lewis 2009: 92). My survey documented two relatively inaccessible sites, located in clearly strategic locations on forested hill tops (Figure 6-7). The first is located two kilometers northwest of the Thigani fort on top of the highest hill (locally known as '*huin-gudda*') in the area, at an elevation of approximately 574 meters (BGRS 26). The site is extremely disturbed since bricks are regularly robbed from the structure(s) here.[64]

---

[64] Moreover, tradition has it that there is treasure buried on this hill there is considerable evidence of hopeful digging in the area.

Nonetheless, an extensive (46×40 meter) fragmentary brick scatter remains visible on the relatively flat hilltop.[65] Two distinct architectural features are evident (Figure 6-6). The first is a central rectangular brick structure, now collapsed. The area is greatly disturbed but it is possible to identify three collapsed walls, on the east, north and south, enclosing a shallow depression (approximately 10-15 cm). No wall existed on the western side and the structure appears to be a windbreak or shelter of some sort. A judgment collection area in the center of the fallen structure yielded an assemblage entirely of roof tiles, indicating that the structure was once roofed. The tiles belong to typical late medieval/ early modern types, dating to the post 16th century. The site therefore is roughly contemporaneous to the Thigani fort and might have served as a first line of defense or warning.

A brick retaining wall encircles this central area. Today, this wall is collapsed and fragmentary. Its dimensions are difficult to identify but it appears to have been constructed along the natural slope at the edges of the site, and downslope erosion probably aided its disturbance. The wall is about 3.4 meters wide and high in places. Its builders clearly made use of the terrain, taking advantage of natural laterite outcrops.

---

[65] The bricks at the site are extremely fragmentary. The most complete bricks are approximately 22×14×7 cm or 24×18×8 cm. These are not typical Vijayanagara brick sizes or Early Historic types.
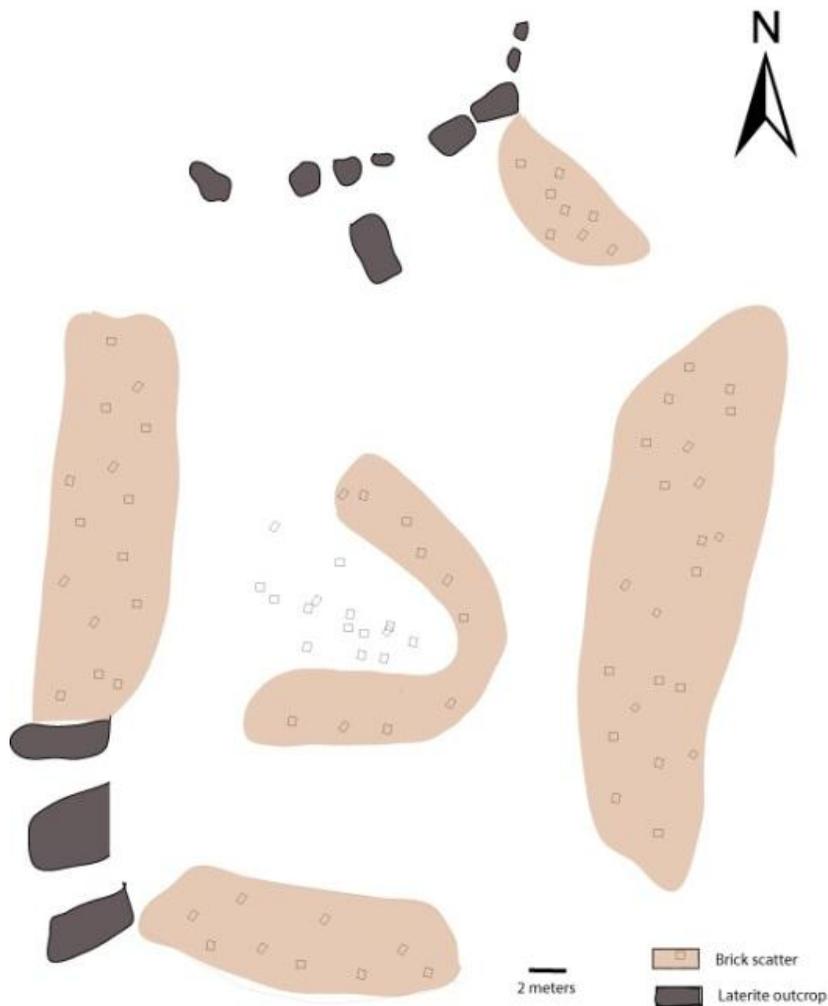
Figure 6-6: BGRS 26, possible watch tower

The second possible watchtower is an even more disturbed site (BGRS 353) located on top of a forested hill approximately 700 meters northwest of Gudnapura. On top of the hill and greatly obscured by the dense undergrowth, is a sparse brick scatter extending over a 20×15 meter area. The identification of this site as a possible watchtower is solely due to its proximity to Gudnapura and its location on the highest hill in the area (at an elevation of 657 meters) providing excellent visibility in all directions.
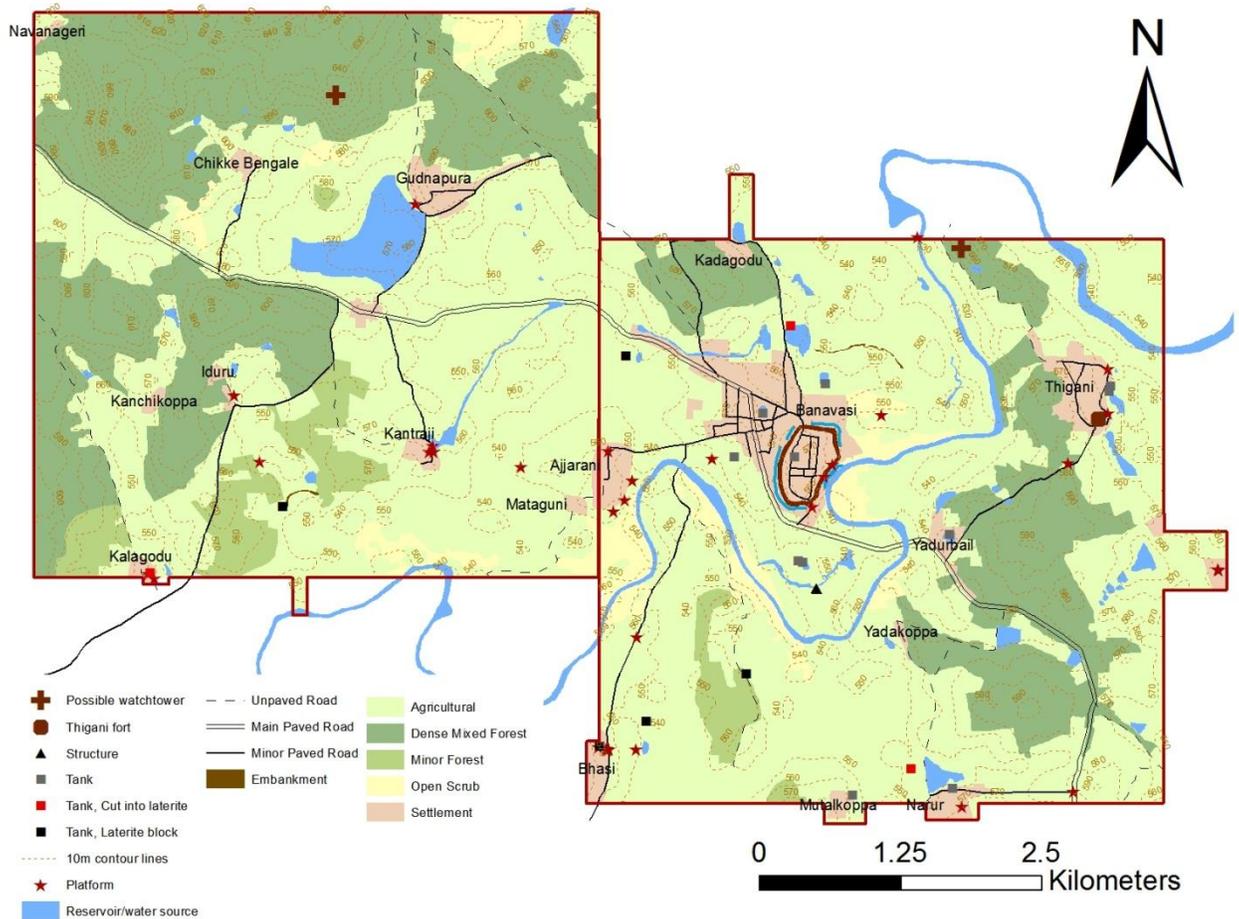
Figure 6-7: Civic-ceremonial features in the survey area (fortification, platforms, tanks and earth-works)

6.1.2 Multi-purpose sites

Apart from the clearly defensive structures discussed above, two large earth embankments (BGRS 65 and 321) probably served the dual purpose of defense and flood control. Although both are built of packed earth, with no evidence for stone or brick construction, they are extremely large features that required a considerable investment of labor. As such, they are indicative of some level of organized resource mobilization, either initiated by a centralized authority or due to community mobilization. Unfortunately, dating them is difficult due to the lack of architecture.

BGRS 65 (Figure 6-12, inset) is located immediately north of Banavasi, approximately 800 m northeast of the fort wall. The embankment, which extends for approximately one kilometer, is primarily constructed of packed earth and is currently extremely overgrown.

157

Intermittent sections of eroded brick are visible in the construction but there is no evidence of regular courses. The width varies between 6 and 14 meters, and the height from one to four meters. Four linga-mudra stones (BGRS 63, 64, 66 and 242), which are typically used as boundary markers, are placed along the embankment One of these is inscribed. This is likely a long, substantial embankment that might have served as a second line of defense for the town, as well as protecting against the flooding of the Varada River.

Similar earthen ramparts are found in northern India in the Early Historic site of Kausambi located in the Gangetic plain (Barba 2004: 226-227).[66] Although more extensive, the defenses at this site are similar to BGRS 65 in that they consist of discontinuous earth embankments with sloping sides that ring the settlement along the side not protected by the river (in the case of Kausambi, the river Yamuna). However, the defensive use of the embankment at Banavasi is limited since it does not enclose all of the sides left unprotected by the river. The sloping sides of the embankment are also not characteristic of a purely defensive construction. BGRS 65 certainly also played a role in flood protection. During the monsoons, the fields to the north of the embankment are flooded when the Varada overflows, while the southern fields are protected. Similar features dating to the Vijayanagara period have been recorded elsewhere and are taken to highlight the complexity of Vijayanagara period agricultural strategies (Morrison 1991).

The second embankment (BGRS 321, Figure 6-10, inset) is a shorter earth embankment located over a kilometer south-southeast of the village of Iduru, and over four kilometers west of Banavasi. This embankment is approximately two to three meters high and 10-15 meters wide with no evidence for brick or stone construction. It is placed between two hilly areas to form a barrier that protects the fields to the north from the periodic flooding of the river Varada, around one kilometer to the south. There is no opening in the embankment although a dirt track passes along the western side, between the embankment and a laterite block tank (BGRS 273). The tank is of the typical keyhole shaped variety and can be dated to the late medieval period. Local legend has it that this embankment and tank formed the southern border of Banavasi and was the location of a 'customs' point where taxes were collected from people wishing to pass through.

---

[66] The Early Historic in northern India is dated to an earlier period than in southern India. The forts mentioned here can be broadly dated to the last two centuries BC or the first century AD (Barba 2004: 245).

The date of both these structures is problematic, although the association of BGRS 321 to a post 16th century laterite block tank might indicate that it belonged to the same period.

The next site, BGRS 241, has some dateable features, but its function is more difficult to identify (Figure 6-7, 'Structure' and Figure 6-8). The site consists of a narrow laterite block structure located within a natural channel (BGRS 286). The structure consists of a narrow retaining wall that is placed along the side of the channel such that the top of the structure on level with the top bank of the channel. The structure is 3.82 m high and 2.82 m wide. There seem to be several phases of construction. The lower five courses are of older, eroded laterite. They have no mortar; instead fragmentary brick and tile fragments are used in chinking. Above the older laterite blocks, are 15 to 16 courses of less eroded laterite with cement mortar between them. Fragmentary brick has been used to bridge the gap between the laterite structure and the uneven sides of the channel. The top of the structure and bank of the channel is overgrown with little evidence for construction. Two long, low mounds (50 cm high) lie perpendicular to the structure on the south bank, near two carved large basalt slabs. No ceramics were observed in the vicinity except for the tiles used in chinking (flat red tiles, perhaps Type III, seventh to 16th centuries;[67] see Section 6.4.3 below).

The structure could have been a watchtower, with the basalt slabs used to support a makeshift roof/shade. At least one of the slabs has typical Vijayanagara period quarry marks. At the same time, its location in the middle of prime agricultural land and within a water channel indicates that it might also have played a role in irrigation, perhaps as a location to draw water. Similar structures, known as inverted syphons, have been dated to second century AD contexts in Iran, and were used for irrigation (Henry Wright, personal communication).

---

[67] The tiles were fragmentary and no complete piece was found. My classification is therefore tentative.
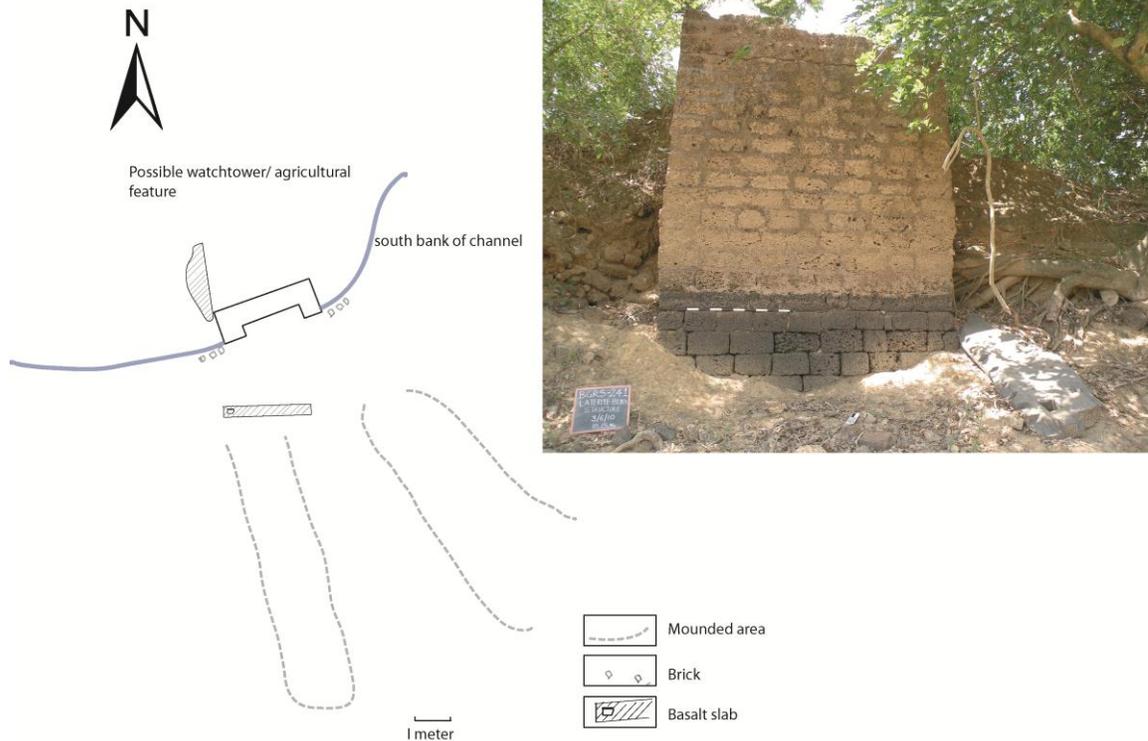
Figure 6-8: BGRS 242 (watchtower/ agricultural feature), plan and view from the north (from inside channel)

The final feature I want to discuss is a passive defense mechanism and one of the smallest agricultural features I documented, BGRS 271. This site consists of a pit (opening 80 cm diameter, 130 cm deep) excavated into the laterite in the village of Kantraji. The sides have been straightened and the pit appears to expand towards the base. Unfortunately, the pit is now used as a trash dump and the interior is not clearly visible. It is likely, however, that this was originally a grain storage structure.[68] In the Karnataka region, there is ethnographic evidence of the storage of grain in underground structures known as *hagevu* (Nagnur, et al. 2006: 115). These structures are simple dug-out pits with a circular or square opening at the top. Typically, this type of structure is found in dry areas, lined with straw ropes and used to store *jowar* (Nagnur, et al. 2006: 115).). These pits were often used as a passive defense mechanism whereby the villagers could hide their grain from marauders.

---

[68] Dr. Sundara suggests that it could also be a megalithic burial pit (personal communication, 2010). However, the site is extremely disturbed and there are no identifiable ceramics in the vicinity.

6.2 Agricultural sites

As in most of Karnataka, reservoirs and tanks are prominent and ubiquitous features of the landscape in the survey area. Most are closely integrated into the modern day agricultural landscape and form a part of complex folk narrative of stories and songs (Shah 2008). Their very centrality makes these reservoirs extremely difficult to date, since most have been in use over a very long period of time, and are periodically extended, repaired or added to, obscuring any details of the original construction.

I start by making a basic typological distinction between reservoirs and tanks. A typical reservoir (Kannada '*kere*') in the region has an earth embankment (*bund*) along one or more sides, which may or may not have stone facing. The main purpose of a reservoir is to capture surface water runoff and rain water, and channel it to the fields below. A tank is a smaller water capture feature, often with laterite block or stone construction (or in some cases simply cut into the laterite bedrock). In most cases, tanks, unlike reservoirs, do not take advantage of the topography to optimize a catchment area. They are primarily used to collect rain water and also often make use of the water table. Tanks tend to be located in or near settlements while reservoirs are generally located in agricultural areas.

There is some evidence for tank and reservoir construction in the Early Historic period in the survey area. The third century AD Naga stone inscription in the Madhukeshwara temple, records a grant by the king's daughter Mahabhoji Shivaskanda Nagasiri of a *naga*, tank and *vihara* (Gai 1961-62). The sixth century Gudnapura inscription of Kadamba Ravivarma, records the gift of three villages and newly cultivable land irrigated by the Guddatataka lake constructed to the south of the village Moguru (Gopal 1973). This reference is taken to describe the Gudnapura reservoir (BGRS 211) that is still in use today, although there is no other archaeological evidence that allows us to date the reservoir to this period. Three other Kadamba inscriptions record tank construction, although not in the survey area (Appendix 4). The fourth-fifth century Chandravalli inscription of Mayuravarma records the restoration or construction (the uncertainty is due to differing translations) of a tank (which still exists) (Gai 1996: 61; Gopal 1985a: 7-8). The fifth century Talagunda inscriptions also refers to the construction of a tank by Kadamba Kakusthavarma (Gai 1996: 64-68; Gopal 1985a: 10-21). The fifth-sixth century Kuntagani copper plate grant of Ravivarma records the grant of land situated on either

side of a tank embankment which was constructed by the Kadamba king (Gai 1933-34; Gai 1996: 98-99; Gopal 1985a: 66-69).

Apart from these inscriptional references, the earliest evidence for some form of water management is a possible Early Historic brick well identified on survey (BGRS 46, Feature 1). The feature is highly disturbed and is visible in a recently created section (due to modern building activity) that cuts into an extensive Early Historic ceramic scatter immediately south of the Banavasi fort (Figure 6-9). The feature has been partially destroyed but is seen in cross-section, originating in what appear to be an Early Historic level and cutting into sterile soil with no cultural deposits below. The width of the structure varies from 73-84 cm, and it is approximately 183 cm high. Seven courses of brick are clearly visible at the top, stacked such that the longer side alternates with the shorter side (average size: 24/25×20×7/8 cm).

The cultural fill inside the feature is very compact and clayey with a sparse scatter of extremely eroded tiles and ceramics.[69] Fifty-eight cm above the top of the structure is a large, natural boulder (30×90 cm) placed to cap the well. Forty-three cm above the boulder, a moderate to dense Early Historic cultural level begins and ranges from 68 to 82 cm in height above the ring well. The cultural level is clearly visible as a darker layer throughout the section. It is likely that wells provided water for the inhabitants of Banavasi throughout much of its history. Today, the town contains over 200 wells (Balasubramanyam 1967: 6). Many have been renovated and faced in cement, but a few still show medieval or late medieval laterite block construction.

---

[69] The collection from within the well was extremely eroded and difficult to date. However, collections from elsewhere in the section indicates that that the cultural level dates from at least the Early Historic period.

Figure 6-9: BGRS 46, Feature 1, possible Ring-well

Elsewhere in South Asia, there is considerable archaeological evidence for the construction of reservoirs from at least the Early Historic period (Dikshit, et al. 1993: 33-36; Gunawardana 1971; Morrison 2009: 4-5). In certain parts of north India, it appears that reservoir construction was closely linked to the spread of Buddhism (Shaw 2004; Shaw and Sutcliffe 2001; Shaw and Sutcliffe 2003; Shaw and Sutcliffe 2005; Shaw, et al. 2007). I noticed no such correlation in the Banavasi region and, as will be discussed below, dating the reservoirs from surface data is difficult.

In Karnataka, there is some inscriptional evidence that several tanks and reservoirs were constructed under the royal patronage of the Later Chalukyas, Rashtrakutas and Hoysalas (Dikshit, et al. 1993: 43-60). Historically, scholars have traced the proliferation of reservoirs and tanks in Karnataka to the medieval period, when it is argued that the construction and maintenance of such irrigation features played a central role in state building and political

legitimization under the Vijayanagara empire in the 14th and 16th centuries (Morrison 1991: 81; Morrison 1994), as well as the Kakatiya and other regional states of the period (Sharma 2009: 98-100). It also seems that reservoir construction was closely linked to increased agricultural intensification in this period (Morrison 1994).

Drawing on the work of Burton Stein and others, Davison-Jenkins argues for agricultural expansion and a change in the organization of the agricultural economy during the Vijayanagara period. The dominant role of traditional village assemblies and brahmana settlements (*brahmadeya*) in the management of land and irrigation features in the pre-Vijayanagara period was replaced by the rising authority of intermediaries, such as the *nayakas*, who began to assume responsibility for agricultural management (Davison-Jenkins 1997: 12-13). In the nineteenth century, there was once again a change in agricultural management as the colonial government supported (or even created where absent) autonomous village traditions of tank maintenance (Mosse 1999).

Although Banavasi is situated in the *Malnad* region of Karnataka which is characterized by hilly, forested terrain, a large part of the survey area is relatively flat agricultural land. Hydraulic activity in the area often makes use of natural catchment areas and is largely linked to agricultural production. We have some information on agricultural activity in the area during the early 19th century when Buchanan stopped at Banavasi on his travels through the erstwhile Mysore state (Buchanan 1807c) and from the 1960's when the Government of India collected statistical and ethnographic data from the town (Balasubramanyam 1967). I briefly summarize this information below to provide some background on irrigation and other hydraulic features for my survey data.

Both sources record that the primary crop of the region was rice, with a limited sowing of other crops including dry crops (horsegram, groundnut, ragi) and sugarcane (Balasubramanyam 1967: 1, 36; Buchanan 1807b: 234-235, 239-241). On survey we noticed a distinct increase in the cultivation of cash crops in the area, especially pineapple and areca. Agricultural fields are informally classified (both by villagers and the local government) by location into lower fields close to a source of water (*Saragadde*), higher fields that retain less water (*Bisugadde*) and highest fields in undulating areas that are dry and used primarily for grazing livestock (*Byane*) (Balasubramanyam 1967: 26; Buchanan 1807b: 235-236).

A single crop of rice sown in April and harvested in November-December is the norm (Balasubramanyam 1967: 37). The low-lying paddy fields are the most productive due to their proximity to water. Agricultural activity is heavily dependent on the monsoons for inundating the paddy and on the periodic flooding of the Varada River which enriches some of the low lying areas. In the 1960's 263 acres and 23 *guntas*[70] were said to be irrigated by reservoirs, although the villagers estimated that the actual numbers were much less since channels from them had not been maintained (Balasubramanyam 1967: 27). A second crop is rarely grown and there is a long plowing season from December to April when the clayey soil is loosened and spread.

In the 1960's, approximately 1067 acres (of which only half was cultivated) of agricultural land were assessed for land revenue, most in the hands of brahmana[71] or lingayat families who also held another 1747 acres of land in the surrounding villages (Balasubramanyam 1967: 27). A few Banavasi residents also held land in Kathavalli village, Sorab Taluk, Shimoga District, which was supposedly granted to their ancestors by Marappa, the brother of the Vijayanagara king Harihara (Balasubramanyam 1967: 30). In the colonial period, Banavasi was included in the Bombay Presidency and agricultural land was administered under the Ryotwari tenure where the occupant held land directly from the Government. The owner held his land in perpetuity with the right of sale, mortgage or sublet as long as revenue was paid to the government (Balasubramanyam 1967: 28).

---

[70] A *gunta* is a traditional unit of measurement of area and is approximately 40 *guntas* constitute 1 hectare.
[71] The lands held by brahmana families are primarily ancestral (Balasubramanyam 1967: 33).
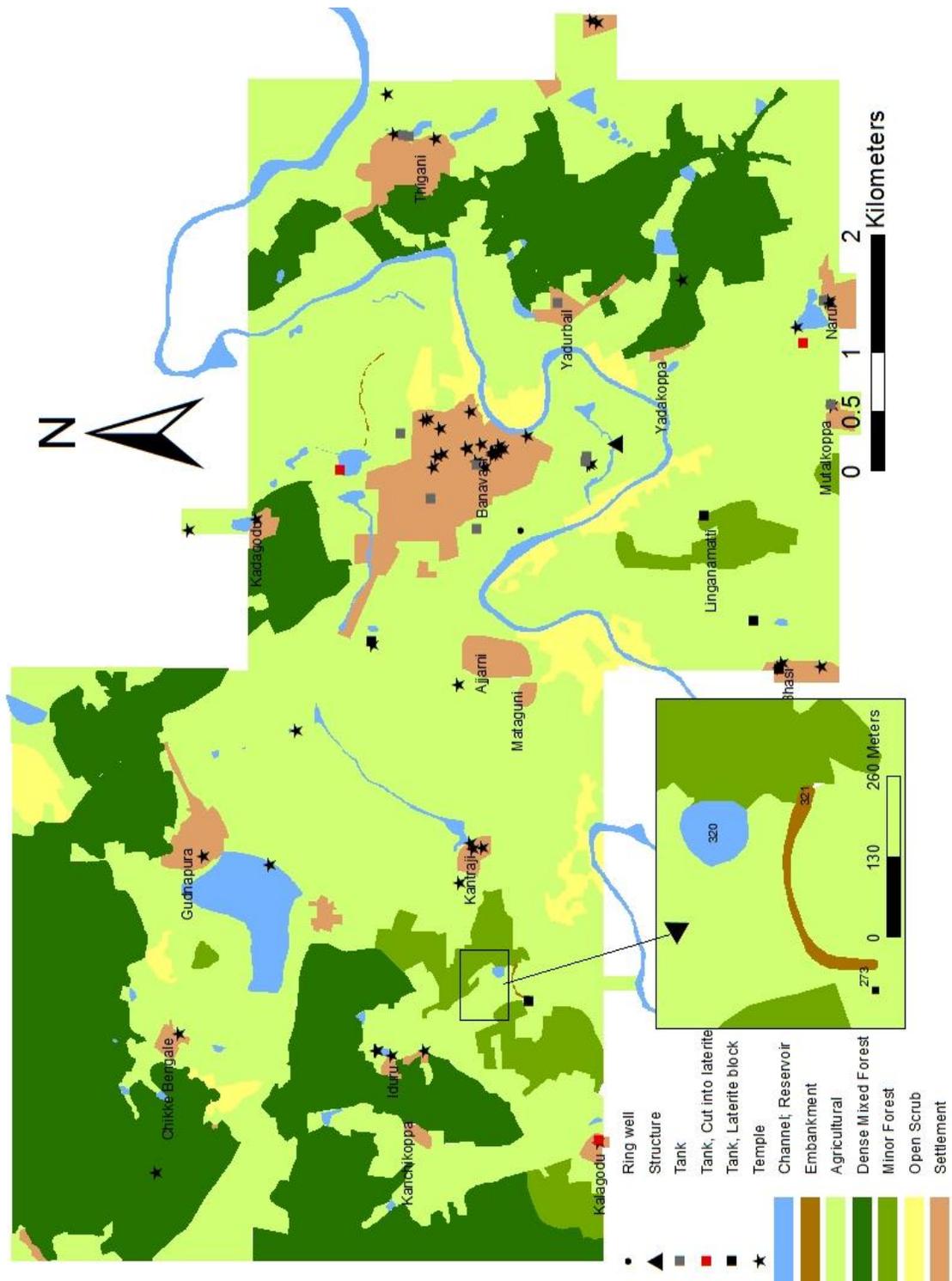
Figure 6-10: Hydrological features in the survey area; and BGRS 321, earth embankment (Inset)

6.2.1 Reservoirs

Forty-five reservoirs were recorded on survey (Figure 6-10). All are of relatively simple construction with an earth embankment on one or more sides. Today, several have modern stone and cement facing on the embankment, while a few have remnants of older laterite block construction. Laterite is ubiquitous in the region and it is not possible to date laterite construction.

None of the reservoirs have elaborate sluice gates, features that often are the most dateable element in other places in Karnataka (Morrison 1993; Morrison 1995a; Morrison 1997a; Morrison 2009). The most common constructed sluice in the survey area is a 'plug-and-pole' or 'piston' mechanism housed in a brick or stone rectangular cistern located in the embankment (Figure 6-11). At the base of the cistern is one or more valves or plugs (in most cases a metal, L-shaped pipe). This pipe can be opened or closed using a wooden or metal removable piston which is held in place by one or more horizontal stone slabs with a circular hole at one end (Dikshit, et al. 1993: 148). Since my survey was conducted during the dry season, most of the reservoirs did not have pistons or poles in place.

Figure 6-11: BGRS 47, modern reservoir sluice

None of the reservoirs have complete distinctive Vijayanagara type sluices which have two or more horizontal cross-bars between vertical uprights, with characteristic three part molding on the lintel (Morrison 2009: 99-100). However, two reservoirs (BGRS 74 and 211) incorporate older stone architectural elements in a modern sluice or have these fragments scattered in the vicinity. Apart from sluices, several reservoirs in the survey area have masonry

outlets or waste weirs (Kannada '*codie*') so that overflow during the monsoons could be channeled to an adjacent field or small temporary tank. Such weirs often took the form of an open spillway, sometimes lined in concrete.

The reservoirs are usually located in a catchment area so that they drain the surrounding higher elevation areas and many make use of natural depressions requiring minimal construction. In certain cases, the reservoirs are constructed in a chain so that overflow from an upstream reservoir forms the inflow to a downstream one (See Figure 6-12). For instance, BGRS 77, 78, 80, 81 and 83 are linked reservoirs next to the village of Huralikoppa; BGRS 73 and 74 are linked by a long channel (BGRS 341) and BGRS 341 is a long three meter wide channel with walls that reach a maximum 2.7 m high. This last channel was dry and extremely overgrown when we surveyed it. It appears to be an overflow channel for draining extra water from BGRS 74 into BGRS 73 when the water level in the former reaches a certain point. The walls are primarily earth with intermittent sections lined with eroded laterite blocks or brick (average size: 20 ×22× 8 cm). The base of the channel is also unlined and lies directly on the laterite bedrock which has been leveled or quarried in certain sections.

BGRS 332 is another long canal that leads out of a reservoir (BGRS 131). This channel is up to 35 to 40 meters wide in sections and seems to be in use only when the reservoir overflows. The channel is currently used as agricultural fields. A third constructed channel (BGRS 251) links two reservoirs in the Gudnapura block. This channel is extremely overgrown and shows no evidence of construction on the sides. It is likely that this is a relatively modern construction since the smaller linked reservoir to the north of the channel was under construction while we were surveying. There are at least two natural channels (probably remnants of the ancient course of the River Varada) that contain water and are used as reservoirs (BGRS 286, south of Banavasi and BGRS 326, northeast of Banavasi). We documented a few modern canals and channels lined in cement (often with dates of construction recorded) which are not included in my analysis, as no pre-modern construction was observed.

While the hydrological features discussed above reveal efforts towards an effective use of water resources, the entire survey area is not part of a linked hydrological system. Apart from the few linked reservoirs mentioned above and two long irrigation channels was not a complex, interlinked drainage system as is seen in other places in South India (Krishnan and Veeravalli

2006: 224-225; Morrison 2009). For the most part, the fields surrounding each reservoir are watered through simple irrigation channels dug seasonally. In fact, several of the smaller reservoirs appear to be seasonal, drying up during the hot season and filling up after the monsoons.

6.2.2 Water management and regional organization

Unfortunately, there is little information on the method of construction of these water management features or details about the labor used. As will be discussed in greater detail in Chapter 7, land grants often included the right to *vishti* or forced labor which might have been used in the maintenance of irrigation systems. We have limited evidence that royal authorities constructed tanks and reservoirs, as seen in the few inscriptions mentioned above.

Regional case studies have led to the questioning of a Wittfogelian emphasis on the role of centralized, autocratic, bureaucratic political power in constructing and maintaining hydraulic features in early states and among the small localized communities supposedly characteristic of 'Asiatic Societies' in south and southeast Asia (Hunt and Hunt 1976; Lansing 1987; Leach 1959). As Leach notes for 11th-12th century Sri Lanka, hydraulic features were not necessarily the result of a centralized structure, but were often created haphazardly and over a long period of time by individual rulers or elite groups who used localized groups of caste-based technical specialists under a local leader to construct them (Leach 1959: 23-25).

Case studies from other places in the world have highlighted variability in scale and context in the management of water resources. The role of the local social community in the management of hydraulic resources is being increasingly recognized, especially in routine maintenance and day-to-day organization (Hunt and Hunt 1976; Lane 2009). Such local systems were often embedded within complex, hierarchical systems and linked in numerous ways to higher levels of organization of water management (Hunt and Hunt 1976: 306). Ethnographic and historical studies in other areas of South India have suggested that tanks and reservoirs are complex domains where local social relations are articulated (Mosse 1997).

While several of the larger irrigation networks in the Deccan and South India were constructed by royal authorities, there is some evidence that smaller canal and dam systems in late medieval and colonial India were maintained and de-silted (if not always built) by local communities (Gadgil 1987: 383; Hardiman 1995: 188-189). It is likely, as Ludden has suggested

for Tamil Nadu, that the scale of the irrigation work determined (or was a result of) how it was constructed, with the largest dams being constructed by chiefs or kings, while smaller dams were built by a variety of local groups (Ludden 1979: 349).

Such a model seems to fit the Banavasi area where there is limited evidence for centralized control of irrigation facilities. Not surprisingly, there is a certain concentration of large reservoirs and channels near the primary centers of Banavasi (reservoirs BGRS 73, 74 and connecting channel BGRS 341; BGRS 286 reservoir and channel), Gudnapura (BGRS 211, large reservoir) and Kantraji (BGRS 251, linked reservoirs and channel) and the agricultural areas surrounding them. Interestingly, some of these reservoirs are the only ones with visible older (possibly medieval, Period III, post 16th century) architectural elements.

The role of temples in reservoir construction noticed elsewhere in South Asia is also not clear from the survey data. Figure 6-12 shows that temples are occasionally found next to or on the embankments (only in the case of BGRS 211 and 97) of the larger reservoirs. BGRS 74 contains a modern mosque and graveyard (perhaps late medieval) on its northern embankment. However, not all reservoirs have adjacent temples and the correlation is unclear since in all cases the reservoirs are next to settlements, which have temples.

For the most part, there is a dispersed pattern of smaller reservoirs with a limited catchment area. If embankment length is used as a proxy for catchment area, the majority of tanks are less than 200 m in length (n=26 of 46)[72]. Eight reservoirs have embankments between 200 and 300 m and only four have embankments longer than 300 m. The four largest reservoirs are found near the villages of Kantraji, Thigani, Narur and Gudnapura. All four villages have evidence that they were occupied at least from the 12th century (Period IIB and III), and in the case of Gudnapura and Kantraji perhaps the Early Historic (Period IB).

The presence of a local level irrigation infrastructure serving one or two villages emphasizes the likelihood that irrigation systems were built piecemeal by diverse local or intermediate elite groups. While this is an argument based on an *absence* of evidence of centralized control, community management seems likely in the Banavasi region given its frequent turnover of political authority. Moreover, this is not a region of water scarcity and a high dependence on irrigation, and this perhaps corresponds to lack of necessity for socially

---

[72] Accurate measurements were not available for 6 reservoirs.

embedded complex management of water, a link that is predicted in other studies (Mosse 1997: 489-491). Agriculture in the region is not solely dependent on the presence of reservoirs. The monsoons and the regular flooding of the river Varada also determine a large part of the cropping pattern in the area.
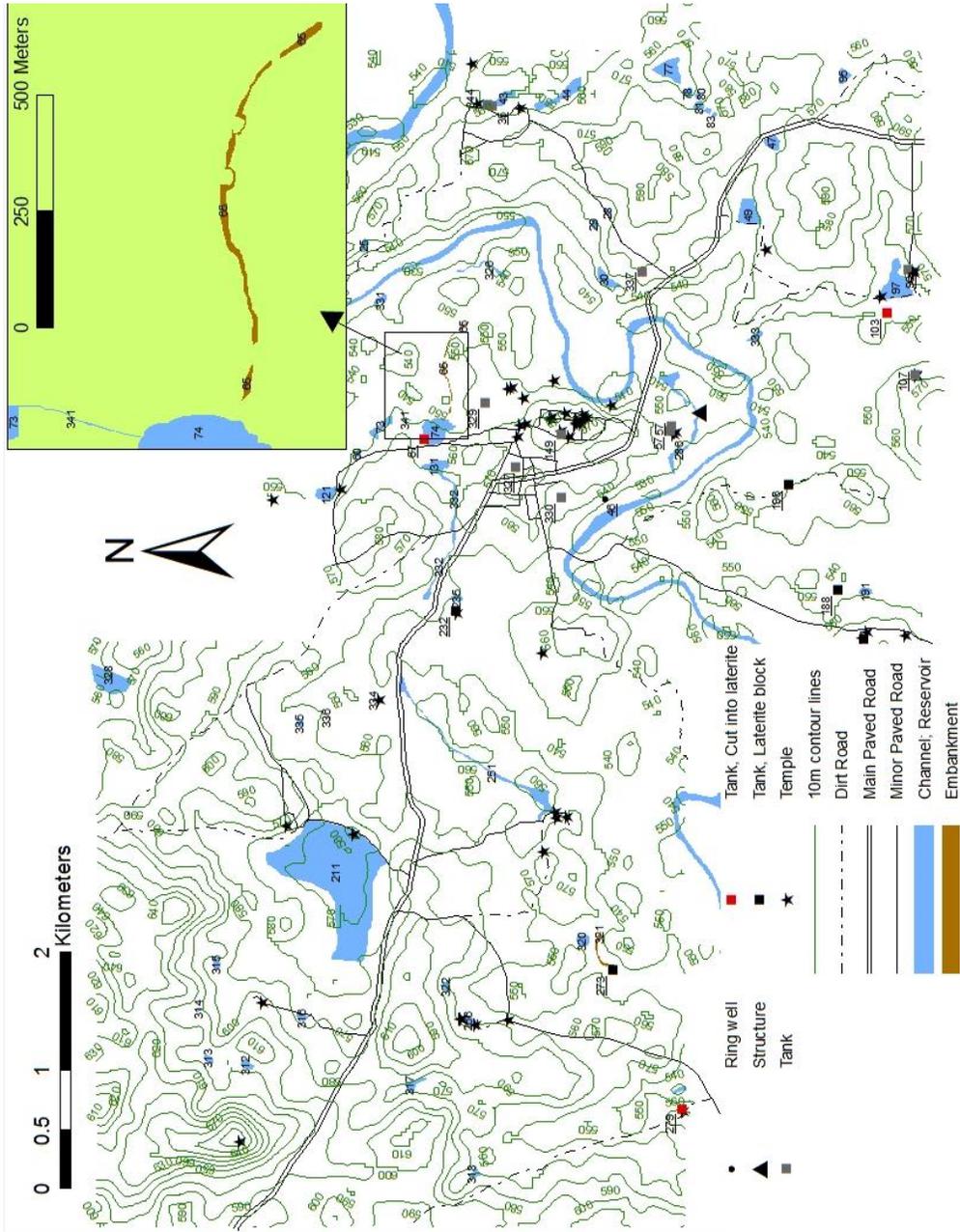
Figure 6-12: Numbered Hydrological Features and Roads; and BGRS 65, earth embankment (Inset)

6.2.3 Tanks

The presence of different levels of control of hydraulic features becomes more apparent when we look at smaller hydrological features such as tanks (See Table 6-1). The tanks identified on survey can be classified by method of construction into three types: tanks with primarily earth construction, tanks cut into laterite bedrock and tanks with substantial laterite block construction (Figure 6-12, tank numbers are underlined).

The first category includes small to medium sized tanks associated with temples (n=7). Recent studies have shown a close relationship between Buddhist *stupas* or Hindu temples and water management sites including dams (Shaw, et al. 2007: 171-2). Unlike reservoirs, these temple tanks in the survey area generally do not have a distinct embankment along one or more sides but are simple square or circular features excavated into the ground. Only BGRS 57, Feature 3, has some (possibly modern) construction. Excavated tanks which are not clearly associated with any structure (n=4) appear to be used for water storage and are located in or near settlements.

In the second category (n=3), are tanks excavated into the lateritic bedrock and that are now used to hold water. Since they are all water-filled, it is difficult to determine whether they were originally quarry sites. BGRS 279, Feature 3 is a large tank cut into laterite that also has some amount of laterite block construction at ground level.

Finally, in the last category of tanks are distinctive laterite block constructions (n=5). Three of these tanks (BGRS 180, Feature 2, 196, 273) are the typical keyhole shaped tanks or wells that are known from the Vijayanagara period (Morrison 2009: 152), or slightly earlier (Figure 6-13). BGRS 232, Feature 4, is an extremely large square laterite block tank that seems to be associated with a Later Chalukya temple (BGRS 232). Most of these constructed tanks are fairly small and do not hold a significant amount of water (BGRS 232 is an exception). Their location along possible routes of movement into Banavasi suggests that they served travelers along the roads. Tanks, unlike reservoirs, therefore are more clearly linked to a socio-political or religious system and with the decline of this system are now in disrepair.

Figure 6-13: BGRS 180, Feature 2, Laterite Block Tank

Table 6-1: List of tanks

BGRS No.	Type	Dimensions	Description
BGRS 34, Feature 1	Possible Temple Tank	Oval, 8×11 m; 5 m deep	5 m east of rectangular house/temple mound in Thigani village. Tank is dry and overgrown but irregular stone slab steps lead to the base of the tank, where there is an isolated stone slab.
BGRS 35, Feature 2	Possible Temple Tank	Circular, 8.5 m diameter	Extremely overgrown circular tank/well located next to a house/temple mound.
BGRS 57, Feature 3	Temple Tank	Rectangular, 50×60 m	Large rectangular tank to the southeast of the Adi-Madhukeshwara temple (BGRS 57). Modern cement steps lead into the tank on the north side. Raised earth embankments on the east, west and south, approx. 2 m high and 2.6 m wide. Currently in use.
BGRS 57, Feature 5	Possible Temple Tank	Rectangular tank (45×32.5 m interior).	Tank has low retaining walls (85-90 cm high) on all sides. The walls are of packed earth (3-3.5 m wide) with fragmentary brick and some identifiable alignments of laterite blocks. Located immediately east of the Adi-Madhukeshwara temple (BGRS 57). Dry, abandoned.
BGRS 67	Cut into laterite	Keyhole shaped tank, approx. 5.40×5.20 m (rectangular section)	Keyhole shaped tank cut into laterite bedrock, approx. 1.5 m below the topsoil. Long passage with steps lead into the tank on the north side (3.54×1.62 m). The sides of the tank are cut into two steps. Filled with water.
BGRS 96, Feature 6	Possible Temple Tank	Roughly oval, 15×12 m; approx. 3m deep	Oval, possible tank/depression next to two temples (BGRS 96). There is a large granite slab (136×23×12 cm) and a naga stone lying in the base of the tank (BGRS 117). Trash dump for the village of Narur.
BGRS 103	Cut into laterite	Rectangular, 4.15×3.94 m,	Cut into laterite, 2-3 steps on the northern and southern sides. Possible quarry converted into tank. Filled with water.

BGRS No.	Type	Dimensions	Description
		1.40 m deep	
BGRS 107, Feature 3	Possible Temple Tank	Rectangular, estimated 8×7 m	Deep (8-10 m) rectangular tank to east of temple (BGRS 107). Filled with water.
BGRS 149, Feature 13	Possible Temple Tank	Circular, estimated 15 m diameter	Possible temple tank, next to Jaina temple (BGRS 149). Extremely overgrown.
BGRS 180, Feature 2	Laterite block tank	Keyhole shaped, approx. 350×353 cm (rectangular section), 110×475 cm (steps leading into tank), 190 cm deep	Keyhole shaped laterite block tank next to Kalabhairava temple (BGRS 180). Tank is square with a long set of steps leading into it from the western side. Base of the tank contains a square laterite block lined well covered by stone slabs. Tank is dry, well has water.
BGRS 188	Laterite block tank	Roughly square, 496×491 cm, approx. 31.4 cm deep	Square laterite block tank with at least 6 courses visible, but no mortar. Blocks placed in an alternating fashion. Tank is located on the edge of a large field area near the village of Bhasi. Extremely overgrown and filled with water.
BGRS 196	Laterite block tank	Keyhole shaped, 285×280 cm (tank), 240×126 cm (steps to tank)	Has a little water, blocks eroded and displaced.
BGRS 232, Feature 4	Laterite block tank	Roughly square, 10.36×10.84 m, 4.5 m deep	Extremely eroded, blocks are displaced. There are 21 courses of steps leading down into the base of the tank on all sides. On the north side the blocks might be placed to form protrusion on the middle of the side along the top 6 rows.
BGRS 273	Laterite block tank	Keyhole shaped, 6.50×6.90 m (tank), 4.30 m long steps; 3 m deep	Extremely overgrown and displaced keyhole shaped tank with stepped walls.
BGRS 279, Feature 3	Cut into laterite	Rectangular, 10.25×10.80 m,	Extremely large tank cut into laterite bedrock with 5-7 courses of laterite blocks visible on the top. The sides have been shaped, stone slabs extend over the sides to support a pulley for filing water (now missing). A long curved entrance with wide steps cut into laterite enters the tank from the south side.
BGRS 327	Tank	Oval, 116×93 m estimated, 3-4 m high bund estimated	Large tank within the city of Banavasi. Dry, partially built over but has distinctive plants found at base of reservoirs elsewhere in the survey area. It also shows up on old survey maps as a tank and on the satellite image.
BGRS 329	Tank	Rectangular, approx. 92×67 m	Large tank on the outskirts of Banavasi. Dug into the earth with packed earth retaining walls. Shows up on old survey maps (1960's).
BGRS 330	Tank	Rectangular, approx. 18×18 m	Small tank south of Banavasi. Shows up in survey maps. Filled with water.
BGRS 337	Tank	Rectangular, estimated 67×80 m	Possible tank in Yadurbail village. The area is now a field but has a partial 8-10 m embankment on the northern side at least, and possible remnants of embankments/retaining walls.

6.3 Craft Production/Industrial

Three types of craft production/ industrial sites were identified on survey: stone quarries, stone working and brick/tile manufacture sites. In Section 6.4below I will discuss the artifacts collected on survey that provide additional evidence for craft production, most notably, Early Historic glass manufacture and jewelry making. Here I focus on site form and location.

A study of stone quarries allows us to discuss the patterns of use of stone resources in the past (Bloxam 2011). However, in the survey area, these sites are difficult to date -- both due to continued quarrying over a long time and to their (re)use as very different sites. Moreover, quarry sites are often reused or minimally quarried and then abandoned, making them difficult to identify. In the absence of absolute dating, I have attempted to date quarry sites with reference to adjacent stone-working sites or architectural features that used materials from the quarry.

Five laterite quarries were identified (See Table 6-2). Laterite refers to a variety of iron-rich rock-like and soil-like products that develop as a result of the chemical weathering of the parent rock (which could be sedimentary, metamorphic or igneous), typically in tropical or sub-tropical climates (Widdowson 2008: 46-47).[73] This stone (or 'brick-stone'/ '*Itiga Kallu*' in Kannada) was first identified and named by Buchanan in the early 19th century (Buchanan 1807b: 440-441). Buchanan's laterite refers to the rock-like surface layer with 'tubiform' or 'vermiform' textures (Widdowson 2008: 59-61) that, once cut and indurated on exposure to air, was used extensively in building construction and iron ore extraction in Kerala and Karnataka (Fox 1936; Stephens 1961). In India, laterites are found extensively along the southwest coastal belt, associated with the basalts of the Deccan plateau to the north (Maharashtra) and the peninsular gneisses and Dharwar metasediments to the south (Goa and western Karnataka, up to south central Kerala) (Widdowson and Gunnell 1999: 246-247. 260-261).

---

[73] Geologists make a process-based (and chemically identifiable) distinction between laterite and ferricite. Laterite is formed *in situ* through autochthonous weathering processes, while ferricite is formed through the input of allochthonous iron into an existing host rock or weathering profile (Widdowson 2008: 48-49). There is an extensive literature on the definition, origin, classification, types and chemical composition of laterite (Bourman 1993; Chowdhury, et al. 1965; Paton and Williams 1972). For the purpose of this dissertation, I use the Buchanan's more subjective type definition of 'laterite' for the iron-rich 'rock' widely found as outcrops in the Banavasi region. However, I also recognize that extreme weathering processes of the parent rock lead to the formation of lateritic soils, found extensively in the area.

Laterite is mined while it is soft and lies below the water table. Once exposed to air it gradually hardens as the moisture between the flat clay platelets evaporates and the larger molecules of iron lock into a rigid lattice structure (Engelhardt 1996: 158). Laterite is plentifully available in the Banavasi region and is traditionally quarried using simple hand-held tools (metal axes or heavy knives, for instance) (Nichol 2000: 182). Since the lateritic material softens with depth, quarrying stops at a level where the material crumbles. An abandoned mine may be reused after a dry season to mine a few more courses of blocks (Kasthurba, et al. 2007: 75). Over time, the induration of the exposed laterite, the abandonment of the quarry and often its filling up with water largely obscures any tool marks. However, it is possible to identify quarried areas due to distinctive vertical profiles that cut into laterite outcrops, often forming rectangular depressions.

Given the relative ease of quarrying laterite, it appears that quarries in the region were located close to sites where the blocks were used in construction. Laterite was used in house construction, to face reservoir embankments and in constructing platforms and small temples. This laterite block construction of public structures (temples, platforms) is very common in the smaller villages around Banavasi and Gudnapur. A few cross-cultural studies suggest that laterite could, under certain physical (for instance, iron content) and cultural (for instance, expertise) conditions, have been exploited for its iron content (Hegde 1973; Moore and Win 2007: 205-206; Pryce and Natapintu 2009). However, we did not find any iron production site associated with the quarries on survey.

Cross-cultural examples, as from Cambodia's Angkor Plain, indicate that laterite quarries might have been converted to water reservoirs (Engelhardt 1996: 158). In the Banavasi region, abandoned rectangular laterite quarries often fill up with rainwater and are then used as tanks. In some cases, laterite block construction around the original quarry site reinforces its conversion to a tank and obscures its origins as a quarrying site. In the previous section, I briefly mentioned the tanks which might have originated as quarries.

Table 6-2: Production Sites

Site No.	Site Type	Quarry Dimensions	Block size; Munsell	Date	Associated Sites
BGRS 25	Stone working		50-80×30-50×35 cm	Unidentified	By the side of a large reservoir.
BGRS 50	Laterite quarry	Approx. 10×22 m	Max. 40×30×10 cm- min. 15×20×10 cm; dark reddish gray (5R 4/1)	20th century	Large reservoir with laterite block facing (BGRS 49) 193 m to

Site No.	Site Type	Quarry Dimensions	Block size; Munsell	Date	Associated Sites
					northwest
BGRS 52	Brick manufacture	30 and 32 m length of field edge.	Avg. brick size: 18×12×8 cm; Red (2.5YR 5/8, 4/8)	Unidentified	600 m southeast of Banavasi, on banks of large reservoir (BGRS 286)
BGRS 79	Brick/Tile manufacture	Kilns	Avg. brick size: 17×10×8 cm; Reddish-Brown (2.5YR 5/4)	Early 20th century	750 m west of the village of Huralikoppa, known to be brick manufacturing location.
BGRS 132	Laterite quarry	Laterite outcrop: 54×45 m	No blocks in vicinity; Dark reddish Gray (10R 3/1)	20th century	Large reservoir (BGRS 131) immediately to the north.
BGRS 210	Stone working Site	17×12 m	Unfinished basalt architectural elements	10th-14th c.	Gudnapura village and reservoir 300 m to the south, southeast.
BGRS 229, Feature 1	Laterite quarry	5.15×4.6×4.8 m	No blocks in vicinity; Dark reddish Gray (10R 3/1)	20th century	
BGRS 274, Feature 1	Laterite quarry	20×12 m	Max.: 80×60×50 cm; 70×60×90 cm; Min.: 45×49×20 cm, 30×13×20 cm; Dusky Red (2.5YR 3/2)	Unidentified	Adjacent to BGRS 274, laterite block platform in village of Kalagodu.
BGRS 288	Basalt quarry	40×23 m	Basalt	10th century onwards?	
BGRS 297	Laterite quarry	11×10×8 m. Used as tank.		20th century	BGRS 71, Feature 1(small shrine), 450 m to the south contains modern laterite block construction

Apart from laterite, sun dried and fired mud-brick is used extensively in construction in the area today. It is likely that this was the case in the past. The Banavasi fort and certain of the early Shaiva temples mentioned in Chapter 5 show evidence for brick construction. The lateritic soils of the area are suitable for making brick and shaped mud-brick (with considerable straw and rice husk inclusions) were frequently found laid out to dry, especially next to reservoirs. The ancient bricks found on survey often contain well rounded pisoliths with haematite layers, identified as small (1-3 mm), dark red nodules in the brick. Pisoliths are not ubiquitous in laterites but are found in specific landscape settings, often a result of fluctuations in groundwater

level or chemistry and therefore may be indicative of pronounced seasonality in the area (Widdowson 2008: 61).

Two brick and tile manufacturing sites were identified on survey (Table 6-2, Figure 6-15). BGRS 79 contained two simple pit-kilns used to fire brick and tile. The latter are primarily rectangular curved grey tiles which begin to be found in the post-16th century period and were used well into the 20th century. These tiles are increasingly being replaced by the distinctive modern 'Mangalore' tiles but in small villages the grey tiles are still used (re-used or locally fired). BGRS 79 is probably a modern site, as is BGRS 52, an ill-defined site with no kilns but evidence that mud bricks were fired. This latter site is located in a modern field and has been much disturbed by plowing.

It is likely that, as with laterite quarrying, brick and tile manufacture were small-scale industries in the medieval and modern periods, and probably earlier. Unlike laterite, basalt is not common in the region and is typically used in the construction of the central temples in Banavasi and Gudnapura. A few of the smaller temples in the outlying villages have basalt construction. Inscriptions, hero and sati stones and *nishidi* stones are also made of basalt.

BGRS 288 is the only basalt quarry identified in the survey area and is located in a hilly, forested area next to Gudnapura (Figure 6-14). It is difficult to trace the antiquity of the site since it has been quarried up to the present day and is currently partially filled with water. However, the adjacent site of BGRS 210 is a basalt stone working site that contains unfinished architectural fragments dated to between the 10th and 14th centuries, indicating the long use of the site (Figure 5-9).

Figure 6-14: BGRS 288, basalt quarry

The pattern is therefore of small-scale, dispersed production of laterite blocks and brick in Banavasi and a more centralized quarrying of basalt. All of the production sites identified on survey can be dated to later periods: period II (sub-period B) and later, i.e. post 10th century.
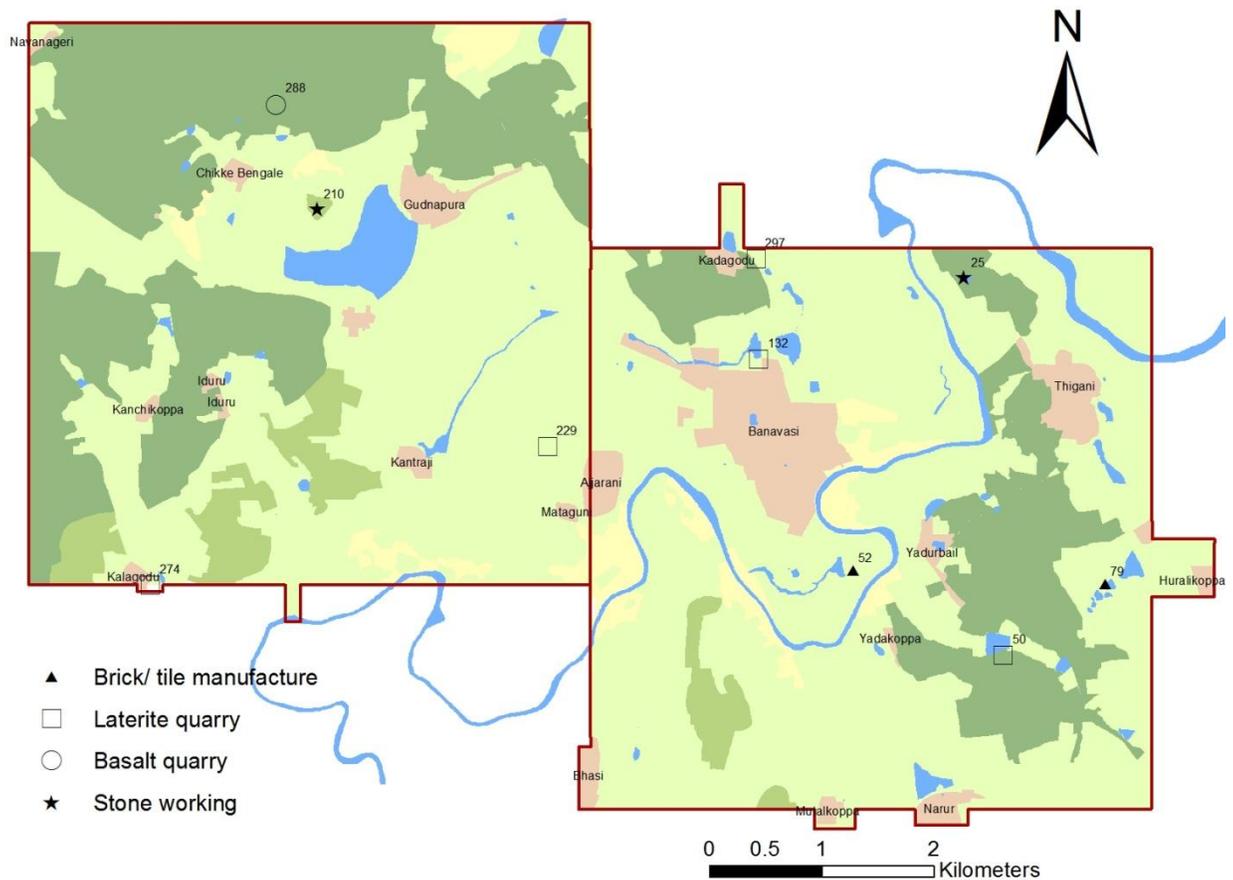
Figure 6-15: Production sites

6.4 Habitation and material culture

6.4.1 Excavations and ceramic chronology

Today, my survey area is intensely inhabited and cultivated. Ceramic and artifact data from the excavations at both Gudnapura and Banavasi show a long sequence of occupation at the sites. Excavation units were placed both within and immediately outside the Banavasi fort and show evidence for habitation at the site from the late centuries BC ('Chutu' period) up to the present (I.A.R. 1994-95: 40-41; I.A.R. 1995-96: 42-45; Murthy, et al. 1997).

The published results of the early 1969-72 excavations at Banavasi focused on the ceramics from one trench (BNV VI) located within the fort wall, which was excavated down to sterile soil. The trench yielded a continuous stratigraphic sequence from what was termed 'pre-Satavahana' (i.e. late centuries BC) (Murthy, et al. 1997: 112). In this trench, layer 6 (of 11

layers) was dated to the first and second centuries AD due to the presence of ceramic types found in dated stratigraphic contexts at sites like Brahmagiri and Chandravalli (Murthy, et al. 1997: 112). In Table 6-3 below is a summary diagrammatic representation of the ceramic types and chronology[74]:

Table 6-3: Ceramic stratigraphy, early excavations at Banavasi

Ware	Fabric/Surface treatment	Forms	Layer/ Date
Bright Red Ware	Fine fabric, well finished, slipped with thin russet coast and sometimes burnished.	Primarily table wares: pots, cups, bowls, wide mouthed jars and spouted jugs.	Greater varieties of forms in layers 6 to 3 but found throughout in small quantities.
Dull Red Ware[75]	Primarily coarse and unslipped, some with applique or pinched decorations.	Variety of Early Historic forms: oil lamps, storage jars, wide mouthed flaring cup[76], table wares, lids with knobs, perforated wares etc.	Dominate the assemblage from layer 11 to 2.
Black and Red Ware	Fine fabric, high fired, slipped and polished.	Primarily flat bottomed plates with vertical or convex sides and flat or rounded inverted rims; and small cups.	Layers 6 to 3 with maximum variety and of forms and number of sherds in layer 6 and a decrease in number and variety in later layers.
Black Ware	Crude with rough surface and dull color	Table wares: small pots and vessels like cups, bowls, plates, lids.	Very sparse in layers 9, 8, 6 but found in the later layers.
Northern Black Polished Ware	Fine clay, slipped and polished		A solitary sherd in layer 8
Brown and Chocolate Brown Ware	Dull, rough finish; fabric fine to rough; some slipped; almost all sherds decorated.	Similar to those found in the Red Wares. Some sherds thick, indicating large vessels, jars and pots.	A few sherds found in layers 10 to 2.
Rouletted Ware	Fine fabric; burnished; rouletting		Few sherds in Layer 6.
Kaolin Painted Ware	Typical designs on Red, Black and Red and Brown Wares.	Primarily table wares: pots, plates, lids, bowls cups.	Layer 6 but does not continue in the later layers.
Celadon	Finely levigated clay; crackled aquamarine glaze.		Two sherds from layer 6.

---

[74] The published ceramic data in the excavation report is rather cursory, with a focus on describing the Early Historic ceramics in BNV VI (Murthy, et al. 1997). In the table, I use the excavator's terminology.

[75] Along with the Fine Red Ware described above, this ware type was the most numerous, both together accounting for 95% of the assemblage in this trench (Murthy, et al. 1997: 112).

[76] This form is a typical Early Historic type and considered one of the characteristics of the 'Satavahana culture'. While I am not in favor of this terminology which is a remnant of the culture historical approach (discussed in Chapter 2), this type is important in that it can be dated to the early centuries AD.

Ware	Fabric/Surface treatment	Forms	Layer/ Date
Terracotta knobs and spouts		Knobs are typically hollow and finial shaped with grooves, slightly rounded top and concave neck below. Of dull red ware and used in lids and wide mouthed jars. Spouts have a variety of forms and seem to be used for small vases or jugs. Finer fabric, often slipped.	Primarily layer 6, absent in layers above and below
Crude Black, Grey and Red Wares	Not described.	Not described.	Medieval. In upper layers.

The later trial excavations in the 1990's within the Banavasi fort resulted in a four-period stratigraphy (I.A.R. 1994-95: 40-41), summarized in Table 6-4 below.

Table 6-4: Ceramic stratigraphy, later excavations at Banavasi

Ware(s)	Forms	Layer/Date
Chocolate Brown Ware Red Slipped Ware Red Polished Ware Black and Red Ware	Utilitarian lids, bowls etc.	Period I: 'Chutu', layers 9, 8
Polished Red Ware Russet Coated Painted Ware Red Slipped Ware Chocolate Brown Ware Rouletted Ware Micaceous Red Ware Imitation Arretine Ware	Utilitarian types, decorated wares, imitation Roman amphora in Red Polished Ware.	Period II: 'Satavahana', layers 7 to 5
Red Slipped Ware Polished Red Ware Grey Ware Micaceous Red Ware	Conical ring-based wide bowls, carinated vessels with decorated shoulder, large number of spouted vessels.	Period II: 'Kadamba', upper layers of 5; 4 and 3
Dull Red Ware Red Slipped Ware Grey Ware Micaceous Ware	Lids, wide and small mouthed carinated vessels, spheroidal pots, conical bowls, lamps, incense burners	Period IV: 'post-Kadamba', layers 1 and 2

At Gudnapura, while the complete results of the excavations next to the Jaina basadi in the center of the village have not been published, brief notes are available (I.A.R. 1988-89: 36-39; I.A.R. 1989-90: 43-45; I.A.R. 1990-91: 31-32; I.A.R. 1993-94: 67-68; I.A.R. 1994-95: 41-43). The excavators were, however, primarily concerned with the structures at the site, and information on the ceramic assemblage is minimal. The ceramic assemblage associated with the structures (c. fifth-sixth centuries AD) seem to consist of Red Wares, Red Slipped Wares and Fine Grey Wares. The typical types found in the Red Wares were sprinklers, spouted vessels,

bowls, miniature vases and large storage jars, many with profuse decorations. The Grey Ware types included medium sized pots with flared and out turned rims, straight-sided bowls, storage jars, lids and platters. More importantly, a large number of curved and flat roof tiles were found. The flat tiles had a right angled projection on one end and the other was shaped in a variety of patterns (pointed, multi-cusped) (I.A.R. 1989-90: 44-45). A miniature pot of celadon with the typical crackled glaze was among the other interesting ceramics found (I.A.R. 1988-89: 39).

The ceramic data from the excavations are extremely limited but do provide basic information on the archaeological assemblages of the region, and especially on the Early Historic ceramic assemblages. Unfortunately, later medieval and early modern ceramics have not been considered important and are largely ignored in the published reports. In the discussion that follows, I will attempt to date ceramic collections made on survey by comparing forms and wares with published stratigraphic assemblages from excavations in various parts of peninsular India.

Several of the wares mentioned above are well known types that have a long history in the South Asian archaeological literature. The Black and Red Ware (henceforth BRW), often considered a "necessary cultural adjunct" of the South Indian megalithic burials, is not peculiar to the so-called 'megalithic period'[77]. Instead, similar ceramics are found in a variety of spatial and temporal contexts. This is the case in Banavasi where the excavators express surprise that BRW was not found in lower levels but only in levels dating to the first and second centuries AD (Murthy, et al. 1997: 114).

This widespread ceramic category, likely produced through inverted firing techniques that generate a black interior and a red exterior, has a long history in South Asia (as in other regions of the world, where it is not an uncommon technological strategy). In South Asia, Black and Red ceramics have antecedents in pre-Iron Age contexts. It appears from Harappan times especially in Saurashtra and is a characteristic ware of the Ahar culture of Mewar (approx. dated to between 2500-1900 BC) which later spread to central India (Mohanty and Selvakumar 2001: 330). The ware also makes an appearance in the western Indian chalcolithic cultural context (i.e.

---

[77] The construction of megaliths was one of the features of what is now termed the 'south Indian Iron Age' and broadly dated from the beginning of the first millennium BC to the third century AD (Brubaker 2000-2001: 253-255).

Jorwe, approx. 1400-700 BC), as well as in Early Historic contexts along with the Northern Black Painted Ware (NBPW). This pottery type cannot therefore be attributed to a particular race or group of people. Perhaps it can be seen as a "technology of meaning: a technology which allowed meanings to be produced" (Thomas 1998: 100). That is, while certain aspects of the ceramics may have remained stable over time and space, it might have had different meanings/significances at the local level, and have been open to reinterpretation or re-encoding at different spatial or temporal contexts.

The probability that a single set of cultural characteristics was associated with such a long lived pottery type is minimal. It may be noted that the Black and Red Pottery associated with the Megalithic continued well into the Early Historic period and overlaps in some sites with the Early Historic NBP. BRW is so widely found in such a variety of sites and from a wide range of chronological contexts that it was certainly locally produced, as has been shown at the Sri Lankan site of Tissamaharama (Schenk 2001). It might even be suggested that Black and Red Ware ceramics do not constitute a distinct type.

Other important wares mentioned above are known from excavated contexts in different parts of the subcontinent and include a variety of Red Polished Wares (RPW), Northern Black Polished Ware (NBPW) and Fine Red Wares. The NBPW first appears in the seventh to sixth centuries BC in the northern part of the subcontinent but is found in later stratigraphic contexts in the Deccan (Ghosh 1989: 251-257). In north India, the NBP slowly declined by the late centuries BC and the early centuries AD, to be replaced by Red Wares. A few other important Early Historic ceramics that are found after the decline of the NBPW in north India in about the second century BC include the Red Polished Wares (Gujarat, northern Deccan) and the Russet Coated Painted Ware (lower Deccan). The main area of distribution of the RPW is West Gujarat and Maharashtra, with some find spots in the Deccan. It is unclear from the publications whether the Polished Red Wares found at Banavasi are similar to the RPW's of the northern Deccan.

Within the subcontinent, many items were made in imitation of Hellenistic and Roman fashions, for instance, the terracotta oil lamps or amphorae[78] found at a large number of sites in

---

[78] The majority of those found at the well-known site of Arikamedu in south India are of types used for wine, oil and *garum* (fish sauce). This could imply either the presence of Roman consumers or the adoption by local elite of foreign tastes and fashions (Ray 1995a; Ray 1995b; Ray 2003).

India. In addition to the imitation amphora in RPW mentioned above, it is argued that a few sherds of the BRW at Banavasi are examples of imitation Samian Ware imported to Karnataka (Murthy, et al. 1997: 114). The few examples of celadon found at Banavasi and Gudnapura seem to be typical examples of valued medieval trade wares from East and Southeast Asia (most notably China, Vietnam and Thailand).

Rouletted Ware (a fine, wheel turned, black slipped ware)[79] was initially regarded as an import from the Mediterranean region that dated to between the first and second centuries A.D. A new study by Begley (Begley 1988; Begley 1991a) suggests that this pottery can be dated to the second century B.C., indicating a much earlier period of trade. Moreover, only the technique of rouletting shows clear evidence of classical ceramic techniques. In its fabric and shape the ware has close similarities to local pottery (Begley 1988). Based on mineralogical analysis of this ware, V. S. Gogte (2000; 2001) has suggested that the majority of Rouletted Ware was manufactured in the lower Ganges valley area of eastern India and Bangladesh. While the ware was still a long-distance import into the south Indian peninsula, it came through a very different route than trade with Rome.

Ceramics (whether their technology of manufacture or the actual pots themselves) moved over vast distances, both overland and overseas, delineating the broad outlines of these ancient routes of movement. The evidence of the *Periplus of the Erythraean Sea*[80] indicates that trade between India and Egypt primarily centered on the western coast of India, and that merchant ships did not sail to the east coast but accessed this region through indirect overland trade. We can only speculate on the role of Banavasi in this network. The presence of non-local ceramics and forms however suggests that Banavasi participated in a complex and extensive network that included north India, East Asia and sections of the western Indian Ocean trading system.

---

[79] Rouletted ware is dish-shaped and contains bands of indentations on the interior base, which include a variety of shapes, such as parallel lines, triangles, diamonds, and dots, and were possibly produced using a roulette (Begley 1988).

[80] This work survives in a single manuscript, now in Heidelberg that dates to the beginning of the 10th century. Opinions about the date of the original text have varied from about A. D. 40 to as late as A.D. 240. However, scholarly opinion is now largely united in dating the work to the period from A.D. 40 to 70, based on references to the Nabataen king Malichus II (reigned A.D. 40-70) (Parker 2002b). The anonymous author was an Egyptian Greek and his text is a practical manual for traders, containing information on itineraries, harbors, navigation and cargoes, all relating to the ports of the Arabian Sea (and some in the Bay of Bengal) and their hinterlands.

6.4.2 Ceramics on survey: methods and analysis

All of the surface collections made were judgment samples or diagnostic sweeps. The vast majority of historic ceramic scatters are located in areas that are in use today. These locations included modern settlements and fields that are being cultivated. Due to these limitations, collections were perforce made from units placed arbitrarily. This placement was dependent on the visibility of the scatter, on its proximity to (and therefore disturbance by) modern activity and on the logistics (and politics) of collecting from areas that were the scene of constant day-to-day habitational, agricultural or religious activities.

For instance, to illustrate some of the problems we faced, the largest Early Historic scatter immediately south of the Banavasi fort wall (BGRS 46) lies within private property that is being developed to construct a local college. Since the land sloped down to the river from the fort, the area is being leveled, cutting into and obliterating the early scatter on the slope. We were therefore only able to make collections along the sections created by the backhoes during times when the workers were on break.

Typical *malnad* villages consist of a patchwork of isolated homesteads situated in the middle of agricultural fields (Balasubramanyam 1967: 1). The pattern in the survey area is different. Banavasi is the largest settlement in the area and has a concentrated area of settlement (*gramathana*) surrounded by fields. This pattern is repeated in the smaller villages in the survey area, although many are so small that they are better characterized as hamlets. At Banavasi and Gudnapura, at least there is evidence that settlements tended to be stable over the centuries. It is likely that this was the case for most of the settlements in the area, with one exception.[81] Historic scatters are therefore closely associated with continuously occupied settlements, making dating and size estimates extremely difficult.

There is also considerable disturbance due to contemporary agricultural practices in the area. The large agricultural fields are manured in at least two different ways. First, manure from the village cowsheds is used and second, clay soils containing sand is brought from the river. These soils are often placed in small but regularly spaced 'mounds' on the fields, to be spread while plowing. Typically, farm yard manure is spread over the fields in early April prior to

---

[81] The village of Ajjarni, to be discussed below.

186

sowing (Balasubramanyam 1967: 37). Studies done in areca nut fields in the Sirsi area show that part of the preparation of these fields involve the spreading of organic material from surrounding forests as well as fresh soils (from special 'mud quarries' or from fields) as high as 75 cm between the rows of trees. This is then spread at the base of the palms after manuring (Gadgil 1987: 380-81). Apart from the effects of manuring, the river Varada periodically floods its banks during the July monsoons and extensively floods fields within a two kilometer radius (even greater when the monsoons are especially heavy).

It is clear therefore that ceramic scatters in agricultural areas tend to be greatly disturbed.[82] Archaeologists in other regions have attempted to interpret artifact scatters that have been extensively disturbed by agricultural and manuring practices (Menchelli 2008; Wilkinson 1982; Wilkinson 1989). However, the large fields around Banavasi often contained a sparse and intermittent scatter of highly eroded and often unidentifiable ceramics that were not amenable to any systematic sampling strategy. Collections here were therefore avoided or made with caution only if diagnostic ceramics were visible.

---

[82] I suspect that the earth from the leveling at BGRS 46 was placed in the fields (belonging to the owner of the land) to the north of Banavasi.
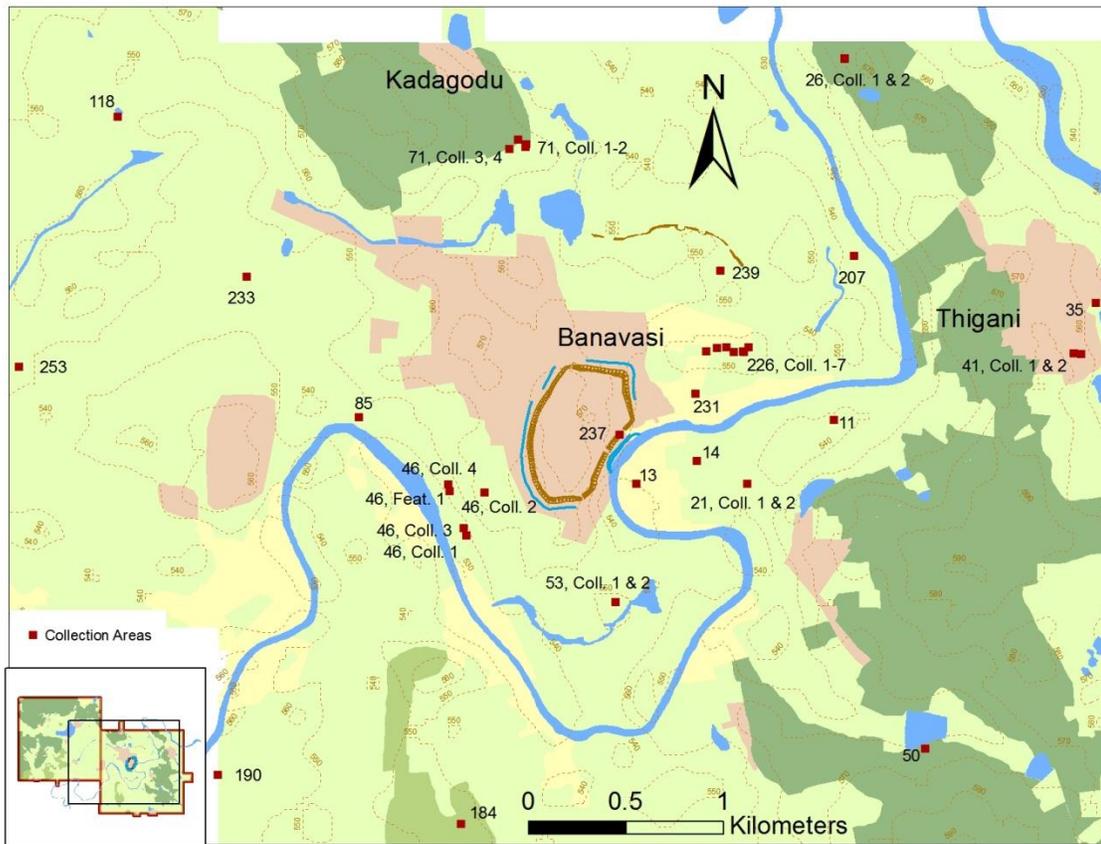
Figure 6-16: All Collection Areas; and inset, area shown in map[83]

Taking these issues into consideration therefore, my goal was to collect a representative sample that would allow me to broadly date scatters in order to identify changing settlement patterns in the survey area (Figure 6-16). Appendix 3 summarizes the information on my collections, and their probable date. I concentrated on recording the outlines of ceramic scatters, artifact densities and levels of disturbance. Where possible, the outline of the entire scatter was recorded so that I could gauge the size of the sample taken as a percentage of the total. In several cases, once the outline of the scatter was identified, judgment collections were made throughout the site in order to determine whether the assemblage was multi or single period. During artifact analysis, I concentrated on understanding important diagnostic types and temporal variations. Ultimately however, the ceramic analysis conducted during this project will be most useful to

---

[83] In this map, I have shown the location of my major collection areas. In the discussion in Section 6.4.4 below, I have also added my data on the extent and outlines of ceramic and brick scatters to estimate the extent of ancient settlements.

guide future excavation plans in the area. Most of the collected artifacts were ceramics (including architectural ceramics like roof tiles) but there were a few examples of glass-working by products, slag and other artifacts, for instance, a jewelry mold. All artifacts were collected in cloth bags labeled with information on the site number, feature number, date of collection and total number of bags.

My ceramic analysis was based on conventions developed by Carla Sinopoli and Kathleen Morison during their Early Historic Landscapes of the Tungabhadra Corridor (EHLTC) Project. Collections from each site/ feature/ collection area were analyzed separately. Sherds were initially sorted on the basis of a ware classification based on surface treatment (Appendix 2). These ware categories included several that correspond to known archaeological wares from Banavasi and from other excavations in Karnataka (Figure 6-17). Sherds were counted and weighed and basic Ware and fabric information was recorded (Munsell, inclusions etc.). The data from this analysis has been summarized in Appendix 2. I included a separate classification of roof tiles since they seem to be diagnostically significant as will be discussed below.

BGRS 2009- 12: Sorting Form   Page ____ of _____

Site/Feature/ Coll. Area:_____

	Plain Ware					Mica.			Slipped/Burn.				Tiles						Coarse Ware	Eroded	Other
	Red	Grey	Brown	Buff	B&R	Red		Buff	Red	Grey	Brown	B&R	Red		Grey		Tan				
						w/ slip	w/o slip						Flat	Curved	Flat	Curved	Flat	Curved			
# Bowls																					
Wgt. Bowls																					
# Jars																					
Wgt. Jars																					
# Other																					
Wgt. Other																					

Figure 6-17: BGRS sherd sorting form

Diagnostic ceramics were further studied. Most of these sherds were drawn and individual artifact attributes were recorded (Figure 6-18). In the case of tiles, complete or near-complete representative samples were drawn. All diagnostic ceramics were given individual numbers and were labeled (Site#/Feature #- Collection Unit – Individual sherd number). Finally, all diagnostic sherds were photographed. A total of 8594 ceramics (including tiles) were sorted into basic Ware categories and briefly described. Out of these, detailed variables were recorded

for 704, most of which were also drawn.[84] These latter sherds form a representative sample of the important diagnostic types found in the survey area.

```
I. Site/ Collection Area:                    Sherd No.:
II. Ware                                     III. Sherd Type
IV. Wgt./ Size/ rim %
V. Inclusions
        1. Percentage:
        2. Material
VI. Paste description
VII. Decoration:
VIII. Color
        1. Body Color:
        2. Surface Color:
                (a) Interior:
                (b) Exterior:
IX. Vessel Form: Restricted          Unrestricted
        1. Rim diam.                    12. Rim height
        2. Neck diameter                13. Neck height
        3. Max. body diam.              14. Height to max. body diam
        4. Rim angle                    15. Vessel height
        5. Lip angle                    16. Groove no.
        6. Rim top angle                17. Groove width
        7. Body angle                   18. Base diam.
        8. Lip thickness                19. Base angle
        9. Rim thickness                20. Base thickness
        10. Neck thickness              21. Base height
        11. Body thickness
X. Surface Treatment
        1. Interior
        2. Exterior
XI. Other Comments:
```

Figure 6-18: BGRS individual sherd attribute recording form

6.4.3 Ceramics: patterns, stylistic and temporal

In keeping with my larger arguments about regional socio-political and economic organization, my discussion in the section below centers on broadly dating sites (Appendix 3). To make these broad chronological classifications, I relied heavily on published ceramic data from a variety of archaeological sites across South Asia to identify well known and temporally diagnostic Wares and vessel forms. Based solely on my examination of the ceramics from surface collections it was possible to clearly identify Early Historic assemblages dating to the late centuries BC and the early centuries AD (Period I, sub-period A). Similarly, late medieval and early modern ceramics were distinctive (Periods III and IV).

I then used multiple other lines of evidence to refine this chronology. First, the limited published data on the excavations at Banavasi and Gudnapura allowed me to date the earliest

---

[84] The total number of sherds analyzed were 8778 (of which 707 were illustrated). However, in the final analysis certain sites were considered to be too disturbed or the material too eroded to date and were therefore not included in my discussion.

settlements at the site. Second, structures like temples recorded on survey could often be assigned to specific time periods. It was therefore possible to date the settlements in which they were located by association.[85] Finally, I was able to work out a tentative seriation of the historical roof tiles found in the area. Apart from a single article on roof tile typology in Karnataka (Hegde 2000-01), these artifacts tend to fall through the cracks in South Asian archaeology, although the study of roof tiles has proved productive in other regions (Tadanao and Edwards 1995). Publication reports mention them, if at all, only in brief notes and they are rarely illustrated. However, there are known temporally diagnostic types found across the subcontinent.

Ceramic roof tiles typically known as 'Satavahana tiles' have been found in excavated contexts dated to the first century BC to the mid third century AD in central India (Smith 2000: 81). These tiles have been found in similar temporal contexts at a variety of sites including Satanikota (I.A.R. 1977-78: 7), Kaundinyapura, Kolhapur, Nasik, Nevasa, Sanchi and Maheshwar (Dikshit 1968: 110). Typically, the tile is rectangular, of very coarse fabric, with a single groove along the length and two holes (for nails or wooden pegs) along the width. The tiles found on survey are similar to 'Type 2' found at Kaundinyapura, which differ from Kaundinyapura 'Type 1' in that they are larger and have slightly different holes (Dikshit 1968: 110-111). As in 'Type 2' at Kaundinyapura, there are U-shaped or crescent-like depressions near the holes (not present in Type 1).

---

[85] I do, of course, make the assumption here that the temples in the survey area were not isolated structures but were closely connected to and supported by the settlements within which they were located.

Figure 6-19: 'Satavahana' tile, BGRS 239

Tiles of this early period are frequently relatively crude with coarse fabric and considerable amounts of organic inclusions like chaff. One other tile type can be dated to Period I (first to fourth century AD) and earlier. This is a thick (approximately 2 to 3 cm) rectangular tile of extremely coarse fabric with a large amount of chaff inclusions (10%) and uneven surface (Figure 6-19). A groove runs down the front. Similar tiles have been found in excavated contexts in Kadebakele and can be dated to the late centuries BC or the early centuries AD (Sinopoli, personal communication). There is a possible third tile type which can be dated to this period or slightly later (Period IB, fourth-seventh centuries AD).[86] This tile is flat, of coarse light-red fabric, crudely made and has two or more grooves down the front (Flat Red Tile, Type 1) (Figure 6-20). Unfortunately, no complete tile was found on survey.

---

[86] Similar tiles have been found during the excavations at Sannathi, in northern Karnataka, a site with structures dating from the early centuries AD. Tile at this site were used to roof a stupa mound. The tiles were roughly rectangular with four incised grooves running down most of its length. The left side had a pronounced ridge down the entire length on the front and the reverse had a groove of similar dimensions allowing the tiles to be placed such that they overlapped and were held in place. The top of the tile has two holes along the width to enable them to be affixed using nails or wooden pegs (Howell, et al. 1995: 22).

Figure 6-20: Coarse flat red tile, Type 1, BGRS 85

A finer type of light-red or tan colored tile was also identified in the extensive Early Historic scatter outside Banavasi (BGRS 46). This type is of fine-medium fabric, well-fired and curved. There are grooves/corrugations along the width. This type appears to represent a drainage pipe or tile used to cover the corners of roofs (Figure 6-21).
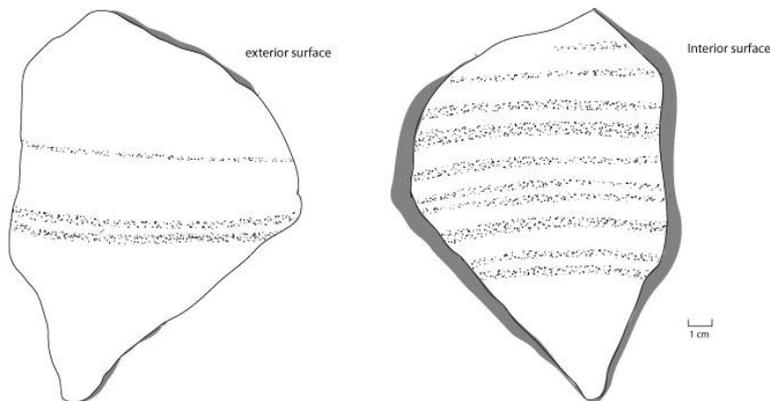
Figure 6-21: Early curved tan tiles/ pipes, BGRS 46

Slightly later in time are flat red tiles with a variety of straight and curved shapes. There seem to be several varieties of these tiles which are found in various sites in Karnataka from the third century AD up to the 16th century (Hegde 2000-01: 123-124). The excavations at Banavasi provide information on the early variant of these tiles, dating approximately from the third to the sixth century AD.[87] These tiles are of medium fabric, approximately 25.5 cm long, 12 cm wide and 1.2 cm thick (Murthy, et al. 1997: 110). Similar tiles found in other sites in Karnataka vary in width from 13 to 17 cm and in thickness from 1 to 1.5 cm. There is a groove (or several) down one side or the center (along the length).[88] One end (along the width) has a narrow ledge at right angles to the main body of the tile. The other end is either flat or shaped. Typically the shaped tiles are semicircular, triangular or have two or three arches (Hegde 2000-01: 125). A few extremely eroded and incomplete fragments were found in BGRS 46 and have not been illustrated here.

A variant of this early type in the Banavasi area is a leaf shaped or cusped flat tile. A near complete leaf shaped tile of medium to coarse fabric was found in BGRS 71, Feature 2 (habitation scatter) located next to a stupa (BGRS 71).[89] This tile is incomplete but its width is greater than 13 cm and thickness approximately 1.5 cm (2.5 YR 6/8, 5 YR 6/8). There is a groove down the center and along the curved edges. The other end has a gently angled edge (often greater than 90 degrees) (Figure 6-22). Similar tiles were found in BGRS 207, circular mound (possible stupa)[90]. The tiles at this site were extremely eroded since the mound was being leveled when we recorded it. However, in our salvage collection sample several tiles were cusped, some had multiple grooves down the center and the angled ends were very similar to those in BGRS 71 above. Interestingly this variant seems to be found close to possible stupa sites; the fabric is similar with large amounts of micaceous inclusions (10-15%). I am inclined to

---

[87] I was able to see a few examples of this type in the small museum at Kuvempu University, Shimoga, collected by Dr. Rajaram Hegde from a variety of early sites in Karnataka including Banavasi and Gudnapura.

[88] Fragments of these tiles were found in BGRS 46, Early Historic scatter, along with fragments of a curved terracotta drainage pipe.

[89] The judgment ceramic collection from this site is extremely eroded and disturbed due to current agricultural activities (i.e. plowing). It is likely that the collection is a mixed one with early and late medieval rim types

[90] This collection was completely tiles- only two sprinklers

place this variant as a relatively early type, likely contemporaneous to the excavated tiles mentioned above (Flat Red Tile, Type 2, includes the tiles found on excavation).
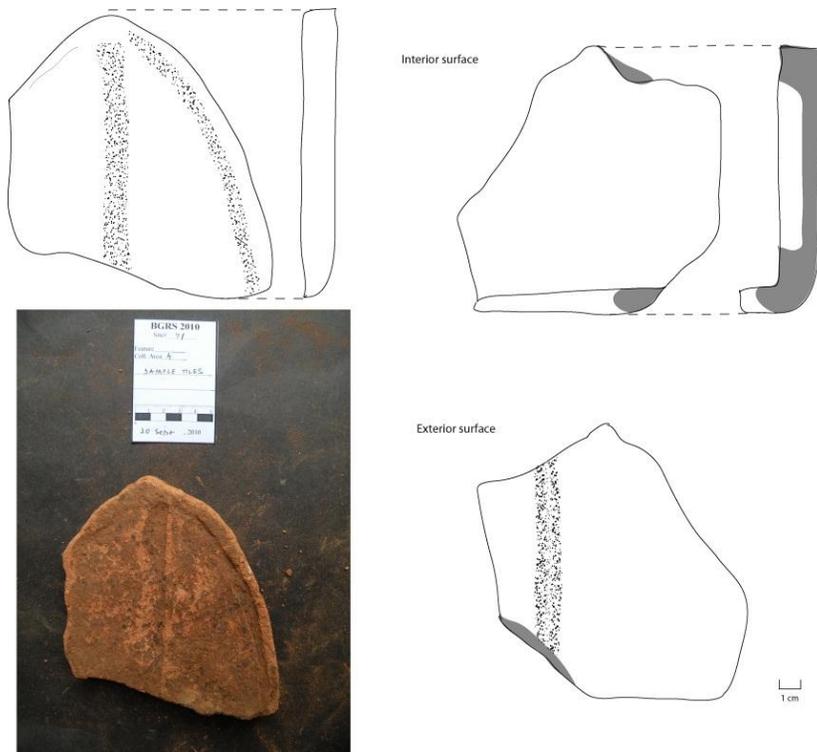
Figure 6-22: Flat red tiles, Type 2, BGRS 71

Flat red tiles dating to early medieval or medieval periods, i.e. the post seventh century, tend to be smaller, ranging from 8 to 10 wide and 18 to 22 cm long, and 1.5 to 2 cm thick. The surfaces and angles are better finished than the earlier tiles and some have molded decorations (Hegde 2000-01: 125). The shaped ends tend to be triangular or two or three pronged. By the 16th century, the tiles have an even better finish and fabric and are even smaller, ranging from 8.5 to 7.5 cm in width, 22 cm in length and 1.1 to 1.5 cm in thickness at Ikkeri (Hegde 2000-01: 125).

Roof tiles have been found in stratified contexts at Chandor, an early medieval site in Goa (Rao, et al. n.d). The flat red tiles found in fourth to seventh centuries AD ('Bhojas' and 'Konkan Mauryas', to use the excavators terminology) are relatively small (no complete length and 5.5-10 wide by 1 cm thick) with simple shaped ends, for instance semi-circular, square and triangular (Rao, et al. n.d: 333-334). By the eighth to fourteenth centuries ('Shilahara', 'Kadamba' periods), a greater variety in the shaped ends was introduced, including petals, pronged and cusped shapes. The sizes varied from 10-32×7-8.2×.9-2.2 cm. The fabric varied

from coarse to fine and the tiles often had a coat of mud plaster. They seem to taper slightly towards the shaped end, both in width and thickness (Rao, et al. n.d: 334).

Tiles similar to the ones discussed above were found at several sites in the Banavasi region (BGRS 53, 253, 118) (Figure 6-23). The tiles are distinctive, of fine to medium fabric and well-made with sharp angles, straight edges and smooth surfaces. Some might have been mold-made but it is difficult to be certain as most are eroded. They vary from 6.5 (BGRS 118) to 9.5 cm (BGRS 53) in width, are 1 to 2 cm in thickness, and have semi-circular, triangular or scalloped ends.[91] As in Chandor, they taper slightly towards the shaped end, which took a variety of forms:- straight, triangular, scalloped, straight or semi-circular. I argue that these tiles fall within a broad span of time, ranging from the seventh or eighth centuries AD to the 14th or even 16th centuries (Flat Red Tiles, Type 3). They continued to be made in the post 16th century period but were increasingly replaced by other types of tiles, most notable a distinctive curved grey variety.

Figure 6-23: Flat red tiles, Type 3

---

[91] No complete lengths were found but given the relatively narrow widths, lengths over 12 or 15 cm would have weakened the tiles.

BGRS 26, the hill-top watch tower discussed above (Figure 6-6) provides interesting information on the later types of tiles. A judgment collection was made along one of the walls of the collapsed central structure (Collection Area 1, 14×7 m). A second collection was made along the external walls of the site (Collection Area 2, 4×2 m). The ceramics from the second collection area were extremely eroded and not easy to date. However, it does seem to fall within a late period, probably late medieval (post 16th century). The structure in the center of the site appears to be a single-period one with little evidence of long-term occupation and renovation. The majority of Collection Area 1 (99%) was of roof tiles. I would argue that these tiles, found in close association with a single structure, can be broadly dated to periods when the structure was repeatedly repaired.

Three varieties of tiles are clearly visible at the site. The first is a coarse grey curved tile, the typical local variety that was made from the late medieval (post 16th century) to today (Similar to those illustrated in Figure 6-25). The second type is a well-fired curved and corrugated red tile of medium to fine fabric that seems to be roughly burnished on the exterior and is wheel thrown (Figure 6-24). There are circular holes along the edges to fasten them to the rafters.[92] This type seems similar to ones from Ikkeri dated to the 16th century (Hegde 2000-01: 124) and might have been used to cover the angled corners of a gabled roof or as drainage pipes. The third is an almost flat but slightly curved red tile (2.5 YR 4/6), of medium to coarse fabric, with a narrow groove along the length, a ledge along one side (width) and possibly leaf-shaped or semi-circular on the other end (Figure 6-24). I argue that this third type is another later variant of the flat red tiles that were used for several centuries in Karnataka (Flat Red Tile, Type 4). Unfortunately, we found no complete tiles at this site and therefore their dimensions are unclear (thickness: 1-1.3 cm).

---

[92] These holes have been crudely made by maker inserting his or her fingers (fingerprints are visible).
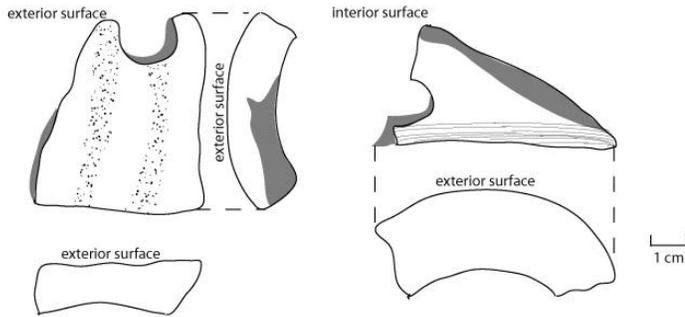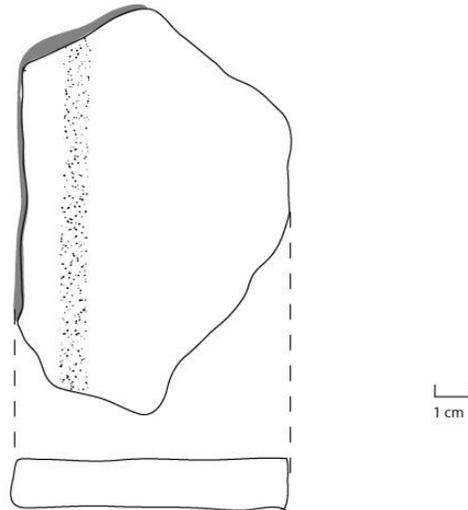
Figure 6-24: Tiles found in BGRS 26; Curved Red Tiles (Top) and Flat Red Tiles (Below)

The great variety in the forms and fabric of the red flat tiles and their persistence over the centuries indicates that they are likely to be of local manufacture. This seems to be the case for

the late medieval grey and tan tiles that begin to replace the flat tiles from the 16th century onwards (Figure 6-25). The tiles are curved and taper towards one end, being roughly shovel shaped. They tend to be large, ranging from 25×14-8×1.5 cm. Typically they have a medium to coarse fabric, and vary greatly in firing techniques (and therefore color, which varies from shades of grey to shades of tan)[93] and quality. For instance, along with their cruder grey siblings, some of the tiles use to face the bastions of BGRS 41 (Thigani fort) are tan in color, well-fired, with a relatively smooth surface and well finished edges. Such tiles are locally made in villages using easily available materials and are still made up to this day. However, in the last several decades, factory-made, high quality 'Mangalore' tiles are increasingly replacing these local tiles.

Figure 6-25: 'Local' curved grey and tan tiles, BGRS 184 and 41

On the basis of the discussion above, I suggest a tentative typology of the roof tiles found in the survey area detailed in Table 6-5 below. Within an extremely broad period from the first century to the 18th century the relative proportions of different kinds of roof tiles assist in dating

---

[93] In my initial sorting of the ceramics I distinguished between different colors of these tiles (grey, tan, red). However, this variation in color does not seem to be significant.

sites. However, the presence of different types at a single site is not mutually exclusive. For instance, as seen in BGRS 26 above, at least three varieties of tiles can be identified. Moreover, each successive tile type does not necessarily represent a dramatic end of the preceding forms. The typology given below can best be seen as a continuum where certain types predominate in certain periods. At one end of this chronological span is the 'Satavahana' type; and at the other is the curved grey tiles described above. The flat red tiles occupy the long period in between and several variants can be identified.

Table 6-5: Tentative stylistic chronology of roof tiles

Date/Period	Type	Found at
Period I and earlier: Late centuries BC, early centuries AD	- Coarse rectangular tiles: 'Satavahana' type and Kadebakele type - Flat Red Tile, Type 1 (Sannathi type) - High quality curved tan tiles/ pipes	- BGRS 239 and 85 respectively - BGRS 231 - BGRS 46, 231
Period I, sub-period B: 3rd - 7th centuries AD	- Flat Red Tiles; Type 2	- Banavasi and Gudnapura excavations, BGRS 46, 71, 207
Period II: 7th – 16th centuries AD	- Flat red tiles; Type 3 (Chandor types)	- BGRS 53, 118, 253
Period III: 16th century onwards	- Flat red tiles, later variants?; Type 4 - Well-fired curved red tiles	- BGRS 26
Period III, sub-period B; Period IV: 16th century onwards	- Curved grey tiles	- BGRS 26 and multiple sites

6.4.4 Settlement patterns and the organization of space

Following the discussion above, I trace temporal changes in settlement pattern in the survey area by considering multiple lines of evidence: distinctive ceramic assemblages, roof tiles and dateable structures. In the section below, I begin to draw together several of the themes discussed in previous chapters in order to discuss the spatial dimensions of socio-economic and political organization in the survey area. I also attempt to place the settlements in the Banavasi area within a larger network of routes of movement. While these routes within the survey area are clearly identifiable, it is also possible to trace some connections beyond this limited area.

There are no remnants of ancient roads in the survey area. All major roads are modern paved roads and several of the villages are connected by un-paved roads or dirt tracks (Figure 6-7). We can however reconstruct possible routes of movement by analyzing the location of civic/public features like platforms or tanks and of religious structures. These sites were not intended to be isolated and would have been in relatively frequent use during their life.

Structures like stupas and temples for instance represent a considerable investment of labor. They would therefore have been dependent on elite and non-elite patronage for their very existence. This could take the form of grants of land or resources in the case of the former, but the existence of a local community of non-elite worshippers would also have been central to their survival. Quite simply, these and other structures like laterite block platforms and tanks were meant to be used. It is unlikely that were placed in areas that were difficult to access. Their locations can therefore be used as a proxy to identify possible routes of movement.

To a certain extent, of course, the terrain of the area itself determines routes of movement. Hilly, forested areas would have restricted movement. It is unlikely that forest cover in the region was less in the past than it is today. Therefore, for the maps in this section I continue to use modern land use maps as base maps in order to indicate possible areas of limited movement (Figure 4-3). The major paved roads were digitized using Google Earth and Terraserver satellite imagery. I recorded the most prominent and widely used un-paved roads and dirt tracks while on survey and complemented this information with satellite imagery in order to digitize them. This provided me with a background map of current routes of movement and the locations of relatively inaccessible areas against which to compare the survey data.

I integrate this data on routes of movement in the survey area with the ceramic and structural information collected during my survey to identify three broad temporal periods in the archaeological landscape. The first covers the span from the late centuries BC to the seventh century AD. The second period is from the seventh century AD to the 16th century AD. And finally, the third period extends from the 16th century AD up to the present day. There is no dramatic change or discontinuity between the periods and several sites continue to be occupied across all three (Appendix 3). Below, I use these broad periods to organize my data and trace patterns in settlement organization across time.

6.4.4.1 The Early Historic: Buddhism, expansion and contact

In the first phase (Figure 6-31), there was an extensive Early Historic settlement at Banavasi and it is possible to broadly trace the extent of this settlement. Excavations within and immediately outside the fort wall have identified a sequence of occupation from at least the early centuries AD. BGRS 46 and 226 to the south and north of the fort respectively are extensive Early Historic scatters which were identified on survey.

The presence of distinctive wares and rim forms allowed me to date both of these scatters to the early centuries AD. In BGRS 46, Red Wares and Red Slipped/ Burnished Wares dominate the collection. Chocolate Brown Slipped Ware and Black and Red Ware are also present although they are not as numerous. The majority of ceramics are wheel thrown and several bases have the typical Early Historic string-cut marks. A few of the large storage jars have wheel-thrown necks and evidence of the body being finished with a paddle or dabber.

There are several identifiable rim and vessel forms recorded at other sites in the subcontinent, for instance, Red Ware outflaring bowls with corrugated sides, sprinklers, outflaring jars with an external groove and large jars with impressed circular medallions. Similarly, the sprinkler form of the Red Slipped/ Burnished Ware found in BGRS 46 is similar to RPW sprinklers found in Kaundinyapura. This form seems to be common to sites of the early centuries AD in the Deccan ('Satavahana period') and the third-fourth centuries AD in north Gujarat ('Kshatrapa period') (Dikshit 1968: 68). BGRS 226 and 231 have very similar assemblages.

It is clear from the map below that the Early Historic settlement at Banavasi was extensive.[94] Subsequently, part of this early settlement was fortified. Large sections of the standing fort construction belong to a later period although the core consists of an early earth and brick structure (Section 6.1.1). The fort is located on slightly higher ground than the fields surrounding it. Its location next to the Varada River ensures that the eastern side is additionally protected and also allows for an awareness of (if not control of) movement along the river. It is possible that an additional line of defense is provided a long earth embankment north of Banavasi (BGRS 65, Section 6.1.2

Following this expansion of settlement at Banavasi, a second tier in the settlement pattern emerges with the growth of Gudnapura. Excavations at this site have exposed what appears to be a large monumental complex dating to the fourth/fifth centuries AD. Since the excavations at this site have not been published, it is difficult to fine-tune the chronology of the site. However, the distinctive (and early) ceramic assemblage seen in BGRS 46 is not present at Gudnapura. The

---

[94] As I discussed in Chapter 3, I am cautious about the use of the term 'city' to define Banavasi. In this early period, the size of the settlement at Banavasi does fall broadly within the range of dimensions of other known Early Historic cities (Smith 2006). However, in the subsequent periods, it can no longer be remotely classified as a city.

fifth-sixth century Gudnapura inscription of Kadamba Ravivarma mentions the Guddatataka lake, which might refer to the Gudnapura reservoir that is still in use today (BGRS 256, Appendix 5).[95]

A third tier of smaller settlements or villages likely existed. For instance, BGRS 71, 85 and 190 are small Early Historic ceramic scatters south of Banavasi.[96] However, if, as I suspect, settlements continued to be occupied over long periods of time in an area where arable land was at a premium, it is likely that some of the other villages in the survey area were also occupied in this period. Unfortunately, my data does not allow me to confirm or deny this possibility.

That there were significant changes in social, political, economic and religious organization in this period throughout the Deccan is clear. Banavasi was one among several Early Historic urban settlements in the Deccan in the early centuries AD (Parasher-Sen 2000: 242-246). In the preceding Iron Age, numerous non-urban settlements of socially stratified iron-using and megalith-building agriculturalists were present throughout the Deccan from the beginning of first millennium BC (Parasher-Sen 2000: 238-241). It is not clearly understood why these societies began to be organized into larger urban settlements by the late centuries BC and the early centuries AD.

It has been suggested that the use of iron contributed to the expansion of rice cultivation which provided the impetus for the growth of settlements (Parasher-Sen 2000: 241). I am not able in this dissertation to comment on agricultural intensification.[97] The published excavations at Banavasi and Gudnapura make no reference to the presence or absence of organic material. While the fields in the survey area are being increasingly converted to cash crops like pineapple, vast areas near the river are paddy fields and it appears that the majority of agricultural activity

---

[95] In Figure 6-31 below, I have only shown this reservoir and natural water channels in the survey area. There is no clear evidence that allows me to date the numerous other reservoirs in the survey area to this early period.

[96] BGRS 190 is extremely disturbed and is located in a freshly ploughed field.

[97] The only archaeological evidence for early food processing activities comes our findings of numerous (>50) stone legged querns in the survey area. The querns are of a standardized size being roughly rectangular (20-22 ×17-20 ×15-20 cm). A concave grinding surface is placed on two roughly shaped legs such that one side is higher than the other. The back and sides have pecking marks and the grinding surface is smooth. These querns are no longer in use but are found scattered across the landscape in a variety of contexts. While some are abandoned, several have been incorporated into local shrines where they are placed upside down so that the legs stick up in the air and are worshipped as 'nandi' heads. They are no longer in use and in fact they are not recognized as grinding implements. While the large number of legged querns found on survey is distinctive, they are extremely difficult to date since they are not found in any sort of dateable context and I have not been able to find similar types in the published archaeological literature. It can be noted that the late medieval rotary or flat querns are also distinctive.

in the area up to the 1960's focused on paddy (Balasubramanyam 1967: 1-2). This is in contrast to the surrounding areas which primarily grow spices (pepper, cardamom). Without necessarily attributing a causal role to iron based agriculture, Banavasi is located in an ecological niche suitable for rice cultivation and which therefore allowed for the city to be provisioned.

Whether there was an expansion of agriculture or not, Banavasi's growth was accompanied by increasing craft specialization. The excavations at Banavasi have provided limited evidence for craft production and specialization from the Early Historic period (period I). For instance, the excavators have argued for the presence of a lapidary industry[98] and copper smelting in layers dated to the late century BC and early centuries AD ('Chutu' and 'Satavahana' layers) (I.A.R. 1994-95: 40; I.A.R. 1995-96: 43-44). The collections made on survey also provide some information on craft activity in this earlier period. In BGRS 46, we found wasters from drawn glass bead production (Francis 1991); fragments of a crucible and a finely carved soapstone jewelry mold (Figure 6-26). There is evidence also for a stone-working tradition in Banavasi. The third century AD inscribed naga stone found in Banavasi, and mentioned in Chapter 5, is said to have been made by Nataka, *achari* of Sanjayataka (Banavasi), and a disciple of Damoraka (Gai 1961-62).

---

[98] The excavators found a large quantity of nodules and waste flakes of semi-precious stones like quartz, amethyst, carnelian and agate (I.A.R. 1995-96: 43-44).

Figure 6-26: Artifacts from BGRS 46, Early Historic scatter-- Crucible (Top), Jewelry Mold (Middle), Bead-making slag (Bottom)

There is some evidence that the incipient urban settlements in the Deccan began to be grouped into small complex polities in the late centuries BC and the early centuries AD. Recent work on locally manufactured coins issued by these groups have led to the identification of several of these 'localities' and elite groups (Chattopadhyaya 2003; Parasher-Sen 2007a). At Banavasi, one of the prominent local elite families seems to have been called 'Chutu'. Several of their coins and a donative inscription have been found during the excavations within the fort (Murthy, et al. 1997: 79-87). Another coin found within Banavasi refers to a 'maharathi', a term widely found on coins in the Deccan and taken to refer to an official or member of an elite family. Subsequently, the Banavasi area became part of the Satavahana sphere of influence by the early centuries AD and one of the centers of the early Kadamba dynasty by the fourth century

AD. I will discuss the organization of political authority in this early period in greater detail in Chapter 7.

The role of polities based in the Gangetic plain, notably the Mauryas, in the development of political and economic complexity in the Deccan has been much debated. Despite the presence of a distinct cluster of Ashokan edicts in southeastern Karnataka (Figure 6-27), any direct involvement of the Mauryan administrative apparatus in the Deccan was probably limited. However, it is in the early centuries AD that we begin to identify the development of complex networks of movement and exchange between different parts of the subcontinent including those between the Gangetic Plains and various regions of the Deccan. By this, I do not mean to imply that such movement was absent in the preceding centuries or that this interaction necessarily played a causal role in the developing political complexity we see in the Deccan. However, in this period, such subcontinent-wide connections were closely linked to developing political complexity in various ways. In the Banavasi area, increasing political complexity needs to be situated within a context where the region (and the city) was interacting with and drawing from developments elsewhere in the subcontinent. Below I discuss three of these networks: the movement of goods (and people); the spread (and adoption) of Buddhism; and the spread of the Brahmi script.
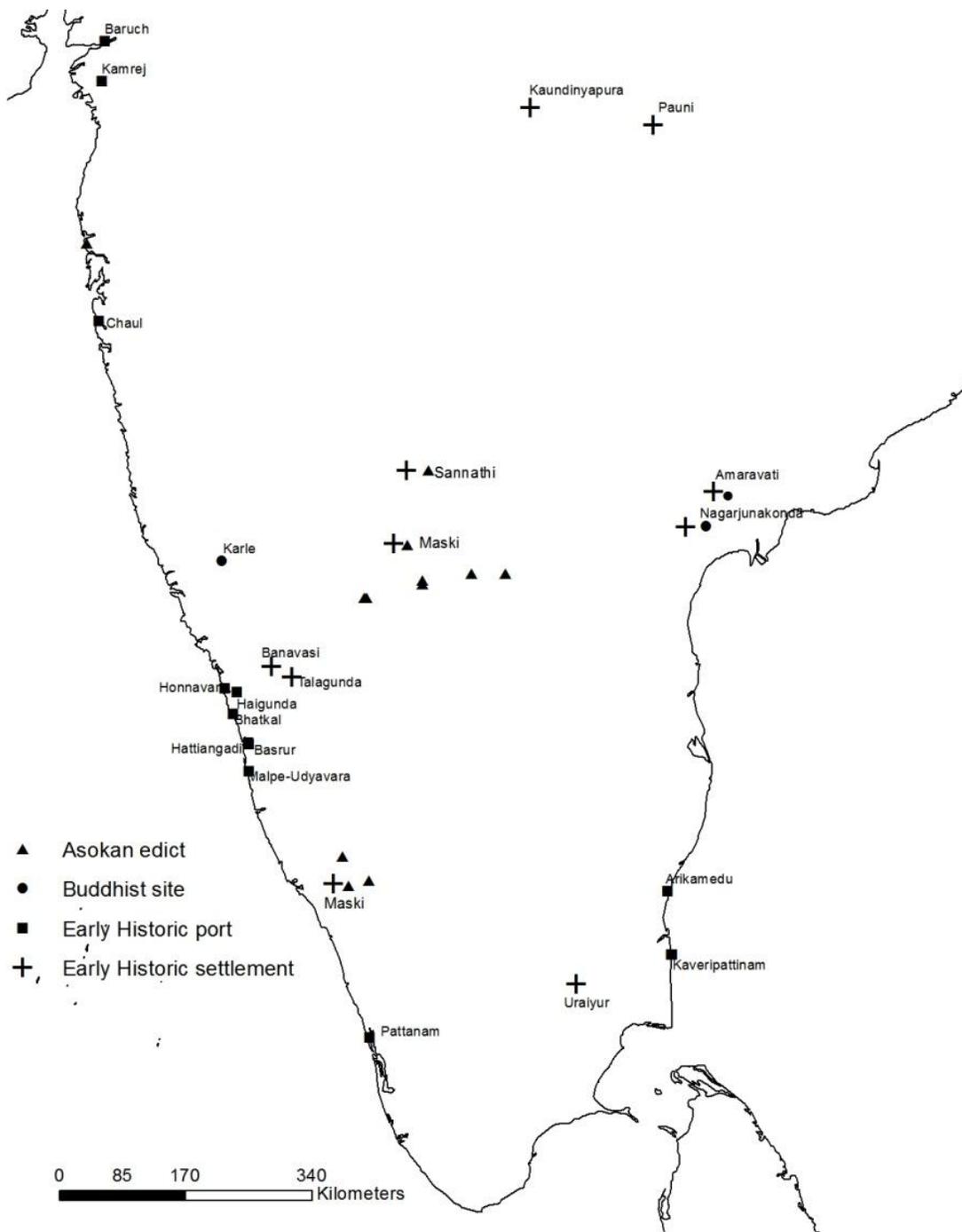
Figure 6-27: Important Early Historic sites

First, we can identify the long distance movement of goods in the survey area (but concentrated at Banavasi), whether through trade or through the movement of people in unclear.

A single sherd of NBPW, a few sherds of Rouletted Ware[99] and two punch marked coins found in Banavasi hint at connections with the northern part of the subcontinent (Murthy 2002; Murthy, et al. 1997: 80, 115-116, 120).

During the excavations at Banavasi terracotta bullae with the impression of Roman emperors were found (I.A.R. 1994-95: 40). This by no means indicates direct trade with Rome but could indicate that Banavasi participated in some sections of a peninsular overland trade system that connected to (and supported) the Indian Ocean trading network system. The presence of coins, including Roman issues, in the region suggests their use as a medium of exchange or a recognition of their intrinsic value (gold in the case of the Roman coins) (Ganesh 2008). Local issues also probably conveyed some meaning of incorporation or exclusion.

This Indian Ocean network comprised both a western and an eastern sector, the latter extending to China and the former to the Mediterranean. In the high-value trading system conducted through several ports along the coast of the subcontinent was linked to an internal trading network that connected the ports to their hinterlands (Smith 2002a: 39). It is likely that Banavasi was one of the regional centers in this local, inland network (see Figure 6-27 for important Early Historic ports). The goods that moved along this system would have included high-value items from the Indian Ocean system as well as lower value, daily-use items that were part of the inland trading system.

The presence of a few Southeast Asian and Chinese ceramics at Banavasi along with the Roman bullae mentioned above indicates the region's participation in both sectors of the Indian Ocean system, even if indirectly. A few celadon sherds were excavated within the city (Murthy, et al. 1997: 120) and on survey we found small fragments of what might be luster green glazed Thai stoneware[100], Late Tang crackled white celadon (BGRS 54) and 16th/ 17th century porcelain

---

[99] Rouletted Ware was initially regarded as an import from the Mediterranean region that dated to between the first and second centuries AD. A new study by Begley (Begley 1988; Begley 1991a) suggests that this pottery can be dated to the second century B.C., indicating a much earlier period of trade. Moreover, only the technique of rouletting shows clear evidence of classical ceramic techniques. In its fabric and shape the ware has close similarities to local pottery (Begley 1988). Based on mineralogical analysis of this ware V. S. Gogte (2000; 2001) has suggested that the majority of Rouletted Ware was manufactured in the lower Ganges valley area of eastern India and Bangladesh. While the ware was still a long-distance import into the south Indian peninsula, it came through a very different route than trade with Rome.
[100] The stoneware and the Blue and White are from surface collections in the agricultural fields to the north of Banavasi. They are therefore of extremely poor provenience.

trade-ware (all identifications were made by Henry Wright). Our most interesting find was a small sherd of Sasano Islamic Ware, which is a glazed earthen ware with a light beige fabric and green, yellow, white or blue surface glaze (Figure 6-28)[101]. This ware has a long history from the seventh century BC Neo-Babylonian period right into the post seventh century AD Islamic period (Cherian 2011). The ware is widely distributed in the Indian Ocean with a predominance in coastal sites, including the recently excavated port of Pattanam on the Kerala coast.

Figure 6-28: Sasano-Islamic Ware Sherd

And yet, evidence for high-value, long-distance goods in the Banavasi region is relatively limited. The importance of long-distance or 'foreign' trade in establishing and maintaining a site's prosperity has recently been questioned by Monica Smith at the Early Historic city of Sisupalgarh (Smith 2002a). Her systematic survey at the site has indicated the presence of a strong local network of daily-use items (Smith 2002a: 147-148). Banavasi's participation in a variety of regional and pan-subcontinental networks is much clearer.

The presence of typical 'Satavahana' terracotta fragments in the survey area (BGRS 86) shows that the region also participated in peninsular artistic traditions in this period, through the movement of people (carrying ideas, techniques) or though the movement of the goods

---

[101] This sherd was an opportunistic collection made within Banavasi from an abandoned house plot.

themselves (Figure 6-29). These terracottas are typically made of fine red clay, often with a red slip and were manufactured using a double mold (Margabandhu 2005).

Figure 6-29: 'Satavahana' terracotta, BGRS 86

In Chapter 5, I mentioned the possibility that Banavasi participated in a Buddhist pilgrimage network, which was likely linked to trade routes. An inscription from Karle records a donation from a merchant from Vaijayanti (Ritti 1989: 316). The presence of a Lajja Gauri plaque from Sannati (Section 5.1.3), another Early Historic site in Karnataka, indicates that other, non-Buddhist sacred items were also moving along these networks.

Second, Buddhism began to make its presence felt in the region. Among the earliest structures in the survey area are the stupa mounds which can be dated to the late centuries BC or the early centuries AD. As mentioned earlier in Chapter 5, the apsidal structures excavated at Banavasi might also have belonged to the Hindu tradition. There has been considerable discussion of the location of Early Historic Buddhist sites in close proximity to urban settlements and trade networks, as well as their political and economic roles (Heitzman 1984; Ray 1986). As is the common pattern in South Asia the stupas at Banavasi tended to be located close to but outside settlements, for example at Sanchi (Shaw 2009: 125).

In Banavasi these structures seem to ring the city. Arguments for connections between Buddhism and political or economic authority have been made elsewhere in the subcontinent,

and for the Banavasi area I suggest that *stupas* were dominant features in the Early Historic landscape of the survey area. These stupas could have been used to demarcate space-between the known, tamed urban and agricultural landscape surrounding Banavasi and the surrounding unknown landscape, largely forested and not yet brought within the fold. Such demarcation of space can be seen in modern ethnographic parallels from Karnataka where small *bhuta* (ghost) and forest shrines mark the boundary between villages or agricultural land and the yet un-cleared (and therefore dangerous) forest. They might also have been placed along routes of movement into the city.

Third, we have evidence for the use of the Brahmi script and Prakrit language in the area, both of which originated in the northern part of the subcontinent. The site BGRS 2, the site consists of an extremely eroded early Brahmi inscription carved onto a large outcrop located on the Varada river bed. The site is located over a kilometer northeast of the modern village of Banavasi, at a bend in the channel of the river (Figure 6-31). During the time of my survey (April-May, 2009), the water level was extremely low and the river bed was partially dry with a narrow water channel in the center. The bed of the river is covered with large, natural boulders and smaller rocks, lining the entire visible area. During the monsoons the entire area is completely submerged. This periodic fluvial action has contributed greatly to the erosion of the inscription.

The inscription has two lines and the visible letters read:

de va sa tha te..…

[second line] *tu......*

It is possible that the inscription was carved onto a roughly prepared surface ,and there are remnants of a carved border on the top and right side, such that the inscription is in a slight rectangular depression. The inscribed face of the outcrop faces southeast.[102]

---

[102] The stone outcrop is currently being worshipped as a shrine to a local god named *Kalloli Boothappa* and is covered in oil and red and yellow *vibhuti* (ash) which greatly obscures the inscription. The inscription is no longer recognized as such as the villagers do not associated the carvings on the stone with a script. In front of the inscription are several metal tri-pronged arrows (*trishuls*) of varying shapes and sizes embedded in the ground. There are also several earthenware pots and *diyas*, coconut shells, incense wrappers and framed pictures of gods and goddesses including Devi, Basaveshwara, Vishnu and some sages. Evidently chickens are also sacrificed in front of the stone as blood spatters and feathers testify. There are no other sites dating to the same period in the immediate

The inscription is written in the Brahmi script[103] and can tentatively be dated on paleographic grounds to the last century BC or the early centuries AD (A. V. N. Murthy, personal communication). The form of most of the characters of BGRS 2 lies between that of the Ashokan variant of the script (third century BC) and the later Kadamba-Vakataka forms (fourth-fifth centuries AD) (Sivaramamurti 1999: 56-153). The '*va*', for instance, is not in the earliest, rounded form as seen in most Ashokan inscriptions but is a later triangular form. The inscription appears to refer to a proper name in the genitive case (*Devasa-* 'of deva') (Figure 6-30).

The location of the inscription at some distance from Banavasi is noteworthy, indicating perhaps a dissemination and use of the script beyond the confines of the early city. A tentative suggestion is that the inscription is located along a route of movement into the city, perhaps as a fording point over the Varada. The location of BGR 207, a possible stupa, next to the inscriptions also reinforces this possibility. It can also be suggested that the close proximity of the inscription to water could indicate an association with Buddhism. However, the small number of letters and the fragmentary nature of the inscription make it very difficult to translate the text or make any inferences beyond a tentative date. Finally, the appropriation of the inscription into the folk tradition emphasizes the role of memory in historical process as ancient places are reinvented and given new meaning even while their original significance is forgotten.

vicinity. About 60 m north of the inscription is a rectangular carved stone posthole (45×45×60 cm). The posthole is extremely eroded and lies at an angle on the dry river bed.

[103] Brahmi appeared in the third century BC across the subcontinent and was the parent of all later Indic scripts (Salomon 1998: 17). It was used to write the earliest Prakrit and Sanskrit inscriptions in the Deccan (Katti 2006: 217). Among the earliest and the best known Brahmi inscriptions are the eleven Ashokan edicts found in a distinct cluster in north-central Deccan, in the modern-day states of Andhra Pradesh and Karnataka (Ritti 1991; Sugandhi 2003: 229-230).
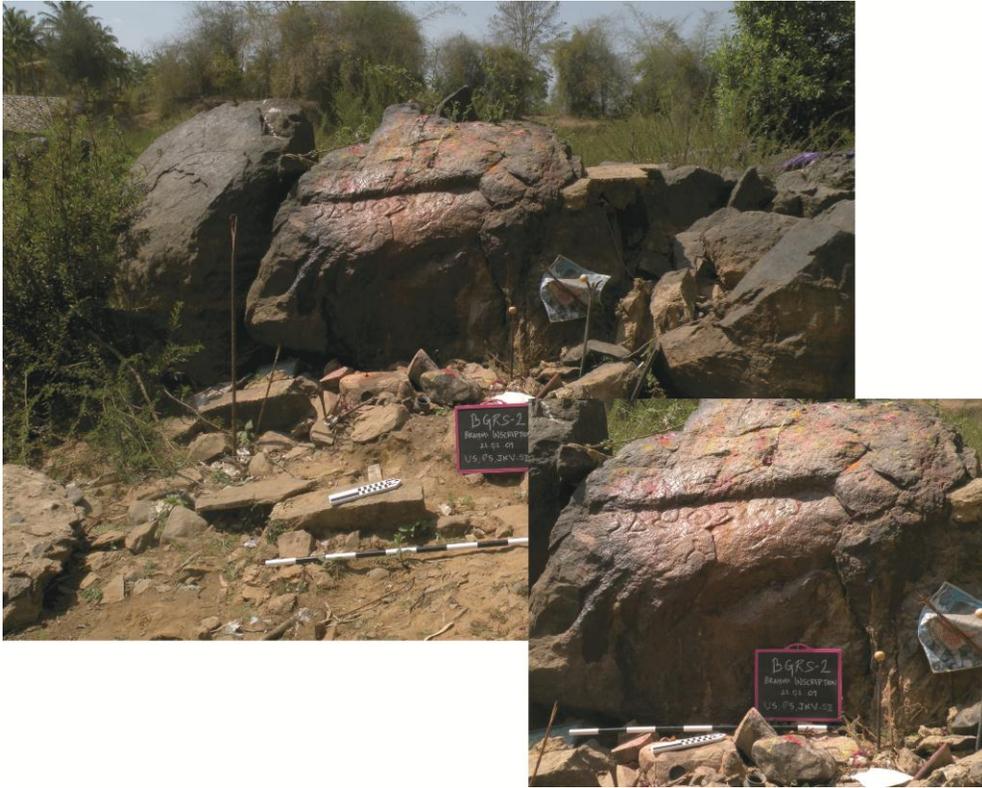
Figure 6-30: BGRS 2, Brahmi inscription

Two other well-known inscriptions using the Brahmi script (and Prakrit language) have been found in Banavasi. The first is a second century AD inscription that commemorates the queen of the King Vashishthiputra Shiva Sri Satakarni. This inscription is recorded on a rectangular slab with an eroded chaitya motif on the top and a pointed base (to affix to a socket) (Murthy, et al. 1997: 27). The second, is a third century AD inscription on the borders of a large Naga stone which records the construction of a tank, *vihara* and Naga by Nagashri, the daughter of the Chutu king, Vishnuskanda Satakarni (Murthy, et al. 1997: 29-30).

It has been widely assumed that a written script reached the Deccan through Mauryan influence and the early textual tradition does hint at some connections between north India and Banavasi. The Sri Lankan Buddhist chronicles in Pali dating to the early centuries AD, the *Dipavamsa* and *Mahavamsa*, record that following a Buddhist council at Pataliputra, missionaries were dispatched to several regions, including Banavasi (Shastri 2006: 71). However, archaeological evidence for any direct Mauryan presence in the area is nonexistent.

Moreover, the recent discovery of early Brahmi sherd inscriptions in Sri Lanka and dated securely to excavation contexts belonging to a pre-Ashokan period (early fourth century BC)

raises some interesting issues about an earlier movement of Brahmi to the peninsula (Coningham, et al. 1996). Coningham et. al., following Buhler and Winternitz, have argued that mercantile activity and the extension of trade networks played an important role in the development and spread of Brahmi (to Sri Lanka) (1996: 91-95). Certainly, as discussed above, during this first phase, Banavasi was participating in several pan-peninsular networks.
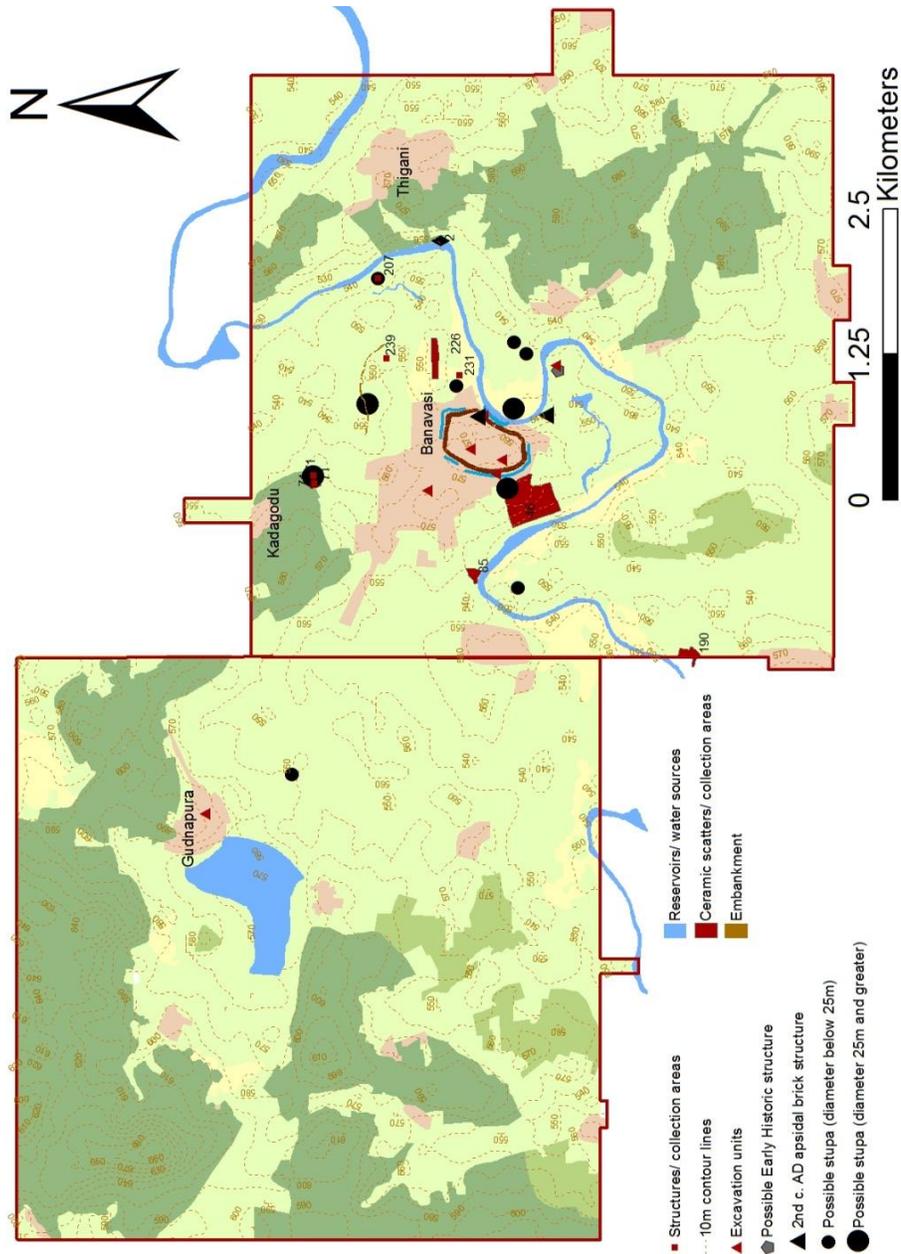
Figure 6-31: Settlement patterns, early period (late centuries BC - seventh century AD)

6.4.4.2 The early medieval: stability, Hinduism and structure

In the second phase, from the seventh to the 16th centuries, the most dramatic changes are seen in the religious landscape. Shaiva temples replace stupas in the major settlements. Since most of the villages in the region are still occupied today, I use the early Shaiva temples as a proxy for the presence of a contemporary settlement around it. It is likely that there was an expansion of settlement with new villages being established in the survey are, notably the villages of Kadagodu, Kantraji, Iduru, Mutalkoppa, Narur and perhaps Thigani.[104]

Banavasi continued to be the most important settlement in the region. The large areas with evidence of Early Historic ceramics seen in the preceding period (notably BGRS 46, 226) do not show later ceramics, indicating that the concentration of settlement in this period likely changes, most probably to within the fort and in areas that are still occupied today to the north and west of the fort. It does not appear that there was any dramatic increase in the size of the settlement. As mentioned in Section 6.1.1 above, it is possible that the fort wall was altered towards the end of this period, and certainly in the subsequent period. As discussed in Chapter 5, a close connection between political authority and brahmanical religion emerged in this period.[105] Several large and small temples were built within Banavasi, dramatically altering the religious landscape of the area. The earliest temples are primarily Shaivite, but towards the end of this period temples belonging to other (often competing) sects are built, most notably, lingayat and goddess structures (Chapter 5).[106]

It is likely that in this period most, if not all, of the reservoirs recorded on our survey were constructed and in use. As discussed in Section 6.2 above, reservoirs and tanks are difficult to date, but I am able to make a distinction between the early, possibly 12th century square laterite block tank located next to a Chalukya temple (BGRS 232) and the three later, keyhole shaped tanks that possibly date approximately to the 16th century.

---

[104] I am doubtful about this village since the temple was recently reconstructed, discarding most older architectural elements. It is possible that Thigani was only established towards the end of this period.

[105] According to local tradition an eighth century Kadamba king named Mayuravarma brought Havik brahmanas from Ahichatrapura to the Kanara region (Balasubramanyam 1967: 10). While any such migration cannot be confirmed, census records from the 1970's show that most of the brahmana families lived and owned land within the fort wall and close to the central Madhukeshwara temple while other castes (and religions) are located outside the fort or in distinct neighborhoods within the fort (Balasubramanyam 1967: 4).

[106] In Figure 6-32 below, I have shown the pre 14th century and post 14th century temples with distinct icons. In doing so, I have summarized my more detailed discussion in Chapter 5.

The second tier center of Gudnapura seems to decline considerably in this period. While the major temples are concentrated in Banavasi and other villages, there are none in Gudnapura. At the same time, the location of a basalt stone manufacturing site where architectural elements for the 12th century Shaiva *mandapas* were finished next to Gudnapura hints at the emergence of functionally specialized settlements/ locations. Similarly, BGRS 53 to the south of Banavasi is a collection where we found evidence of iron slag indicating that it might have been a small production site (Figure 6-32).

In this discussion I have not been able to address the issue of semi-permanent or seasonal settlements. Such sites typically would have been small and ephemeral. Due to the environmental and cultural disturbance discussed above and the limitations of my use of 20 m survey transects, such sites could not be identified. It is however likely that the two production sites mentioned above (and in a later period the small watchtowers) represent this smaller scale of sites. It is even possible that iron working might have been a mobile profession (Sinopoli 2003).

Finally, the Shaiva temples (sometimes with associated tanks) seem to be located along routes of movement into the town. In this period then the roads to the north and to the west appear to become more important than any fording point across the Varada (mentioned in the previous section).
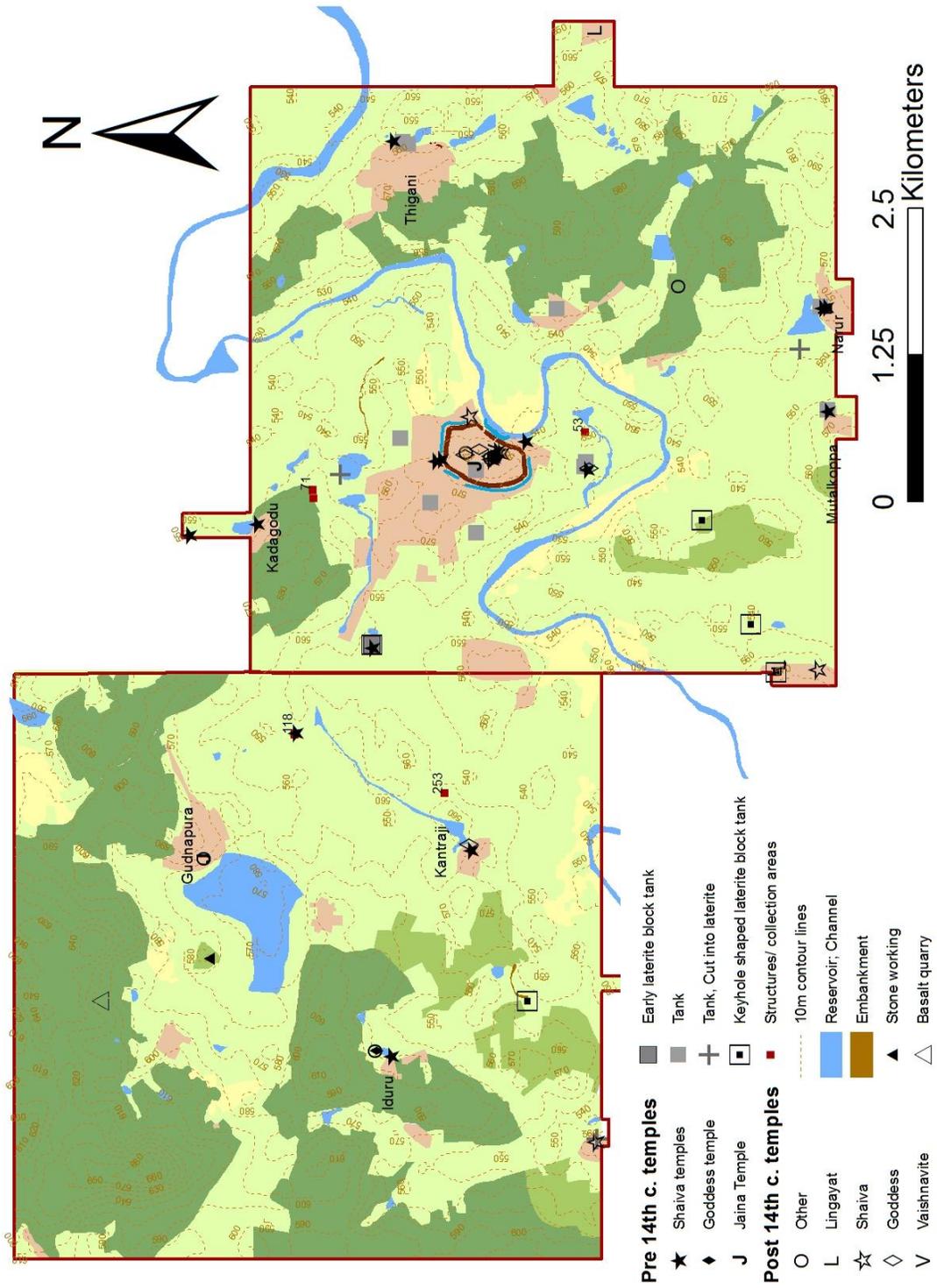
Figure 6-32: The survey area, seventh to 16th centuries AD

217

6.4.4.3 The late medieval and early modern: conflict, political and religious

In the post 16th century, Banavasi retained a central position in the region. It is likely that its importance as a regional pilgrimage center contributed to its continued importance. There is some evidence that the fort was repaired and added to (Section 6.1, BGRS 237 in Figure 6-33 below). At the same time, in this period, as in the preceding one, there was no dramatic growth in size or in importance. Banavasi continued to be, as it was for several centuries, a regional center. Buchanan, writing in the early 19th century, notes that a *tahsildar* was stationed at Banavasi, a "place of great celebrity, [but which does not]… appear to have been ever of great extent" (Buchanan 1807c: 230).

An interesting new development is the rise in importance of the village of Thigani as a second tier center with a small fort and civic-religious complex, that replicated on a smaller scale the pattern in Banavasi (Section 6.1.1). It is likely that in this period, there was some amount of conflict or competition between elite groups, and the village of Thigani developed as the location of a small elite family. In fact, there are other signs of difficult times (if not outright conflict). Two small sites were identified as possible watchtowers (Section 6.1.1). The location of Lingayat temples outside Banavasi indicates the presence of a certain amount of tension between the Brahmanical mainstream and new traditions.

Almost all the modern day villages are now settled. There are two major exceptions. In this period, the antecedent of the modern village of Ajjarani (Figure 6-33) was located at BGRS 233, next to an early second period temple and tank. The village was moved to its current location within the last 150 years or so. This move is still remembered in folk memory although the reasons for the move are unclear. The movement of this village can perhaps be linked to a decline in importance of the western route into Banavasi as the focus shifted to agricultural activity. The temple at Hale-Ajjarani ('Old-Ajjarani) is still in worship but the tank has been abandoned.

Similarly, BGRS 184 are late medieval or early modern house mounds in as area known as Hale-matha,[107] which also contains a late laterite block tank, now no longer in use. This area now has no major settlement although a house has recently been constructed. BGRS 21 is an

---

[107] We were told that this was an ancient site where monks used to retreat during the rainy season—an interesting similarity to early Buddhist practice. However, we found no early remains in this area.

extensive ceramic and brick scatter (outlines are of brick, within this is concentration). The ceramics all belong to the late medieval or modern periods and the bricks cannot be dated (no complete fragments were found). There might have been a village at this location; however, this area has been extensively ploughed and is regularly flooded.

It is likely that some of the tanks (both laterite block constructions, as mentioned above, and those excavated into the ground, Section 6.2.3) were abandoned toward the end of this period.[108] All the reservoirs recorded ion our survey are likely still in use and some might have been expanded.

Square and rectangular platforms made of laterite blocks[109] are found in nearly every village in the survey area. The exceptions are the smallest villages, which also tend to be the most recent. These platforms and the laterite block tanks seem to be located along routes of movement and at the entrances or centers of villages or towns. The platforms seem to mark places where the community gathered and routes along which religious processions (often originating in Banavasi as the center) moved. For instance, on festivals, gods from the Madhukeshwara temple are taken on procession to the surrounding villages, stopping on the way at several of these platforms. The anthropology of pilgrimage and of the role of these itinerant gods in establishing and maintaining social networks (and assigning groups inferior or superior status in a hierarchy) is quite fascinating, but not my concern here.[110] The role of the temple in political networks has already been discussed in Chapter 5.

---

[108] Early and mid-20th century survey and land maps of Banavasi record several tanks in and around the settlement. However, several of these tanks are no longer in use or have been built over. This might have been the result of 19th and 20th century changes in water distribution, the increasing use of wells or of pumped water.
[109] Some are indeed makeshift modern platforms constructed from bricks, laterite blocks and other materials robbed from other sites.
[110] I suspect that several of these platforms are18th or 19th century constructions, and might be linked to the British belief in independent and isolated village communities.
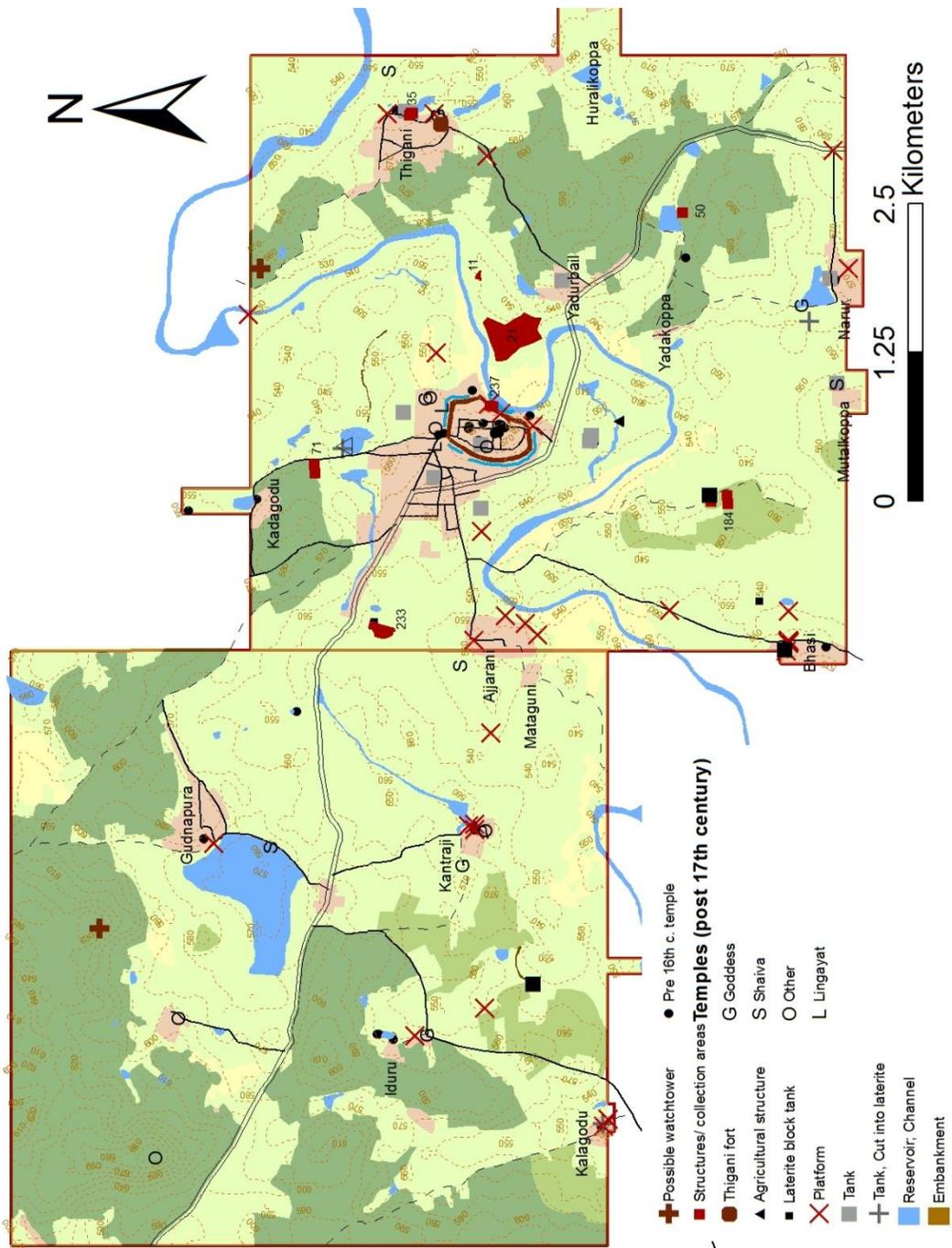
Figure 6-33: The survey area, 16th to 18th centuries[111]

---

[111] For clarity, temples constructed in the preceding periods have been grouped together. Most are still in use in this period.

6.5 Conclusions

As in the previous chapter, interesting socio-economic and political dynamics can be traced if we take a landscape approach to interpret the spatial and temporal patterning of material culture and practice. The information presented in detail above is summarized in diagrammatic form in Figure 6-34. In doing so, I am able to begin to answer some of the questions regarding regional organization at Banavasi that were raised in the initial chapters.

It is possible to broadly trace the historical development of settlement patterns in the survey area. By the early centuries AD, there is evidence for an extensive Early Historic settlement at Banavasi and the construction of a brick and earth fort around part of the settlement. While settlement at the site is undoubtedly older, it is in this early period that Banavasi participates in several subcontinent-wide developments. There is evidence for long-distance trade, for the adoption of the Brahmi script and of Buddhism. Subsequently, Gudnapura develops as a second-tier center.

Banavasi's position as a small regional center continues in the subsequent centuries even as several villages are established in the region. What is interesting is that Banavasi does not expand appreciably in the later periods (much of the expansion seems to be a relatively modern phenomena). At the same time, there is evidence that regional or local elite groups maintained a presence within Banavasi, whether through donations to the Madhukeshwara temple (Chapter 5) or through architectural additions to the fort walls.

For the Vijayanagara period, Davison-Jenkins argues for the existence of independent political centers competing for limited resources, both agricultural and demographic. Such centers were located in productive agricultural zones and were characterized by populous urban centers, housing a king and his followers and controlling demographic, mercantile and agricultural resources in the city and its immediate hinterland (Davison-Jenkins 1997: 13). These centers could be linked to others by a complex set of alliances and might even come into conflict. Davison-Jenkins suggests that urban settlements existed in a complex network where non-mobile, high status groups depended on the presence of an agricultural workforce. Wealth from agricultural revenue and military raids supported such centers and attracted inter-regional trade which provided yet another source of revenue (Davison-Jenkins 1997: 14).

Such a model provides an interesting framework for the study of Banavasi. As discussed earlier, Banavasi was located in a productive agricultural area. And, as will be discussed in Chapter 7, the early Kadamba elite at Banavasi established and maintained a complex system of alliances. Such alliances continued to be made by the various elite groups who controlled the Banavasi region in later periods. I would also suggest that Banavasi's importance also lay in its position as a regional religious center. As discussed in Chapter 5 and further explored in Chapter 7, political and religious elite groups maintained complex alliances of legitimation and patronage, alliances that could be displayed in the inscriptions and architecture of the temple of Banavasi.

In fact, the Vijayanagara and Nayaka period additions to the Banavasi fort coincide with the additions to the Madhukeshwara temple and the increasing number of grants (and inscriptions) to this temple. Banavasi's longevity can in part be attributed to this political-religious nexus at the site. The growth of villages like Thigani, with a small fort and civic-religious complex, replicates this pattern on a smaller scale and perhaps represents the rise of competing local elite groups.

The nature of my survey was such that the focus was on Banavasi - the survey blocks themselves give primacy to this settlement. In the next chapter my aim is to provide a corrective to this perspective by widening my focus from Banavasi and its hinterland to the wider region of which it was part. In order to do so, I will look at a well-defined corpus of early Kadamba inscriptions that have been found throughout the western part of the peninsula (the states of Karnataka and Kerala).

I focus primarily on this early period for several reasons. First, the early Kadamba inscriptions provide a well-defined unit of study compared to the numerous and sometimes poorly published later Chalukya, Rashtrakuta and Kadamba families inscriptions. Second, historical reconstructions of this early period and the conceptualization of a well-defined Kadamba dynasty with its capital at Banavasi have guided a considerable amount of later research on Banavasi. I intend to raise some questions about the nature of the dynasty and further explore the position (and nature) of Banavasi as a regional center.

Sub-periods / Phases chart (Figure 6-34)

Phases: I, II, III, IV

Sub-periods and dates:
- I: A — 2nd/3rd c.BC -4th c.AD; B — 4th c- early 7th c.AD
- II: A — 7th -mid 8th c.AD; B — mid 8th- 14th c.
- III: A — 14th-16th c.AD; B — 16th-18th c,AD
- IV: 18th-21st c.AD

Habitation:
- Settlement at Gudnapura, second-tier
- Several other small settllements
- Thigani as second-tier center
- Extensive early historic settlement at Banavasi, next to river
- Considerable decline in importance
- Settlement continues, no expansion, slight contraction in size

Defensive features:
- Banavasi fort constructed, brick core and earth facing
- Moat no longer fully encircles the city
- Laterite facing & platforms at entrances, watchtowers
- Fort at Thigani, watchtowers outside Banavasi

Agricultural:
- Gudnapura tank, early historic ring well
- temple tanks?
- Keyhole shaped laterite block tanks
- Larger reservoirs

Figure 6-34: Organization of the landscape in the survey area: habitation, defensive and agricultural

223

Chapter 7
Widening the gaze: a study of early Kadamba inscriptions

In the previous two chapters, I discussed the archaeological landscapes of the survey area around Banavasi. In this chapter, I discuss the larger regional landscapes of which Banavasi was a part. As I mentioned in Chapter 3, I consider that a critical study of inscriptions will allow me to access a larger regional scale of analysis. Since it is not possible to trace *all* of the changing, larger regional systems in which Banavasi participated, I concentrate on a well-defined group of inscriptions. Specifically, I focus on a distinct corpus of early Kadamba inscriptions dating between the fourth and seventh centuries AD. This allows me both to illustrate my larger methodological point about the complementary use of archaeological and historical data and to discuss the early organization of the complex polity centered at Banavasi during that period.

Epigraphic materials straddle a tricky middle ground between archaeological and historical analyses. Considered solely as textual sources, they are central to historical reconstructions of dynastic history and studies of political, administrative, social and religious dynamics (Asher and Gai 1985). However, as cultural objects with distinct temporal and spatial contexts (for the most part), they can also be analyzed as archaeological assemblages (Morrison and Lycett 1997). As with any assemblage, textual or archaeological, inscriptions do not in and of themselves, provide any self-evident truth (or in this case, historical narrative). Just like any artifact, inscriptions were created within a specific cultural context, often for a very specific purpose, by a distinct group of people.

I argue, following Morrison and Lycett (1997: 233), that it is possible to apply "the analytical experience… [of archaeology]…to the recovery, analysis, and interpretation of textual material". I further argue that inscriptions are not just texts but artifacts as well, artifacts *with* text, if you will. In a way, the materiality of inscriptions contains two dimensions. At one level, inscriptions are objects, just like any other studied by archaeologists, created and used within specific spatial and temporal contexts. At another level, considered solely as textual and historical source material, they were public documents meant to establish a particular social and political order/lineage and therefore deeply embedded in and created within a specific historical

context (Cox 2010: 2). From this perspective then, the dichotomy between text and artifact becomes blurred. And if we accept that archaeologists too write history, we can move on to an unapologetic archaeological analysis of inscriptions.

In this chapter I focus on a group of 58 published inscriptions, which have been summarized in Appendix 4 (Bhat 1983; Desai 1958; Desai 1959; Gai 1933-34; Gai 1961-62; Gai 1996; Gopal 1971; Gopal 1973; Gopal 1985a; Kielhorn 1900-01; Krishnan 1995; Moraes 1931; Ritti and Padigar 2010; Samak 2012; Shastri 1991; Sukthankar 1921-22).[112] Most can be attributed to members of the Kadamba lineage or to subordinate intermediate elite groups that ruled in central Karnataka between the fourth and seventh centuries AD (n=55). In addition, I also include a few early inscriptions belonging to the Satakarni lineage that preceded the Kadambas in the Banavasi region (n=3). As discussed in Chapter 2, it is widely accepted that Banavasi was one of the earliest capitals of the Kadambas. My analysis of the inscriptions is an extension of the more targeted archaeological survey conducted at that site. I use the inscriptions to define the territorial extent of the lineage, identify core areas of political authority, and discuss the nature of control including the presence of intermediate elite groups.

However, there are other, potentially relevant inscriptions that I do not include. In the post seventh century period and especially from the 10th century onwards, several local lineages claimed a direct link to the early Kadambas. I do not analyze the numerous inscriptions issued by these later lineages in any detail but will refer to a few later inscriptions in the course of this chapter to illustrate my larger argument about political organization and to briefly highlight political changes in the early medieval period. I conclude this chapter with a brief discussion of the inscriptions recorded in the Banavasi area during my survey.

7.1 On studying inscriptions: codifying the data

Alayev has suggested that collections of inscriptions be coded taking into account not just socio-economic terms and names but other variables like the subject of action (king, temple, private person etc.); character of the grant (sale, lease, grant etc.); the item that was donated(land, cattle etc.); the object of the grant (institution, individual) and the circumstance (terms of the act

---

[112] Out of these 55 inscriptions, six have not been published beyond very cursory information on the donor and location(# 55-60, Appendix 4). All the other inscriptions have at least one, if not more, translations and transcriptions.

(Alayev 1985: 37-38). This, he argues, would enable analysis of an inscription as a whole in order to understand the "interaction between agents to get a complete understanding of the social system", as well as allow for future analysis, including the comparison of inscriptions from various dynasties (Alayev 1985: 36-37).

Since especially the copper plate grants follow a distinct pattern, in my analysis it was possible to identify several variables to code. Table 7-1 summarizes the variables coded:

Table 7-1: Variables recorded on the Kadamba inscriptions

Theme	Variables
Context	Location: • Place inscription/copper plate found (State, District, Taluka) • Geographic coordinates (Latitude, Longitude) • Context of use/ placement (Hindu Temple, Jaina Temple, Buddhist Structure, Other Religious Institution, Settlement, Secular Building, Agricultural Feature, Other/Unknown) Details: • Date (century) • Dynasty, issued by • Language • Script • Type (Stone inscription/ Pillar, Stone Inscription/ Other Surface, Hero/Sati Stone, Copper Plate, Other)
Content	General: • Invocation (Buddhist, Jaina, Hindu/Vaishnavite, Hindu/Shaivite, Local Deity, Other) Grant Details: • Type of Grant (Land, Village, Agricultural, Tank Religious, Commemorative, Other) • Details (extent of land etc.) • Donor (Royal, Official, Merchant, Intermediate Elite, Other) • Donee (Hindu Temple, Jaina Institution, Buddhist Institution, Brahmana, Official, Intermediate Elite, Secular, Other) • Levels of control • Agricultural Terminology

I did not use all of the variables coded in my analysis. I am also not concerned with (nor I am equipped for) a critical textual analysis of the inscriptions. In this respect, I rely heavily on translations and linguistic analyses of these inscriptions both for the general content and their date. However, most of the information I am interested in does not require a specialized knowledge of the language.

Following the discussion in Chapter 2, my interests do not lie in developing a chronological list of rulers but in considering why such lists were important to political and

social practices, and in deciphering their complexities and contradictions. I focus on several broad themes. The first concerns the interrelated dimensions of time and space. Do the location of the inscriptions change over time? Are there spatial clusters of inscriptions that might indicate core areas of political authority? Second, I address questions about macro-level regional political organization. The organization of the Kadamba lineage (and its branches) and its links with adjacent or subordinate elite groups will be discussed. Third and finally, the analysis of donor and recipient categories enables me to discuss micro-level political and economic organization to a certain extent. Who were the primary donors? What was donated and to whom? Do these patterns indicate attempts at legitimization/ consolidation of power/ establishment of alliances by the primary donor group?

7.2 The Kadamba corpus: an overview

As discussed in Chapter 2, the earliest inscriptions in Karnataka were in the Brahmi script and Indo-European Prakrit vernacular. Over time, beginning in the fourth century, Sanskrit began to be used and by the sixth century the local language, Kannada, was developed. The Brahmi script was gradually adapted to this new language and developed into the modern Kannada script.

The earliest documented Sanskrit inscription in Karnataka is that of the early Kadamba king Mayurasharma from Chandravalli, dating to the fourth century (Katti 2003: 146). The earliest Kannada inscription from Halmidi, also belongs to the Kadamba period (mid fifth century) and was most probably issued by a ruler allied to the Kadambas, if not a Kadamba king himself. While most scholars have taken the name Kakustha-Bhattoran of the inscription to refer to the Kadamba king Kakusthavarma, Gai (1992c: 297-305; 1996: 26) argues that this subordinate ruler belonged to the Bhatari family and claimed descent from the imperial Kadambas through his mother's side.
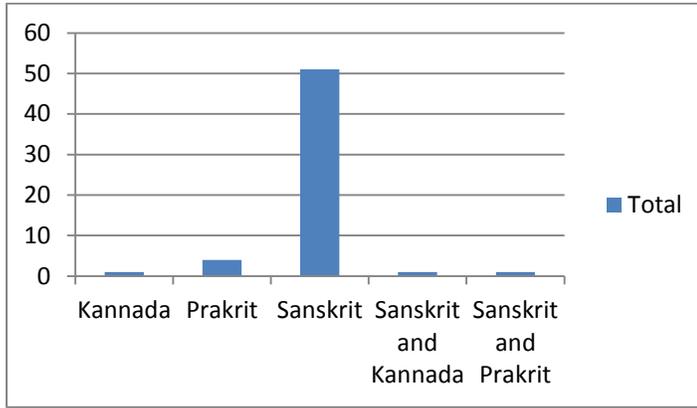
Figure 7-1: Language frequency of the inscriptions analyzed

The majority of the inscriptions studied are in the Sanskrit language and Southern script (Table 7-1). A cross-tabulation of language by date shows a concentration of Sanskrit inscriptions in the fifth to sixth century period, which is also the period of the greatest number of Kadamba inscriptions overall (Table 7-2). Only two of the five inscriptions in Prakrit belong to the Kadamba dynasty, the others date to the reign of the Chutu family, which ruled in the Banavasi region in the early centuries AD.

Table 7-2: Language of inscriptions by date

Language/ Date	2nd c. AD	3-4th c. AD	4th-5th c. AD	5th-6thc AD	6th c. AD	8th c. AD	NA[113]	Total
Prakrit	1	3						4
Sanskrit and Prakrit		1						1
Sanskrit			17	22	9	1	2	51
Sanskrit and Kannada				1				1
Kannada				1				1
Total	1	4	17	24	9	1	2	58

---

[113] A hoard of seven copper plate inscriptions was recently found in the village of Aretalagadde, Shimoga district, Karnataka. Of these, only one has been fully published (Samak 2012) but the others are mentioned in the same article. Therefore, the information on these records is limited. They probably belong within the broad fourth to sixth century AD period.

Most of the inscriptions are copper plate grants (n=44); the remainder are stone inscriptions on pillars (n=6) or other surfaces (n=8) (Table 7-3). The Kadamba copper plate grants first begin in the fifth century and by the eighth century, grants by this early lineage are no longer found. The contents of the inscriptions will be discussed in detail below. Briefly, the inscriptions on stone were either commemorative or recorded royal donations of various kinds. The copper plate grants all recorded gifts and typically contained two major sections: first, the royal eulogy (*prashasti*) and second, the deed of gift. The latter contains information about the recipient, details and boundaries of the land gifted and the privileges and exemptions granted to the donee. Finally, the grant concludes with exhortations against those who transgress the terms of the grant, the date of the grant and, in some cases, details about those who prepared or witnessed the grant (Kulke 1997: 237-238).

Table 7-3: Type of inscription by date

Inscription Type/ Date	2nd c. AD	3-4th c. AD	4th-5th c. AD	5th-6th c. AD	6th c. AD	8th c. AD	NA	Total
Copper Plate			14	19	8	1	2	44
Stone Inscription/other surface	1	2	1	3	1			8
Stone Inscription/Pillar		2	2	2				6
Total	1	4	17	24	9	1	2	58

7.3 The inscriptions: location and change
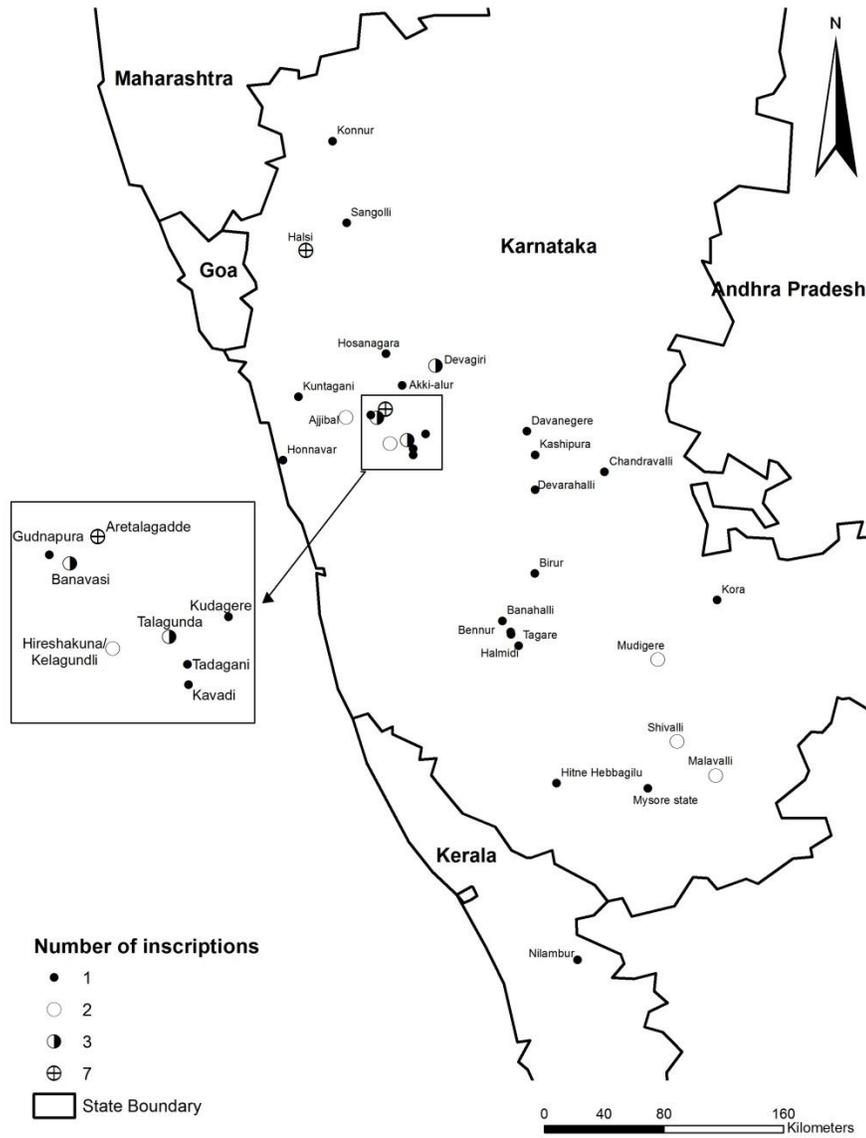
Figure 7-2: Location of early Kadamba and elite inscriptions

Figure 7-2 maps the early Kadamba and other inscriptions studied, except for two copper plate inscriptions for which there is no location information.[114] Figure 7-3 shows the same data

---

[114] These are inscription nos. 38 and 43, copper-plate grants of the *Senapati* Vishnudasavarma in the eighth regnal year of Kadamba Harivarma and Mandhatrivarma's grant in the sixth regnal year of Priyaratnavarma, respectively. The inscription numbers reference Appendix 4, which summarizes all the inscriptions studied.

230

but inserts the element of time. Where exact coordinates of the sites were not available,[115]I used the coordinates for the taluk (a local administrative division) in which the copper plate was found to be able to gauge general location. Similarly, I used the published dates for the inscriptions but tried to group them by broad temporal categories.[116]
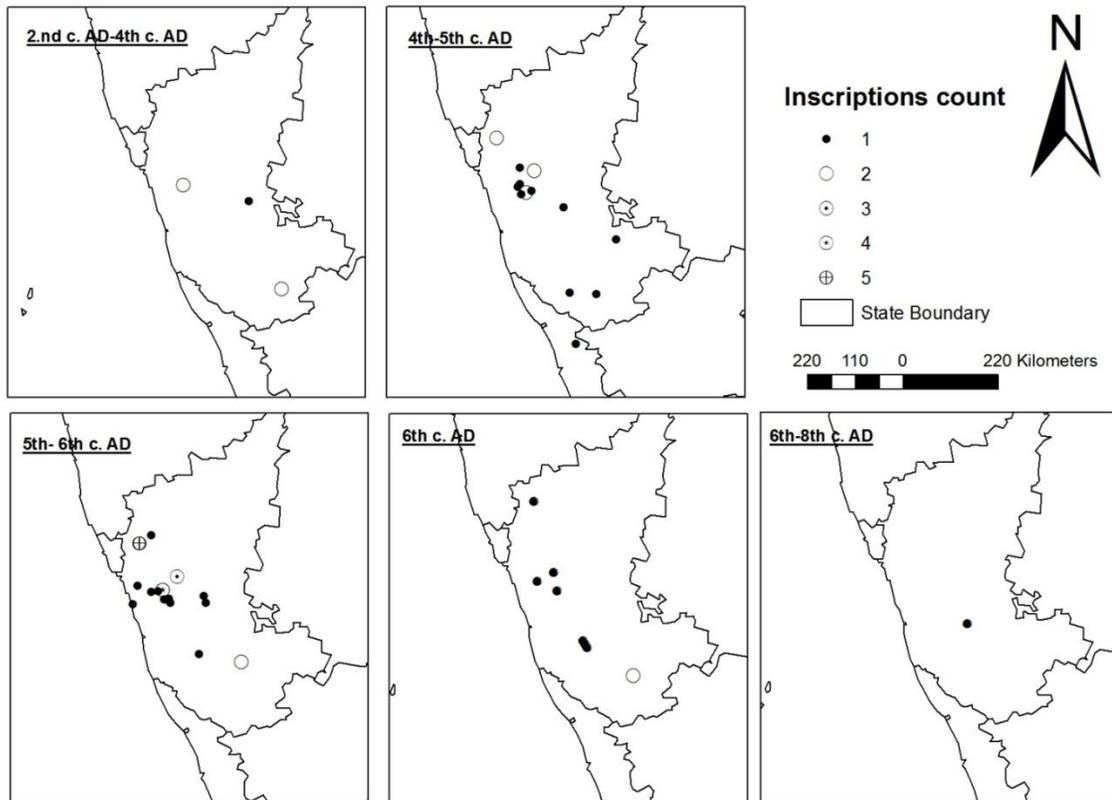
Figure 7-3: Early Kadamba and elite inscriptions over time

In the first phase (second to fourth century AD, Figure 7-4), the earliest inscriptions are all on stone surfaces. Only two of the five inscriptions were issued by members of the Kadamba family. One of the inscriptions at Banavasi, and one at Malavalli belong to the Chutu-Satakarnis, probably one of the local ruling lineages. According to Chattopadhyaya (2003), these small political principalities ('localities') had emerged by the late centuries BC. They were then

---

[115] For most of the published inscriptions latitude/longitude data was not provided, merely the name of the village, often along with the name of the district and taluk in which it lay. I was able to identify the village using Google Earth, Wikimapia, MapMyIndia.com, Geolysis and the *Corpus. Topog.* Series (Stroobandt 1974).
[116] Two inscriptions (nos. 55 and 57) have not been published and therefore have no information on date. I would assume that they belong to the fourth to sixth century period but have not included them in my analysis.

integrated into the Satavahana polity and continued after the decline of this empire, often forming the basis for the emergence of later regional kingdoms, including that of the Kadambas.
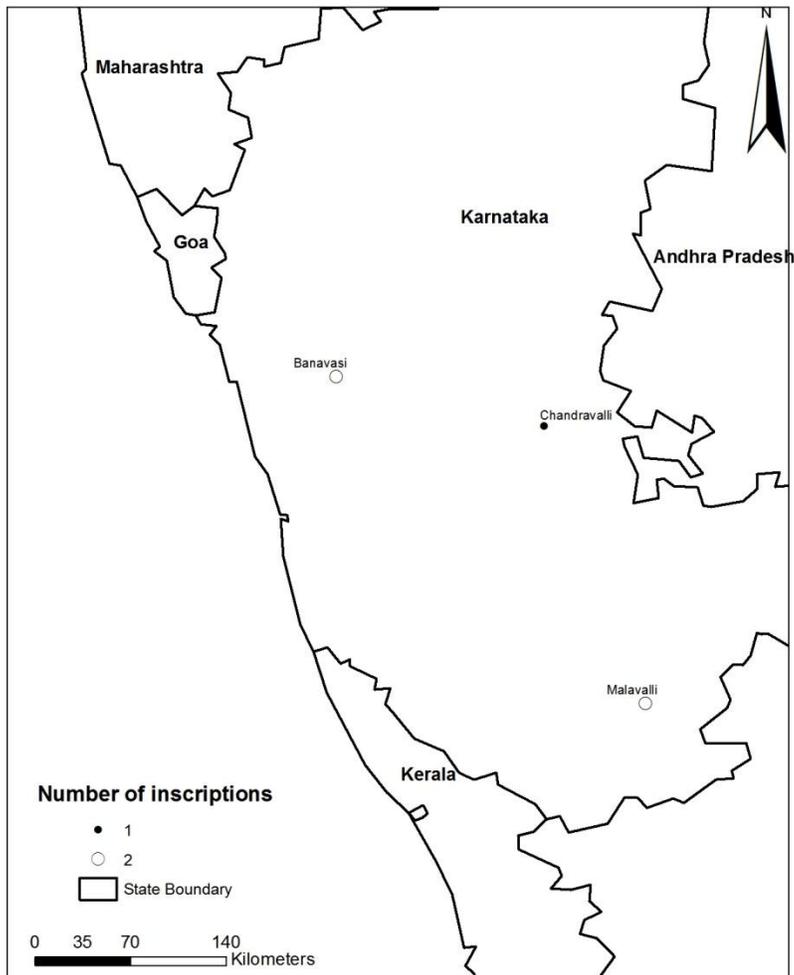
Figure 7-4: Early inscriptions, second to fourth centuries AD

The relationship of the Chutu-Satakarni's to the imperial Satavahanas remains unclear. However, parts of north Karnataka, including the Banavasi region, were included within Satavahana territories. The well-known Nasik cave inscription of the Satavahana ruler Gautamiputra Satakarni dated to the first-second century AD records that a grant of land to a group of Buddhist ascetics was made while the king was in camp of victory of the Vaijayanti army (Senart 1905-06: 71-75). The earliest inscription recorded from Banavasi is a memorial stone to the queen of a Satavahana king whose exact position in the Satavahana family is still

debated (Murthy and Bhat 1974). Subsequently, members of the Chutu-Satakarni dynasty are recorded as ruling from Banavasi and some of their coins bearing the legend '*Chutukulananda*' have been found in the Karwar district of Karnataka (Gopal 1985a: xix). Their use of the name 'Satakarni', a title used by the imperial Satavahanas, might indicate their position as a branch of the main family, and at the very least suggests an attempt to claim some sort of relationship to them. This lineage also seems to be allied to known local ruling groups, in this case that of the Bhojas. Figure 7-5 summarizes our knowledge of the early elite groups who might have ruled from Banavasi.

2nd c. AD	Queen of King Vashishtiputra Shiva Sri Pulumavi (Memorial Stone, Banavasi #3)		
3rd c. AD	Haritiputra Satakarni, of the Manavya gotra and Vishnuskandachutu family, King of Vaijayanti (Malavalli, inscription #1)		
	Mahabhoji Shivaskanda Nagashri (daughter of Haritiputra above), wife of Jivaputra (Banavasi, inscription #2) —— Minister Khadasati was the superintendant of the work (grant of a Naga, tank and vihara)		
3rd-4th c. AD	Vaijayantipati (Lord of Vaijayanti), Shivaskandavarman, of the Manavya gotra and Haritiputra ? Unnamed Kadamba king renews grant made by king named above(Malavalli, #6)	Unnamed King of Banavasi, married to an Ikshvaku princess (Nagarjunakonda inscription of Kodabalasri)	Vishnurudra Shivalananda Satakarni, ruling at Banavasi (Nagarjunakonda inscription of the time of Vasushena)
4th c. AD	Kadamba king Mayurasharma (Chandravalli, #7)		

Figure 7-5: Genealogy of elite groups at Banavasi, second to fourth centuries AD

Following the Chutus, the Kadambas make an appearance in the region. Their initial core area of authority appears to be in south and east Karnataka with none of the earliest Kadamba inscriptions found at Banavasi. In fact, an early third-fourth century Prakrit inscription from Nagarjunakonda (Figure 6-27) records an alliance between an unnamed king of Vanavasa

(Banavasi) and an Ikshvaku princess (Vogel 1929-30: 5).[117] Another inscription from the same place and period records a joint inscription by several ruling elite personages, including Vishnurudra Shivalananda Satakarni of Vanavasa (Sircar 1987).[118]

Clearly, in the pre-Kadamba period, several elite lineages, including the Chutus, claimed control of various parts of the peninsula. While the areas of control and the genealogies of these families are still not clearly understood, even the limited number of inscriptions surveyed here provides some interesting information about the nature of political organization in this early period. Figure 7-6 provides a map of the known lineages and their likely nuclear areas. These ruling lineages seem to have established a pattern of donation to major religious centers in the period, both Buddhist and Hindu. This inter-relationship between political authority and religious institutions is one that continues in the succeeding centuries, taking on perhaps a more pervasive and elaborate form with the beginning of donations of land to brahmanas. In the early centuries of the Christian era, there were several large to medium sized settlements in the peninsular- a variable landscape of nodal points along a trade and pilgrimage network. For instance, I have already referred to the donation of a Buddhist cave in Karle by a merchant from Banavasi, as well as the possibility that one early Lajja-Gauri plaque found near Banavasi came from the Buddhist site of Sannati (Section 6.4.4.1).

---

[117] This pillar inscription records the foundation of a Buddhist *vihara* by *Mahadevi* Kodalabalasri, of the Ikshvaku family who was married to a *Maharaja* of Vanavasa (Vogel 1929-30: 5).

[118] This mixed Sanskrit and Prakrit inscription is dated to the thirtieth regnal year of the Abhira king Vasishtiputra Vasushena, when an image of the God Narayana was installed and other associated donations made by *Mahagramika MahatalavaraMahadandanayaka* Shivasepha of the Paribideha family, the *Yorajis* (Yavanas?)of Sanjanayaka, Shaka Rudradaman of Avanti and Vishnurudra Shivalananda Satakarni of Vanavasa (Sircar 1987).
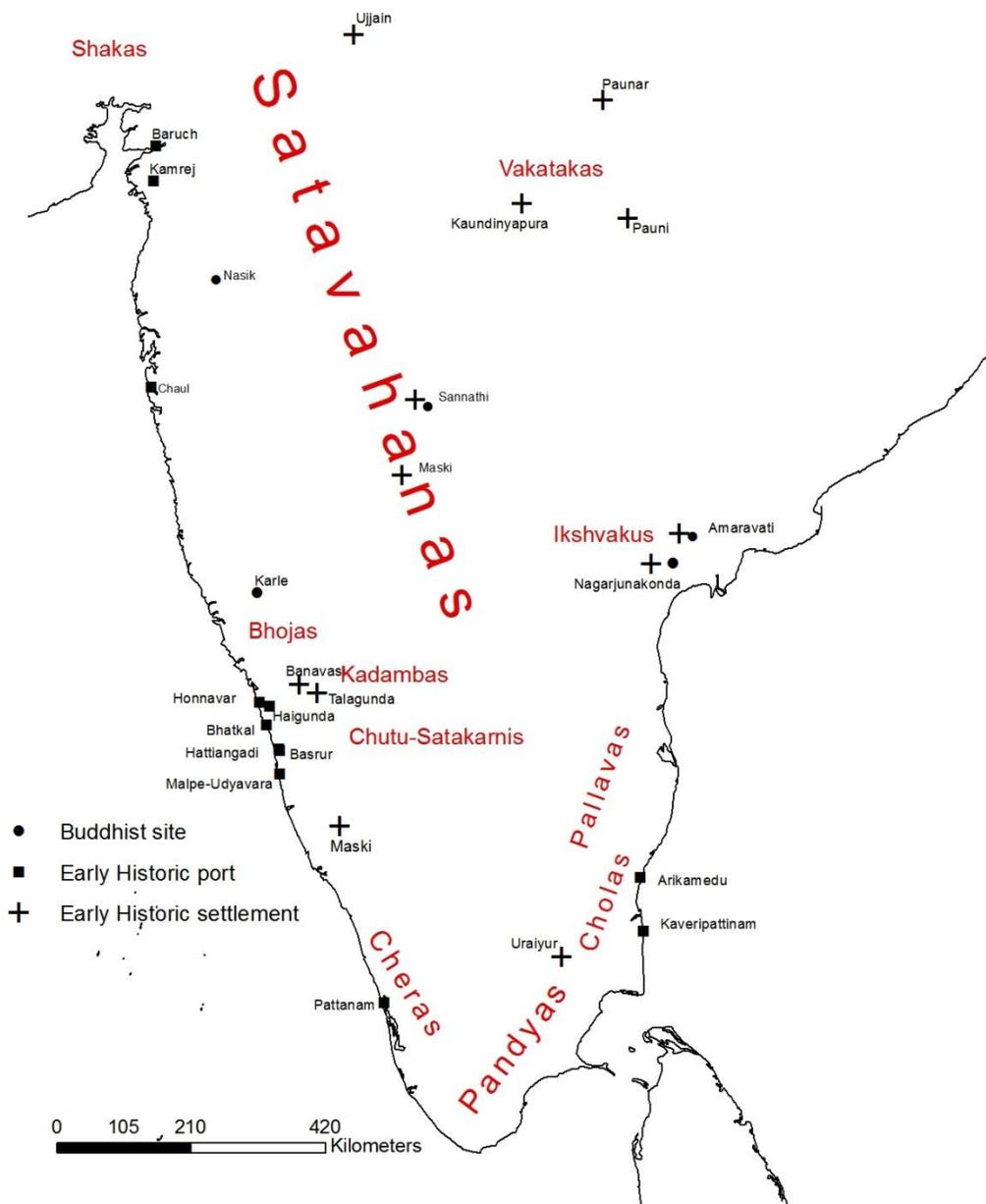
Figure 7-6: Early Historic sites and elite groups

While there have been efforts to directly trace the descent of the earliest Kadamba rulers from their Chutu predecessors at Banavasi (Krishnarao N.d.: 75), such attempts have not been widely accepted. The early Kadamba inscription at Malavalli is located on the same pillar as an earlier Chutu inscription and records the renewal of a grant made by a previous ruler of Banavasi (Vaijayantipati Shivaskandavarman) who belonged to the same *gotra* (roughly translated as

235

'clan' in Hindu society) as the Satakarnis. The term 'Hariti-putra' (i.e., the son of Hariti, a goddess) used by this early ruler of Banavasi is also carried forward in later Kadamba inscriptions of the fifth century onwards.

However, the only inscription found of Mayurasharma, later considered the founder of the dynasty, contains none of these phrases. This Prakrit inscription from Chandravalli simply records that 'Mayurasharma of the Kadambas' who defeated the Trekutas, Abhiras, Pallavas, Pariyatrikas, Sakasthanas, Sayindakas, Punnatas and Mokaris (Gopal 1985a: No. 2, 7-8) constructed a tank. Trekuta is believed by scholars to include the area between Bombay and Surat, also known as Aparanta, with Prehara identified as a river in this region; Abhira referred to the area around Nasik; Pariyatrika the western Vindhyas; Sakasthana could be Gujarat; Pallava, the Kanchi and Amaravati regions; Sendraka the districts of Shimoga and north Kanara; Punnata the Mysore district and Maukhari was a kingdom in south Bihar that might have extended further south (Krishna 1945: 109-111). The elaboration of the Kadamba genealogy occurs in the next phase, during the fifth and sixth centuries, when the number of Kadamba records increased dramatically (Figure 7-7).

As the distribution of early Kadamba inscriptions at the height of their power during the late fourth to sixth centuries show (Figure 7-7), Kadamba territory was fairly compact, covering west and central Karnataka and perhaps north Kerala. No inscriptions have been found north of the Karnataka area, throwing some doubt on Mayurasharma's claims of conquest further north.[119] Inscriptions are concentrated in Belgaum district; in central Karnataka (southern Uttara Kannada, Dharwad and north Shimoga districts) and perhaps in south Karnataka (Chikmagalur, Tumkur, Mandya districts). There were at least two capitals, at Vaijayanti (Banavasi) and Palashika (Halsi) with 17 and four inscriptions issued from these sites respectively. Halsi is initially referred to as a 'camp' from where the Kadamba *yuvaraja* (crown prince) Kakusthavarma issued a grant (Gai 1996: 62-63; Gopal 1985a: 8-10) and then during the reigns of Ravivarma and Harivarma in the late fifth/early sixth centuries, is referred to as the capital (Gai 1996: 105-106, 112-114, 123-124; Gopal 1985a: 78-81, 91-97, 111-114). Grants were issued from Banavasi throughout this period, although the sixth century Bennur grant of

---

[119] It can be noted here that a re-interpretation of this inscription by Gai argues that there is no mention of any of the conquests of Mayurasharma (Gai also argues that the name is Mayuravarma) (Gai 1996: 16-17, 61).

Kadamba Krishnavarma was issued while on a 'victorious campaign to Vaijayanti' indicating the possibility that Kadamba rule at Banavasi was not continuous (Gai 1996: 153-154; Gopal 1985a: 152-156).
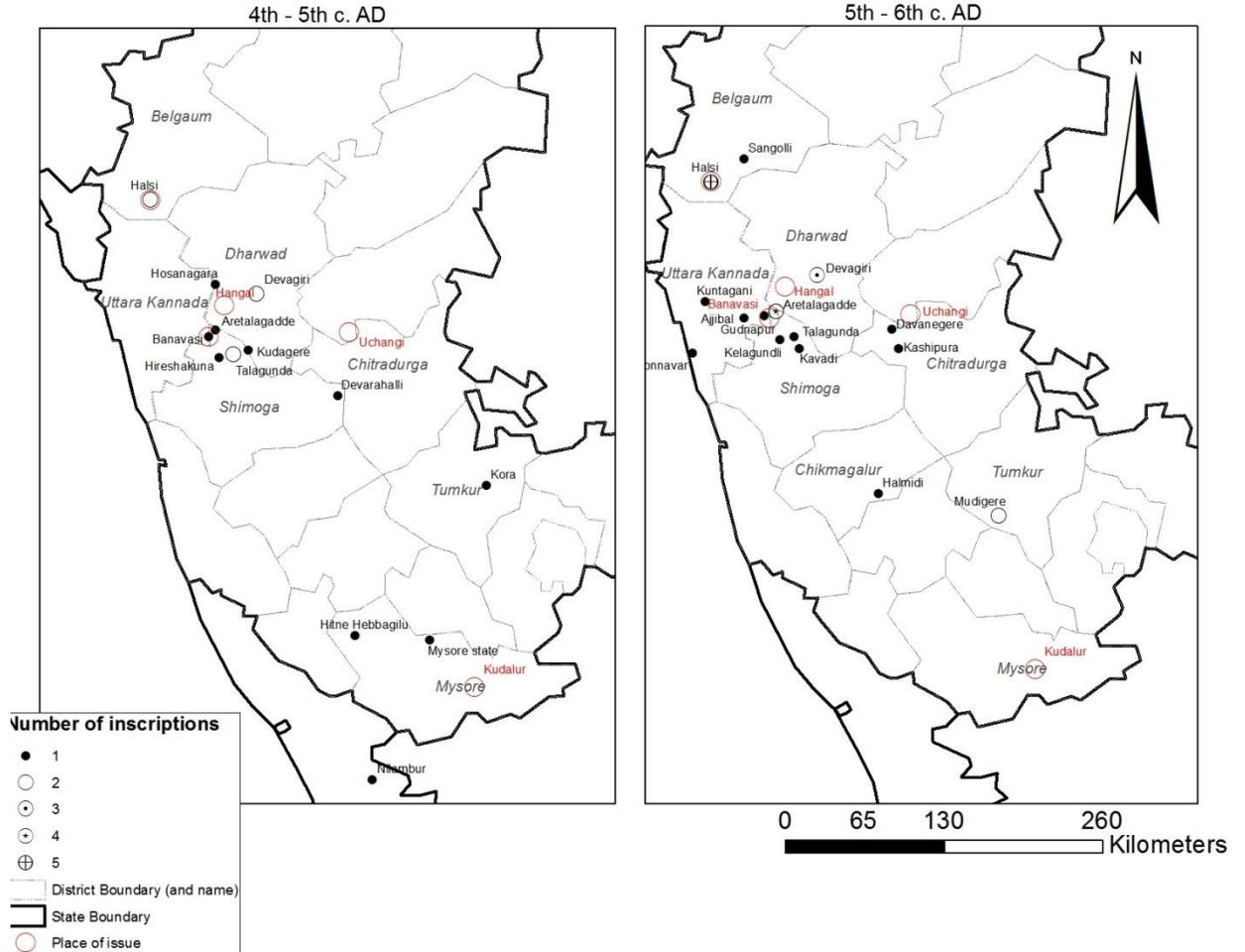
Figure 7-7: Inscriptions of the Kadambas, fourth to sixth centuries AD (with district boundaries and names)

The existence of dispersed loci of political authority during the period of the greatest territorial extent of the Kadambas is further borne out by the fact that grants were also issued from a variety of 'camps', including Ucchashringi (Ucchangi in Bellary district (Gai 1996: 35)), Kudalur and Hangal.[120] Of these, Hangal became the capital of the later Hangal Kadambas in the 11th century.

---

[120] The location of Kudalur is unclear. The location of the other two sites have been indicated in **Error! Reference source not found.**.

By the sixth century, the number of Kadamba grants declined although the concentration near the core areas discussed above remains (Figure 7-8). From the sixth to the eighth century only a single Kadamba inscription is found at Birur. There is some debate about this inscription which has been considered spurious by some scholars (Gai 1996: 131-133; Gopal 1985a:124-128).
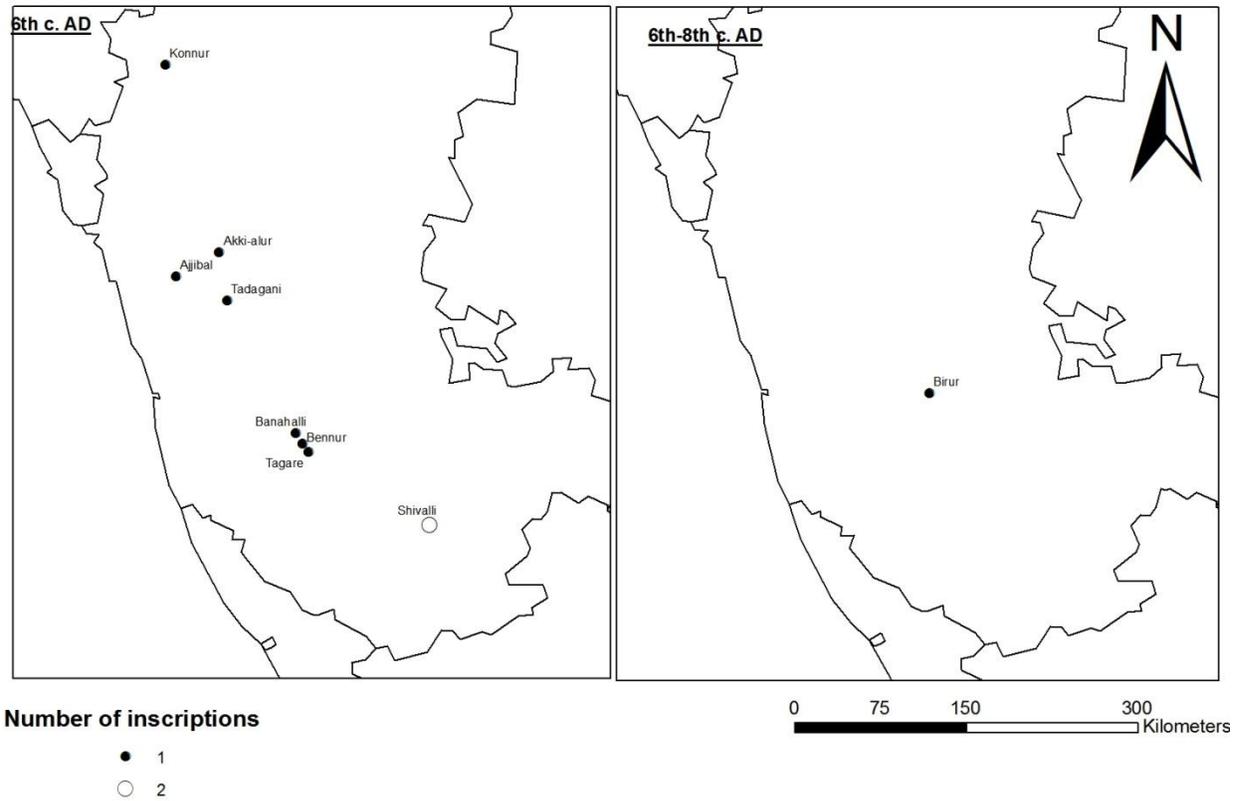
Figure 7-8: Kadamba inscriptions, sixth to eighth centuries

7.4 The early Kadambas: political organization

Given what seems to be the absence of a single core area of political authority in the early Kadamba kingdom, I use the distribution and content of their inscriptions to analyze both the formation of the lineage and the types of social and political networks that were created.

7.4.1 The tidy succession: creation of a genealogy

The creation of a dynastic genealogy for the Kadamba lineage was not merely the handiwork of modern day historians. The early Kadambas themselves, in their grants of the fifth and sixth centuries, attempted to construct an elaborate history. As seen above, the solitary early inscription of Mayurasharma is simple. However, he was to become the central figure of the Kadamba story. The first elaborate genealogy is found in the fifth century inscriptions of Shantivarma, a couple of generations after the dynasty was founded. The Talagunda pillar inscription of this king, recording a donation by his father, Kakusthavarma, contains an elaborate genealogy that has been largely accepted as a "true" account by contemporary historians (Moraes 1931: 15).

The Talagunda inscription records the completion of the excavation of a tank near the ancient Shiva temple at Sthanakundur during the reign of Shantivarma. Whose construction had begun in the reign of his father Kakusthavarma. The founder of the dynasty is said to be Mayurasharma, from a Brahmana family of Sthanakundur (Talagunda) and belonging to the Manavya *gotra* and '*Hariti-putra*' (son of Hariti). Mayurasharma, the inscription states, went to Kanchi (in the modern state of Tamil Nadu) to study but once there was involved in a quarrel against the Pallava rulers and took up arms against them. He defeated their frontier guards and occupied the forest region upto Sriparvata, levying taxes upon the circle of kings led by Bana. The Pallavas, threatened by his military prowess, are said to have then befriended him. The inscription indicates that Mayurasharma seems to have entered into the service of the Pallavas of Kanchi receiving in return a crown and the territory between the western ocean and Prehara (Gopal 1985a: No. 4, 10-21). He was succeeded by his son Kanga, who according to the inscription, adopted the Kshatriya surname of 'varma' instead of the Brahmanical 'sharma' (Gai 1996: 64-68; Gopal 1985a: 10-21; Kielhorn 1905-06: 24-36).

Interpretations of the origin myths of the Kadambas have ranged from attempts to identify the real-world events behind the stories to the identification of the ritual and totemic meanings behind them. It has been argued that the Kadambas were a tribal group, since the Talagunda inscription states that the Kadambas acquired their name by tending to a beautiful tree with *kadamba* flowers that grew near the residence of Mayurasharma. While the inscription also claims Brahmana origins for the lineage, it has been argued that the kadamba tree could be

regarded as a totem and the naming of the clan after it was a characteristic feature of a tribal group (Nandi 1973: 110; Rice 1879: xxxiii-xxxvi).

What is more important to remember is that genealogies may be especially important at points of historical change, during periods of competition or the rise of new groups. They do not necessarily represent reality, instead their significance lies in their claims to represent the past (Thapar 1984-296; Thapar 1991: 1-2). Similarly, the genealogies in the Kadamba inscriptions are important not necessarily for the facts they contain but because they contain ideas which were specifically compiled with the aim of preserving and perpetuating a certain version of history. The fifth century elaboration of the Kadamba genealogy also coincides with the beginning of the period of the largest number of inscriptions and the greatest extent of their territory.

The establishment of the legitimacy of succession and the creation of an appropriate social status were crucial elements of the early Kadamba genealogical elaboration. In the first place, the assumption of a predecessor's claims of authority could have helped in the consolidation of power. Hence, the Kadambas called themselves Haritiputra[121]- and of the Manavya *gotra* after their predecessors, the Chutus. The location of an early Kadamba inscription below that of an earlier Chutu inscription at Malavalli has already been discussed. This created legitimacy is carried further back by the reference in the Talagunda inscription to Satakarni having worshipped at the Shiva temple that was the scene of the grant (Gai 1996: 64-68; Gopal 1985a: 10-21; Kielhorn 1905-06: 24-36).

The claims to Kshatriya status and the increasing use of Sanskrit in their grants reflect the lineage's attempts to buy into already well-established norms of 'Hindu' kingship. The use of ritual methods to strengthen these 'loosely structured regional kingdoms' has been highlighted by Kulke who identified three main measures: the royal patronage of pilgrimage sites and local deities, the construction of new imperial temples, and the settlement of brahmanas (Kulke 1978: 132). I have already discussed the complex processes of royal and elite patronage to Brahmanical temples in Banavasi in Chapter 5. It can be noted here that the Malavalli inscription of the unnamed Kadamba king begins with salutations to the lord of Malapalli and renews a grant is of 13 villages for the enjoyment of the god *Malapallideva*, who has been identified as the village

---

[121] Trautmann argues that the metronymic 'Haritiputra' refers to a clan goddess and is not a true metronymic (Trautmann 1972: 12).

deity (Dayma 2009: 107). In Banavasi itself the worship of aniconic images continues to this day. While it is difficult to isolate the worship of folk cults in this period of early state formation, such worship continues as an important substratum of village life throughout the survey area and was no doubt important in the past as well.

While the early Kadamba rulers have been arranged into elaborate dynastic systems, these superstructures vary from scholar to scholar (Gai 1996: 7-15; Gopal 1985a: xxiii-xxx; Moraes 1931; Pai 1933; Pai 1934a; Pai 1934b). Since none of the early Kadamba records use the well-known (and dateable) Saka era,[122] a great deal of effort has been put into interpreting the regnal years, through references to seasons, fortnights, days and constellations in the grants. Just like in the Kadamba inscriptions themselves, later historians too seem to have built up the dynasty as one of the "great tribes or families existing anterior to the Chalukyas" (Elliot 1838: 228).

Following the tradition of assigning 25-30 years to a generation (Gopal 1985a: xxv; Trautmann 1969 for a discussion on testing hypotheses of chronology based on a comparison with statistics on generation and reign from a well-dated sample of medieval kings), varying results have been obtained. For instance, by tracing back from the genealogies of the Hangal Kadambas, Elliot assigned a 500/520 AD date for Mayurasharma (Elliot 1838: 228). Rice, in his introduction to volume VIII of the *Epigraphia Carnatica*, placed the Kadambas in the fourth-fifth centuries, while Kielhorn placed the fourth generation (Kakusthavarma) in the early sixth century, an opinion echoed by Buhler (Buhler 1895: 290). Very often, kings have been included in the Kadamba genealogy on the basis of names that sound similar to other Kadamba rulers, or based on the argument that the inscription in which they are referenced could be dated to this period and must therefore be part of the Kadamba corpus (Gopal 1985a: 163-164).

For my dissertation, I provide one possible sequence of rulers using the assigned dates of the inscriptions to arrange them. I have not attempted to assign exact dates, especially since they tend to vary from scholar to scholar (Figure 7-9). I have grouped rulers and feudatories by century and from there worked out a sequence of successive generations of rulers without necessarily assigning genetic relationships between them, unless such a relationship is extremely clear. I have been conservative in assigning a king a place in the genealogy and tend towards the

---

[122] The Saka era is commonly used in the Hindu calendrical system and its year zero begins in AD 78.

241

belief that only if we have evidence of a grant issued by the king can that king be said to have ruled (Henige 1975: 543). In Figure 7-9, the names in bold font in indicate rulers whose grants or inscriptions have been found. In normal font are rulers mentioned as relatives/ancestors in the inscriptions but who did not issue inscriptions of their own.
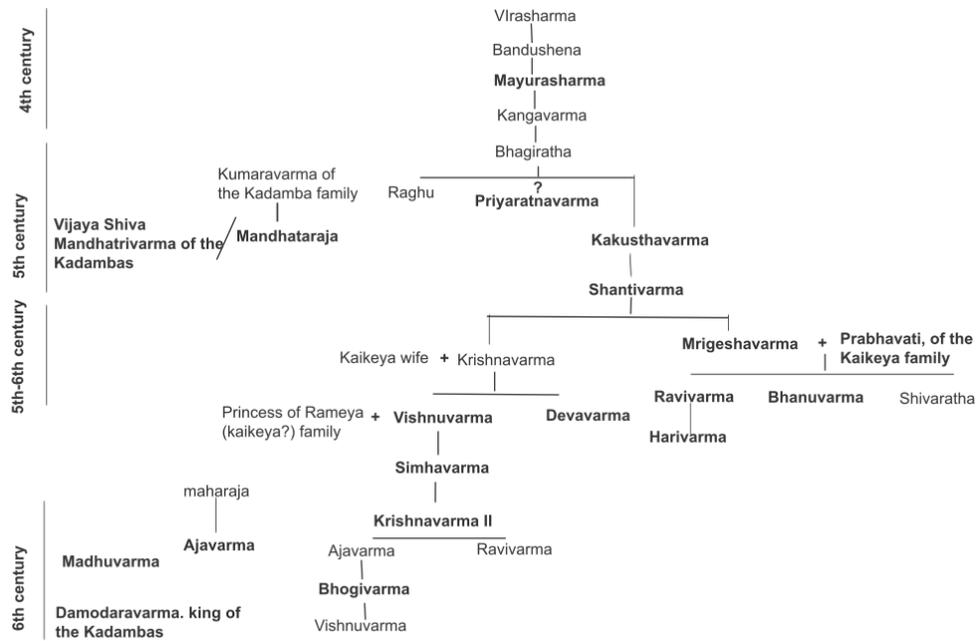
Figure 7-9: Genealogy of the early Kadamba dynasty

It must be noted here that while I have criticized the tendency to construct an elaborate Kadamba lineage, it is due to this construction that I now have the luxury of choosing to modify it. Several interesting points can be raised with reference to my slightly messier genealogy. First, succession was not necessarily linear with son succeeding father. In some cases, there is evidence that two siblings both ruled. Grants are even issued by younger brothers, although containing the obligatory praise of the reigning elder brother, as in the Halsi plates of Bhanuvarma issued in the 11th regnal year of his elder brother, Ravivarma (Gai 1996: 96-97; Gopal 1985a: 63-66). Second, given that some of the rulers belonged to the same generation, there is the possibility that more than one branch of the family ruled at the same time from different centers. Certainly Ravivarma and Harivarma issued grants from their capital at Halsi, while Krishnavarma II might have re-established his authority at Banavasi.

Third, there also seems to have been some amount of conflict between the Kadamba lineages. Some copper plate grants caution those, 'be they of the Kadamba family or others' from impinging on the terms of the grant as in the Nilambur plates of Ravivarma (#23) (Gai 1996: 94-95; Gopal 1985a: 60-63; Rao and Rao 1905-06: 146-149).The position of the Kadamba ruler Priyaratnavarma is interesting in this regard. Two recently discovered copper plate grants of this ruler have been published (Ritti and Padigar 2010; Samak 2012). One of the grants records a donation of land (to a brahmana) by the king in his 12th regnal year. The second grant however, records a grant by *'Dharma-maharaja'* (a royal title) Mandhatrivarma of the Kadamba family during the 6th regnal year of Priyaratnavarma.

Fourth and finally, if we resist the temptation to incorporate all the rulers mentioned in inscriptions of comparable dates within a Kadamba genealogy some of the possible diversity of intermediate rulers is revealed (Figure 7-10). There seem to be a few intermediate elite families who were allied in some way with the main Kadamba family. The Halmidi inscription was issued during the reign of a ruler called Kadambapan Kakustha-Bhattoran who is taken to be the same as the Kadamba ruler Kakusthavarma (Gopal 1985a: 21-24). Another inscription from Talagunda refers to a Kakustha of the Bhatari family who was the son of Lakshmi who belonged to the Kadamba family (Gai 1996: 25; Gopal 1985a: 24-26). This Kakustha is said to be "chief among ten *mandalikas* with control over customs duties*"* and pleasing his master, the king by the additions he made to the royal treasury (Gopal 1985a: 26). Both inscriptions are dated to the fifth-sixth century AD.

It also seems that there were periods during which the Kadamba rulers were defeated by or subordinate to other dynasties. For instance, the Anaji inscription[123] records the voluntary death of Shivanandavarma after ruin of his country during a battle where Krishnavarmaraja was defeated by a Pallava king (Gopal 1985a: 121-123). Shivavandavarma is said to belong to the Kaikeya family, which was allied through marriage with the Ikshvakus. While it is not explicitly mentioned in the inscription, scholars have argued that the Krishnavarma mentioned in this inscription refers to Kadamba Krishnavarma I (Gai 1996: 40-41).[124]

---

[123] Since this inscription was not issued by a Kadamba ruler, I have not included it in the rest of my analysis or in Appendix 4.
[124] Rice in fact argues that Shivanandavarma was a son of Krishnavarma I

Figure 7-10 graphically presents the multiple levels of authority in this period, including references to a few officials (*Senapati*/ General; *Bhojaka*; *Deshamatya*).

Overlord

- Satavahanas (Vashishtiputra Shiva Sri Pullumavi)
- Pallavas of Kanchi
- Guptas (daughter married into)
- Pallava king Nanakkasa?
- Pallava King Shantivara
- Anointed by a king called Sarvasena (Vakataka?)

Kadamba, Allies

- Shivaskandavarma, Lord of Vaijayanti
  - Unnamed kadamba King
  - Ikshvaku princess married to unnamed king of Vanavasa
- Mayurasharma
- Priyarathavarma
  - Mandhatrivarma (issues grant in Priyarathavarma's 6th regnal year)
- Kakusthavarma
  - Western Gangas
- Mrigeshavarma
- Ravivarma
- Harivarma
  - Makes a grant at the request of king Bhanushakti belonging to the Sendraka family
- Krishnavarma
  - Shivanandavarma of the Kaikeya family dies after the defeat of Krishnavarma by the Pallava king (Anaji inscription)
- Vishnuvarma
- Simhavarma

Time periods: 2nd-4th c. | 4th- 5th century | 5th-6th century

Officials, Subordinates, Intermediate Elite

- Banas
- Trekutas, Abhiras, Pallavas, Pariyatrikas, Sakasthanas, Sayindakas, Punnatas and Mokaris
- Mahavallabham Rajjukam (chief revenue commisioner) is made aware of a grant by Hariiputra Satakarni, king of Banavasi
- Senapati Shrutakirti receives a grant for saving
  - Kadambapan Kakustha Bhattora
  - Mrigesa and Naga, officers of the Naridavile-nadu give a grant during reign of Kakustha. Probably with the consent of Ala Kadamba of the Bhatari family.
  - Kakustha of the Bhatari damily
- Tunga, Ganga, Pallava
  - Grama-bhojakas (village officials)
  - notified of grant (Hiresakuna, #17)
  - Devagiri plates written by Damakirti, the Bhojaka
- Killed Vishnudasa, defeated the Gangas, Punnatas, Kongalvas, Pandyas and Alupas.Conquered Chandadanda, king of Kanchi
  - Chitrasena Mahakella of the Kaikeya family, in his first regnal year in Ambu dvipa, issues a grant while king Ravi was ruling
  - Grant made by Bhanuvarma, king's younger brother, a ssigned in a coppe charter by the bhojaka Pandara
  - Grant made to the temple of the king's physician, the desamatya Nilakantha
- Nagas
  - Senapati Vishnudasavar man, commander of the Kadamba army while Harivarma was ruling makes a grant
  - Grant to the emple of Arhat built at Palasika by Mrigesa, son of Simha
  - Bannahali grant made on advice of shreshthin (merchant) Haridatta
  - senapati of the Bharadvaja gotra.

Figure 7-10: The Kadambas, their overlords, and other elite groups

As seen in Figure 7-10 marriage alliances between the Kadambas and the Kaikeyas were common. Kakusthavarma appears to have given daughters in marriage both to the north Indian Guptas and the western Ganga king Madhavavarma II, since his son Avinita is described in the Ganga records as the sister's son of Kadamba Krishnavarma I, son of Kakusthavarma (Gai 1996: 25). The inscriptions of the Vakatakas of the central Deccan also indicate a marriage alliance between them and the Kadambas of Kuntala where Pravarasena II married his crown prince Narendrasena to Ajjhitabhattarika in c. AD 430 (Kapur 2005: 26). In the early Deccan, the prevalence of a kinship system where cross cousin marriage was common, likely aided in the establishment and maintenance of marriage alliances between lineages over several generations (Trautmann 1995; Trautmann 2001).

Regional political organization in the period of the early Kadambas of Banavasi was complex. While a Kadamba family was prominent in the region in the early centuries AD, it seems likely that there were several branches of that family with dispersed loci of political authority. The Kadambas constructed their kingship both with reference to the elite groups that preceded them as well as by establishing alliances with rulers of adjacent core areas, even accepting a subordinate position when politic. Political hierarchy was multi-tiered, with the presence of intermediate elite groups (often allied to the Kadambas in various ways) below the Kadambas. Finally, there was at least another tier in this hierarchy, that of the recipients of the many grants.

7.4.2 Donors and recipients: who gives and who gets

In a political system that was not centralized but based on dispersed and fluid foci of authority, the establishment of networks with groups both higher up and lower down in the sociopolitical and sacred hierarchies was an important method of integration. The majority of the inscriptions are issued by members of ruling elite groups (n=54) and only four are grants by intermediate elite groups directly linked to the Kadambas (three subordinate chiefs and one official)[125].

---

[125] Grants/ inscriptions by contemporaneous intermediate elite groups not directly affiliated to the Kadambas/ acknowledging their suzerainty in this period and region are not included in this database.

Table 7-4: Recipients of grants by century

Donee categories	2nd -4th c. AD	4th-5th c. AD	5th -6th c. AD	6th c. AD	8th c. AD	Total
Brahmana	2	10	4	8	1	23
Buddhist Institution	1		2			3
Hindu Temple		1	2			3
Intermediate Elite			1			1
Jaina Institution		3	8			11
Official		1				1
Other	1	2		1		4
Secular?			1			1
Commemorative	1		2			3
Total	**5**	**17**	**20**	**9**	**1**	**52[126]**

The majority of grants are to Brahmanas (Table 7-4), with a concentration in the fifth to sixth centuries AD. Interestingly, Jaina institutions are the second major donee group in the same period, surpassing Hindu temples. While land grants to Brahmanas have been viewed as one of the characteristics of the rise of feudalism (Chapter 2 and 3, above), I suggest that they should instead be taken as one of a suite of methods for consolidation of authority by the early Kadambas. It is more than likely that Kadamba administration was not centralized. References to officials (in a Kadamba administration) are extremely sparse (see the three references cited above). As Kulke suggests for the small kingdoms of this period, it is likely that the king granted rights to taxes and privileges that he was in no position to directly control (Kulke 1997: 241-242).

Most of the grants are of land and include a general statement that it was being granted 'free of all imposts' and free from the entry of soldiers. This could indicate that political survival necessitated the alienation of what were traditionally considered royal prerogatives, possibly in return for the legitimization of the royal right to rule. In one instance, it is mentioned that the land donated is purchased from an individual (BGRS 256, Appendix 5), further reinforcing the likelihood that royal authority (and control over land) was limited. In only three grants are the

---

[126] Information is not available for six unpublished copper plate inscriptions (-60).

specific taxes that were not to be imposed listed and in only two late grants are the rights to a specific tax granted (Table 7-5). In at least one inscription mentioned, the rights to customs duties lay in the hands of an intermediate elite chief.

Table 7-5: Reference to taxes in the early Kadamba inscriptions

Grant	Century	Details
Hitne Hebbagilu grant of Mrigeshavarma	5th c. AD	Records the gift of a village to Brahmanas. The gift included privileges like *abhata pravesa* (not to be entered by soldiers), *antahkara (*Excise duty or internal revenue), exemption from *vishti* (forced labor) and taxes (*panga*/ one-fourth produce from rent free holdings of gods and brahmanas*, utkota*/ customary gifts to king and landlords)
Kudagere grant of Mandhatrivarma	5th c. AD	Records the grant of 20 *nivartanas* of plough land to Brahmanas. The land is exempt from providing cots, abode and boiled rice, free from the ingress of soldiers, exempt from internal taxes and forced labor.
Davanegere grant of Ravivarma	5th-6th c. AD	The land grant to a Buddhist institution came with the right of *samadhi* (royal granaries) and free from *unchcha* (tolls).
Shivalli grant of Krishnavarma II	6th c. AD	Grant of a house and land to a Brahmana included 1/6th of the tax income (*Karuka vimshati*)
Bennur grant of Krishnavarma II	6th c. AD	Records the grant of 1/10th of the royal portion and 6 *nivartanas* in the village Palmadi in Sendraka *visaya* to a Brahmana.

Kulke (1995a) has suggested that the brahmana recipients of land grants played a role in legitimizing the authority of the ruler in the extension of agriculture in peripheral regions. In most cases, the early Kadamba grants were made to large numbers of brahmanas and often involved the gift of agricultural land (Table 7-6)[127]. We also have three cases where a tank was constructed by the royal grantee. It is likely that Buddhist and Jaina institutions or groups (or very rarely Buddhist/Jaina individuals) also played a role in bolstering the legitimacy of the king.

Table 7-6: Inscription by type of donation and recipient

Donee/Grant Type	2nd -4th c. AD	4th -5th c. AD	5th -6th c. AD	6th c. AD	8th c. AD	Total
Brahmana	**2**	**8**	**6**	**8**	**1**	**23**
Land		2	1	2		5
Land, Tax				2		2
Village	2	4	2	2	1	11
Agricultural Land		2	1	2		5
Buddhist Institution	**1**		**2**			**3**
Land			1			1
Tank, religious construction	1					1
Agricultural Land			1			1

---

[127] Many of the grants describe the location of the land granted with reference to the water sources adjacent to it (rivers, lakes etc.). I have not counted these references as necessarily indicating that the land was agricultural. Only in case where it is clearly mentioned that the land was 'plough land' or was irrigated or located in a 'field' has it been taken to be agricultural plots.

Donee/Grant Type	2nd -4th c. AD	4th -5th c. AD	5th -6th c. AD	6th c. AD	8th c. AD	Total
Commemorative	**1**		**2**			**3**
Commemorative	1		2			3
Hindu Temple		**1**	**2**			**3**
Tank		1				1
Agricultural Land			1			1
Village, Agricultural Land			1			1
Intermediate Elite			**1**			**1**
Village			1			1
Jaina Institution		**3**	**8**			**11**
Land			4			4
Village		1	3			4
Agricultural Land		1	1			2
Temple, land		1				1
Official		**1**				**1**
Agricultural Land		1				1
Other	**1**	**2**		**1**		**4**
Eulogy				1		1
Other/ Fragmentary		2				2
Tank	1					1
Secular?			**1**			**1**
Other/ feeding 30 residents of Talagunda			1			1
Total	**1**	**15**	**22**	**9**	**1**	**52**

The large number of grants to Jaina institutions is interesting and can be contrasted to the small number of Jaina temples identified in the survey area (Chapter 5). The early history of Banavasi itself, as discussed earlier, is associated with its position as a Buddhist center. Most of the early and later Kadamba genealogical claims associate the dynasty with the branch of Brahmanical religion that gave predominance to the deity Shiva (most invocations in the early Kadamba inscriptions are Shaivite). However, one record of the later Kadambas from 1077 AD in Soraba Taluk describes the founder of the dynasty as the son of the sister of a Jaina tirthankara (or religious leader), Ananda Jinavratindra (Lalitha 1983: 21).

To summarize the results of my analysis of early Kadamba inscriptions, these indicate that between the fourth and sixth centuries, the Kadamba lineage was able to exert its political authority over the Banavasi core area and adjacent regions by a variety of means. These included the creation of a dynastic genealogy, the establishment of political alliances with superior and subordinate groups, and a complex pattern of gift-giving linked to legitimacy.

7.4.3 The later Kadambas: continuity and change

As discussed above, for the early Kadambas, there is a limited corpus of inscriptions. In contrast, for the later history of the Banavasi region and especially given the proliferation of Kadamba lineages, there are hundreds of relevant inscriptions. These were issued by various Kadamba lineages, by intermediate elite groups ruling over the Banavasi area or by larger imperial polities (especially the Chalukyas and Rashtrakutas) that claimed overlordship of both. Therefore my study of the later Kadamba inscriptions is necessarily a sample, seeking to highlight a few relevant issues. I focus on the inscriptions of Kadamba lineages and intermediate elite groups in the vicinity of Banavasi and do not include the inscriptions of the major lineage of the Kadambas of Goa.

As discussed in Chapter 2, in the post seventh century period, after the early Kadambas, the Banavasi area came under the control of successive imperial dynasties including the early and later Chalukyas[128] and the Hoysalas, as well as intermediate elite groups such as the Alupas and Sendrakas (Gai 1992c: 75; Moraes 1931: 75-79). From at least the 10th century, these imperial authorities appointed officials to govern Banavasi 12000 (Hegde 1999: 7), an administrative unit which included the survey area. Banavasi itself was one of several administrative centers located within Banavasi 12000 (Rice 1904: 3). A second tier in the administrative hierarchy, it was occupied by regional elite families,[129] some of whom claimed descent from historical dynasties including the early Kadambas of Banavasi. At times, members of these families were appointed as imperial officials, although they at times asserted their independence (Hegde 1999: 8).

Vishwa Mohan Jha (2000c), in an analysis of the official titles in Chalukya records has argued for its characterization as a feudal state. However, it can be suggested that once again the processes noticed in the early phase of Kadamba integration came into play, as the later Chalukyas in their turn sought to subordinate peripheral areas (or regional 'cores'). These later

---

[128] An inscription from Aihole of the early Chalukya ruler Pulakeshin II (AD 634-5) records the subjugation of the Nalas, Mauryas, Kadambas, Matangas and Kalachuris (Fleet 1882: 6) and the subjection of Banavasi (Fleet 1875: 205; Gai 1992c: 75).

[129] For instance, as mentioned in Chapter 2, the eighth century Mavalli inscription of the reign of Govinda III Rashṭrakuṭa reveals that at least three individuals ruled Banavasi 12000: Madanaga Arasa, Ereyanga and Rajaditya Pallava Nolamba (Adiga 2006: 12).

groups sought, once again, to establish alliances of various kinds with superior and subordinate groups. The elaboration of tax terminology and the increasing reference to both officials and intermediate elite groups indicate an increase in the political hierarchy (Kadambi 2012).

It also seems, in a cursory survey of the later inscriptions, that there was an attempt to create and display connections to known lineages and centers, such as the Kadambas and Banavasi. For instance, the association of the Kadamba lineage with the Banavasi region continued, albeit in different ways. It has been argued that the relationship between a lineage and its territory was often expressed in its name (Chattopadhyaya 1995: 219). In the post seventh century period, the Kadamba nuclear area became an administrative unit in a larger political structure known as Banavasi 12000. While the exact outlines of this unit are still debated, it was clearly centered on the Banavasi region.

The earliest documented use of numerical appellations was by the Kalyani Chalukyas in the seventh century (Mangalam 1979: 48) and the earliest reference to Banavasi 12000 is from an eighth century inscription from Didgur, Karajgi Taluk, Dharwar District. This inscription refers to the reign of a king Kattiyara/ Kirtivarma II of the early Chalukyas of Badami under whom an individual named Dosi was governing the Banavasi 12000 district (Fleet 1900-01: 251-253; Gai 1992c: 75). The inscription records the general assignment of a tax by the king and the special assignment of part of the tax from a village to the *Mahajanas* of a village (Fleet 1900-01: 252).

There is no consensus on the meaning of the numerical suffix '12000'. Discussions have ranged from arguments that the number refers to revenue capacity or number of subdivisions (*nadus*) which were counted in the thousands (Rice 1897: 574); to the number of villages (*gramas*) (Fleet 1912); to units of measurement called *grama*, the size of which is unclear (Mangalam 1979: 51-53), or to the number of fighting men in the region. A few inscriptions do seem to support the view that the numerical suffix referred to the number of villages contained within the unit. The Berur inscription (Bangalore Taluk, Bangalore District) of Ereyanga II Ganga lists the twelve villages constituting the unit of Bempur-12, given as a grant in recognition of military service. Similarly, the Bandalike inscription (Shikarpur Taluk, Shimoga District) of AD 902 states that the *Mahasamanta* Lokatey-arasa was governing 30,102 villages made up of Banavasi 12000, Palasige 12000, Manyakheda 6000, Kolanu 30, Toragere 60 and Lokapura 12

(Fleet 1912). However, the presence of thousands of villages in each division during the early medieval period has yet to be proved.

While the increasing use of the term Banavasi 12000 in inscriptions from the eighth century onwards indicates the establishment of an administrative system, there also seems to be a proliferation of intermediate elite groups claiming control of this area, sometimes simultaneously. For instance, the Kakkarasi inscription of 954 AD (Sorab Taluk, Shimoga District) claims that *Mahasamantadhipati* Trikundapuravareshvara Machiya- arasa was ruling as King of the Twelve Thousand Country from Edenadu (Adiga 2006). However, the Bettadakurali inscription (Sorab Taluk, Shimoga District) of the same year mentions the rule of Javanaisami over Banavasi nadu, and the Kirugunise inscription (Sorab Taluk, Shimoga District) of AD 959 confirms that Machiya-arasa's rule extended only over Edenadu (Adiga 2006: 12). On the same lines, the Jambehalli inscription (Sorab taluk, Shimoga district) of AD 972-973 mentions the rule of Shantivarma over the Twelve Thousand Country while the two Bennur inscriptions (Sorab taluk, Shimoga district) of the same year mention Chattayadeva as the king of Banavasi-12000 under the overlordship of Kakkaladeva (Adiga 2006: 12). In the 10th century Talagunda inscription, Bhimarasa, a feudatory of the Western Chalukya king Taila II was governing Banavasi 12000, the Santalige 1000, Kisuskad 70 and an *agrahara* (Fleet 1900-01: 254). These inscriptions, necessarily a sample, illustrate the multi-tiered nature of political authority after the seventh century in Karnataka.

In the 10th century, families claiming a Kadamba affiliation emerged in the Banavasi core and adjacent areas. In the eleventh and twelfth centuries, some of the families that claimed a Kadamba lineage had core areas in Hangal, Goa, Belur, Bayalnad, Bankapur, Uchchashringi, Nagarkanda and Raichur (Desai 1958; Moraes N.d.; Moraes 1931). It is impossible to prove that the later Kadambas were direct descendants of the early Kadamba family. All we can say is that they emerged in a known sub -regional nuclear area, and as a legitimizing tactic they harked back to the early Kadamba genealogies, elaborating on and adding to them. For instance, the founder of this later family, Mayuravarma, is said to have been born on earth like Shiva, was the performer of the *Ashvamedha* (or horse sacrifice, performed by a conquering King), brought the eighteen tribes of brahmanas from Ahichchatra to Kuntalavani, the lord of seventy-seven Simhasanams etc. (Elliot 1838: 227). There is a new tendency to emphasize links to north India

through claims to descent from the Nandas. The memory/prestige of the early capital at Banavasi remains (even the later Kadambas no longer directly ruled there). In some of the later inscriptions, the standard introductory verses claim that the donors are lords of Banavasi and worshippers of Jayanti Madhukeshwar (the temple at Banavasi).

7.5 Conclusion: Inscriptions in the survey area

I have shown above how a study of inscriptions allows me to access the larger, regional scale of political organization, specifically on the structure and organization of the early Kadamba polity as the Banavasi nuclear area, under the control of the Kadamba lineage, rose to the status of a regional political power. I conclude with a brief overview of the inscriptions found in the Banavasi area during my survey (Appendix 5), and in doing so will reiterate some of the points that I have made in this chapter.

Figure 7-11 below, shows all the inscribed material recorded on survey, which included fragmentary and complete stone inscriptions and inscribed hero, sati and nishidhi stones (Appendix 5). Where possible, I have tried to correlate the inscriptions recorded with published translations. Unfortunately, a large proportion of the inscriptions recorded are fragmentary or extremely eroded. Moreover, it is unlikely that most of the inscriptions are in their original contexts. A recent tendency in the area has been to relocate all material considered historically important, and especially all inscribed material, to within the precincts of the main temple in Banavasi. Nevertheless, they provide some interesting information.

I have classified the inscriptions into three broad temporal periods: pre-eighth century, eight to 14th century, and post 14th century. The first period is noteworthy for the limited number of inscriptions found, most belonging to ruling elite groups. These include the two Chutu-Satavahana inscriptions mentioned earlier, a fragmentary early Brahmi inscription (Chapter 6) and two early Kadamba inscriptions. While only two early Kadamba inscriptions have been found near Banavasi (and, as far as I know, no copper plate grants), one of these inscriptions (BGRS 256) is the elaborate Gudnapura inscription of Kadamba Ravivarma, which is one of the few that provides an elaborate genealogy of the dynasty.

In the second period, between the eighth and 14th centuries, there was an increase in the number of inscriptions. Not only is there evidence that grants were being made to the Madhukeshwara temple in Banavasi (Chapter 5), but the contents of the inscriptions found

indicate the existence of a complex political hierarchy (Table 7-7). In this period and the next, there are at least three levels in the political hierarchy. At the top are imperial rulers or kings, such as the Chalukyas. Below them is a variety of intermediate elite groups who likely exercised control over specific regions or provinces, such as Banavasi 12000. These elite groups were identified by titles such as *Mahamandaleshwara* or Nayaka. The third tier consisted of local officials, such as *gavundas*.

There is also evidence for some amount of conflict in the area. Several of the inscriptions from this period are on hero stones and record the death in battle of a hero (frequently a local elite personage), under the rule of a superior authority (who might have had another king over him). For instance, BGRS 149, Feature 14 records the death of Chandeya Nayaka while fighting foes during the time of the Kadamba chief Mallideva and BGRS 250, Feature 7, records the death of Boppa-gounda in a battlefield while Kava deva was the ruler (Appendix 5).

Table 7-7: Imperial and intermediate elite groups in the inscriptions in the survey area

Century	BGRS #	Imperial/ Royal authority	Intermediate elite	Local official	Other
Pre 8th	256	Kadamba Ravivarma			Land purchased from Brahmarya
	280, Feat. 16	daughter of Haritiputra Satakarni, wife of Jivaputa	Jivaputa likely a Bhoja (his wife, Nagashri is termed a Mahabhoji)	Minister Khadasati was the superintendent.	
	280, Feat. 20	Queen of the King Vasishthiputra Siva Siri Pulumavi			
	324	Kadamba Mrigesavarma. Refers to Mrigesavarma's	Defeat of the Gangas and a Palla king (name unclear) who was the ruler of Kanchi. Might mention a *samantas*.		
8th- 14th	120, Feat. 5		*Mahamandaleshwara*, name lost		
	149, Feat. 6	Yadava king		Mentions (death of) Kalagavunda, the son of Boppa *gavunda*.	Naga made by Nataka, *achari* of Sanjayataka (Banavasi), disciple of Damoraka
	149, Feat. 9, 280, Feat. 38	Hangal Kadamba chief Mallideva			*Samadhi* of Kallaya
	149, Feat. 12	Kadamba chief Mallideva	Chandeya Nayaka who attained *virasvarga* fighting against foes		

Century	BGRS #	Imperial/ Royal authority	Intermediate elite	Local official	Other
	232, Feat. 1	King Ballaladeva			Death of a hero
	250, Feat. 7	Kava deva was the ruler		death of Boppa-gounda in a battlefield	
	250, Feat. 8	Jaya….., described as *Mahamandaleshwara* and *Banavasi-puravaradhishwara*.		Mentions Kama-gaunda and Lamkamanayya	
	280, Feat. 17	Reign of Trailokyamalladeva (Someshvara I) Chalukya	Mahamandaleshwara Kirtivarmadeva of the Kadamba family, ruling Banavasi 12000		
	280, Feat. 18	Chalukya Vikramaditya VI was king	*Mahamandaleshwara* Kirtidevarasa of the Kadamba family of Hangal who was ruling Banavasi 12000		
	280, Feat. 19	Chalukya Bhulokamalla Someshwara III was reigning	*Mahamandaleshwara* of the Kadamba family		
	325	Kalyana Chalukyas,	Perhaps refers to *Mahasamanta* Goggi		
Post 14th c.	64. Also 33, Feat. 2				Barama (land owner?)
	88, Feat. 1			Tamma-gonda (*gavunda*), son of Muda-gonda.	
	280, Feat. 1	Raghu, King of Sode			
	280, Feat. 8	Harihara, son of Bukka was ruling in Hastinapuri	Governor of Govanagara (Goa) and perhaps of Vanavasi (name lost).		
	280, Feat. 10, 13	Sadashivarajendra of Sode			
	280, Feat. 22		*Mahapradhana* Madhavanka was governing Banavasi 12000	Nagappa (son of *Prabhu* Shivadeva , chief of Rattikallu)	Grant was entrusted to Bikkideva-odaya, the son of lakulevaradeva-odeya. The latter is described as *Kadamba-raya-kul-acharya*
	280, Feat. 23		Mallanna, son of Chikkadeva Odeya, called *Tribhuvana* Bharatacharya was administering Banavase *sthana* and *Mahapradhana*		

Century	BGRS #	Imperial/ Royal authority	Intermediate elite	Local official	Other
			Bayicha-Dannayaka was governing Gove and Guttiya-Venthe		
	280, Feat. 24		Ramaraja and Venkatadri		Uligada-Padumappa, the attendant in their service.
	280, Feat. 25, 26	Vijayanagara king Sadashivaraya	Immadi Arasappa Odeya, the *Mahaprabhu* of Sode, son of *Mahamandaleshwara* Ramarajayya-Venkatadrirajayya. The latter is referred to as the *karyakarta* of the Vijayanagara king.		
	280, Feat. 27		Some *Nayakas* were witnesses of the gift		
	280, Feat. 36	Maratha chief Sadashivaraya			
	280, Feat. 40		Land granted by the chief (unnamed)	Kalasa Gomda (*gavunda*)	
	280, Feat. 41		Ramachandra-nayaka, *Parapategararu* Govimda-nayaka		Uppara Goravamna ('Uppara' seems to refer to an artisan caste)
	287, Feat. 1	Vira Bukkaraya was ruling in Hastanivatipura (Anegondi)	Madhavanka, was ruling Banavasi 12000.	Donor takes permission from the *gauda prajegal* (village headmen) of the 18 *Kampanas* (divisions) of Gutti (Chandragutti) and the *Mahajanas* of the named *agraharas*	
	354		Khana Khana Saheba	Sidhalinga Gauda of Gudunapura	

In the succeeding period, post 14th century, inscriptions recording death in battle seem to decline slightly, but grants to the Madhukeshwara temple increased considerably. It is noteworthy that several of these grants place the donor with respect to the political hierarchy of the region, listing both the elite authority to whom he owed allegiance and the subordinate groups below him (Table 7-6). As in the early Kadamba period, grant-giving was part of a complex political strategy for the creation of alliances with superior and subordinate groups. I

suggest that the sacred center of Banavasi provided a space for the creation and display of these alliances, as well as of the munificence (and authority) of elite groups.

In 6.1.1.2 above, I discussed the possibility that Thigani was the location of a small elite family in this later period. Interestingly, we recorded two inscriptions that seem to refer to the same individual. BGRS 33, Feature 2 is a fragmentary inscribed naga stone in the village of Thigani that refers to an individual by the name of 'Barama'. BGRS 64 is an inscribed linga-mudra stone near Banavasi that records the grant of land by an individual of the same name.
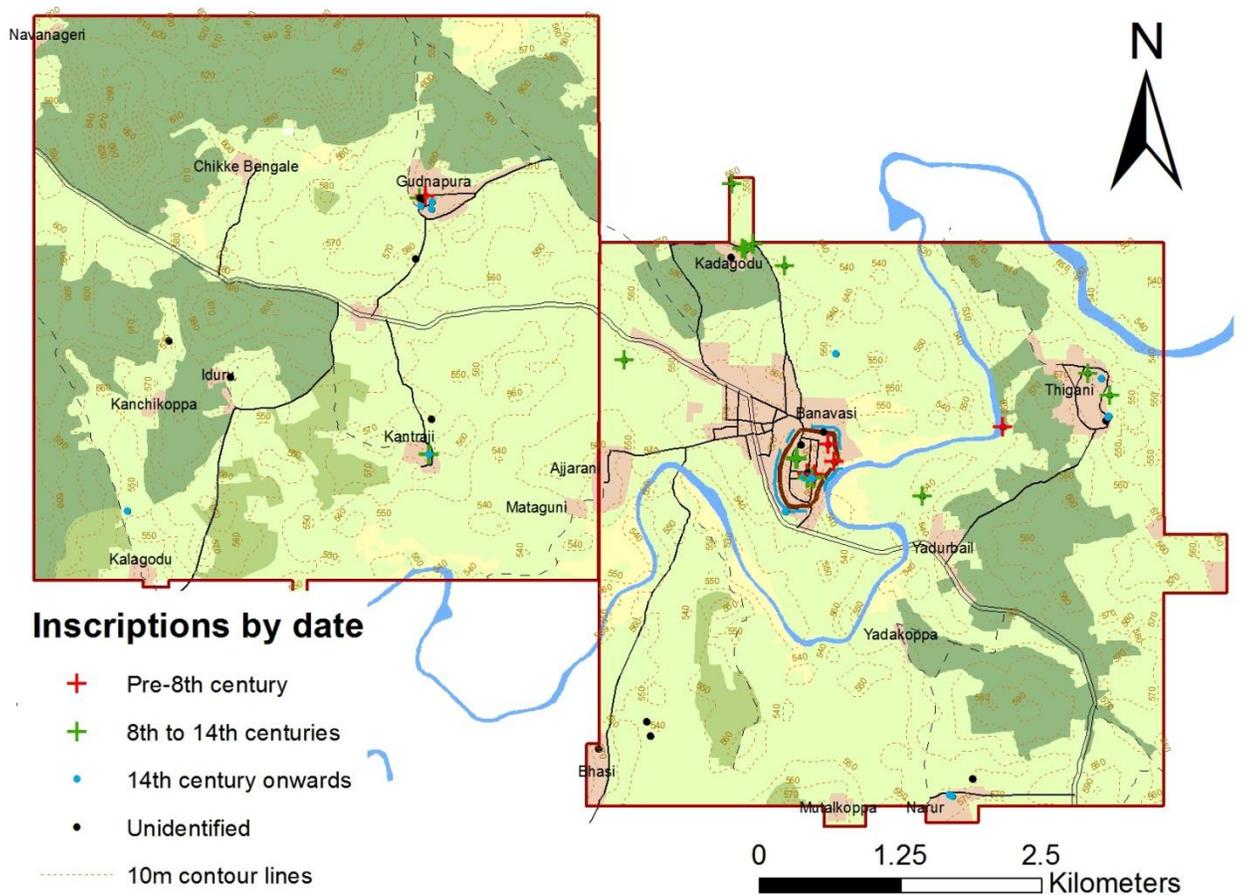
Figure 7-11: Inscriptions recorded on survey

Chapter 8
Conclusion

I started my dissertation research with an interest in understanding the history and dynamics of small complex polities located on the peripheries of larger, often cycling, states and empires. My archaeological research at Banavasi, considered the capital of one such polity, is a case study through which I attempted to address larger anthropological questions about the organizational dynamics of these so-called 'peripheral' polities. The proximate questions I was interested in with respect to Banavasi were three-fold. First, I wanted to be able to identify how a regional center such as Banavasi interacted with its immediate hinterland. I was interested in the varying articulations of settlements, structures and other cultural and natural features in the immediate vicinity of Banavasi. By extension, I wanted to examine these spatial and temporal patterns in the archaeological landscape from the point of view of how they informed on regional socio-religious and political organization.

Second, Banavasi was known to be the capital of a regional dynasty between the fourth and seventh centuries AD and I wanted to investigate how these and other regional and local elite groups established and maintained their authority in the area, and how local authority persisted (or failed to persist) over time. Third, and finally, I wanted to place regional developments at Banavasi within the context of larger political and religious systems and developments in the peninsula. The long continuity of settlement at Banavasi despite its incorporation within the territories of successive large states and empires is a noteworthy feature that I wished to examine.

If these three broad questions were my proximate concerns, my ultimate goal was to place the archaeological and historical patterns of organization at Banavasi within the anthropological study of peripheral regions -- to show how the organization of this small (but not unimportant) settlement could provide a tentative model for the study of other, similar long-lived regional centers in South Asia in particular. As mentioned in Section 2.4, Banavasi is one of several known Early Historic and medieval towns and cities, many of which were fortified. Many of these settlements had a long history spanning several centuries, and often functioned as

257

regional administrative centers or occupied nodal positions in long-distance trade networks. These places were however not always located in 'core' areas of state or imperial organization and were not necessarily capital cities.

As discussed in Chapters 2 and 3, implicit in traditional models of regional organization in South Asia is a dichotomy between centralized 'core' areas with complex political and economic structures and less complex 'peripheral' areas, where historical change was often initiated by their incorporation within or interaction with these 'cores'. In South Asian historiography, this dichotomy has been considerably reinforced by the tendency to rely on epigraphic sources to reconstruct dynastic history. On the one hand, this has led to a tendency to populate the historical landscape with well-defined dynastic structures and on the other, to a tendency to view the numerous inscriptions recording royal grants of land to various social, political and religious groups as signs of the disintegration of a centralized political system, especially in the post fifth century period.

Historically, between the first and 18th centuries AD, we know that several successive complex political entities formed and disintegrated in peninsular India and periodically incorporated peripheral areas such as the Banavasi region within their territories. In order to engage with the archaeological landscape of Banavasi, a World-Systems model proved valuable for thinking about the larger extra-regional connections and interactions with 'core' areas of state formation. As a starting point, a distinction between cores and peripheries creates clear, if rather simple and dichotomous, expectations for archaeological patterning in peripheral regions. At the same time, my survey at Banavasi has shown that regional organization in peripheral areas is extremely complex and cannot be reduced to explanations based solely on incorporation within a 'core' or on independent 'peripheral' development. In this, recent research on peripheral areas within states and empires, emphasizing the variety of interactions between different socio-political entities, including the increasing emphasis on the agency of intermediate elite groups is a necessary and valuable theoretical corrective (Chapter 3).

My survey at Banavasi provided a *longue duree* approach that allowed me to trace long term developments in socio-political and religious organization at Banavasi as it cycled into and out of political centrality. This allowed me to both address larger anthropological issues about the organization of complexity in 'peripheral' areas and to use my discussion of Banavasi as a

case study through which I suggest a model of the organization of a regional center. I organized the survey data within a four-fold chronological framework that allowed me to avoid using dynastic labels to describe archaeological data and temporal periods. In some case, architectural and stylistic traits are widely known by a dynastic descriptor and I followed conventional terminology. The patterns identified in the archaeological landscape at Banavasi have been summarized in Figure 8-1 below.
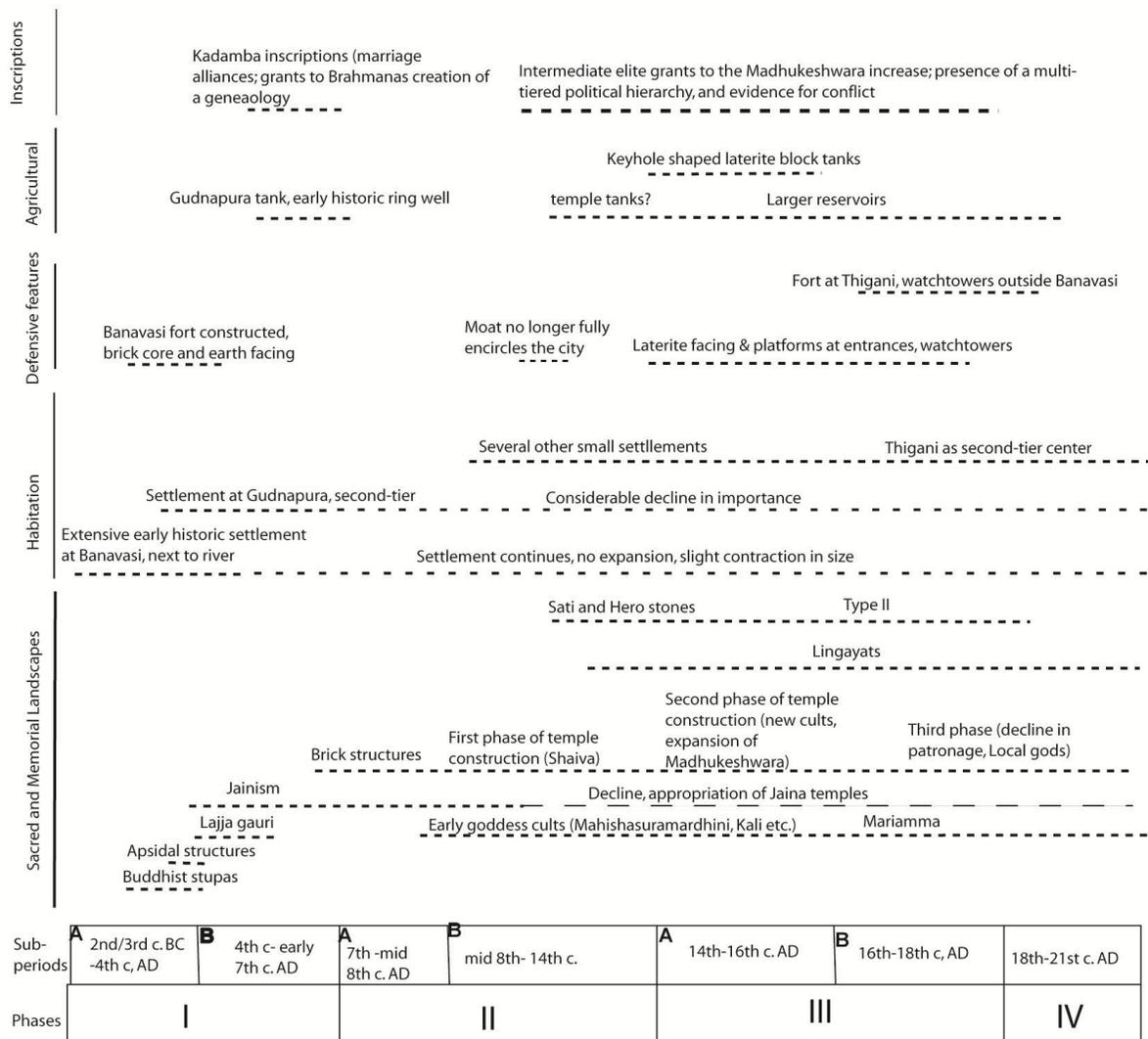
Figure 8-1: Regional organization at Banavasi, a summary diagram

Banavasi developed as an extensive Early Historic settlement, parts of which were later fortified during the early centuries AD. With the growth of the adjacent settlement of Gudnapura, this period saw the development of at least a two-tier settlement (and administrative) hierarchy. Banavasi's growth as a regional center can be situated within larger regional and sub-continental developments, including the development of a subcontinent-wide network of trade and movement that allowed for the movement of goods and artistic traditions; the spread of Buddhism; and of the Brahmi script from north India. While the Banavasi area was incorporated within larger regional and imperial systems, including that of the Satavahanas, there is evidence for the presence of an early elite family at the site (the Chutus, Chapter 7). Moreover, the presence of a Lajja Gauri plaque of yellow limestone typically found at the Early Historic site of Sannathi in north Karnataka suggests the possibility that Banavasi and other Early Historic centers might have interacted in various ways.

In fact, the site of Sannathi is interesting, since developments there seem to parallel those at Banavasi. However, since the published material from the site primarily describes several seasons of excavations that focused on the Early Historic settlement and structures at the site and analyzes numerous early inscriptions (Howell, et al. 1995; Rao 2000; Rao 1985), there is limited information on the long-term (and post Early Historic) archaeological landscape. This greatly limits my discussion of the site, though I will refer to it occasionally to illustrate the possible relevance of my model of regional organization at Banavasi to other similar sites.

Sannathi is located on the banks of the River Bhima and was settled by the early centuries AD. As at Banavasi, the site contains an extensive, partially fortified Early Historic settlement and there is considerable evidence for the importance of Buddhism to its inhabitants, in the form of several large *stupas* and donative inscriptions. The area also seems to have been incorporated within the fringes of the Mauryan Empire since an edict of the ruler Ashoka has been found at the site. At Banavasi, my study of the sacred landscape in the survey area (Chapter 5), informs on the beginnings of a connection between political authority and religious institutions in the early centuries AD.[130] At Banavasi, possible *stupas* ringed the early settlement, indicating a close

---

[130] I do not mean in any way to suggest that the spread of Buddhism in the peninsula was due to the direct intervention of the Mauryan Empire, whether through the religious zeal of the Emperor Ashoka or through the incorporation of these peripheral areas. At the same time, the connection between small Early Historic centers like Banavasi and Sannathi and Buddhism is noteworthy.

but potentially complex relationship between religious organizations and secular elite systems (presumably located within the settlement).

It is in a much later phase, especially from the 14th century onwards, that a connection between religious groups and elite authority becomes clear in the Banavasi area. I pursue this connection through a study of religious architecture and inscriptions to suggest that Banavasi's continued importance lay partly in its establishment as a regional sacred and pilgrimage center for the Brahmanical Shaivite tradition. While the data for Sannathi is limited, it too seems to have developed as a regional sacred center, in its case, of the Shakti tradition from at least the 11th century onwards.[131] However, Sannathi, unlike Banavasi, does not seem to have developed as a regional capital or administrative center after the fourth century. Banavasi's later development and longevity, despite the area's incorporation within successive larger regional and imperial political systems, can be linked to two main factors: the presence of a local elite family (or families) that were closely connected to the area and to the development of a complex relationship of patronage and legitimacy between elite and religious groups (especially mainstream Brahmanical Shaivism) that was often played out in the environs of Banavasi.[132]

Although located in a peripheral region, there was a substratum of elite families that were closely linked to Banavasi and who constructed their authority in multiple ways. Between the fourth and seventh centuries AD, the Kadamba family successfully established a regional kingdom through a political strategy that involved the creation of a dynastic genealogy, the establishment of political alliances with superior and subordinate groups, and a complex pattern of gift-giving to religious groups linked to legitimacy (Chapter 7). In this early period, the Kadambas patronized both Brahmanical and Jaina groups and institutions. However, no Jaina structures dating to this early period were identified in the survey area. This is surprising since Banavasi has traditionally been considered the capital of this dynasty. A close examination of the early Kadamba inscriptions shows, in fact, that there were multiple loci of authority (at Banavasi, Hangal, and Uchchashringi) and perhaps multiple branches of this elite family. It can even be suggested that Banavasi need not have been the original core area of this family but was chosen

---

[131] The temple to the Goddess Chandralamba is an important regional pilgrimage center at Sannathi.
[132] It can be speculated that at Sannathi, the affiliation with the Shakti tradition, less of a widespread mainstream sect than Shaivism, did not allow for the development of a symbiotic relationship between elite authority and religious groups as at Banavasi.

as such due to its already established position as an Early Historic regional and religious center. The oft repeated phrase -- 'the Kadambas of Banavasi'-- might, in fact be inaccurate. Banavasi existed before the Kadambas, was one of their core areas at the height of their power, and continued after the early Kadambas.

Certainly Banavasi was one of several regional centers in a multi-tiered political entity during the period of the early Kadambas. If we forego the temptation to analyze early inscriptions from the point of view of extracting monolithic dynastic frameworks, some of the diversity of elite groups in the region emerges (Chapter 7). In fact, the Kadambas often owed allegiance to larger, more powerful political entities and several lower-level elite groups owed allegiance, in their turn, to the Kadambas.

A brief survey of later inscriptions from the region indicates that this complex and hierarchical pattern likely continued in the post seventh century after this early lineage declined from power, in some cases, through claims of descent from the early Kadambas. In traditional historiography, regional organization in this late period has been considered to be 'feudal', with a proliferation of intermediate groups that, it is argued, aggravated and were symptoms of the fragmentation of centralized authority. However, while the large numbers of inscriptions recording grants of land to intermediate groups is certainly noteworthy, in the Banavasi area at least, the presence of intermediate elite groups was not a sudden development. In fact, intermediate elite groups, such as the Kadambas, might best be considered the stable entities in this region. For a short space, between the fourth and seventh centuries, the Kadambas were able to expand their authority to a larger region than the immediate vicinity of Banavasi.

In later periods, elite families with their core area in the Banavasi region were not able to expand the area under their control, although families claiming (early) Kadamba descent did establish small kingdoms in other areas of the peninsula. While Banavasi was no longer the capital of these later dynasties, the settlement itself persisted as a small regional administrative and religious center. In the post seventh century period, the secondary settlement of Gudnapura declined in size and importance and the settlement hierarchy in the survey area appears to have become less complex (Chapter 7). Under numerous successive states and empires between the seventh and 16th centuries, the settlement of Banavasi was part of an administrative unit known

as Banavasi 12000, although it is unclear whether Banavasi was the primary center or capital of this unit.

Post tenth century inscriptions at Banavasi indicate both the presence of intermediate elite groups in the area and extensive imperial patronage of the main temple in Banavasi (Chapter 7). It is likely that Banavasi's incorporation into larger peninsular imperial systems and trade networks was accomplished through a network of royally patronized religious institutions and land grants to officials or intermediate elite groups. The settlement itself, and especially the central temple, likely provided a space for the creation, maintenance and display of elite authority and alliances at various levels in the hierarchy.

The archaeological landscape at Banavasi reflects a complex pattern of interaction with larger political systems, as well as the continuity of local elite groups. There is, for instance, evidence for the increasing penetration of a number of empires in the region post 10th century, as reflected in temple architectural styles. At the same time, there was continuity in local traditions (Chapter 5). I have discussed the possibility of the local organization of agricultural resources and the small-scale, localized production of laterite, brick and tiles (Chapter 6). This local organization might be linked to the continued importance of local elite families in the region both as the recipients of imperial land grants and also often making grants in their own right. The presence of these elite groups probably ensured a certain level of continuity and stability while the region cycled in and out of the control of successive imperial powers. That there also was some amount of conflict is indicated by the presence of numerous hero stones that record the death of individuals in battle (often while in the service of an overlord).

In the post 16th century, these local elite groups grew increasingly powerful even as the establishment of the Vijayanagara Empire led to the increased penetration of an imperial idiom in the region. Few new temples were constructed and existing ones continued to be patronized and enlarged, often using a typical imperial architectural idiom. The Banavasi fort wall was added to and a network of laterite platforms and a few tanks were constructed. As a small regional center, imperial authority was concentrated at Banavasi, while local elite groups established a presence in the surrounding villages. For instance, although the site of Gudnapura declined in importance, the village of Thigani was likely the location of a local elite family in this late period.

Small centers such as Banavasi were the loci of complex and hierarchical regional political and religious systems that were constantly changing. These peripheral centers seem to have established their position as regional sacred and political centers quite early. Over the centuries, they did not necessarily expand noticeably, but did *maintain* a prominent position in local and regional networks, almost as if they occupied a specific, functional niche in the regional political hierarchy. In the case of Banavasi, I have shown how it was at times one of the centers of a regional dynasty and at others a regional sacred and administrative center with a strong elite presence.

In this dissertation I have questioned the idea that peripheral regions were necessarily static entities. Centering the periphery and making it the primary unit of analysis allows us to study regional organization from a more nuanced perspective. I also suggest that in a context of cycling and ephemeral states and empires, smaller but long-lived peripheral areas characterized by small centers and elite families are essential units of historical analysis.

APPENDICES

Appendix 1
Banavasi-Gudnapura Regional Survey, Field Form

BGRS-_____

Banavasi-Gudnapur Regional Survey (BGRS)
2011 Season
Site Survey Form

Date: _____   Recorded by: _____

Site Number: BGRS- _____   Site Type: _____

BNV or GDN   Survey Block Reference: _____ Transect Number: _____ Sample Transect: Y N
Additional location information: _____

GPS Location _____N _____ E _____

_____N _____ E _____

_____N _____ E _____

_____N _____ E _____

Photos: B/W   Camera_____ roll_____
frame_____ descr_____
frame_____ descr_____
frame_____ descr_____
frame_____ descr_____
Color card_____   no frames_____
description _____

_____
_____
_____

Other forms attached: Y N how many____ Map/drawing attached: Y N how many____

Natural Setting

Topography   Slope   Special Resources
1. alluvium/colluvium 1. gentle (0-2°)   1. clay
2. flat   2. gentle-mod (3-5°)   2. CaCO$_3$
3. slope   3. moderate (6-8°)   3. ores (specify_____)
4. hill-top   4. mod-steep (9-15°)   4. other_____
5. sheet-rock   5. steep (>15°)
6. outcrop
7. other_____

Munsell_____

Texture:_____

Page 1 of ___

Present Land Use:

1. Cultivated_____%, fallow_____%, uncultivated_____%
2. Vegetation: thorny-scrub_, grasses_____, cactus_____, crops (specify)_____ _____

_____ _____

other_____ _____

3. Water sources (Description, proximity location)_____ _____

_____ _____

_____ _____

4. Modern cultural features_____ _____

_____ _____

_____ _____

_____ _____

5. Erosion/disturbance_____ _

_____ _____

_____ _____

Archaeological Description

1. Orientation of maximal dimension (in degrees)_____
2. Approximate dimensions_____
3. Primary site use (rank in order of importance)

  1. residential
  2. civic-ceremonial
  3. religious
  4. industrial
  5. agricultural
  6. military/fortification
  7. transport
  8. other

4. Artifact types: (presence/absence)
   earthenware ceramics: Y   N   Porcelain: Y N
   lithics: Y N   Other: (describe):_____ _____

5. Artifact scatter (description)_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Page 2 of ___

267

Density: none   sparse   moderate   heavy   very heavy

(sherds/m²   0   1-5   6-25   25-50   >50)

6. Collections (show locations on sketch maps; describe sampling method, refer to VMS guidelines for sampling strategies)_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

7. Materials collected

Permanent artifact collections?: Y   N

If yes, list number of bags and briefly describe their contents_____ _____

_____ _____

_____ _____

Other collections? (describe)_____ _____

Description and inferences: Write a brief prose description of the site. Describe architecture and construction, including material, layout and preservation. Include general setting and possible associations with other sites; discuss possible temporal affiliation and site function.

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/Flat	Red/Curved	Grey/Flat	Grey/Curved	Tan/Flat	Tan/Curved			
11	Count	6	3				2	3		3				1	1		9	1	2		17	
	Weight[133]	105	25				20	25		26				61	78		178	42	33		146	
13	Count								28													
	Weight								296													
14	Count		7												1		7					
	Weight		80												38		177					
21, Coll. 1	Count	67	47			2		26	1		11			6			75				51	2
	Weight	597	408			10		529	17		94			260			1666				324	44
21, Coll. 2	Count		1											1			1	1			1	
	Weight		5											32			22	41			2	

---

[133] All weight is in grams.

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/ Flat	Red/Curved	Grey/ Flat	Grey/ Curved	Tan/ Flat	Tan/Curved			
26, Coll. 1	Count								1					54	46		8					
	Weight								3					208	680		516					
26, Coll. 2	Count	23								5				5								3
	Weight	139								47				96								29
35	Count	131	6				1	9		47	48	15	4							1	11	2
	Weight	2587	48				27	152		1244	1091	313	111							9	58	22
41, Coll. 1	Count		11								2						7	1		2		1
	Weight		198								71						251	32		101		7
41, Coll. 2	Count																1	9				
	Weight																46	1301				
46, Coll. 1	Count	40					3	3	17	27	2	4								1		18
	Weight	800					530	123	482	438	20	79								60	89	267
46, Coll. 2	Count	2602					103	228		119	40	76		9					1	44	112	
	Weight	2676					1737	2895		1139	287	685		706					237	896	474	
46, Coll. 3	Count	152	1				110	288		107	16	18								9	36	
	Weight	1035	8				1166	4081		1685	134	263								1039	174	

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/ Flat	Red/Curved	Grey/ Flat	Grey/ Curved	Tan/ Flat	Tan/Curved			
46, Coll. 4	Count	150					9	34		53	27	42	2							3	15	
	Weight	488					92	386		428	113	290	19							94	61	
46, Diag.	Count	173					4	2		17	5	9	4									
	Weight	5982					451	34		489	61	688	43									
46, Feat. 1	Count	20				2	2	10		6	3									3		
	Weight	365				13	28	99		66	5									23		
50	Count																90	54				
	Weight																2646	1512				
53, Coll. 1	Count	6												14						5	11	7
	Weight	416												1104						102	49	361
53, Coll. 2	Count	10	3					1		1		1		12			7			2		
	Weight	93	25					12		3		2		1167			415			72		
71, Coll. 1	Count																40	28			5	3
	Weight																1010	461			6	71
71, Coll. 2	Count																138					
	Weight																5147					

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/Flat	Red/Curved	Grey/Flat	Grey/Curved	Tan/Flat	Tan/Curved			
71, coll.3	Count	38	2					15		15	9	9								12		1
	Weight	302	7					180		155	39	55								386		43
71, Coll. 4	Count	2							3	2		2		116								
	Weight	27							610	46		9		3487								
85	Count	109	6				27	31		78	18	6					17			76		3
	Weight	732	82				506	257		465	131	44					497			375		24
118, Coll. 1	Count													16			47			2		2
	Weight													776			1493			84		114
184	Count		2														41					
	Weight		21														5560					
190	Count																					
	Weight																					
207	Count									2				118	0						17	1
	Weight									102				2575							384	20
226, Coll. 1	Count	31					5	2		41	31		7								21	
	Weight	227					38	24		431	199		139								56	

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/Flat	Red/Curved	Grey/Flat	Grey/Curved	Tan/Flat	Tan/Curved			
226, Coll. 2	Count	18						9		58	19		6									1
	Weight	445						67		746	143		40									31
226, Coll. 3	Count	29					1	8		38	15		1								10	1
	Weight	293					12	94		253	101		6								35	102
226, Coll. 4	Count	54								1	1											
	Weight	438								4	16											
226, Coll. 5	Count	25					1	5		4	1			1	2						4	1
	Weight	328					26	50		19	13			152	60						70	36
226, Coll. 6	Count	597						13		18												
	Weight	6683						191		348												
226, Coll. 7	Count		106					1		16			6								13	2
	Weight		851					13		131			61								44	43
226, diag.	Count	2						2		2		7										
	Weight	63						320		93		320										
231, Coll. 1	Count	129				11	8	27		64	9	4									6	
	Weight	1807				104	175	463		610	125	67									37	

BGRS #		Plain Ware					Micaceous Ware			Slipped/Burnished				Tiles						Coarse Ware	Eroded	Other
		Red	Grey	Brown	Buff	B and R	Red with slip	Red w/out slip	Buff	Red	Grey	Brown	B and R	Red/ Flat	Red/Curved	Grey/ Flat	Grey/ Curved	Tan/ Flat	Tan/Curved			
231, Coll. 2	Count	13	2				1	1		15	1	1		5	3							
	Weight	767	130				43	84		944	32	19		1607	990							
233	Count	7	53				3	5	3	3							8		5			
	Weight	143	1367				184	56	38	84							3233		1667			
237	Count	30	14				1		2	11	1			2							9	
	Weight	525	133				15		14	140	3			102							115	
239	Count	9					2			2				6						1	2	2
	Weight	142					48			18				1234						61	11	114
253	Count		1											19								
	Weight		179											2193								

BGRS #	Site Type	Collection type	Total area site/scatter [134]	Amt. collected	Possible Date	Period	Density
11	Mound	JC[135]	4500	30%	Late medieval- modern	IIIB, IV	Sparse
13	Possible stupa	Complete	751	100%	Indeterminate	IIIB, IV	Sparse
14	Mound	JC	800	100%	Late medieval-modern	IIIB, IV	Sparse
21, Coll. 1	Scatter	JC	13000	11%	Late medieval-modern	IIIB, IV	Sparse-moderate
21, Coll. 2	Mound	JC	380	100%	Late medieval-modern	IIIB, IV	Sparse
26, Coll. 1	Structure	JC (from central structure)	1270	20%	Late medieval-early modern	IIIB	Moderate
26, Coll. 2	Structure	JC (from retaining wall)	1270	1%	Late medieval- early modern	IIIB	Moderate
35	Habitation	JC	278	4 m section from ditch	Late medieval- modern	IIIB, IV	Heavy
41, Coll. 1	Fort	Diag. sweep from fort interior	8600		Late medieval- modern	IIIB	Sparse
41, Coll. 2	Fort	Diag. sweep from western bastion			Late medieval- modern	IIIB	Sparse
46, Coll. 1[136]	Ceramic scatter	Diag. sweep	141257	20 m section	Early historic	IA	Moderate-heavy
46, Coll. 2	Ceramic scatter	JC	As above	Three 10 m sections	Early historic	IA	Moderate-heavy
46, Coll. 3	Ceramic scatter	JC	As above	15 m section	Early historic	IA	Moderate-heavy
46, Coll. 4	Ceramic	JC	As above	5 m	Early historic	IA	Moderate-

---

[134] All dimensions are approximate and are based on GPS points taken at the site boundaries, or on in-field paced or meter-tape measurements. All measurements are in square meters.

[135] 'JC' stands for 'Judgment Collection'. As discussed in Chapter 6, several collections were contingent on contemporary habitational or agricultural activity and systematic collections could not be made.

[136] As mentioned in Chapter 6, this site is an Early Historic mound that is being flattened by modern construction. Therefore, most of our collections were made in the cross-sections created due to this activity. The maximum height of the section varied from 4.60 to 5.30 m.

BGRS #	Site Type	Collection type	Total area site/scatter [134]	Amt. collected	Possible Date	Period	Density
	scatter			section			heavy
46, diag.	Ceramic scatter	Diag. sweep	As above		Early historic	IA	
46, Feature 1	Well	Complete	NA	NA	Early historic	IA	Sparse
50	Quarry, structure	JC	400	3%	Late medieval- modern	IIIB, IV	Moderate
53, Coll. 1	Ceramic scatter	JC	935	15 m section of wall	Medieval	II, IIIA	Sparse-moderate
53, Coll. 2	Ceramic scatter	Diag. sweep			Medieval	II, IIIA	Sparse-moderate
71, Coll. 1	Possible stupa	JC	1878 (mound)	2%	Late medieval-modern	IIIB, IV	moderate
71, Coll. 2	Possible stupa	JC	1878	1%	Late medieval-modern	IIIB, IV	moderate
71, Coll. 3	Ceramic scatter	JC	8197	8.5 m long, 1.6 m high section along modern ditch	Medieval- Late medieval	II, IIIA	moderate
71, Coll. 4	Ceramic scatter	JC	8197	1%	Early Historic-medieval	IB?, II	moderate
85	Ceramic scatter	JC	9687	7%	Early historic	I	moderate-heavy
118, Coll. 1	Structure	Structure	32× 15 m	Diag. sweep of tiles	Medieval- early modern	II, IIIA	Sparse-moderate
184	Habitation	Diag. sweep of tiles from one of three house mounds	110		Early modern	IIB, IV	sparse-moderate
190	Ceramic scatter	Diag. sweep	14716		Early Historic?	I?	moderate
207	Structure	JC	15× 17 m	100%	Early Historic	IA	Sparse
226, Coll. 1	Ceramic scatter	JC	19446	5×1 m	Early Historic	IA	Moderate-heavy
226, Coll. 2	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate-heavy
226, Coll. 3	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate-heavy
226, Coll. 4	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate-heavy
226, Coll. 5	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate-heavy
226, Coll. 6	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate

BGRS #	Site Type	Collection type	Total area site/scatter [134]	Amt. collected	Possible Date	Period	Density
226, Coll. 7	Ceramic scatter	JC	As above	5×1 m	Early Historic	IA	Moderate
226, diag.	Ceramic scatter	Diag. sweep	As above		Early Historic	IA	Moderate
231, Coll. 1	Ceramic scatter	JC		5 m from modern ditch (40 cm high)	Early Historic	IA	Moderate
231, Coll. 2	Ceramic scatter	Diag. sweep			Early Historic	IA	Moderate
233	Ceramic scatter	Diag. sweep	21323		Late medieval- early modern	IIIB, IV	Moderate
237	Structure	Diag. sweep of tiles	10× 7 m		Late medieval-early modern	IIIB, IV	Moderate
239	Structure	Diag. sweep	126		Early historic	IA	Sparse
253	Structure	Diag. sweep	8× 9 m		Medieval	III	Sparse

Appendix 4
Early Kadamba inscriptions

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
1	Malavalli/ Pillar inscription	3rd c. AD	Order to the chief revenue commissioner of the grant of a village, free of all imposts.	Haritiputra Satakarṇi, King of Vaijayanti, dated in the 2nd year of his reign.	Brahmana, for the enjoyment of the gods.	(E.C. Vol. VII: Sk 263Gopal 1985a: 5-7; Moraes 1931: 4; Rice 1897: 293-294)
2	Banavasi/ Stone inscription	3rd c. AD	Records grant of a naga, tank and *vihara*.	Mahabhoji Sivakhada Nagashri, daughter of Haritiputra Satakarni, wife of Jivaputa.	Unclear	(S.I.I. Vol. XX: No. 1; Gai 1961-62; Murthy 2002: 27-30)
3	Banavasi/ Stone inscription	2nd c. AD	Memorial stone of the queen of the king Vasithiputa Siva Siri Pulumavi.			(Murthy and Bhat 1974)
6[137]	Malavalli/ Pillar inscription	3rd-4th c. AD	Renews a grant of several villages made for the enjoyment of the god, previously made by the Kadamba king and lord of Banavasi Shivaskandavarma.	Unnamed Kadamba king	Brahmana	(Gai 1996: 59-60; Gopal 1985a: 3-5)
7	Chandravalli/ Stone inscription	4th c. AD	Refers to the construction of a tank.	Kadamba King Mayurasharma	Unclear	(Gai 1996: 61; Gopal 1985a: 7-8)
8	Halsi/ Copper Plate	5th c. AD	Grant of a field.	Kadamba crown prince Kakusthavarma, issued from the camp of Palashika.	*Senapati* Srutakirti.	(Gai 1996: 62-63; Gopal 1985a: 8-10)
9	Talagunda/ Pillar inscription	5th c. AD	A tank was excavated for the use of the temple.	Kadamba Shantivarma issued the inscription to record donation by his father, Kakusthavarma.	Hindu temple	(Gai 1996: 64-68; Gopal 1985a: 10-11; Kielhorn 1905-06)

---

[137] Numbers 4 and 5 are an inscribed bead mold and sculpture found in Banavasi, respectively (Murthy, et al. 1997: 30, 105). They have not been included in the analysis.

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
10	Halmidi? Pillar inscription	5th- 6th c. AD	Gift of two villages.	Mrigesa and Naga, officers of the Naridavile-nadu, probably with the consent of the Bhatari family. During rule of Kadambapan Kakustha Bhatoran.	Donated to Vija-arasa, son of Ella-bhatari for having participated in the raid of the chief of the Alupas. One-tenth of the yield of this wet land was granted to Brahmanas free of charge.	(Gai 1996: 25-26; Gopal 1985a: 21-24)
11	Talagunda/ Stone inscription	5th- 6th c. AD	Grant of money for feeding 30 residents of Sthanakunjapura.	Kakustha of the Bhatari family, son of a Kadamba princess, feudatory of the Kadamba king and chief among ten *mandalikas* with control over customs duties.		(Gai 1996: 25-26; Gopal 1985a: 24-26)
12	Mysore state/ Copper plate	5th c. AD	Gift of irrigated land in two different villages.	Kadamba Mrigeshavarma from Vaijayanti in his 2nd regnal year.	Two brahmanas.	(Gai 1996: 69-70; Gopal 1985a: 26-29)
13	Devagiri/ Copper plate	5th c. AD	Gift of black soil land for worship at the *Chaityalaya* of Brihat Paralur.	Issued from Vaijayanti in the 3rd regnal year of Mrigeshavarma.	Jaina institution	(Fleet 1878b: 35-37; Gai 1996: 71-73; Gopal 1985a: 29-33)
14	Devagiri/ Copper plate	5th c. AD	Village divided between the *arhat* Mahajinendra and two sects of ascetics.	Issued from Vaijayanti by Mrigeshavarma in his 4th regnal year.	Jaina groups	(Fleet 1878b: 37-38; Gai 1996: 74-75; Gopal 1985a: 33-38)
15	Hosanagara/ Copper plate	5th c. AD	Land belonging to two named individuals.	6th regnal year of Mrigeshavarma, issued from Vaijayanti.	Brahmana	(Gai 1996: 77-78; Gopal 1985a: 38-41)
16	Hitna Hebbagilu/ Copper plate	5th c. AD	Gift of a village, with the exemption of various taxes.	Mrigeshavarma in the 7th year of his reign, issued from Vaijayanti.	Brahmana	(Gai 1996: 77-81; Gopal 1985a: 42-46; E.C. IV (OS): HS 18, 84-85)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
17	Hiresakuna/ Copper plate	5th c. AD	Grant of a village, notice of which was given to the residents and officials (*grama bhojaka*) of the area.	Mrigeshavarma in his 8th regnal year, issued from Vaijayanti.	Brahmana	(Gai 1996: 82-83; Gopal 1985a: 46-49)
18	Halsi/ Copper plate	5th c. AD	Records construction of Jaina temple at Palasika, as well as a grant land for supporting various religious mendicants sects.	Mrigeshavarma in his 8th regnal year.	Jaina institutions and sects	(Gai 1996: 84-85; Gopal 1985a: 49-52)
19	Banavasi/ Pillar inscription	5th c. AD	Unclear	Mrigeshavarma	Fragmentary	(Gai 1996: 86-87; Gopal 1985a: 53-55)
20	Talagunda/ Stone inscription	5th c. AD	Fragmentary	Queen Prabhavati, of the Kaikeya family, wife of Kadamba king Mrigeshavarma and mother of Ravivarma.		(Gai 1996: 88-89; Gopal 1985a: 55-56)
21	Kudagere/ Copper plate	5th c. AD	Records grant of plough land, along with exemption from various taxes.	Mandhatrivarma in his second regnal year, issued from Vaijayanti.	Brahmana	(Gai 1996: 90-91; Gopal 1985a: 57-60; Kielhorn 1900-01)
22	Devarahalli/ Copper plate	5th c. AD	Records the grant land and house in the .	Mandhatri raja, son of Kumaravarma, in the former's fifth regnal year, issued from Uchchashringi.	Brahmana	(Gai 1996: 92-93; Gopal 1985a: 169-172)
23	Nilambur/ Copper plate	5th c. AD	Records the grant of two hamlets (*palli*).	Ravivarma of the Kadamba family in the 5th year of his reign, issued from Vaijayanti.	Brahmana	(Gai 1996: 94-95; Gopal 1985a: 60-63; Rao and Rao 1905-06)
24	Halsi/ Copper plate	5th- 6th c. AD	Grant of land, free of all taxes, for the anointment of the god Jina.	Bhanuvarma, in the 11th regnal year of Kadamba Ravivarma, his elder brother.	Given to the 'Jinas', other details not specified.	(Gai 1996: 96-97; Gopal 1985a: 63-66)
25	Kuntagani/ Copper plate	5th- 6th c. AD	Grant of land situated on either side of a tank bund constructed by the king, as well as land with a house.	Ravivarma in his 12th regnal year, issued from Panktipura (Hangal).	Brahmana	(Gai 1933-34; Gai 1996: 98-99; Gopal 1985a: 66-69)
26	Davanegere/ Copper plate	5th- 6th c. AD	Grant of land for the maintenance of worship of the Siddhayatana (a Buddhist temple) and the prosperity of the *sangha* on the request of Haridatta. The land came with the right to various taxes.	Ravivarma in his 34th regnal year	Buddhist	(Gai 1996: 100-102; Gopal 1985a: 69-75)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
27	Ajjibal/ Copper plate	5th- 6th c. AD	Gift of plough land in the village to the Mahadeva temple of the king's physician, the *deshamatya*. Unclear grant to brahmanas.	Ravivarma in his (3)5th regnal year, from Vaijayanti.	Official, Brahmana	(Gai 1996: 103-104; Gopal 1985a: 75-78; Sukthankar 1921-22)
28	Gudnapura/ Pillar inscription	5th- 6th c. AD	Gift of 3 villages and newly cultivable land irrigated by Guddatataka lake, for worship in the temple of Kama. In addition, several plots of land were purchased from Brahmarya and donated; some unclear grants made to support worship at the Kama temple at Hakinipalli and the Padmavati temples at Kallili.	Ravivarma	All the grants were made to the temple, along with the plates, through the hands of the Brahmanas.	(Gai 1996: 107-111; Gopal 1973; Gopal 1985a: 61-72)
29	Halsi/ Copper plate	5th- 6th c. AD	Grant of land for the worship of Jinendra.	Ravivarma	Jaina institution	(Gai 1996: 105-106; Gopal 1985a: 78-81)
30	Halsi/ Copper plate	5th- 6th c. AD	Refers to original grant of the village to a Jaina ascetic by Kakusthavarma, the grant's renewal by Shantivarma and Mrigesha to the mother of Damakirti (perhaps the son of the original donee). This grant is now renewed by Ravivarma and given to the son of Damakirti, who in turn made it over to 'the mother of his father' with the permission of the king. Part of the proceeds were to be given to the Jinalaya in Palasika.	Ravivarma, issued from Palasika.	To Jaina individuals, who had some right to re-gift the land, with some part of the proceedings going to Jaina institutions.	(Gai 1996: 112-114; Gopal 1985a: 91-97)
31	Kashipura/ Copper plate	5th- 6th c. AD	Grant of land along with a house.	Ravivarma, issued from Uchchringi (Uchchangi).	Brahmana	(Gai 1996: 115-117; Gopal 1985a: 97-102)
32	Kavadi, Kyasanur Hobali/ Stone inscription	5th- 6th c. AD	Fragmentary and unclear. Perhaps a memorial to the queen of Ravivarma, and perhaps Ravivarma himself (In which case she might have committed *sati*).			(Bhat 1983; Gai 1996: 118; Gopal 1985a: 105)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
33	Honnavar/ Copper plate	5th- 6th c. AD	Grant made by Chitrasena Mahakella, when king Ravi was ruling the kingdom.	Chitrasena Mahakella of the Kaikeya family, in his first regnal year in Ambu *dvipa*, while king Ravi was ruling.	Arya *samgha*	(Gai 1996: 119-120; Gopal 1985a: 102-104)
34	Kelagundli/ Stone inscrp.	5th c. AD	Memorial (*vadugal*) to Kallugujeni, senior queen of Mallige, while Ravivarma was ruling OR records the death of Mallige, the senior queen of Ravivarma.			(Bhat 1983; Gopal 1985a: 106-107)
35	Halsi/ Copper plate	5th- 6th c. AD	Grant of village to a Jaina sect for providing for perpetual anointment during the annual 8 day festival and the remaining portion for feeding the *Sarva-sangha* in the temple of Arhat built at Palasika by Mrigesa, son of Simha *senapati* of the Bharadvaja *gotra*.	Harivarma, year 4, issued from his camp at Ucchashringi, on the advice of his father's brother Sivaratha.	Chandraksh anta is the principal donee through whom the grant was made to a Jaina sect (*samgha* of Varishenach arya of the Kurchakas).	(Gai 1996: 121-122; Gopal 1985a: 107-111)
36	Halsi/ Copper plate	5th- 6th c. AD	Grant of village for the use of holy people and for worship in the *Chaityalaya*, which was the property of the Jaina sect of *Sramanas* called Aharisti.	Harivarma, son of Ravivarma, in the 5th year of his reign from his capital at Palasika at the request of king Bhanushakti belonging to the Sendraka family.	The superintende nt of the sect, *Acharya* Dharmanan din.	(Gai 1996: 123-124; Gopal 1985a: 111-114)
37	Sangolli/ Copper plate	5th- 6th c. AD	Grant of village.	Harivarma in his 8th regnal year, issued from Vaijayanti.	23 Brahmanas of eight different *gotras*	(Dikshit 1917-1918; Gai 1996: 125-126; Gopal 1985a: 114-118)
38	Unknown/ Copper plate	5th- 6th c. AD	Incomplete. Records gift of village.	Senapati Vishnudasavarma, who is described as the best among the *Kshatriyas* and a *brahmana-kshatriya*, during the 8th regnal year of King Harivarma	Brahmana	(Gai 1996: 127-128; Gopal 1985a: 119-121)
39	Devagiri/ Copper plate	5th- 6th c. AD	Grant of land for repairing anything that might be broken and for performing worship at the temple of the holy Arhat.	Devavarma, son and *yuvaraja* of Kadamba Krishnavarma, issued from Triparvata	Jaina sect of the *yapaniyas*	(Gai 1996: 129-30; Gopal 1985a: 135-139)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
40	Birur, Birur Hobali/ Copper plate	8th c. AD	Grant of village.	Vishnuvarma, son of Krishnavarma, with the permission of his grandfather Shantivarma who ruled over all Karnata.	85 brahmanas of various *gotras*, only 23 of whom are named.	(Gai 1996: 131-133; Gopal 1985a: 124-128)
41	Kora/ Copper plate	5th c. AD	Grant of village as a brahmana *agrahara* free of all taxes.	Vishnuvarma, eldest son of Krishnavarma. Issued from a camp at Kudalur during his 5th regnal year. The king is described as being consecrated on the throne by king Shantivara of the Pallava family.	Unnamed brahmana	(Gai 1996: 134-135; Gopal 1985a: 129-131)
42	Mudigere/ Copper plate	5th- 6th c. AD	Gift of land for the worship in the Jaina temple (*basadi*) for the increase of merit of himself and his family.	9th regnal year of Vishnuvarma, eldest son of Krishnavarma and the daughter of a Kaikeya king. He is said to have been anointed by an unnamed Pallava king. Grant made while the king was in Vaijayanti.		(Gai 1996: 136-137; Gopal 1985a: 132-135)
43	Mudigere/ Copper plate	5th- 6th c. AD	Gift of land for worship in the Jaina temple.	5th regnal year of Simhavarma, grandson of Krishnavarma, ruler of Vaijayanti and son of Vishnuvarma. He was anointed by the god Vasava and by a king called Sarvasena (Vakataka?). His mother belonged to the Kaikeya/ Rameya (?) family.		(Gai 1996: 138-140; Gopal 1985a: 139-143)
44	Shivalli/ Copper plate	6th c. AD	Grant of house and land measured by the rod named *Karppateshvara*.	7th regnal year of Krishnavarma II, issued from Vaijayanti	Brahmana	(Gai 1996: 141-143; Gopal 1985a: 143-147; Rao and Ramesh 1985: 1-4)
45	Bannahalli/ Copper plate	6th c. AD	Grant of village. The king was advised to make this donation by *sresthin* Haridatta.	Krishnavarma II.	Brahmana	(Gai 1996: 144-146; Gopal 1985a: 147-152; Kielhorn 1900-01: 16-20)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
46	Akki-Alur/ Copper plate	6th c. AD	Grant of village.	15th regnal year of Krishnavarma II, at the request of his son Ravivarma. Issued from Vaijayanti.	Brahmana	(Gai 1996: 147-148; Kielhorn 1900-01)
47	Ajjibal/ Copper plate	6th c. AD	Grant of land.	19th regnal year Krishnavarma II, issued from Vaijayanti.	Brahmana	(Gai 1996: 149-150; Gopal 1985a: 152-156; Sukthankar 1921-22)
48	Shivalli/ Copper plate	6th c. AD	Grant of house and 1/6th of the tax income (*Karuka vimshati).*	22nd (12th?) regnal year of Krishnavarma II, son of Simhavarma, who was the son of 'Kadambaraja' (no name given). Issued from Vaijayanti.	Brahmana.	(Gai 1996: 151-152; Gopal 1985a: 152-156; Rao and Ramesh 1985: 4-7)
49	Bennur/ Copper plate	6th c. AD	Grant of 1/10th of the royal portion and land.	Vijaya Shiva Krishnavarma, fifth in the line of Kadambas and great grandson of Krishnavarma, grandson of Vishnudasa and son of Simhavarma. Issued while on a victorious campaign to Vaijayanti.	Brahmana	(Gai 1996: 153-154; Gopal 1985a: 159-163)
50	Tagare/ Copper plate	6th c. AD	Grant of village. Later addition, in Kannada, adds that the village was granted with exemption from 32 imposts.	Bhogivarma, at the request of his son Vishnuvarma. Bhogivarma is said to be the son of Ajavarma and grandson of Krishnavarma.	Brahmana	(Gai 1996: 155-157; Gopal 1985a: 165-169)
51	Tadagani/ Copper plate	6th c. AD	Registers the grant of some wet lands.	Madhuvarma	Brahmana	(Gai 1996: 158; Gopal 1985a: 173-174)
52	Konnur/ Stone inscription	6th c. AD	Eulogizes Damodara, king (*nripa*) of the Kadambas.			(Gai 1996: 159; Gopal 1985a: 174-175)
53	Unknown/ Copper plate	4th-5th c. AD	Grant of land.	6th regnal year of Priyaratnavarma. Also eulogizes Mandhatrivarma Dharmamaharaja of the Kadamba family who made the grant.	Brahmana	(Ritti and Padigar 2010)

#	Find-spot/ Type	Date	Summary	Donor Details	Donee	Reference
54	Aretalagadde / Copper plate	4th-5th c. AD	Grant of land for the merit of Kakustha- *yuvaraja*.	12th regnal year of Priyaratnavarma.	Brahmana	(Ritti and Padigar 2010; Samak 2012)
55	Aretalagadde		Too eroded to decipher.			(Samak 2012)
56	Aretalagadde	5th-6th c.	Not published	Krishnavarma I		(Samak 2012)
57	Aretalagadde	Unknown	Not published	Pulindavarma		(Samak 2012)
58	Aretalagadde	5th-6th	Not published	Shantivarma		(Samak 2012)
59	Aretalagadde	5th- 6th	Not published	Ravivarma		(Samak 2012)
60	Aretalagadde	5th-6th c.	Not published	Harivarma		(Samak 2012)

Appendix 5
Inscriptions in the survey area

#	BGRS #	Date	Dynasty	Location	Description
1	BGRS 2	1st c. BC- 2nd c. AD		Boulder on Varada river bed	Fragmentary Brahmi inscription, with first name in genitive case.
2	BGRS 12	13th century		In agricultural fields.	Vaishnava stone showing cow suckling calf, sun and moon, and discuss and conch on top left and right. Inscription: 'Namo Java Deva' ('Obeisance to the God Java/ Jaya?).
3	BGRS 33, Feat. 2	Post 14th or 16th c.	Intermediate elite?	On Naga stone placed in makeshift local shrine at base of tree.	Six characters, modern Kannada: "ba…vi…ra…barama". Same name in BGRS 64 below.
4	35, Feat. 1	10th-12th c.	Late Chalukya	Fragmentary hero stone in makeshift local shrine.	Unclear.
5	38, Feat. 1	8th-10th c.	Rashtrakuta	Fragmentary hero stone in local shrine.	Unclear.
6	39, Feat. 1			Irregularly carved fragment on small shrine behind Mariamma temple (BGRS 39).	Unidentifiable carving in relief, perhaps the bent front leg of a nandi. There is a partial two-line inscription in Hale Kannada below the carving. Unclear.
7	39, Feat. 3, 4	16th-18th centuries		Two linga-mudra stones on main Thigani road next to Mariamma temple (BGRS 39).	Two roughly carved pillars with incised linga and sun and moon on the top left and right respectively. Below the linga is the word 'Thigani..ya…' carved in modern Kannada.
8	61	10th-14th c.?	Hoysala?	Middle of a fallow field and facing roughly south.	Very eroded linga-mudra stone. The front has a carving in relief depicting a cow (bull?) facing right with a calf suckling. To the right is a linga and on top are a sun and moon to the top right and left respectively. Below the carving is a 11-12 line inscription (12th line might be a name in the bottom right corner). Unclear.
9	64	Post 14th or 16th c.	Intermediate elite	Linga-mudra stone, facing north and overlooking a large expanse of fallow fields.	The top half of the stone has a very roughly incised linga with sun and moon to the top left and right respectively. Below this is a horizontal incised lined, followed by 6-7 lines of inscription in hale Kannada. Prashant's transcription: *Sri(?) maha barama_ _* *_ _ na ba _ _ va _* *_ ya _ _ _ _ _* *_ _ ma ge _ _ _* *_ yendu ko da lo* *Umbali _ _ un _* *bi ja va ki ka _* Summary translation: Someone named Barama who owned agricultural land made a grant ('ko', 'du'). The donee has to give some

#	BGRS #	Date	Dynasty	Location	Description
					fixed amount of the produce of the land (*umbali*) to the owner (Barama?). This payment has to be made not in money, but as *bija*/seed(?).
10	88, Feat. 1	Nov. 7, 1464 AD		Inscribed Sati Stone. Type II. Located in field next to Banavasi fort.	Inscription records the attainment of *Shivaloka* by Tamma-gonda (*gavunda*), son of Muda-gonda (A.R.I.E. 1984-85: No. 121).
11	88, Feature 2	Post 14th c.		Inscribed Sati Stone. Type II. As above.	Unclear.
12	96, Feat. 3	15th century		Sati Stone. Type II. Next to Shaiva *mandapa* (BGRS 96).	Inscription now eroded and invisible but early reference in A.R.I.E. 1984-85. Mentions Pratapadeva and Parameshwara Malarva (A.R.I.E. 1984-85: No. 158).
13	100			Crudely carved linga-mudra stone in agricultural fields.	Stone faces east. The front is flat with a deeply incised linga with the sun and moon on the top left and right respectively. There is an extremely eroded three line Kannada inscription below the linga. Unclear
14	112, Feat. 1	15th century.		Inscribed Sati Stone. Type II. Outside Basavanna temple (BGRS 112)	'*Budadra nura*'(A.R.I.E. 1984-85: No. 159)
15	120, Feat. 3	12th century?		Large hero stone (Type III) in vicinity of Shaiva temple (BGRS 120).	Unclear.
16	120, Feature 4	12th century	Chalukyas of Kalyana	Inscribed Hero Stone. Type III. As above.	Refers to the death of a person, name unclear (A.R.I.E. 1984-85: No. 147)
17	120, Feature 5	11th century		Inscribed Hero stone. Type II. As above.	Mentions a *Mahamandaleshwara*, name lost (A.R.I.E. 1984-85: No. 148)
18	120, Feature 6			Hero Stone. Type III. As above	Perhaps inscribed but now is completely illegible (A.R.I.E. 1984-85: No. 150 (possible reference)).
19	129, Feat. 1			Fragmentary hero stone in local shrine in Kadagodu village.	Unclear.
20	130, Feat. 1	8th-9th centuries		Fragmentary hero stone incorporated in Shaiva *mandapa* (BGRS 130).	Unclear.
21	149, Feat. 1			*Nishidhi* within Jaina temple (BGRS 149).	Not translated.
22	149, Feat. 3	Post 14th century?	Later Kadamba?	*Nishidhi* multiple fragments. As above.	Death of officer, and of an individual named Marakave (A.R.I.E.-6: Nos. 144, 145).
23	149, Feat. 6	9th-12th c.	Sevuna	*Nishidhi*. As above.	Refers to a Yadava king and mentions (death of) Kalagavunda, the son of Boppa *gavunda* (South Indian Inscriptions (henceforth S.I.I.) Vol. XX : No. 227; A.R.I.E. 1935-6: No. 146).

#	BGRS #	Date	Dynasty	Location	Description
24	149, Feat. 7	11th century	Dated the 12th regnal year of Kadamba Chakravarti Virama (Vikrama?), perhaps a son of Jayasimha	*Nishidi*. As above.	Records the death by *samadhi* of Bhogave, the wife of Tippisetti Sataya. She is said to be the lay disciple of Sakalachandra bhattaraka belonging to Desi-gana, Pustaka gachcha and Kondakund anvaya (S.I.I. XX: No. 249; A.R.I.E. 1935-6: No. 143).
25	149, Feat. 8	12th century		*Nishidi*. As above.	Unclear. Mentions some officer and perhaps his *sallekhana* (S.I.I. XX : No. 291; A.R.I.E. 1935-6: No. 144).
26	149, Feat. 9	1226-1227 AD	Hangal Kadambas	*Nishidi*. As above.	Refers to the *samadhi* of Kallaya, a disciple of Srinandi Bhattarakamuni of the time of Hangal Kadamba chief Mallideva (A.R.I.E. 1970-71: No. 188?; Murthy, et al. 1997: 34).
27	149, Feat. 12	13th century	Hangal Kadambas	Hero stone.	Describes the heroism of Chandeya Nayaka who attained *virasvarga* fighting against the foes during the time of the Kadamba chief Mallideva (Murthy, et al. 1997: 34).
28	149, Feat. 14	12th-13th centuries		In Jaina *basadi* (BGRS 149)	Inscribed on pedestal of an image in the Jaina *basadi*. Seems to mention a Jaina ascetic of the Mula- sangha (A.R.I.E. 1947-48: No. 243).
29	149, Feat. 15	13th-14th centuries		As above.	Inscribed on pedestal of an image in the Jaina *basadi*. Seems to refer to the installation of the image (A.R.I.E. 1947-48: No. 244).
30	169, Feat. 1			Fragmentary hero stone in local shrine.	Unclear.
31	177	Modern?		On roughly shaped stone (perhaps *linga-mudra*) in agricultural fields.	Eroded and illegible
32	180, Feat. 4			Hero stone (Type II) in local shrine outside Kalabhairava temple in Bhasi village (BGRS 180).	Extremely eroded.
33	182			Linga mudra stone in local shrine on fort wall.	Unclear. Only two letters.
34	189	Modern?		Crudely carved linga mudra stone in agricultural fields.	Unclear.
35	202, Feat. 5			Linga mudra stone next to BGRS 202	Very eroded but perhaps inscribed.
36	202, Feat. 6	14th century		On base of broken pedestal in Jaina *basadi* (BGRS 202)	A charm invoking Shanti-tirtheshwara (A.R.I.E. 1970-71: No. 195)
37	202, Feat. 7	10th-11th		Several *nishidhi*	Not translated (I.A.R. 1988-89: 39).

#	BGRS #	Date	Dynasty	Location	Description
		centuries		stones and fragments now placed within BGRS 202	
38	202, Feat. 8			On pillar in BGRS 202	
39	215			Roughly carved basalt stone in agricultural fields.	Four rows of incised Kannada. Unclear.
40	217	Post 16th/17th century		Inscribed slab, side of agricultural fields.	10-line inscription in Devanagari script, perhaps Marathi. Not translated.
41	232, Feature 1	13th century	Hoysala	Inscribed hero stone (Type III) next to Shaiva temple (BGRS 232)	Damaged. Records the death of a hero, and names the king Ballaladeva (A.R.I.E. 1984-85: No. 120).
42	250, Feature 6			Fragmentary hero Stone next to Shaiva temple (BGRS 250).	Fragmentary.
43	250, Feature 7	11th century	Kadambas of Hangal	Inscribed Hero Stone. Type III. As above	Records the death of Boppa-gounda in a battlefield while Kava deva was the ruler (A.R.I.E. 1984-85: No. 152).
44	250, Feat. 8	12th century		Inscribed Hero Stone. Type III. As above	Refers to Jaya….., described as *Mahamandaleshwara* and *Banavasi-puravaradhishwara.* Mentions Kama-gaunda and Lamkamanayya (A.R.I.E. 1984-85: No. 153).
45	250, Feat. 11	15th century		Inscribed Hero Stone. Type III. As above	Refers to the footprint of *Rajaguru* Chikkadeva-vodeya of Banavasi and records the death of a hero (name unclear) in a fight. His wife probably killed a person of the enemy camp in the fight (A.R.I.E. 1984-85: No. 154).
46	252			Linga mudra stone in agricultural field	Extremely eroded.
47	256	5th- 6th century	Early Kadamba	Now lying broken by side of road in Gudnapura	Records gift of three villages and newly cultivable land irrigated by Guddatataka lake constructed to the south of the village Moguru, for worship in the temple of Kama. In addition several plots of land were purchased from Brahmarya and donated (Gai 1996: 111). Further, Some unclear grants were made to support worship at the Kama temple at Hakinipalli and the Padmavati temple at Kallili. Grant made by Kadamba Ravivarma. Detailed genealogy of the Kadambas recorded (Gopal 1973).
48	257	17th century		Inscribed slab by side of Gudnapura road	Not translated.
49	262, Feat. 1			Next to Shaiva temple (BGRS 262)	Inscribed grinding stone. Not translated.
50	266, Feat. 5			Inscribed hero stone (Type III) next to Shaiva temple	Not translated.

#	BGRS #	Date	Dynasty	Location	Description
					(BGRS 266, Feat. 2)
51	280, Feat. 1	16th c.	Chiefs of Sonda	On a stone couch located in the Madhukeshwara.	The stone couch was presented to god Madhukeshwara of Jayantipura for use in the spring festival by Raghu, king of Sode (S.I.I. XX: No. 254).
52	280, Feat. 7	13th-14th century		On two faces of a pillar in the Madhukeshwara. contains a bas relief portrait of the devotee.	States that Vibhuti Gauraya, disciple of Panditaradhya of Oruganti, seeks refuge in the god (S.I.I. XX 1988: No. 357; A.R.I.E. 1935-6: No. 128).
53	280, Feat. 8	14th c.	Intermediate elite	On three faces of a pillar in the Madhukeshwara. The writing on two faces is chiseled away.	Records the gift of land to some deity, whose name is lost by the governor of Govanagara (Goa) and perhaps of Vanavasi (name lost), when Harihara, son of Bukka was ruling in Hastinapuri (S.I.I. Vol. XX: No. 231; A.R.I.E. 1935-36: no. 127).
54	280, Feat. 9	14th c.	Hangal Kadambas?	On two faces of a pillar in the Madhukeshwara	Incomplete. Records a grant made for the services in the temple of Madhukanatha. Given to the custody of the Shaiva priest Chikkidevayya of the Kadamba kula, disciple of Lakuleshvaradeva. This priest is given many honorifics including 'preceptor of the world', 'emperor who raised up the Kadamba kingdom' (M.A.R. 1929: No. 114; A.R.I.E. 1935-36: no. 126).
55	280, Feat. 10	16th c.	Chiefs of Sonda	On a pillar in the Virabhadhra temple within the Madhukeshwara compound	This (pillar) was the service of Sadashivarajendra of Sode (S.I.I. Vol. XX: No. 256).
56	280, Feat. 11			Within Madhukeshwara temple compound.	Short inscription on floor of Narasimha temple.
57	280, Feat. 12	16th century			Records the names of Bhutanatha-Yogeshvara-Vodeya, Sadashiva Vodeya, Hire Sarveshvara Vodeya and Channapa Vodeya (S.I.I. Vol. XX : No. 389; A.R.I.E. 1935-6: Nos. 133).
58	280, Feat. 13	16th c.	Chiefs of Sonda	Located on a pillar in the Parvatimandapa.	The stone *mandapa* in the Parvati shrine was donated by Sadashivarajendra of Sode (S.I.I. Vol. XX: No. 255; A.R.I.E. 1935-36: no. 125).
59	280, Feat. 16	2nd-3rd c. AD	Chutu	Naga stone within Madhukeshwara temple compound.	Records grant by the king's daughter Mahabhoji Sivakhada Nagasiri, daughter of Haritiputra Satakarni, wife of Jivaputa and her son in (his) 12th regnal year. The grant was of a naga, tank and vihara. The Minister Khadasati was the superintendent of the work and it was made by Nataka, *achari* of Sanjayataka (Banavasi), disciple of Damoraka (S.I.I. Vol. XX : No. 1; Gai 1961-62; A.R.I.E. 1935-6: No. 123).
60	280, Feat. 17	11th c.	Intermediate	On slab set up to the	Fragmentary. Grant to the 'god of the stone

#	BGRS #	Date	Dynasty	Location	Description
			elite	left of the Virabhadra shrine in the Madhukeshwara	temple' (Kalladegula) by *Mahamandaleshwara* Kirtivarmadeva of the Kadamba family, ruling Banavasi 12000 during reign of Trailokyamalladeva (Someshvara I) Chalukya (S.I.I. Vol. XX: No. 41; A.R.I.E. 1935-36: no. 129; Kielhorn 1900-01: 353-355).
61	280, Feat. 18	11th c.	Intermediate elite	On slab set up to the left of the Virabhadra shrine in the Madhukeshwara	Fragmentary. Issued by *Mahamandaleshwara* Kirtidevarasa of the Kadamba family of Hangal who was ruling Banavasi 12000, while Chalukya Vikramaditya VI was king (S.I.I. Vol. XX: No. 88; A.R.I.E. 1935-36: no. 131; Kielhorn 1900-01: 355-361).
62	280, Feat. 19	12th c.	Intermediate elite	Slab in the Madhukeshwara	Fragmentary. Issued by a *Mahamandaleshwara* of the Kadamba family while Chalukya Bhulokamalla Someshwara III was reigning (S.I.I. Vol. XX: No. 108; A.R.I.E. 1935-36: no. 118; 1980-81: No. 153).
63	280, Feat. 20	2nd c. AD	Satavahana	Slab kept in Madhukeshwara temple.	This is the memorial stone of the queen of the King Vasishthiputra Siva Siri Pulumavi (Murthy and Bhat 1974).
64	280, Feat. 21	3rd c. AD	Chutu	Naga stone, in worship in the Madhukeshwara.	Records grant by the king's daughter Mahabhoji Sivakhada Nagasiri (Sivaskanda Nagashri) of a naga, tank and *vihara*.
65	280, Feat. 22	14th c.	Intermediate elite	Slab to the left of the Virabhadra shrine.	When *Mahapradhana* Madhavanka was governing Banavasi 12000, Nagappa (son of *Prabhu* Shivadeva , chief of Rattikallu) made a grant of money for the benefit of the god Vireshvara, installed by him in the vicinity of Madhukanatha at Banavasi and made a grant of land to the god for decorations, festivities and a perpetual lamp. The grant was entrusted to Bikkideva-odaya, the son of lakulevaradeva-odeya. The latter is described as *Kadamba-raya-kul-acharya* (S.I.I. Vol. XX: No. 229; A.R.I.E. 1935-36: no.130).
66	280, Feat. 23	15th c.		Slab in the Madhukeshwara	Records the gift of land to Mallanna who died in a fight with robbers when they looted the Madhukeshwara temple. Mallanna, son of Chikkadeva Odeya, called *Tribhuvana* Bharatacharya was administering Banavase *sthana* and *Mahapradhana* Bayicha-Dannayaka was governing Gove and Guttiya-Venthe (S.I.I. Vol. XX: No. 233; A.R.I.E. 1935-36: no.119).
67	280, Feat. 24	16th c.	Intermediate elite	Slab in the Madhukeshwara	Uligada-Padumappa, the attendant in the service of Ramaraja and Venkatadri constructed two *ranga mandapas* in the temple of Madhukeshwara, one for Parvatideva and the other for Narasimhadeva (S.I.I. Vol. XX: No. 236; A.R.I.E. 1935-36: no.120).
68	280, Feat. 25	16th c.	Chiefs of Sonda	Slab in the Madhukeshwara	Records the gift of land made for the benefit of the temple of Narasimhadeva at Banavasi by Arasadevi and a son of Immadi Arasappa

#	BGRS #	Date	Dynasty	Location	Description
					Odeya (not named), the *mahaprabhu* of Sode, son of *Mahamandaleshwara* Ramarajayya-Venkatadrirajayya. The latter is referred to as the *karyakarta* of the Vijayanagara king Sadashivaraya, while Immadi Arasappanayaka Odeya was subordinate of Ramgapparaja (S.I.I. Vol. XX: No. 241; A.R.I.E. 1935-36: no.121).
69	280, Feat. 26	16th century	Chiefs of Sonda		Records the grant of land by *Mahaprabhu* Immadi Arasappa Nayaka of Sode to the temple of Madhukeshwara of Jayantipura (S.I.I. Vol. XX : No. 253; A.R.I.E. 1935-6: No. 124).
70	280, Feat. 27	16th c.	Chiefs of Sonda	Fragmentary slab standing in the south-west corner of the Madhukeshwara compound.	Seems to record the gift of land. Some *nayakas* were witnesses of the gift (S.I.I. Vol. XX: No. 392).
71	280, Feat. 28	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple	Record refers to the grandchildren of the family of the Vadeyars and states that the feet of the god Madhulingeshwara is their refuge (S.I.I. Vol. XX : No. 393; A.R.I.E. 1935-6: Nos. 134, 135).
72	280, Feat. 29	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Refers to the family of the former Vodeyas of Banavase-sthala (S.I.I. Vol. XX : No. 394; A.R.I.E. 1935-6: Nos. 136).
73	280, Feat. 30	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Refers to the three *ankanas* (perhaps a gift) of the Vodeyas of Banavase-sthala (S.I.I. Vol. XX : No. 395).
74	280, Feat. 31	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Mentions Channappa Vadeya, Lingappa Vadeya and Shivappa Vadeya of the former family of the Vadeyas of Banavase-sthala (S.I.I. Vol. XX : No. 396; A.R.I.E. 1935-6: No. 137).
75	280, Feat. 32	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Inscriptions mentions Shankara Vadeya, Madhukappa Vadeya and Virappa Vadeya of Kadugoda sthala (S.I.I. Vol. XX : No. 397; A.R.I.E. 1935-6: No. 138)
76	280, Feat. 33	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Mentions Madhukappa Vadeya, Malappa Vadeya and Shivappa Vadeya. (S.I.I. Vol. XX : No. 398; A.R.I.E. 1935-6: No. 139).
77	280, Feat. 34	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Mentions Chanappa Vadeya of Bijarane sthala, Kenchappa Vadeya and Madhukappa Vadeya (S.I.I. Vol. XX : No. 399; A.R.I.E. 1935-6: No. 140).
78	280, Feat. 35	16th century	Hangal Kadambas	On the outer wall of the Madhukeshwara temple.	Mentions Bemki Vadeya, Chigare Vadeya, Kalantaka Vadeya, Mrityunjaya Vadeya and Honna Vadeya (S.I.I. Vol. XX : No. 400; A.R.I.E. 1935-6: No. 141).
79	280, Feat. 36	18th c.	Maratha	The original bell on which the inscription	Records the gift of a bell in the service of Madhukeshwara by Parvati Bayi, wife of

#	BGRS #	Date	Dynasty	Location	Description
				was engraved has been destroyed (Murthy, et al. 1997: 37).	Sadashivaraya in 1779 AD. She was the second wife of this ruler who defeated the Nawab of Savanur in 1740 and occupied Kittur, Gokak, Badami and established Maratha rule in northern Karnataka.
80	280, Feat. 37			In the Madhukeshwara.	R Bhat noted an inscription on a bell in the Parashurama temple but the contents are unknown (Murthy, et al. 1997: 38).
81	280, Feat. 38	13th century	Hangal Kadambas	Slab in Madhukeshwara	Records the death of Sasa[vo]kala, disciple of Sri Nandi Bhataradeva due to his vow of *samadhividhi* during the reign of Mallideva (A.R.I.E. 1970-71: no. 188).
82	280, Feat. 39	18th c.	Intermediate elite. Of the time of Sonda chief Sadashivarajendra.	Slab kept in the Madhukeshwara	Records the grant of a *matha* at Banavasi to Channabasappa of Harasuru, by Ba[sa]vali[m]garajendra of Koruru (A.R.I.E. 1970-71: no. 189).
83	280, Feat. 40	17th c.	Local elite while Raghunatha Nayaka (of Sonda) was ruling.	Slab kept in the Madhukeshwara	Seems to refer to the grant of lands for worship and offerings to god Madhulingaswami of Banavasi, by Kalasa Gomda from out of the *umbali* land granted to him by the chief on the occasion of the conferment of the *arasatti* to the donor (A.R.I.E. 1970-71: no. 190).
84	280, Feat. 41	17th c.	Local elite	Slab kept in the Madhukeshwara	Mentions Ramachandra-nayaka, *Parapategararu* Govimda-nayaka. Records grant of land as *umbali* to Uppara Goravamna, the lands located at Dodagomdanakomppa in Banavase-Homnakoppa, for his completion of the work of setting up the *dhvajastambha* (probably of the Madhukeshwara). Also mentions Saruvesvara-vaderu and Yirappa-vaderu who seem to have been present on the occasion (A.R.I.E. 1970-71: no. 191).
85	280, Feat. 42	Post 17th century.		In the Madhukeshwara	Damaged. Seems to record the grant of a *matha* at Honehalli to Basavapadevaru (A.R.I.E. 1970-71: no. 192).
86	287, Feat. 1	14th c.	Intermediate elite	On a slab in the Madhava temple (BGRS 287), next to the Madhukeshwara.	Unclear but probably refers to a grant of land in Banavasi to the temple by Aubhalanatha, son of Chaundarasa of Nandavura who renovated the temple of Gopinatha for conducting worship of the god and festivals for as long as the moon lasts. Grant made while Vira Bukkaraya was ruling in Hastanivatipura (Anegondi) and Madhavanka, his dependent was ruling Banavasi 12000. His servant Aubhalanatha also takes permission from the *gauda prajegal* (village headmen) of the 18 *kampanas*(divisions) of Gutti (Chandragutti) and the *majhajanas* of the named *agraharas* (M.A.R. 1929: 190-192; S.I.I. Vol. XX: No.

#	BGRS #	Date	Dynasty	Location	Description
					230; A.R.I.E. 1935-36: no.142).
87	287, Feat. 2	13th-14th century		Located in Vaishnava temple (BGRS 287)	Records the death, perhaps by a rite, of Marakave, a lay disciple of a Jaina ascetic (S.I.I. Vol. XX: No. 251).
88	309, Feat. 2	3rd c. BC		In Banavasi.	Two letter Brahmi inscription on bead mold found during excavations. Contains a name: '*raha*' or '*khara*' (Murthy 2002: 105).
89	323	Early centuries AD		Fragmentary inscription on pedestal of broken/missing image found at bottom of a reservoir in Banavasi when it was dried.	Sculpture was caused to be made by Balamitra. Refers to the stone craftsman Ravi who was the disciple of *achari* Golasa (Murthy, et al. 1997: 30).
90	324	5th c. AD	Kadamba	In Banavasi.	Fragmentary inscription of Kadamba Mrigeshavarma. Refers to Mrigeshavarma's defeat of the Gangas and a Palla king (name unclear) who was the ruler of Kanchi. Starts with the praise of Vishnu and contains the usual genealogy. Might mention a *Samanta* (Gai 1996: No. 12; Gopal 1985a: No. 14; Murthy, et al. 1997: 31-32).
91	325	10th century	Kalyana Chalukya	Within Banavasi.	Engraved on a stone with a representation of a chief as seen from the *chhatri* (umbrella)over him. Known to be a feudatory of the Kalyana Chalukyas, perhaps refers to *Mahasamanta* Goggi (Murthy, et al. 1997: 32). Fragmentary.
92	340	11th century		Hero Stone in field in Kadagodu village.	Mentions Virana-gauda of Kadago(da) (A.R.I.E. 1984-85: No. 149). Not found on survey.
93	354	17th century		Gudnapura	Records the grant of 16 *khanduga* of land as *umbali* to Sidhalinga Gauda of Gudunapura by Khana Khana Saheba (A.R.I.E.: 1970-71, No. 196). Not found on survey.

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
1	0	Small shrine	Shaivite		14.54801	75.04177
2	0	Inscription		1st c. BC-2nd c. AD	14.53922	75.03320
2	1	Small shrine, folk		Modern	14.53922	75.03320
2	2	Architectural/ sculptural fragment	Posthole		14.53976	75.03302
3	0	Small shrine	Architectural/ sculptural fragment	4th- 7th c. AD	14.54131	75.03210
4	0	Small shrine	Architectural/ sculptural fragment		14.53686	75.03025
5	0	Small shrine	Architectural/ sculptural fragment (Hoysala)	10th- 14th c.	14.53435	75.03167
6	0	Platform	Laterite block	Post 16th c.	14.53605	75.03859
7	0	Small shrine	Naga stone		14.52833	75.02848
8	0	Small shrine	Naga stone		14.52680	75.02931
9	0	Architectural/ sculptural fragment	Grinding stone		14.54677	75.03340
10	0	Small shrine	Folk		14.55370	75.02868
11	0	Mound	Habitation	Late medieval-modern	14.53651	75.02928
12	0	Vaishnavite Stone	Inscription	13th century	14.53365	75.02661
13	0	Mound	Possible Stupa	1-4th c. AD	14.53356	75.01988
14	0	Mound	Habitation	Late medieval- early modern	14.53462	75.02276
15	0	Grave		Modern	14.53170	75.03653
16	0	Architectural/ sculptural Fragment	Grinding stone		14.53643	75.03036
17	0	Small shrine	Naga stone		14.53166	75.02792
18	0	Architectural/ sculptural Fragment	Grinding stone	Post 16th c.?	14.54002	75.03794
19	0	Temple	Shaivite	12th century, In Thigani.	14.54299	75.04215
19	1	Temple	Shaivite	12th century. In Thigani.	14.54347	75.04522
19	2	Hero Stone	Fragmentary		14.54303	75.04184
19	3	Small shrine	Naga stone, Architectural/ sculptural fragment		14.54291	75.04206
19	4	Hero Stone	Fragmentary	Type IA	14.54291	75.04206
20	0	Platform	Habitation	Late medieval- Modern	14.54362	75.04187
21	0	Habitation	Brick Scatter	Late medieval- early modern.	14.53353	75.02362
21	1	Mound	Possible Stupa	1st-4th c. AD	14.53356	75.02515
21	2	Mound	Habitation		14.53372	75.02434
21	3	Mound	Possible Stupa	1st-4th c. AD	14.53262	75.02424

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
22	0	Small shrine, folk			14.52687	75.04337
23	0	Small shrine, folk	Naga stone		14.52000	75.03993
24	0	Linga-mudra stone		Type IB	14.52332	75.04102
25	0	Reservoir			14.55150	75.03091
25	1	Production Site	Stone working		14.55178	75.03100
26	0	Habitation	Structure	Post 16th c.	14.55324	75.02981
26	1	Habitation	Structure	Post 16th c.	14.55327	75.02981
27	0	Architectural/ sculptural Fragment	Shiva linga		14.53128	75.02442
28	0	Reservoir			14.53312	75.03362
29	0	Reservoir			14.53416	75.03246
30	0	Reservoir			14.53345	75.02815
31	0	Linga-mudra stone		Type IB	14.53326	75.02634
32	0	Small shrine	Architectural/ sculptural Fragment		14.54066	75.04125
33	0	Small shrine, folk	Naga stone		14.54307	75.04128
33	1	Other	Terracotta fragments	Late centuries BC, early centuries AD	14.54307	75.04128
33	2	Naga stone	Inscription	Post 14th or 16th c.	14.54307	75.04128
34	0	Mound	Temple?		14.54224	75.04187
34	1	Tank		Possible temple tank	14.54220	75.04205
34	2	Small shrine, folk			14.54214	75.04214
35	0	Mound	habitation	Late medieval- early modern	14.54194	75.04176
35	1	Hero Stone	Inscription, Late Chalukya	10th-12th century. Type III	14.54171	75.04196
35	2	Tank		Possible temple tank	14.54178	75.04192
36	0	Small shrine, folk	Naga stone		14.54379	75.04124
37	0	Small shrine, folk	Architectural/ sculptural Fragment		14.54394	75.04111
38	0	Small shrine, folk			14.54348	75.04019
38	1	Hero Stone	Inscription, Rashtrakuta	8th-10th c. Type III	14.54348	75.04019
39	0	Temple	Mariamma	Early Modern. In Thigani.	14.53979	75.04174
39	1	Small shrine	Architectural/ sculptural Fragment; Inscription		14.53969	75.04170
39	2	Platform	Laterite block	Late medieval- Modern	14.54007	75.04186
39	3	Linga-mudra stone	Inscription	16th-18th century. Type IB	14.54006	75.04193
39	4	Linga-mudra stone	Inscription	16th-18th century. Type IB	14.53998	75.04189
39	5	Linga-mudra stone		Type IB	14.5397	75.04194
40	0	Small shrine, folk	Naga stone		14.54243	75.04206
41	0	Fortification	Thigani fort	Late medieval- early	14.53955	75.04105

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
				modern		
42	0	Small shrine, folk	Naga stone		14.54007	75.04057
43	0	Reservoir			14.54102	75.04294
44	0	Reservoir			14.53675	75.04265
45	0	Small shrine, folk	Naga stone		14.53631	75.04322
46	0	Habitation		1st-4th c. AD	14.53297	75.01112
46	1	Ring well		1st-4th c. AD	14.53323	75.01102
46	2	Mound	Possible Stupa	1st-4th c. AD	14.53408	75.01351
47	0	Reservoir			14.52060	75.03878
48	0	Small shrine, folk	Architectural/ sculptural Fragment		14.52209	75.03656
49	0	Reservoir			14.52238	75.03275
50	0	Production Site	Laterite quarry	Late medieval- modern	14.52120	75.03414
51	0	Architectural/ sculptural fragment	Sculpture		14.53207	75.01901
52	0	Production site	Brick manufacture	20th century	14.52804	75.02174
53	0	Habitation		Late medieval, Post 14th c.	14.52819	75.01909
54	0	Habitation			14.52939	75.01906
55	0	Habitation	Tile scatter		14.52657	75.01983
56	0	Small shrine, folk	Architectural/ sculptural fragment		14.52740	75.01682
57	0	Temple	Shaivite	10th-11th century. In Banavasi.	14.52803	75.01611
57	1	Architectural/ sculptural fragment			14.52725	75.01622
57	2	Temple	Mahishasuramardhini, Vijayanagara	14th-16th c.	14.52789	75.01625
57	3	Tank		Temple tank	14.52813	75.01676
57	4	Architectural/ sculptural Fragment			14.52816	75.01639
57	5	Tank		Possible temple tank	14.52823	75.01636
58	0	Architectural/ sculptural fragment			14.52190	75.01649
59	0	Linga-mudra stone		Type IB	14.55337	75.01335
60	0	Reservoir			14.55223	75.01479
61	0	Inscription	Linga-mudra stone	10th-14th c.?	14.55210	75.01528
62	0	Linga-mudra stone		Type IB	14.55014	75.01877
63	0	Linga-mudra stone		Type IB	14.54498	75.01901
64	0	Inscription	Linga-mudra stone	Post 14th or 16th c.	14.54503	75.01946
65	0	Embankment		Early Historic?	14.54557	75.02185
66	0	Linga-mudra stone		Type IB	14.54491	75.01915
67	0	Tank		Cut into laterite	14.54701	75.01574
68	0	Small shrine, folk	Architectural/sculptural		14.54893	75.02350

BGR S #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
			fragments			
69	0	Habitation	Brick and tile scatter		14.54991	75.02356
70	0	Habitation	Brick scatter		14.54916	75.02446
71	0	Mound	Possible Stupa	1st-4th c. AD	14.54915	75.01449
71	1	Small shrine	Shaivite	Post 16th c.	14.54914	75.01452
71	2	Habitation	ceramic and tile scatter	Late medieval- modern	14.54906	75.01385
72	0	Small shrine, folk			14.55240	75.01444
73	0	Reservoir			14.55031	75.01688
74	0	Reservoir	Vijayanagara sluice?		14.54613	75.01713
74	1	Mosque/ graveyard	Muslim	Late medieval, modern	14.54688	75.01594
75	0	Small shrine, folk	Naga stone		14.53864	75.04061
76	0	Architectural/ sculptural fragment			14.52953	75.02512
77	0	Reservoir			14.52863	75.04522
78	0	Reservoir			14.52706	75.04319
79	0	Production Site	Brick/Tile manufacture	20th century	14.52693	75.04259
80	0	Reservoir			14.52594	75.04282
81	0	Reservoir			14.52624	75.04210
82	0	Reservoir			14.52544	75.04175
83	0	Reservoir			14.52495	75.04140
84	0	Mound	Possible Stupa	1st-4th c. AD	14.53331	75.00557
85	0	Habitation	Brick and ceramic scatter	Early Historic	14.53663	75.00667
85	1	Small shrine, folk	Lajja Gauri	3rd-4th century	14.53621	75.00680
85	2	Modern grave markers		20th century	14.53636	75.00644
86	0	Architectural/ sculptural fragment	Satavahana terracottas	Late century BC, early c. AD	14.53715	75.02539
87	0	Habitation	Brick scatter		14.54612	75.01470
87	1	Architectural/ sculptural fragment	Temple pillar		14.54587	75.01474
88	0	Sati Stone	Inscription	1464? Type II.	14.53242	75.01535
88	1	Sati Stone	Inscription	Post 14th c. Type II.	14.53243	75.01540
89	0	Mound	Temple	2nd c. AD. Possibly BNV I (Chapter 4)	14.53098	75.01934
89	1	Architectural/ sculptural fragment			14.53086	75.01937
90	0	Habitation	Ceramic scatter in Banavasi		14.53461	75.01891
90	1	Naga stone			14.53437	75.01877
91	0	Hero Stone	Small shrine, folk	Type II	14.53391	75.01222
91	1	Sati Stone		Type I	14.53391	75.01222
92	0	Linga-mudra stone		Type IB	14.51535	75.04258

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
93	0	Laterite block platform	Naga stones	Late medieval- Modern	14.50979	75.03901
94	0	Small shrine, folk			14.51449	75.03897
95	0	Reservoir			14.51475	75.04465
96	0	Temple	Shaivite	11th-12th. In Narur.	14.50990	75.02892
96	1	Temple	Shaivite	11th-12th. In Narur.	14.50964	75.02899
96	2	Nishidi stone		Fragmentary	14.50989	75.02897
96	3	Sati Stone	Inscription	15th century. Type II.	14.50966	75.02907
96	4	Sati Stone		Type II.	14.50966	75.02907
96	5	Architectural/ sculptural Fragment			14.50989	75.02897
96	6	Tank		Possible temple tank	14.51003	75.02905
97	0	Reservoir			14.51076	75.02692
98	0	Small shrine, folk	Naga stone		14.51924	75.02958
99	0	Small shrine, folk	Naga stone		14.51062	75.03141
100	0	Inscription	Linga-mudra stone		14.51098	75.03070
101	0	Temple	Marikamba	Early Modern. In Narur.	14.51216	75.02691
102	0	Small shrine, folk	Naga stone		14.50975	75.02639
103	0	Tank		Cut into laterite	14.51161	75.02566
104	0	Hero Stone		Type II	14.51179	75.02576
105	0	Architectural/ sculptural Fragment	Naga stone		14.50862	75.02936
106	0	Small shrine	Shaivite and Vaishnavite		14.51033	75.01982
107	0	Temple	Shaivite	10th-12th. In Mutalkoppa.	14.50947	75.02072
107	1	Temple	Shaivite	10th-12th. In Mutalkoppa.	14.50950	75.02078
107	2	Small shrine, folk	Naga stone, Architectural/ sculptural fragment		14.50951	75.02083
107	3	Tank		Possible temple tank	14.50951	75.02083
108	0	Small shrine, folk	Architectural/ sculptural fragment		14.50813	75.02010
109	0	Small shrine, folk	Linga-mudra stone, Architectural/sculptural fragment	Type IB	14.50843	75.01888
110	0	Small shrine, folk	Naga stones,		14.50942	75.01985
111	0	Temple	Virabhadra	Post 14th c. In Yadakoppa	14.52098	75.03066
112	0	Temple	Basavanna	Post 14th c. In Narur	14.50970	75.02883
112	1	Sati Stone	Inscription	15th century. Type II.	14.50973	75.02880
112	2	Sati Stone		Type II.	14.50967	75.02878
113	0	Small shrine, folk	Naga stone		14.50970	75.02821
114	0	Architectural/sculptural fragment			14.50985	75.02808
115	0	Small shrine, folk	Architectural/ sculptural fragment		14.50930	75.02960

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
116	0	Laterite block platform		Late medieval- Modern	14.50861	75.02983
116	1	Architectural/ sculptural Fragment	Naga stone		14.50881	75.02981
117	0	Architectural/ sculptural Fragment	Naga stone		14.50996	75.02911
118	0	Temple	Shaivite	Pre 14th c?	14.55047	74.99526
118	1	Other	Structure 1	Early medieval- Late medieval	14.55057	74.99520
118	2	Architectural/ sculptural Fragment			14.55057	74.99516
119	0	Architectural/ sculptural Fragment			14.55062	74.97214
120	0	Temple	Shaivite	Pre 14th c. In Kadagodu.	14.55349	75.01181
120	1	Architectural/ sculptural Fragment	Naga stones		14.55355	75.01187
120	2	Architectural/ sculptural Fragment			14.55342	75.01187
120	3	Hero Stone	Inscription	12th century? Type III.	14.55336	75.01206
120	4	Hero Stone	Inscription, Chalukyas of Kalyana	12th c. Type III.	14.55351	75.01182
120	5	Hero Stone	Inscription	11th century. Type III	14.55351	75.01182
120	6	Hero Stone		Type III	14.55352	75.01181
120	7	Sati Stone		Type II.	14.55352	75.01186
121	0	Reservoir			14.55467	75.01190
122	0	Architectural/ sculptural fragment			14.55536	75.01122
123	0	Small shrine, folk	Naga stone		14.55237	75.01138
124	0	Small shrine, folk	Architectural/ sculptural fragments		14.55239	75.01161
125	0	Architectural/ sculptural fragment	Architectural elements		14.55287	75.01192
126	0	Architectural/ sculptural fragment	Linga-mudra stone, Architectural/sculptural fragment	Type IB	14.55306	75.01247
127	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.55225	75.01260
128	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.55236	75.01103
129	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.55279	75.01088
129	1	Inscription			14.55279	75.01088
129	2	Hero Stone	Fragmentary		14.55279	75.01088
130	0	Temple	Shaivite	11th, early 12th. Kadagodu.	14.55866	75.01095
130	1	Hero Stone	Inscription	8th, 9th c. Type III.	14.55866	75.01095

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
130	2	Architectural/sculptural fragment	Hero stone	Type II	14.55868	75.01102
131	0	Reservoir			14.54633	75.01389
132	0	Production Site	Laterite quarry	20th century	14.54503	75.01392
133	0	Small shrine, folk	Naga stone		14.54778	75.00796
134	0	Small shrine, folk	Architectural/ sculptural fragment		14.54622	75.00291
135	0	Small shrine, folk	Naga stone		14.52148	75.02172
136	0	Small shrine, folk	Naga stone		14.53263	75.01747
137	0	Small shrine, folk	Architectural/ sculptural fragment		14.53306	75.01670
138	0	Architectural/ sculptural fragment			14.53298	75.01639
139	0	Small shrine, folk	Architectural/ sculptural fragment		14.53299	75.01633
140	0	Small shrine, folk	Naga stone		14.53333	75.01642
141	0	Small shrine, folk	Naga stone		14.53342	75.01653
142	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53375	75.01631
143	0	Small shrine, folk	Architectural/ sculptural fragments		14.53385	75.01657
144	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53360	75.01650
145	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53336	75.01688
146	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53361	75.01716
147	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53517	75.01792
148	0	Small shrine, folk	Naga stone		14.53626	75.01728
149	0	Temple	Jaina	10th-11th century. In Banavasi.	14.53667	75.01640
149	1	Nishidi stone	Inscription	Type II	14.53660	75.01622
149	2	Hero Stone	multiple fragments		14.53660	75.01622
149	3	Nishidi stone	multiple fragments	Post 14th century?	14.53660	75.01622
149	4	Naga stone	multiple fragments		14.53660	75.01622
149	5	Hero Stone		Type II	14.53660	75.01622
149	6	Inscription		9th-12th c	14.53660	75.01622
149	7	Nishidi stone	Inscription	11th century. Appendix 5.	14.53675	75.01624
149	8	Nishidi stone	Inscription	12th century. Appendix 5.	14.53675	75.01624
149	9	Nishidi stone	Inscription	13th century. Appendix 5.	14.53675	75.01624

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
149	10	Small shrine			14.53654	75.01669
149	11	Architectural/ sculptural fragment			14.53658	75.01683
149	12	Hero Stone	Inscription	13th century. See Appendix 5.	NA[138]	NA
149	13	Tank		Possible temple tank	14.536418	75.015927
149	14	Other	Inscription	12th-13th centuries	NA	NA
149	15	Other	Inscription	13th-14th century	NA	NA
150	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53727	75.01706
151	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53721	75.01682
152	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53757	75.01619
153	0	Small shrine, folk	Naga stone		14.53642	75.01542
154	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone, Linga-mudra stone	Type IB	14.53603	75.01510
155	0	Small shrine, folk	Lajja Gauri	3rd-4th century	14.53037	75.01297
156	0	Linga-mudra stone		Type IB	14.53437	75.01043
157	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53610	75.01088
158	0	Laterite block platform		Late medieval- Modern	14.53646	75.00929
158	1	Architectural/ sculptural Fragment			14.53646	75.00929
158	2	Small shrine, folk			14.53627	75.00904
159	0	Laterite block platform		Late medieval- Modern	14.53256	75.01767
159	1	Small shrine, folk	Naga stone		14.53256	75.01768
160	0	Small shrine, folk	Naga stone		14.53582	75.01589
161	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53601	75.01668
162	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53608	75.01684
163	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53577	75.01689

[138] Some of the inscriptions do not have GPS locations since they were not identified on survey but were included in my database from published records.

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
164	0	Architectural/ sculptural Fragment	Naga stone		14.53789	75.01888
165	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53813	75.01788
166	0	Small shrine, folk	Lajja Gauri	3rd-4th century	14.53772	75.01772
167	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53866	75.01706
168	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53768	75.01670
169	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53774	75.01663
169	1	Nishidi stone	Inscription		14.53774	75.01663
170	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53789	75.01675
171	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53511	75.01532
172	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53479	75.01538
173	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53451	75.01523
173	1	Other	Glazed Ware	Glazed Sassano Islamic Ware	14.53447	75.01523
174	0	Small shrine, folk	Architectural/ sculptural fragments		14.53420	75.01529
175	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53363	75.01578
176	0	Small shrine, folk	Architectural/ sculptural fragments		14.53722	75.01646
177	0	Inscription	Linga-mudra stone	Modern	14.51443	75.00425
178	0	Small shrine, folk	Naga stone		14.51427	75.00429
179	0	Temple	Basavanna	Post 14th c. Bhasi.	14.51328	75.00060
179	1	Laterite block platform		Late medieval- Modern	14.51320	75.00082
179	2	Laterite block platform		Late medieval- Modern	14.51324	75.00069
179	3	Laterite block platform		Late medieval- Modern	14.51313	75.00072
179	4	Laterite block platform		Late medieval- Modern	14.51315	75.00059
179	5	Architectural/ sculptural Fragment	Naga stone		14.51319	75.00058
180	0	Temple	Kalabhairava	Post 14th c. Bhasi	14.51358	75.00014
180	1	Laterite block platform		Late medieval- Modern	14.51337	74.99997

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
180	2	Tank	Laterite block	Keyhole shaped tank	14.51344	75.00004
180	3	Architectural/ sculptural Fragment			14.51339	74.99995
180	4	Hero Stone	Inscription	Type II	14.51339	74.99995
180	5	Sati Stone		Type II.	14.51333	75.00016
180	6	Sati Stone		Type II	14.51333	75.00016
181	0	Small shrine, folk	Naga stone		14.53680	75.01993
182	0	Linga-mudra stone	Inscription	Modern? Type IB	14.53880	75.01846
183	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.52167	75.02117
184	0	Habitation	Mound	Early modern	14.51775	75.01148
184	1	Habitation	Mound	Early modern	14.51906	75.01162
184	2	Habitation	Mound	Early modern	14.51781	75.01213
185	0	Naga stone	Mound		14.51768	75.01134
186	0	Small shrine, folk	Architectural/ sculptural fragment		14.51795	75.01174
187	0	Linga-mudra stone		Type IB	14.51845	75.01153
188	0	Tank		Laterite block	14.51539	75.00386
189	0	Inscription		Modern?	14.51561	75.00395
190	0	Habitation		Early Historic	14.51950	75.00032
191	0	Laterite block platform		Late medieval- Modern	14.51316	75.00307
191	1	Architectural/ sculptural fragment	Naga stones		14.51317	75.00306
191	2	Architectural/ sculptural fragment			14.51329	75.00312
191	3	Naga stones			14.51317	75.00340
191	4	Reservoir			14.51319	75.00404
192	0	Temple	Shaivite	Post 14th c. Bhasi	14.51032	75.00026
192	1	Architectural/ sculptural fragment			14.51043	75.00023
192	2	Architectural/ sculptural fragment			14.51025	75.00044
193	0	Small shrine, folk	Naga stones		14.51203	74.99920
194	0	Laterite block platform		Late medieval- Modern	14.52217	75.00315
195	0	Small shrine, folk	Naga stones		14.51866	75.01232
196	0	Tank	Laterite block	Keyhole shaped tank	14.51918	75.01212
197	0	Small shrine	Architectural/ sculptural fragment		14.53475	75.01879
197	1	Footprint memorial		Type I	14.53475	75.01879
198	0	Temple	Shaivite	Post 15th c. Banavasi	14.53713	75.02030
199	0	Architectural/ sculptural fragment			14.53622	75.01889

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
200	0	Fortification	Banavasi fort	Early Historic- Medieval	14.53524	75.01848
200	1	Fortification	Northeast entrance		14.53741	75.01962
200	2	Fortification	Northeast entrance		14.53602	75.01942
200	3	Fortification	East entrance		14.53478	75.01866
200	4	Fortification	South entrance		14.53281	75.01739
200	5	Fortification	West entrance		14.53529	75.01466
200	6	Fortification	North entrance		14.53906	75.01679
200	7	Architectural/ sculptural fragment			14.53734	75.01969
200	8	Laterite block platform	Architectural/ sculptural fragments, Naga stone	Late medieval- Modern	14.53595	75.01922
200	9	Other	Structure-secret entrance		14.53592	75.01915
200	10	Laterite block platform		Late medieval- Modern	14.53495	75.01852
200	11	Small shrine			14.53893	75.01679
200	12	Laterite block steps	Ghats			
201	0	Other	Ghats		14.53580	75.01957
202	0	Temple, Jaina		12th century. Gudnapura.	14.55754	74.98534
202	1	Other	Laterite block structure		14.55755	74.98524
202	2	Other	Brick structure	5th-6th century	14.55758	74.98522
202	3	Nishidi stone		10th-11th century. Type II	14.55737	74.98516
202	4	Architectural/ sculptural fragment			14.55763	74.98541
202	5	Linga-mudra stone	Inscription	Type IB	14.55742	74.98556
202	6	Architectural/ sculptural Fragment	Inscription	14th century	14.55755	74.98524
202	7	Nishidi stone	Inscription	10th-11th century. Type III.	14.55755	74.98524
202	8	Inscription	pillar		14.55755	74.98524
203	0	Linga-mudra stone		Type IB	14.54331	75.01883
204	0	Linga-mudra stone		Type IB	14.54320	75.01947
205	0	Architectural/ sculptural fragment			14.54274	75.01901
206	0	Linga-mudra stone		Type IB	14.54530	75.02705
207	0	Mound	Possible Stupa	1st-4th c. AD	14.54411	75.03023
208	0	Laterite block platform		Late medieval- Modern	14.53990	75.02321
209	0	Habitation	Brick and tile scatter	Early historic?	14.53823	75.02276
209	1	Mound	Possible Stupa	1st-4th c. AD	14.53808	75.02167
209	2	Mound			14.53890	75.02286
209	3	Mound	Habitation		14.53902	75.02085
210	0	Production Site	Stone working	Medieval	14.55713	74.97739
210	1	Architectural/ sculptural		Medieval	14.55635	74.97755

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
		fragment				
211	0	Reservoir			14.55316	74.98520
211	1	Laterite quarry			14.53660	75.01622
212	0	Small shrine, folk			14.55686	74.98535
212	1	Architectural/ sculptural Fragment			14.55685	74.98531
212	2	Sati Stone		Type I	14.55687	74.98537
212	3	Linga-mudra stone		Type IB	14.55680	74.98535
212	4	Architectural/ sculptural fragment			14.55679	74.98538
213	0	Laterite block platform		Late medieval- Modern	14.55678	74.98497
213	1	Architectural/ sculptural fragment			14.55671	74.98493
214	0	Temple	Shanmukha	Post 17th c. Chikke Bengale.	14.56116	74.96050
215	0	Inscription			14.54609	74.96463
216	0	Vaishnava stone			14.53270	74.96339
217	0	Inscription		Post 16th/17th century	14.53244	74.96126
218	0	Laterite block platform	Naga stones	Late medieval- Modern	14.53467	75.00275
219	0	Laterite block platform	Naga stones	Late medieval- Modern	14.53314	75.00212
220	0	Architectural/ sculptural Fragment			14.53824	74.99143
221	0	Linga-mudra stone		Type IB	14.54161	74.99668
222	0	Linga-mudra stone		Type IB	14.54015	74.99656
223	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stone		14.53339	75.00036
224	0	Laterite block platform		Late medieval- Modern	14.53578	74.99359
225	0	Small shrine, folk	Lajja Gauri	3rd-4th century	14.53676	74.99432
226	0	Habitation	Red Ware scatter	Early Historic	14.53875	75.02417
227	0	Small shrine, folk	Architectural/ sculptural fragments		14.53894	75.02465
228	0	Temple		Modern. Ajjarni.	14.53806	74.99888
229	0	Linga-mudra stone		Type IB	14.53793	74.99634
229	1	Production Site	Laterite quarry	20th century	14.53800	74.99646
230	0	Laterite block platform		Late medieval- Modern	14.53704	75.00081
231	0	Habitation	Ceramic scatter	Early Historic	14.53784	75.02253
232	0	Temple	Shaivite	10th-12th c. Hale Ajjarni.	14.54459	75.00199
232	1	Hero Stone	Inscription, Hoysala	13th century. Type III	14.54456	75.00207
232	2	Naga stones			14.54461	75.00196
232	3	Architectural/ sculptural Fragment	Naga stones		14.54453	75.00218
232	4	Tank	Laterite block	10th- 12th?	14.54461	75.00223

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
233	0	Habitation		Late medieval- early modern	14.54356	75.00140
233	1	Architectural/ sculptural fragments			14.54313	75.00133
234	0	Sati Stone		Type II	14.54400	75.00233
235	0	Reservoir			14.54435	75.00345
236	0	Small shrine, folk	Naga stones		14.53676	75.01868
237	0	Other	Banavasi fortification, watchtower	Late medieval- early modern	14.53583	75.01908
237	1	Other	Shaped Laterite outcrop		14.53560	75.01905
238	0	Small shrine	Architectural/ sculptural fragments		14.53821	75.01809
238	1	Linga-mudra stone		Type IB	14.53845	75.01843
238	2	Small shrine	Architectural/ sculptural fragments		14.53853	75.01830
238	3	Small shrine	Linga-mudra stone	Type IB	14.53865	75.01814
239	0	Habitation	Brick and ceramic scatter	Early Historic	14.54346	75.02388
240	0	Mound	Possible Stupa	1st-4th c. AD	14.54488	75.02022
241	0	Structure			14.52608	75.01786
241	1	Architectural/ sculptural fragments			14.52601	75.01790
242	0	Hero Stone		Type IA	14.54557	75.02120
243	0	Temple	Mariamma	Post 17th c. Banavasi	14.54068	75.01966
243	1	Architectural/ sculptural Fragment			14.54063	75.01978
243	2	Footprint memorial		Type I	14.54063	75.01978
244	0	Hero Stone		Type III	14.53944	75.01950
245	0	Temple	Basavanna	Post 17th c. Banavasi.	14.53948	75.01892
245	1	Nishidi stone		Type III	14.53949	75.01885
245	2	Architectural/ sculptural Fragment			14.53953	75.01891
246	0	Temple	Boothappa	Modern. Banavasi	14.54035	75.01974
247	0	Temple	Shaivite, architectural/ sculptural fragment	Modern. Banavasi	14.53995	75.01740
248	0	Small shrine, folk	Architectural/ sculptural fragments, Naga stones		14.53982	75.01750
249	0	Small shrine, folk	Chowdamma		14.53955	75.01731
250	0	Temple	Shaivite	10th-12th c. Kantraji.	14.53698	74.98599
250	1	Laterite block platform	Architectural/sculptural fragments	Late medieval- Modern	14.53696	74.98607
250	2	Sati Stone		Type II	14.53688	74.98642
250	3	Laterite block platform		Late medieval- Modern	14.53697	74.98646

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
250	4	Temple	Mahishasuramardhini	Post 14th c. Kantraji.	14.53710	74.98644
250	5	Laterite block platform	Naga stones	Late medieval- Modern	14.53744	74.98636
250	6	Hero Stone	Inscription	Type III	14.53699	74.98604
250	7	Hero Stone	Inscription, Kadambas of Hangal	11th c. Type III.	14.53699	74.98604
250	8	Hero Stone	Inscription	12th century. Type III.	14.53699	74.98604
250	9	Sati Stone		Type II	14.53688	74.98642
250	10	Architectural/sculptural fragment			14.53736	74.98639
250	11	Hero Stone	Inscription	15th century. Type III.	14.53705	74.98595
250	12	Sati Stone		Type II	14.53705	74.98595
250	13	Hero Stone		Type III.	14.53707	74.98594
250	14	Sati Stone		Type I	14.53716	74.98595
250	15	Sati Stone		Type II	14.53716	74.98595
251	0	Reservoir	Channel		14.53841	74.98832
251	1	Channel				
251	2	Reservoir				
252	0	Linga-mudra stone	Inscription	Type IB	14.53982	74.98622
253	0	Mound	Structure	Medieval	14.53896	74.99049
253	1	Architectural/ sculptural fragments, brick and tile scatter			14.53901	74.99053
254	0	Nishidi stone		Type III	14.53715	74.98536
255	0	Temple	Gamdamma	Modern	14.53618	74.98603
256	0	Inscription	Early Kadamba	5th- 6th century	14.55768	74.98575
257	0	Small temple, folk		20th century	14.55722	74.98631
257	1	Inscription		17th century	14.55722	74.98631
258	0	Temple	Shaivite, Later Chalukyas	10th-12th century. Banavasi.	14.53507	75.01770
259	0	Temple	Shaivite	10th-12th century. Banavasi.	14.53489	75.01739
259	1	Naga stones			14.53484	75.01744
260	0	Temple	Shaivite	Post 14th c. Banavasi.	14.53468	75.01737
261	0	Temple	Shaivite	11th-12th century. Banavasi	14.53281	75.01836
261	1	Architectural/ sculptural fragment	Nandi	4th-5th century	14.53279	75.01840
261	2	Naga stones			14.53272	75.01838
261	3	Other	Laterite steps		14.53279	75.01859
261	4	Architectural/ sculptural fragment			14.53281	75.01858
262	0	Temple	Shaivite	Modern. Gudnapura	14.55245	74.98468
262	1	Architectural/ sculptural fragment	Inscription		14.55264	74.98494
263	0	Small shrine, folk	Naga stone		14.55920	74.97424

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
264	0	Temple	Gramadevara	Modern	14.55943	74.97139
265	0	Mound	Possible Stupa	1st-4th c. AD	14.55083	74.99071
266	0	Temple	Kali	10th-12th c. Iduru.	14.54424	74.97009
266	1	Reservoir			14.54350	74.97030
266	2	Temple	Shaivite	10th- 12th c.	14.54315	74.96970
266	3	Small shrine, folk	Naga stones		14.54435	74.97028
266	4	Architectural/ sculptural fragment			14.54315	74.96975
266	5	Hero Stone	Inscription	Type III	14.54315	74.96975
266	6	Temple	Kalabhairava	Post 14th c.	14.54434	74.97010
266	7	Footprint memorial		Type I	14.54434	74.97010
267	0	Laterite block platform			14.54151	74.97001
268	0	Small shrine, folk			14.54160	74.96967
268	1	Hero Stone		Type III	14.54160	74.96967
268	2	Sati Stone		Type II	14.54160	74.96967
268	3	Sati Stone		Type II	14.54160	74.96967
268	4	Hero Stone		Type III.	14.54160	74.96967
269	0	Temple	Durgambika	Post 17th c. Iduru.	14.54061	74.97006
270	0	Temple	Durgambika	Modern. Kantraji.	14.53793	74.98325
271	0	Other	Storage pit?		14.53644	74.98556
272	0	Laterite block platform		Late medieval- Modern	14.53619	74.97212
273	0	Tank	Laterite block	Keyhole shaped tank	14.53258	74.97402
274	0	Laterite block platform		Late medieval- Modern	14.52683	74.96351
274	1	Production Site	Laterite quarry	Medieval?	14.52683	74.96362
274	2	Small shrine, folk		20th century	14.52708	74.96375
275	0	Temple	Commemorative	Modern. Banavasi.	14.53603	75.01592
276	0	Temple	Hanuman	Post 14th c. Banavasi.	14.53737	75.01747
277	0	Temple	Banashankari	Post 14th c. Banavasi.	14.53742	75.01730
277	1	Architectural/ sculptural Fragment			14.53741	75.01733
277	2	Footprint memorial		Type I	14.53741	75.01733
278	0	Temple	Shaivite	10th-12th century. Banavasi.	14.53928	75.01693
279	0	Temple	Shaivite	Post 14th c. Kalagodu.	14.52735	74.96289
279	1	Sati Stone	Architectural/ sculptural fragments	Type II	14.52730	74.96289
279	2	Laterite block platform		Late medieval- Modern	14.52720	74.96296
279	3	Tank		Cut into laterite	14.52727	74.96310
280	0	Temple	Shaivite	7th-8th century. Banavasi.	14.53523	75.01727
280	1	Architectural/ sculptural Fragment	Inscription	16th c.	14.53512	75.01715
280	2	Temple	Vaishnavite	16th century	14.53516	75.01691

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
280	3	Temple	Basavalingeshwara	15th-18th c.	14.53545	75.01691
280	4	Temple	Ganapati	Post 14th c.	14.53549	75.01703
280	5	Temple	Parvati	Post 14th c.	14.53538	75.01716
280	6	Temple	Shaivite, Virabhadra	14th century	14.53518	75.01715
280	7	Inscription		13th-14th century	14.53523	75.01727
280	8	Inscription	Harihara II	14th c.	14.53523	75.01727
280	9	Inscription	Hangal Kadambas	14th century	14.53523	75.01727
280	10	Inscription	Sonda chief Sadashiva	16th c.	14.53518	75.01715
280	11	Inscription			14.53516	75.01691
280	12	Inscription		16th century	14.53523	75.01727
280	13	Inscription	Sonda chief Sadashiva	16th c.	14.53538	75.01716
280	14	Architectural/ sculptural Fragment			14.53552	75.01738
280	15	Small shrines			14.53523	75.01727
280	16	Inscription	Naga stone, Chutu	2nd-3rd c. AD	NA	NA
280	17	Inscription	Kalyana Chalukya	11th c.	NA	NA
280	18	Inscription	Kalyana Chalukya	11th c.	NA	NA
280	19	Inscription	Kalyana Chalukya/ Someshwara III	12th century	NA	NA
280	20	Inscription	Satavahana	2nd c. AD	NA	NA
280	21	Inscription	Chutu	3rd c. AD		
280	22	Inscription	Bukka I	14th c.	NA	NA
280	23	Inscription		15th century	NA	NA
280	24	Inscription		16th century	NA	NA
280	25	Inscription		16th century	NA	NA
280	26	Inscription		16th century	NA	NA
280	27	Inscription		16th century	NA	NA
280	28	Inscription		16th century	NA	NA
280	29	Inscription		16th century	NA	NA
280	30	Inscription		16th century	NA	NA
280	31	Inscription		16th century	NA	NA
280	32	Inscription		16th century	NA	NA
280	33	Inscription		16th century	NA	NA
280	34	Inscription		16th century	NA	NA
280	35	Inscription		16th century	NA	NA
280	36	Other	Inscription	18th century	NA	NA
280	37	Other	Inscription	Unknown	NA	NA
280	38	Inscription	Kadambas of Hangal	13th c.	NA	NA
280	39	Inscription	Sonda	18th c.	NA	NA
280	40	Inscription	Sonda	17th c.	NA	NA

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
280	41	Inscription		17th century	NA	NA
280	42	Inscription		Post 17th c.	NA	NA
281	0	Temple	Goddess	Post 14th c. Banavasi.	14.53631	75.01775
282	0	Temple	Basavanna	Post 15th c. Huralikoppa.	14.52746	75.05085
282	1	Temple	Basavanna		14.52788	75.05098
282	2	Sati Stone		Type II	14.52794	75.05101
282	3	Laterite block platform		Late medieval- Modern	14.52751	75.05096
282	4	Laterite block platform		Late medieval- Modern	14.52758	75.05091
282	5	Sati Stone		Type II	14.52810	75.05107
283	0	Temple	Shaivite, Rashtrakuta	9th-10th century. Banavasi.	14.53974	75.01681
284	0	Small shrine	Shaivite		14.54187	75.01109
285	0	Temple	Basavanna	Modern. Banavasi.	14.53998	75.01588
285	1	Linga-mudra stone		Type IB	14.53996	75.01595
286	0	Reservoir			14.52646	75.01749
286	1	Channel			14.52608	75.01741
287	0	Temple	Vaishnavite, Shaivite	Post 14th c. Banavasi.	14.53507	75.01770
287	1	Inscription		14th century	14.53507	75.01770
287	2	Inscription	Jaina	13th-14th century	NA	NA
288	0	Production Site	Quarry	Medieval	14.56552	74.97401
289	0	Sati Stone		Late medieval (Period II, B?). Type II.	14.53847	75.01435
290	0	Small shrine, folk	Naga stones		14.55740	74.98699
290	1	Hero Stone		Type III	14.55740	74.98699
290	2	Sati Stone		Type II	14.55740	74.98699
290	3	Sati Stone		Type II	14.55740	74.98699
291	0	Linga-mudra stone		Type IB	14.55755	74.98617
292	0	Small shrine, folk			14.56009	74.97199
293	0	Architectural/sculptural fragment			14.54234	74.96915
294	0	Small shrine, folk			14.52410	74.97534
295	0	Linga-mudra stone		Type IB	14.53989	75.01511
296	0	Laterite block platform		Late medieval- Modern	14.55413	75.02621
297	0	Production Site	Laterite quarry	20th century	14.55309	75.01370
298	0	Small shrine, folk			14.53337	75.01758
299	0	Laterite block platform	Architectural/sculptural fragments	Late medieval- Modern	14.53219	75.00124
300	0	Architectural/sculptural fragment			14.53557	74.99680
301	0	Architectural/sculptural fragment			14.53713	74.98687
302	0	Other	Coin		14.51703	75.01168

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
303	0	Other	Porcelain		14.55191	75.01744
304	0	Excavation	BNV I	Early Historic- Medieval	NA	NA
304	1	Excavation	Apsidal Structure	2nd c. AD	NA	NA
305	0	Excavation	BNV II		NA	NA
306	0	Excavation	BNV III	Early Historic	NA	NA
307	0	Excavation	BNV IV	Early Historic	NA	NA
308	0	Excavation	BNV V	Early Historic	NA	NA
309	0	Excavation	BNV VI	Early Historic-Medieval	NA	NA
309	1	Excavation	Structure	2nd c. AD	NA	NA
309	2	Other	Inscription	3rd c. BC	NA	NA
310	0	Excavation	BNV VII	Early Historic-Medieval	NA	NA
311	0	Excavation	BNV VIII	Early Historic	NA	NA
312	0	Reservoir			14.56066	74.96653
313	0	Reservoir			14.56347	74.96677
314	0	Reservoir			14.56412	74.97092
315	0	Reservoir			14.56331	74.97437
316	0	Reservoir			14.55610	74.97001
317	0	Reservoir			14.54802	74.96475
318	0	Reservoir			14.54327	74.95786
319	0	Reservoir			14.52729	74.96456
320	0	Reservoir			14.53481	74.97615
321	0	Embankment			14.53357	74.97540
322	0	Reservoir			14.54535	74.97265
323	0	Other	Inscription	Early centuries AD	NA	NA
324	0	Inscription	Pillar	5th c.	NA	NA
325	0	Inscription		10th c.	NA	NA
326	0	Channel			14.54215	75.02957
327	0	Tank			14.54016	75.01347
328	0	Reservoir			14.56722	75.00339
329	0	Tank			14.54276	75.01852
330	0	Tank			14.53662	75.01109
331	0	Reservoir			14.55025	75.02685
332	0	Channel			14.54475	75.00946
333	0	Reservoir			14.52171	75.02363
334	0	Reservoir			14.55088	74.99523
335	0	Reservoir			14.55627	74.99334
336	0	Reservoir			14.55461	74.99383
337	0	Tank			14.52960	75.02920
338	0	Architectural fragment			14.54018	75.04108

BGRS #	Feat. #	Site Type	Subsidiary Type	Date	Latitude	Longitude
339	0	Small shrine, folk			14.52242	75.01903
340	0	Inscription		11th c.	NA	NA
341	0	Channel			14.54945	75.01757
342	0	Architectural fragment			14.53395	75.00391
343	0	Small shrine, folk			14.51040	75.03827
344	0	Reservoir			14.54342	75.04244
345	0	Architectural/sculptural fragment			14.55675	74.98488
346	0	Small shrine, folk	Architectural/sculptural fragments		14.53337	75.01757
347	0	Small shrine, folk	Modern Chowdamma		14.54203	75.01991
348	0	Architectural/sculptural fragment			14.54556	74.99680
349	0	Architectural/sculptural fragment	Naga stone		14.52883	75.05136
350	0	Graveyard	Muslim		14.54690	75.01590
351	0	Temple	Bootheshwara	Modern	14.54448	75.00869
352	0	Temple	Anjaneya	Modern	14.54688	75.00776
353	0	Brick scatter	Possible watchtower	Unknown	14.56545	74.97836
354	0	Inscription		17th century	NA	NA
355	0	Structure	Possible Early Historic structure	Early Historic	14.53030	75.02291

BIBLIOGRAPHY

Abraham, Shinu

    2002   *Social complexity in early Tamilakam: sites and ceramics from the Palghat Gap, Kerala, India*. Unpublished Dissertation. University of Pennsylvania.

    2003   'Chera, Chola, Pandya: Using Archaeological Evidence to Identify the Tamil Kingdoms of Early Historic South India'. *Asian Perspectives* 42(No. 2): 207-223.

    2008   'Inland Capitals, External Trade: The Socio-Political Landscape of Late Iron Age/Early Historic Tamil South India'. In *Ancient India in Its Wider World*. G. Parker and C.M. Sinopoli, eds. Pp. 52-78. Ann Arbor: University of Michigan Press.

    2009   'Strategies for Surface Documentation at the Early Historic Site of Pattanam, Kerala: the Malabar Region Archaeological Survey'. In *Migration, trade and peoples: European Association of South Asian Archaeologists; Proceedings of the eighteenth congress, London, 2005*. M. Willis, ed. Pp. 14-28. London: The British Association for South Asian Studies, The British Academy.

Adams, Robert McC.

    1965   *Land Behind Baghdad: A History of Settlement on the Diyala Plains*. Chicago: University of Chicago Press.

    1981   *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago: University of Chicago Press.

Adiga, Malini

    2006   *The Making of Southern Karnataka: Society, Polity and Culture in the Early Medieval Period*. Hyderabad: Orient Longman.

Alayev, L. B.

    1985   'Methods of studying epigraphy as a historical source'. In *Indus Valley to Mekong Delta: Explorations in Epigraphy*. N. Karashima, ed. Pp. 33-40. Madras: New Era Publications.

Alcock, Susan E.

    1991   'Urban Survey and the Polis of Phlius'. *Hesperia* 60(No. 4): 421-43.

Alcock, Susan E., et al., eds.

    2001   *Empires: Perspectives from Archaeology and History*. Cambridge: Cambridge University Press.

Aldenderfer, Mark, and Herbert D. G. Maschner, eds.

    1996   *Anthropology, Space, and Geographic Information Systems*. New York: Oxford University Press.

Ali, S. M.
    1966   *The Geography of the Puranas*. New Delhi: People's Publishing House.

Allchin, F. R.
    1995   'The Emergence of Cities and States: Concluding Synthesis'. In *The Archaeology of Early Historic South Asia: The Emergence of Cities and States*. F.R. Allchin, ed. Pp. 329-341. Cambridge: Cambridge University Press.

Allen, K. M. S., Stanton W. Green, and E. B. W. Zubrow, eds.
    1990   *Interpreting Space: GIS and Archaeology*. London: Taylor and Francis.

Annual Report on Indian Epigraphy
    1887-1995   *Annual Report on Indian Epigraphy*. New Delhi: Director-General, Archaeological Survey of India.

Anonymous
    1791   *An historical and political view of the decan south of the kistnah; including a sketch of the extent and revenue of the mysorean dominians, as possessed by Tippoo Sultaun, to the period of his latest acquisitions of territory and commencement of the present war in 1790*. London: J. Debrett.

Anschuetz, Kurt F., Richard H. Wilshusen, and Cheri L. Scheick
    2001   'An Archaeology of Landscapes: Perspectives and Directions'. *Journal of Archaeological Research* 9(No. 2): 157-211.

Appadurai, Arjun
    1977   'Kings, Sects and Temples in South India, 1350-1700 A.D'. *Indian Economic and Social History Review* 14(1): 47-73.

Appadurai, Arjun, and Carol Breckenridge
    1976   'The South India Temple: Authority, Honour and Redistribution'. *Contributions in Indian Sociology* 10(No. 2): 187-211.

Indian Archaeology: A Review
    1953-2001   *Indian Archaeology: A Review*. New Delhi: Archaeological Survey of India, Govt. of India.

Archaeological Survey of India
    1988   *South Indian Inscriptions. Bombay-Karnatak Inscriptions*. Volume XX. Delhi: Director General, Archaeological Survey of India.

Archer, M.
    1969   *British Drawings in the India Office Library*. II vols. London: Her Majesty's Stationery Office.

Arthur, William
    1902   *A Mission to the Mysore with Scenes and Facts Illustratrative of India, its People, and its Religion*. London: Charles H. Kelly.

Asher, Frederick M., and G. S. Gai, eds.
    1985   *Indian Epigraphy: its Bearing on the History of Art*. New Delhi: Oxford and IBH.

Ashmore, Wendy
    2002   '"Decisions and Dispositions": Socializing Spatial Archaelogy'. *American Anthropologist* 104(4): 1172-1183.

Ashmore, Wendy, and A. Bernard Knapp
    1999   'Archaeological Landscape: Constructed, conceptualized, ideational'. In *Archaeologies of Landscape: Contemporary Perspectives.* W. Ashmore and A.B. Knapp, eds. Pp. 1-31. Oxford: Blackwell.

Aslan, Carolyn
    2006   'Individual, Household, and Community Space in Early Bronze Age Western Anatolia and the Nearby Islands'. In *Space and Spatial Analysis in Archaeology.* E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 133-140. Calgary: University of Calgary Press.

Attema, P. A. J., et al.
    1998   'Centralisation, early urbanisation and colonisation in a regional context. Dutch excavations and landscape archaeology in central and southern Italy.'. *Saguntum* 31: 125-132.

Attema, Peter
    2002   'Two Challenges for Landscape Archaeology'. In *New Developments in Italian Landscape Archaeology: Theory and methodology of field survey land evaluation and landscape perception pottery production and distribution*. P. Attema, G.-J. Burgers, E.v. Joolen, M.v. Leusen, and B. Mater, eds. Pp. 18-27. Oxford: Archaeopress.

Attema, Peter, et al., eds.
    2002   *New Developments in Italian Landscape Archaeology: Theory and methodology of field survey land evaluation and landscape perception pottery production and distribution*. Oxford: Archaeopress.

Ayres, William S., and Rufino Mauricio
    1999   'Definition, ownership and conservation of indigenous landscapes at Salapwuk, Phnpei, Micronesia'. In *The Archaeology and Anthropology of Landscape: Shaping your landscape*. P.J. Ucko and R. Layton, eds. Pp. 299-322. London and New York: Routledge.

Bacus, Elisabeth A.

 1999 'Prestige and Potency: Political Economies of Protohistoric Visayan Polities'. *Archeological Papers of the American Anthropological Association* 9(1): 67-87.

Bagwell, Elizabeth A.

 2006 'Specialization, Social Complexity and Vernacular Architecture: A Cross-Cultural Study of Space Construction'. In *Space and Spatial Analysis in Archaeology.* E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 29-35. Calgary: University of Calgary Press.

Balasubramanyam, K., ed.

 1967 *Mysore. Village Survey Monographs: No. 8, Banavasi Village, Sirsi Taluk, North Kanara District*. Volume XI, Part VI. Delhi: Manager of Publications, Governement of India.

Balkansky, Andrew F.

 2006 'Surveys and Mesoamerican Archaeology: The Emerging Macroregional Paradigm'. *Journal of Archaeological Research* 14(1): 53-95.

Barba, Federica

 2004 'The Fortified Cities of the Ganges Plain in the First Millennium B.C.'. *East and West* 54(1/4):223-250.

Barker, Graeme

 1996 'Regional archaeological projects. Trends and traditions in Mediterranean Europe'. *Archaeological Dialogues* 3(2): 160-175.

Bauer, Andrew M.

 2010 *Socializing environments and ecologizing politics: Social differentiation and the production of nature in Iron Age northern Karnataka.* Unpublished Dissertation. Anthropology, University of Chicago.

Bauer, Andrew M., Peter G. Johansen, and Radhika L. Bauer

 2007 'Toward a Political Ecology in Early South India: preliminary Considerations of the Sociopolitics of Land and Animal Use in the Southern Deccan, Neolithic through Early Historic Periods'. *Asian Perspectives* 46(1): 3-35.

Beekman, Christopher S.

 1997 *The Link Between Political Boundaries and Political Models: a Case Study from Classic Period Jalisco, Mexico*. 62nd Annual Meeting of the Society for American Archaeology, session on Political Boundaries in Ancient Mesoamerica, 1997.

Begley, Vimala

1981 'From Iron Age to Early Historical in South Indian Archaeology'. In *Studies in the Archaeology of India and Pakistan*. J. Jacobson, ed. Pp. 299-301. New Delhi: American Institute of Indian Studie, Oxford and IBH.

1983 'Arikamedu Reconsidered'. *American Journal of Archaeology* 87: 461-82.

    1988 'Rouletted ware at Arikamedu: A New Approach'. *American Journal of Archaeology* 92(3): 427-440.

1991a 'Ceramic Evidence for Pre-*Periplus* Trade on the Indian Coasts'. In *Rome and India: The Ancient Sea Trade*. V. Begley and R.D.d. Puma, eds. Pp. 157-196. Madison: The University of Wisconsin Press.

1991b 'Introduction'. In *Rome and India: The Ancient Sea Trade*. V. Begley and R.D.d. Puma, eds. Pp. 3-11. Madison: The University of Wisconsin Press.

Bender, B.

1993a 'Landscape-- Meaning and Action'. In *Landscape: Politics and Perspectives*. B. Bender, ed. Pp. 1-13. New York: Berg.

1993b *Landscape: Politics and Perspectives*. New York: Berg.

2001 'Landscapes on-the-move'. *Journal of Social Archaeology* 1(1): 75-89.

Beneš, Jaromír, and Marek Zvelebil

1999 'A historical interactive landscape in the heart of Europe: the case of Bohemia'. In *The Archaeology and Anthropology of Landscape: Shaping your landscape*. P.J. Ucko and R. Layton, eds. Pp. 74-94. London and New York: Routledge.

Berdan, Frances

2006 'The Role of Provincial Elites in the Aztec Empire'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 154-165. Tucson: University of Arizona Press.

Bevan, Andrew, and Jamed Conolly

2002-2004 'GIS, Archaeological Survey, and Landscape Archaeology on the Island of Kythera, Greece'. *Journal of Field Archaeology* 29(No. 1/2):123-138.

Bhandarkar, R. G.

1895 *Early History of the Dekkan Down to the Mahomedan Conquest*. Bombay: Government Central Press.

Bhardwaj, S. M.

1973 *Hindu Places of Pilgrimage in India: A Study in Cultural Geography*. Berkeley: University of California Press.

Bhat, H. R. R.

1983 'Kelagundli Inscription of Kadamba Ravivarma- A Note'. *Journal of the Epigaphical Society of India* X: 117-119.

1996 'Kadamba-Nagara Sikhara?'. In *Kadambas: Their History and Culture*. B.R. Gopal and N.S. Tharanatha, eds. Pp. 61-64. Mysore: Directorate of Archaeology and Museums.

Bhattacharya, A. K.
1995 'Iconography of Savālha (Sarvāhṇa) Yakṣa, Brahmaśānti Yakṣa, Hariṇaigameṣa (Naigamesa), Kapardi Yakṣa, Navagrahas, Kṣetrapāla, Padmāvatī Yakṣiṇī and Sarasvatī in Jainism'. In *A pageant of Indian Culture: Art and Archaeology*. A.K. Bhattacharya, ed. Pp. 48-102. New Delhi: Abhinav Publications.

Binford, Lewis R.
1982 'The Archaeology of Place'. *Journal of Anthropological Archaeology* 1: 5-31.

Bintliff, John
1997 'Regional Survey, Demography, and the Rise of Complex Societies in the Ancient Aegean: Core-Periphery, Neo Malthusian, and Other Interpretive Models'. *Journal of Field Archaeology* 24(1): 1-38.
2002 'Settlement Pattern Analysis and Demographic Modeling'. In *New Developments in Italian Landscape Archaeology: Theory and methodology of field survey land evaluation and landscape perception pottery production and distribution*. P. Attema, G.-J. Burgers, E.v. Joolen, M.v. Leusen, and B. Mater, eds. Pp. 28-35. Oxford: Archeopress.

Bintliff, John, and A. Snodgrass
1988a 'Off-Site Pottery Distributions: A Regional and Interregional Perspective'. *Current Anthropology* 29(3): 506-513.
1988b 'Mediterranean survey and the city'. *Antiquity* 62:57-71.

Blackburn, S. H.
1985 'Death and deification: Folk cults in Hinduism'. *History of Religions* 24(3): 255-274.

Blanton, Richard
1976 'Anthropological Studies of Cities'. *Annual Review of Anthropology* 5: 249-264.

Blanton, Richard, et al.
1979 'Regional Evolution in the Valley of Oaxaca, Mexico'. *Journal of Field Archaeology* 6(4): 369-390.

Blanton, Richard, and Gary Feinman
1984 The Mesoamerican World System'. *American Anthropologist* 86(3): 673-682.

Bloss, Lowell W.
1973 'The Buddha and the Nāga: A Study in Buddhist Folk Religiosity'. *History of Religions* 13(1): 36-53.

Bloxam, Elizabeth
    2011   'Ancient quarries in mind: pathways to a more accessible significance'. *World Archaeology* 43(2): 149-166.

Bolon, C. R.
    1992   *Forms of the Goddess Lajja Gauri in Indian Art*. Pennsylvania: Published for College Art Association by Pennsylvania State University Press.

Bourman, R. P.
    1993   'Perennial problems in the study of laterite: A review'. *Australian Journal of Earth Sciences* 40(4): 387-401.

Bowring, L
    1872   *Eastern Experiences*. London: Henry S. King and Co.

Bradley, Richard
    2002   *The Past in Prehistoric Societies*. London and New York: Routledge.

Bradley, Richard , Felipe Criado Boado, and Ramon F. Valcarce
    1994   'Rock art research as landscape archaeology: a pilot study in Galicia, north-west Spain'. *World Archaeology* 25(3): 374-390.

Braidwood, R. J.
    1937   *Mounds of the Plain of Antioch: an Archaeological Survey*. Chicago: University of Chicago Press.

Branfoot, Crispin
    2007   'Regional Pasts, Imperial Present: Architecture and Memory in Vijayanagara-Period Karnataka'. In *The Temple in South Asia*. A. Hardy, ed. Pp. 105-125. London: British Association for South Asian Studies.

Branfoot, Crispin, and Anna L. Dallapiccola
    2005   'Temple Architecture in Bhatkal and the "Rāmāyaṇa" Tradition in Sixteenth-Century Coastal Karnataka'. *Artibus Asiae* 65(2): 253-308.

Brubaker, R.
    2000-2001   'Aspects of Mortuary Variability in the South Indian Iron Age'. *Bulletin of the Deccan College Research Institute* 60 and 61 :253-302.
    2004   *Cornerstones of Control: The Infrastructure of Imperial Security at Vijayanagara, South India*, Anthropology, Michigan.

Brück, Joanna, and Melissa Goodman

1999   'Introduction: themes for a critical archaeology of prehistoric settlement'. In *Making places in the prehistoric world: themes in settlement archaeology*. J. Brück and M. Goodman, eds. Pp. 1-19. London: UCL Press.

Brumfiel, Elizabeth M.
1994   'Factional competition and political development in the New World: an introduction'. In *Factional competition and political development in the New World*. E.M. Brumfiel and J.W. Fox, eds. Pp. 3-14. Cambridge: Cambridge University Press.
2006   'Provincial Elites and the Limits of Dominant Ideology in the Aztec Empire'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 166-174. Tucson: Unversity of Arizona Press.

Brumfiel, Elizabeth M., and T. K. Earle, eds.
1987   *Specialization, Exchange, and Complex Societies*. Cambridge: Cambridge University Press.

Brumfiel, Elizabeth M., and John W. Fox, eds.
1994   *Factional competition and political development in the New World*. Cambridge: Cambridge University Press.

Buchanan, J.
1807a (1807)   *A Journey from Madras through the Countries of Mysore Canara and Malabar*. III vols. Volume I. London: Asiatic Society, East india Company.
1807b (1807)   *A Journey from Madras through the Countries of Mysore Canara and Malabar*. III vols. Volume II. London: Asiatic Society, East india Company.
1807c (1807)   *A Journey from Madras through the Countries of Mysore,Canara and Malabar*. III vols. Volume III. London: Asiatic Society, East india Company.

Buhler, Georg
1895   'Epigraphic Discoveries in Mysore'. *Journal of the Royal Asiatic Society (New Series)* 27(4): 900-904.

Burger, Oskar, et al.
2002-2004   'Multi-Scale and Nested-Intensity Sampling Techniques for Archaeological Survey'. *Journal of Field Archaeology* 29(3/4): 409-423.

Burgess, Jas., and Henry Cousens
1897   *Revised List of Antiquarian Remains in the Bombay Presidency and the Native States of Baroda, PalanpurRadhanpur, Kathiawad, Kachh, Kolhapur, and the southern Maratha minor states*. Volume XVI. Bombay: Government Central Press.

Burke, Ariane

2006   'Introduction to the special issue: "Mutidisciplinary approaches to the study of site function and settlement dynamics in prehistory"'. *Journal of Anthropological Archaeology* 25(4): 403-407.

Campbell, James M., ed.
1883   *Gazetteer of the Bombay Presidency: Kanara*. Volume XV, Part II. Bombay: Government Central Press.

Carballo, David M., and Thomas Pluckhahn
2007   'Transportation corridors and political evolution in highland Mesoamerica: Settlement analyses incorporating GIS for northern Tlaxcala, Mexico'. *Journal of Anthropological Archaeology* 26: 607-629.

Carman, John
1999   'Settling on sites: constraining concepts'. In *Making places in the prehistoric world: themes in settlement archaeology*. J. Brück and M. Goodman, eds. Pp. 20-29. London: UCL Press.

Chakrabarti, Dilip K.
1982   'The Development of Archaeology in the Indian Subcontinent'. *World Archaeology* 13(No. 3): 326-344.
1999   *India, An Archaeological History: Palaeolithic Beginnings to Early Historic Foundations*. Delhi: Oxford University Press.
2000   'Colonial indology and identity'. *Antiquity* 74(285): 667-671.
2001   *Archaeological Geography of the Ganga Plain: The Lower and the Middle Ganga*. New Delhi: Permanent Black.

Chakrabarti, Dilip K., Rakesh Tiwari, and R. N. Singh
2003   'From the Ganga Plain to the Eastern and Western Deccan: A Field-Study of the Ancient Routes'. *South Asian Studies* 19(1): 57-71.

Champakalakshmi, R.
2001   'Reappraissal of a Brahmanical Institution: The Brahmadeya and its Ramifications in Early Medieval South India'. In *Structure and Society in Early South India: Essays in Honour of Noboru Karashima*. K.R. Hall, ed. Pp. 59-84. Delhi: Oxford University Press.

Champakalakshmi, R., Kesavan Veluthat, and T. R. Venugopalan
2002   'Introduction'. In *State and Society in Pre-modern South India*. Champakalakshmi, K. Veluthat, and T.R. Venugopalan, eds. Pp. 11-38. Thrissur: Cosmobooks.

Champion, T. C., ed.
1989   *Centre and Periphery: Comparative Studies in Archaeology*. London: Unwin Hyman.

Chase-Dunn, Christopher
    1988   'Comparing world-systems: Towards a theory of semiperipheral development'. *Comparative Civilizations Review* 19: 29-66.
    2005   'Upward Sweeps in The Historical Evolution of World-Systems'. *The Institute for Research on World-Systems*. Working Paper #20.

Chase-Dunn, Christopher, and Peter Grimes
    1995   'World-Systems Analysis'. *Annual Review of Sociology* 21: 387-417.

Chase-Dunn, Christopher, and Thomas D. Hall
    1991a   Conceptualizing Core/Periphery Hierarchies for Comparative Study'. In *Core-Periphery Relations in Precapitalist Worlds*. C. Chase-Dunn and T.D. Hall, eds. Pp. 5-44. Boulder: Westview Press.
Chase-Dunn, Christopher, and Thomas D. Hall, eds.
    1991b *Core-Periphery Relations in Precapitalist Worlds*. Boulder: Westview Press.
        1993   'Comparing World-Systems: Concepts and Working Hypothesis'. *Social Forces* 71(4): 851-886.

Chase-Dunn, Christopher, and Andrew Jorgensen
    2003   'Regions and Interaction Networks: An Institutional-Materialist Perspective'. *International Journal of Comparative Sociology* 44(1): 1-18.

Chattopadhyaya, B. D.
    1984   *A Survey of Historical Geography of Ancient India*. Kolkata: Manisha Granthalaya.
    1985   'Political Processes and Structure of Polity in Early Medieval India: Problems of Perspective'. *Social Scientist* 13(6): 3-34.
    1995   'Political Processes and the Structure of Polity in Early Medieval India'. In *The State in India, 1000-1700*. H. Kulke, ed. Pp. 195-232. Delhi: Oxford University Press.
    2003   'Transition to the Early Historical Phase in the Deccan: A Note'. In *Studying Early India*. B.D. Chattopadhyaya, ed. Delhi: Permanent Black.

Chattopadhyaya, Urmesh C.
    1996   'Settlement pattern and the spatial organization of subsistence and mortuary practices in the Mesolithic Ganges valley, north-central India'. *World Archaeology* 27(3): 461-476.

Chaudhuri, S. B.
    1955   *Ethnic Settlements in Ancient India (a study on the Puranic lists of the peoples of Bharatavarsa)*. Calcutta: General Printers and Publishers.

Cherian, P. J.

2011   *Pattanam archaeological site : The wharf context and the maritime exchanges*. In *Asia-Pacific Regional Conference on Underwater Cultural Heritage Proceedings*. Manila: Unpublished.

Childe, V. Gordon
1950   'The Urban Revolution'. *The Town Planning Review* 21(1): 3-17.

Chowdhury, M. K. Roy, et al.
1965   'Recent Concepts on the Origin of Indian Laterite'. *Proceedings National Institute of Science, India* 31(6): 547-548.

Claessen, Henry J. M., and Peter Skalnik, eds.
1978a   *The Early State*. The Hague: Mouton.
Claessen, Henry J. M., and Peter Skalnik
1978b   'The Early State: Theories and Hypotheses'. In *The Early State*. H.J.M. Claessen and P. Skalnik, eds. Pp. 3-29. *Studies in the Social Sciences*. The Hague: Mouton.

Clarke, D. L., ed.
1977   *Spatial Archaeology*. New York: Academic Press.

Cline, Eric H.
2000   '"Contested Peripheries" in World Systems Theory: Meggido and the Jezreel Valley as a Test Case'. *Journal of World-Systems Research* VI(1): 7-16.

Coe, Michael D.
1961   'Social Typology and the Tropical Forest Civilizations'. *Comparative Studies in Society and History* 4(1): 65-85.

Cohen, Andrew L.
1997   'Why a History of Monuments from Noḷambavāḍi'. *Artibus Asiae* 57(no. 1/2): 17-29.

Cohen, Ronald
1984   'Warfare and state formation: Wars make states and states make wars'. In *Warfare, Culture, and Environment* Pp. 329-358. Orlando: Academic Press.

Coningham, R. A. E.
1995   'Monks, Caves and Kings: A Reassessment of the Nature of Early Buddhism in Sri Lanka'. *World Archaeology* 27(2): 222-242.

Coningham, R. A. E., et al.
1996   'Passage to India? Anuradhapura and the Early Use of the Brahmi Script'. *Cambridge Archaeological Journal* 6(1): 73-97.
2007   'The state of theocracy: defining an early mediaeval hinterland in Sri Lanka'. *Antiquity* 81(313): 699-719.

Conlee, Christina A.

    2003   'Local Elites and the Reformation of Late Intermediate Period Sociopolitcal and Economic Organization in Nasca, Peru'. *Latin American Antiquity* 14(1): 47-65.

    2004   'The Expansion, Diversification, and Segmentation of Power in Late Prehispanic Nasca'. *Archaeological Papers of the American Anthropological Association* 14(1): 211-223.

Conlee, Christina A., and Katharina Schreiber

    2006   'the Role of Intermediate Elites in the Balkanization and Reformation of Post-Wari Society in Nasca, Peru'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 95-111. Tucson: University of Arizona Press.

Cort, John

    1987   'Medieval Jaina Goddess Traditions'. *Numen* 34(2): 235-255.

Covey, R Alan

    2006   'Intermediate Elites in the Inka Heartland, A.D. 1000-1500'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 112-135. Tucson: University of Arizona Press.

    2008   'Multiregional Perspectives on the Archaeology of the Andes During the Late Intermediate Period (c. AD 1000-1400)'. *Journal of Archaeological Research* 16: 287-338.

Cox, Whitney M.

    2010   'Scribe and script in Calukya West Deccan'. *The Indian Economic and Social History Review* 47(1): 1-28.

Crumley, Carole L.

    1979   'Three Locational Models: An Epistemological Assessment for Anthropology and Archaeology'. *Advances in Archaeological Method and Theory* 2: 141-173.

    1995   'Heterarchy and the Analysis of Complex Societies'. *Archaeological Papers of the American Anthropological Association* 6(1): 1-5.

    1999   'Sacred Landscapes: Constructed and Conceptualized'. In *Archaeologies of Landscape: Contemporary Perspectives*. W. Ashmore and A.B. Knapp, eds. Pp. 269-276. Oxford: Blackwell.

Cunningham, Alexander

    1854   *The Bhilsa Topes; or Buddhist Monuments of Central India*. London: Smith, Elder and Co.

    1871   *The Ancient Geograpy of India*. London: Trubner and Co.

    1879   *Report on a Tour of the Central Provinces in 1873-74 and 1874-75*. Government Central Printing Office.

Cusick, James G., ed.
    1998   *Studies in Culture Contact: Interaction, Culture Change, and Archaeology*. Carbondale: Center for Archaeological Investigations.

D'Anville
    1759   *A Geographical Illustration of the Map of India*. W. Herbert, transl. London.

Dallaporta, Annamaria, and Lucio Marcato
    2010   'Some Considerations on Organisation of Territory in Ancient India (seventh century BC - twelfth century AD) (Based on the Sample Area between Farrukhabad and Shah Alampur, U.P.)'. *South Asian Studies* 22(1): 43-51.

Davison-Jenkins, Domonic J.
    1997   *The Irrigation and Water Supply Systems of Vijayanagara*. New Delhi: Manohar & American Institute of Indian Studies.

Dayma, Yogender
    2009   'Politial Processes in the Making of the Early Kadamba State'. In *Proceedings of the Indian History Congress, 69th Session, Kannur 2008*. A. Bandopadhyay, ed. Pp. 102-114. Kolkatta: Arun Bandopadhyay, Secretary, Indian History Congress, Dept. of History, University of Kolkatta.

Deloche, Jean
    1993   *Transport and Communications in India Prior to Steam Locomotion*. Volume I: Land Transport. Delhi: Oxford University Press.
    1994   *Transport and Communications in India Prior to Steam Locomotion*. Volume II: Water Transport. Delhi: Oxford University Press.

Desai, P B
    1958   'A new Kadamba Family'. *Indian Historical Quarterly* XXXLV(2): 167-169.
    1959   'ChauDadânpur plates of Kadamba Kâmadçva, saka 1139'. *Journal of the Karnatak University, Humanities* III(2): 41-45.

Dey, N. L.
    1899   *A Geographical Dictionary of Ancient and Medieval India*. Calcutta: W. Newman and Co.

Dhaky, M. A.
    1972   'The Nandi Images of Tamiḷnāḍu and Kannaḍanāḍu'. *Artibus Asiae* 34(2): 183-210.
    1977   *The Indian Temple Forms in Karnataka*. New Delhi: Abhinav Publications.
    1996   *Encyclopaedia of Indian Temple Architecture: South India, Upper Drāviḍadēśa (later phase, A.D. 973-1326)*. Volume I, Part 3. Delhi: American Institute of Indian Studies, Indira Gandhi National Centre for the Arts.

Dhavalikar, M. K., and G. L Possehl
  1974 'Subsistence Pattern of an Early Farming Community of Western India'.
        Puratattva 7:3 9-56.

Dibbad, Shantinath
  2011 'The Construction, Destruction and Renovation of Jaina *Basadis*: A Historical
        Perspective'. In *The Jaina Heritage: Distinction, Decline and Resilience*. J.A.B.
        Hegewald, ed. Pp. 63-76. *Heidelberg Series in South Asian and Comparative
        Studies, Vol II*. Delhi: Samskriti.

Dikshit, G S
  1957 'Group Organisation in Mediaeval Karnatak'. *Journal of the Karnatak University,
        Humanities* 1(2): 59-64.

Dikshit, G. S., G. R. Kuppuswamy, and S. K. Mohan
  1993 *Tank Irrigation in Karnataka: A Historical Survey*. Bangalore: Gandhi Sahitya
        Sabha.

Dikshit, K. N.
  1917-1918   'No. 11- Sangoli Plates of Hari-Varman: the 8th Year'. *Epigraphia Indica*
        XIV: 163-168.

Dikshit, M. G.
  1968 *Excavations at Kaundinyapura*. Bombay: Government Central Press.

Dommelen, Peter van
  1999 'Exploring Everyday Places and Cosmologies'. In *Archaeologies of Landscape:
        Contemporary Perspectives*. W. Ashmore and A.B. Knapp, eds. Pp. 277-285.
        Oxford: Blackwell.

Doniger, Wendy
  2009 'An Alternative Historiography for Hinduism'. *The Journal of Hindu Studies* 2(1):
        17-26.

Dunnell, Robert C., and William S. Dancey
  1983 'The Siteless Survey: A Regional Scale Data Collection Strategy'. *Advances in
        Archaeological Method and Theory* 6: 267-287.

Edens, Christopher
  1992 'Dynamics of Trade in the Ancient Mesopotamian 'World System''. *American
        Anthropologist* 94(1): 118-139.

Elgood, Heather
  2004 'Exploring the Roots of Village Hinduism in South Asia'. *World Archaeology*
        36(No. 3): 326-342.

Elliot, Robert H.
    1871   *The Experiences of a Planter in the Jungles of Mysore*. London: Chapman and Hall.

Elliot, Walter
    1837   'Hindu Inscriptions'. *Journal of the Royal Asiatic Societyof Great Britain and Ireland* 4(1): 1-41.
    1838   'Hindu Inscriptions'. *The Madras Journal of Literature and Science* VII: 193-232.

Elson, Christina M.
    2006   'Intermediate Elites and the Political Landscape of the Early Zapotec State'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 44-93. Tucson: University of Arizon Press.

Elson, Christina M., and R. Alan Covey
    2006a 'Intermediate Elites in New World States and Empires'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 3-20. Tucson: University of Arizona Press.
    2006b *Intermediate Elites in Pre-Columbian States and Empires*. Tucson: University of Arizona Press.

Engelhardt, Richard A.
    1996   'New Directions for Archaeological Research on the Angkor Plain: The use of remote sensing technology for research into ancient Khmer environmental engineering'. *Indo-Pacific Prehistory Bulletin* 14 (Chiang Mai papers, Volume I): 151-160.

Epigraphia Carnatica
    1894-1905   *Epigraphia Carnatica (OS)*. Bangalore: Mysore Government Central Press.

Erdosy, G.
    1988   *Urbanization in Early Historic India*. Oxford: British Archaeological Reports.

Eschmann, A.
    1978   'Hinduization of Tribal Deities in Orissa: The Śākta and Śaiva Typology'. In *The Cult of Jagannath and the Regional Traditions of Orissa*. A. Eschmann, H. Kulke, and G.C. Tripathi, eds. Pp. 79-98. New Delhi: Manohar.

Fairclough, Graham
    2006   'Large Scale, Long Duration and Broad Perceptions: Scale Issues in Historic Landscape Characterization'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 203-215. New York: Springer.

Farrington, I. S.
    1992   'Ritual Geography, Settlement Patterns and the Characterization of the Provinces of the Inka Heartland'. *World Archaeology* 23(3): 368-385.

Feinman, Gary
    1996   'The Changing Structure of Macroregional Mesoamerica: With focus on the Classic-Postclassic transition in the valley of Oaxaca'. *Journal of World-Systems Research* 2(7).

Feinman, Gary M., and Linda M. Nicholas
    1990   'At the Margins of the Monte Alban State: Settlement Patterns in the Ejutla Valley, Oaxaca, Mexico'. *Latin American Antiquity* 1(3): 216-246.

Feinman, Gary, and Joyce Marcus, eds.
    1998   *Archaic States*. Santa Fe: School of American Research Press.

Ferguson, R. Brian, and Neil L. Whitehead
    1992a   'The Violent Edge of Empire'. In *War in the Tribal Zone: Expanding States and Indigenous Warfare*. R.B. Ferguson and N.L. Whitehead, eds. Pp. 1-30. Santa Fe: School of American Research Press.
    1992b   *War in the Tribal Zone: Expanding States and Indigenous Warfare*. Santa Fe: School of American Research Press.

Fish, Suzanne K., and Stephen A. Kowalewski, eds.
    1990   *The Archaeology of Regions: A Case for Full-Coverage Survey*. Washington DC: Smithsonian Institution Press.

Fisher, Kevin D.
    2006   'Messages in Stone: Constructing Sociopolitical Inequality in Late Bronze Age Cyprus'. In *Space and Spatial Analysis in Archaeology*. E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 123-131. Calgary: University of Calgary Press.

Flannery, K. V.
    1976   'Empirical determination of site catchments in Oaxaca and Tehuacan'. In *The Early Mesoamerican Village*. K.V. Flannery, ed. Pp. 103-117. New York: Academic Press.

Fleet, J. F.
    1875   'Sanskrit and Old canarese Inscriptions'. *Indian Antiquary* IV: 176-181, 203-211, 274-280, 327-334.
    1878a   *Pali, Sanskrit and Old Canarese Inscriptions from the Bombay Presidency and Parts of the Madras Presidency and Maisur*. London: India Office.
    1878b   'Sanskrit and Old Canarese Inscriptions'. *Indian Antiquary* VII: 33-38.

1882   *The Dynasties of the Kanarese Districts of the Bombay Presidency from the Earliest Historical Times to the Muhammadan Conquest of A.D. 1318*. Bombay: Government Central Press.

1900-01   'Three Inscriptions in the Dharwar District'. *Epigraphia Indica* VI:251-260.

1905   'Epigraphic Researches in Mysore'. *Journal of the Royal Asiatic Society (New Series)* 37(2): 289-312.

1912   'Ancient Territoral Divisions of India'. *Journal of the Royal Asiatic Society of Great Britain & Ireland*: 707-710.

Fleming, Benjamin J.
2009   'The Form and Formlessness of Śiva: The *Liṅga* in Indian Art, Mythology, and Pilgrimage'. *Religion Compass* 3(3): 440-458.

Foekema, G.
2003   *Cālukya Architecture: medieval temples of northern Karnataka built during the rule of the Cālukya of Kalyāṇa and thereafter, AD 1000-1300*. III vols. New Delhi: Munshiram Manoharlal.

Fogelin, Lars
2003   *Beyond the Monastery Walls: The archaeology of Early Buddhism in North Coastal Andhra Pradesh, India*. Unpublished Dissertation. Anthropology, University of Michigan.

2005   'Brickmaking in Malapannagudi: Ethnoarchaeological research and archaeological implications'. In *Vijayanagara: Archaeological Exploration, 1990-2000 (Papers in memory of Channabasappa S. Patil)*. J.M. Fritz, R. Brubaker, and T. Raczek, eds. Pp. 577-586. *Monograph Series of the Vijayanagara Research Project, 10*. New Delhi: Manohar and American Institute of Indian Studies.

Fontijn, David
2007   'The significance of 'invisible' places'. *World Archaeology* 39(1): 70-83.

Fox, Cyril S.
1936   'Buchanan's Laterite of Malabar and Kanara'. *Records of the Geological Survey of India* LXIX(Part 4): 389-422.

Francis, Peter
1991   'Beadmaking at Arikamedu and Beyond'. *World Archaeology* 23(No. 1): 28-43.

Frank, Andre Gunder
1993   'Bronze Age World System Cycles'. *Current Anthropology* 34(4): 383-429.

Friedman, Jonathan, and Michael Rowlands

1977   'Notes Towards an Epigenetic Model of the Evolution of Civilization'. In *The Evolution of Social Systems*. J. Friedman and M. Rowlands, eds. Pp. 201-276. London: Duckworth.

Fritz, John M.
    1986   'Vijayanagara: Authority and Meaning of a South Indian Imperial Capital'. *American Anthropologist* 88(1): 44-55.

Fritz, John M., George Michell, and M. S. Nagaraja Rao
    1984   *Where kings and gods meet: the Royal Centre at Vijayanagara, India*. Tucson: University of Arizona Press.

Fuller, Dorian Q.
    2008   'India, Deccan and Central Plateau'. In *Encyclopedia of Archaeology*. D.M. Pearsall, ed. Pp. 694-705. New York: Academic Press.

Fussman, G.
    1987-88   'Central and provincial administration in ancient India: The problem of the Mauryan empire'. *The Indian Historical Review* 14: 41-72.

Gadgil, Madhav
    1987   'Depleting Renewable Resources: A Case Study from Karnataka Western Ghats'. *Indian Journal of Agricultural Economics* 42(3): 376-387.

Gai, G. S.
    1933-34   'Kuntagani Plates of Kadamba Ravivarman, Year 12'. *Epigraphia Indica* XXXII: 217-219.
    1961-62   'Banavasi inscription of Vishnukada Satakanni, year 12'. *Epigraphia Indica* XXXIV: 239-242.
    1992a   'Notes on Important Epigraphs'. In *Studies in Indian History, Epigraphy and Culture*. G.S. Gai, ed. Pp. 224-. Dharwad: Shrihari Prakashan
    1992b   'Studies in Ancient Geography of Karnatak'. In *Studies in Indian History, Epigraphy and Culture*. G.S. Gai, ed. Pp. 66-93. Dharwad: Shrihari Prakashan
    1992c   *Studies in Indian History, Epigraphy and Culture*. Dharwad: Shrihari Prakashan.
    1996   *Inscriptions of the Early Kadambas*. Delhi: Indian Council of Historical Research Pratibha Prakashan.

Gailey, Christine Ward, and Thomas C. Patterson
    1988   'State formation and uneven development'. In *State and Society: The emergence and development of social hierarchy and political centralization*. J. Gledhill, B. Bender, and M.T. Larsen, eds. Pp. 77-90. London: Unwin Hyman.

Gallant, T. W.
    1986   '"Background Noise" and Site Definition: A Contribution to Survey Methodology'. *Journal of Field Archaeology* 13(4): 403-418.

Ganesh, K.
    2008   *Coins of Banavasi (c. 300 BC - AD 600)*. Bangalore: Sharad Printers.

Geller, Pamela L.
    2006   'Maya Mortuary Spaces as Cosmological Metaphors'. In *Space and Spatial Analysis in Archaeology*. E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 37-45. Calgary: University of Calgary Press.

Geological Survey of India
    2006   *Geology and Mineral Resources of the States of India: Karnataka and Goa*. Part VII. Miscellaneous Publication No. 3. Bangalore: Geological Survey of India.

Ghosh, A.
    1973   *The City in Early Historical India*. Simla: Indian Institute of Advanced Studies.
Ghosh, A., ed.
    1989   *Encyclopedia of Indian Archaeology*. Delhi: Munshiram Manoharlal.
    1990   *An Encyclopedia of Indian Archaeology: A Gazetteer of Explored and Excavated Sites in India*. Volume II. Leiden: E. J. Brill.

Glatz, Claudia
    2009   'Empire as network: Spheres of material interaction in Late Bronze Age Anatolia'. *Journal of Anthropological Archaeology* 28: 127-141.

Gledhill, John
    1988   'Introduction: the comparative analysis of social and political transitions'. In *State and Society: The emergence and development of social hierarchy and political centralization*. J. Gledhill, B. Bender, and M.T. Larsen, eds. Pp. 1-29. London: Unwin Hyman.

Gogte, V. D.
    2000   'Ancient Maritime Trade in the Indian Ocean:Evaluation by Scientific Studies of Pottery'. *Man and Environment* XXVII(1): 57-67.
    2001   'XRD Analysis of the Rouletted Ware and Other Fine Grey Ware from Tissamaharama'. In *Ancient Ruhuna: Sri Lankan-German Archaeological Project in the Southern Province*. Pp. 197-202 H.-J. Weisshaar, H. Roth, and W. Wijeyapala, eds. Mainz am Rhein: von Zabern.

Goldstein, Paul S.
    2000   'Exotic Goods and Everyday Chiefs: Long Distance Exchange and Indigenous Sociopolitical Development in the South Central Andes'. *Latin American Antiquity* 11(4): 335-361.

Gopal, B. R.

1971   'A New Kadamba Inscription'. In *Proceedings of the Indian History Congress, 32nd Session, Jabalpur 1970*. S. Chandra, ed. Pp. 54-59. Delhi: Satish Chandra, Secretary, Indian History Congress, Center for Historical Studies, Jawaharlal Nehru University.

1973   'Gudnapur Inscription of Kadamba Ravivarma'. In *Srikanthika: Dr S. Srikantha Sastri Felicitation Volume*. K.V. Ramesh and e. al., eds. Mysore: Geetha Book House.

1982   *Minor Dynasties of South India: Karnataka Vol I*. Volume I. Madras: New Era Publications.

1985a   *Corpus of Kadamba Inscriptions*. Volume I. Sirsi: Kadamba Institute of Cultural Studies.

1985b   'Kannada epigraphy and revision of epigraphia carnatica'. In *Indus Valley to Mekong Delta: Explorations in Epigraphy*. N. Karashima, ed. Pp. 41-55. Madras: New Era Publications.

Gopal, B. R., and N. S. Tharanatha, eds.
1996   *Kadambas: Their History and Culture*. Mysore: Directorate of Archaeology and Museums.

Gosden, Chris, and Karola Kirsanow
2006   'Timescales'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 27-37. New York: Springer.

Goswami, K.
1984   *Place Names of Bengal*. Kolkata: Jnan Prakashan.

Gottman, J., ed.
1980   *Centre and Periphery: Spatial Variation in Politics*. London: Sage.

Gowda, S. Ganapathi
2006   'Art And Architecture of North Kanara Region'. In *Pancatantra: Recent Researches in Indian Archaeology (Dr. C. S. Patil Commemoration Volume)*. K.M. Suresh, C.T.M. Kotraiah, and S.Y. Somashekhar, eds. Pp. 107-113. Delhi: Bharatiya Kala Prakashan.

Grahn, Judy
2011   'Mariamma: Cosmic Creation Goddess'. In *Goddesses in World Culture*. P. Monaghan, ed. Pp. 55-69. Santa Barbara: ABC-CLIO.

Grave, Peter
1995   'Beyond the *Mandala*: Buddhist Landscapes and Upland-Lowland Interaction in North-West Thailand AD 1200-1650'. *World Archaeology* 27(2): 243-265.

Green, Stanton W., and Stephen M. Perlman, eds.
1985   *The Archaeology of Frontiers and Boundaries*. Orlando: Academic Press.

Gunawardana, R. A. H. L.

    1971   'Irrigation and Hydraulic Society in Early Medieval Ceylon'. *Past and Present* 53: 3-27.

Gupta, Parmeshwari Lal

    1985   'Bearing of Numismatics on Early Indian Art History in the Background of Epigraphy'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 7-13. New Delhi: Oxford and IBH.

Hall, Kenneth R.

    1977   'Price-making and Market Hierarchy in Early Medieval South India'. *Indian Economic Social History Review* 14(2): 207-230.

    1999a   'Coinage, trade and economy in early South India and its Southeast Asian neighbours'. *Indian Economic Social History Review* 36(4): 439-459.

    2001   'Merchants, Rulers, and Priests in an Early South Indian Sacred Centre: Cidambaram in the Age of the Colas'. In *Structure and Society in Early South India: Essays in Honour of Noboru Karashima*. K.R. Hall, ed. Pp. 85-116. Delhi: Oxford University Press.

Hall, Thomas D.

    1986   'Incorporation in the World-System: Toward a Critique'. *American Sociological Review* 51(3): 390-402.

    1999b   'World-Systems and Evolution: An Appraisal'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 1-23. Lanham: Rowman and Littlefield.

    2012   'Incorporation into and merger of world-systems'. In *Routledge Handbook of World-Systems Analysis*. S.J. Babones and C. Chase-Dunn, eds. Oxford and New York: Routledge.

Hall, Thomas D., and Christopher Chase- Dunn

    1993   'The World-Systems Perspective and Archaeology: Forward into the Past'. *Journal of Archaeological Research* 1(2): 121-143.

Hardiman, David

    1995   'Small-Dam Systems of the Sahyadris'. In *Nature, Culture, Imperialism: Essays on the Environmental History of South Asia*. D. Arnold and R. Guha, eds. Delhi: Oxford University Press.

Hardy, Adam

    1995   *Indian Temple Architecture: Form and Transformation. The Karṇāṭa Drāviḍa Tradition. 7th to 13th centuries.* Delhi: Indira Gandhi National Centre for the Arts Abhinav Publication.

    2001   'Tradition and Transformation: Continuity and Ingenuity in the Temples of Karnataka'. *Journal of the Society of Architectural HIstorians* 60(2): 180-199.

2007   *The Temple Architecture of India*. Hoboken: John Wiley.

Harrell, Mark
    1995   'Sokkuram: Buddhist Monument and Political Statement in Korea'. *World Archaeology* 27(2): 318-335.

Harris, Trevor M.
    2006   'Scale as Artifact: GIS, Ecological Fallacy, and Archaeological Analysis'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 39-53. New York: Springer.

Hegde, K. T. M.
    1973   'A Model for Understanding Ancient Indian Iron Metallurgy'. *Man (New Series)* 8(3): 416-421.

Hegde, R.
    1999   *Research Project Report on Art and Patronage in the Medieval Banavasi 12000 During the 11th, 12th and 13th century AD*. Indian Council of Historical Research, New Delhi.
    2000   *Goddess Cult in Agrarian Society of the Medieval Karnataka*. In *Proceedings of the 9th Session of the Indian Art History* Congress. C.P. Sinha and U. C. Dwivedi, eds. Pp. 174-179. Guwahati and Delhi: Indian Art History Congress, Sundeep Prakashan.
    2000-01   'The Ancient and Medieval Roof-tiles from Karnataka'. *Puratattva* 31: 123-127.

Hegewald, J, and Subrata K. Mitra
    2008   *Jagannatha Compared: The politics of appropriation, re-use and regional traditions in India*. In *Heidelberg Papers in South Asian and Comparative Politics*. S.K. Mitra, ed. Heidelberg: University of Heidelberg.

Heitzman, J.
    1984   'Early Buddhism, Trade and Empire'. In *Studies in the Archaeology and Palaeoanthropology of South Asia*. K.A.R. Kennedy and G.L. Possehl, eds. New Delhi: OUP.
    1987a   'State Formation in South India, 850-1280'. *The Indian Economic and Social History Review* 24(1): 35-61.
    1987b   'Temple Urbanism in Medieval South India'. *The Journal of Asian Studies* 46(No. 4): 791-826.
    1991   'Ritual Polity and Economy: The Transactional Network of an Imperial Temple in Medieval South India'. *Journal of the Economic and Social History of the Orient* 34(No. 1/2): 23-54.
    1995   'State Formation in South India, 850-1280'. In *The State in India, 1000-1700*. H. Kulke, ed. Pp. 162-194. Delhi: Oxford University Press.

2001   'Urbanization and Political Economy in Early South India: Kancipuram During the Cola Period'. In *Structure and Society in Early South India: Essays in Honour of Noboru Karashima*. K.R. Hall, ed. Pp. 117-156. Delhi: Oxford University Press.

Henige, David P.
1975   'Some Phantom Dynasties of Early and Medieval India: Epigraphic Evidence and the Abhorrence of a Vacuum'. *Bulletion of the School of Oriental and African Studies* 38(3): 525-549.

Heras, H.
1929   'A Historical Tour in Search of Kadamba Documents'. *Journal of the Bombay Historical Society* II(No. 1): 96-142.

Hicks, Dan, and Laura McAtackney
2007   'Introduction: Landscapes as Standpoints'. In *Envisioning Landscape: Situations and Standpoints in Archaeology and Heritage*. D. Hicks, L. McAtackney, and G. Fairclough, eds. Pp. 13-29. Walnut Creek: Left Coast Press.

Hirsch, Eric
1995   'Landscape: Between Place and Space'. In *The Anthropology of Landscape: Perspectives on Place and Space*. E. Hirsch and M. O'Hanlon, eds. Pp. 1-30. Oxford: Clarendon Press.

Hirsch, Eric, and Michael O'Hanlon, eds.
1995   *The Anthropology of Landscape: Perspectives on Place and Space*. Oxford: Clarendon Press.

Hodder, Ian, and Clive Orton
1976   *Spatial analysis in archaeology*. Cambridge: Cambridge University Press.

Holdaway, Simon J., and LuAnn Wandsnider
2006   'Temporal Scales and Archaeological Landscapes from the Eastern Desert of Australa and Intermontane North America'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 183-202. New York: Springer.

Howell, J. R., et al.
1995   *Excavations at Sannathi, 1986-1989*. New Delhi: Archaeological Survey of India.

Hunt, Robert C., and Eva Hunt
1976   'Canal Irrigation and Local Social Organization'. *Current Anthropology* 17(3): 389-411.

Iyengar, Vatsala

2011 'Jaina Goddesses and their Worship in Karnataka'. In *The Jaina Heritage: Distinction, Decline and Resilience*. J.A.B. Hegewald, ed. Pp. 244-257. *Heidelberg Series in South Asian and Comparative Studies, Vol II*. Delhi: Samskriti.

Janssen, Frans H. P. M.
1993 'On the Origin and Development of the so-called Lajjā Gaurī '. In *South Asian Archaeology 1991*. A.J. Gail and G.J.R. Mevissen, eds. Pp. 457-472. Stuttgart: Franz Steiner Verlag.

Jarman, M. R., C. Vita-Finzi, and E. S. Higgs
1972 'Site catchment analysis in archaeology'. In *Man, Settlement, and Urbanism*. P.J. Ucko, R. Tringham, and G.W. Dimbleby, eds. Pp. 61-66. Cambridge, Mass.: Schenkman.

Jawaharlal, G.
2004 'Sakti-Cult in Jainism with Special Reference to Deccan'. In *Kevala-Bodhi. Buddhist and Jaina History of the Deccan (The BSL Commemorative Volume)*. A. Parasher-Sen, ed. Pp. 318-321. Delhi: Bharatiya Kala Prakashan.

Jennings, Justin
2003 'The Fragility of Imperialist Ideology and the End of Local Traditions, an Inca Example'. *Cambridge Archaeological Journal* 13(1): 107-120.
2006 'Core, peripheries, and regional realities in Middle Horizon Peru'. *Journal of Anthropological Archaeology* 25: 346-370.

Jennings, Justin, and Willy Yepez Alvarez
2001 'Architecture, Local Elites, and Imperial Entanglements: The Wari Empire and the Cotahuasi Valley of Peru'. *Journal of Field Archaeology* 28(No. 1/2): 143-159.

Jennings, Justin, and Nathan Craig
2001 'Politywide Analysis and Imperial Political Economy: The Relationship between Valley POltical Complexity and Administrative Centers in the Wari Empire on the Central Andes'. *Journal of Anthropological Archaeology* 20: 479-502.

Jeske, Robert J.
1996 'World Systems Theory, Core Periphery Interactions and Elite Economic Exchange in Mississippian Societies'. *Journal of World-Systems Research* 2(10).

Jha, D. N.
2000a 'Editor's Introduction'. In *The Feudal Order: State, Society and Ideology in Early Medieval India*. D.N. Jha, ed. Pp. 3-58. New Delhi: Manohar.
2000b *The Feudal Order: State, Society and Ideology in Early Medieval India*. New Delhi: Manohar.

Jha, Vishwa Mohan

    2000c 'Feudal Elements in the Caulukya State: An Attempt at Relocation'. In *The Feudal Order: State, Society and Ideology in Early Medieval India*. D.N. Jha, ed. Pp. 211-247. New Delhi: Manohar.

Joffe, Alexander H.

    1998 'Disembedded Capitals in Western Asian Perspective'. *Comparative Studies in Society and History* 40(3): 549-580.

    2002 'The Rise of Secondary States in the Iron Age Levant'. *Journal of the Economic and Social History of the Orient* 45(4): 425-467.

Johansen, Peter G.

    2003 'Recasting the Foundations: New Approaches to Regional Understandings of South Asian Archaeology and the Problem of Culture History'. *Asian Perspectives* 42(No. 2): 193-206.

Johnson, Matthew

    2007 *Ideas of Landscape*. Oxford: Blackwell.

    2012 'Phenomenological Approaches in Landscape Archaeology'. *Annual Review of Anthropology* 41: 270-284.

Jones, Jennifer E.

    2010 'Movement Across the Landscape and Residential Stability: Agency and Place in the Southern Levantine Early Bronze Age'. In *Agency and Identity in the Ancient Near East: New Paths Forward*. S.R. Steadman and J.C. Ross, eds. Pp. 13-26. London: Equinox.

Joshi, S. K.

    1985 *Defence Architecture in Early Karnataka*. Delhi: Sundeep Prakashan.

    1996 'Early Fort Architecture in Banavasi and Sannati- A Study'. In *Art and Architecture in Karnataka (Papers presented at the National Seminar on Archaeology 1985)*. D.V. Devaraj and C.B. Patil, eds. Pp. 169-171. Mysore: Directorate of Archaeology and Museums.

    2006 'Early Fort Architecture in Banavasi and Sannati: a study'. In *Pancatantra: Recent Researches in Indian Archaeology (Dr. C. S. Patil Commemoration Volume)*. K.M. Suresh, C.T.M. Kotraiah, and S.Y. Somashekhar, eds. Pp. 61-67. Delhi: Bharatiya Kala Prakashan.

Joyce, Arthur A.

    2006 'The Inhabitation of Rio Viejo's Acropolis'. In *Space and Spatial Analysis in Archaeology*. E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 83-96. Calgary: University of Calgary Press.

Junker, Laura Lee

1998   'Integrating History and Archaeology in the Study of Contact Period Philippine Chiefdoms'. *International Journal of Historical Archaeology* 2(4): 291-320.

Kadambi, Hemanth
2012   *Sacred Landscapes in Early Medieval South India: the Chalukya state and society (ca. AD 550--750)*. Unpublished Dissertation. Anthropology, University of Michigan.

Kamath, Suryanath U., ed.
1991   *Historiography of Karnataka: Seminar Papers*. Bangalore: The Mythic Society.

Kan, Ishikawa
1995   'Formation and Governance of Banavāsi 12000 under the rule of the Chālukyas and the Rāshṭrakūṭas'. In *Śrī Nāgābhinandanam. Dr. M. S. Nagaraja Rao Festschrift. Essays on Art, History, Archaeology, Epigraphy and Conservation of Cultural Property of India and Neighbouring Countries*. L.K. Srinivasan and S. Nagaraju, eds. Pp. 523-532. Bangalore: Dr. M. S. Nagaraja Rao Felicitation Committee.

Kanekar, Amita
2010   'Two Temples of the Ikkeri Nayakas'. *South Asian Studies* 26(2): 125-159.

Kantner, John
2008   'The Archaeology of Regions: From Discrete Analytical Toolkit to Ubiquitous Spatial Perspective'. *Journal of Archaeological Research* 1: 37-81.

Kapur, Nandini Sinha
2005   'State Formation in Vidarbha: The Case of the eastern Vakatakas'. *Indian Historical review* XXXII(No. 2): 13-36.

Kardulias, P. Nick
1996   'Multiple Levels in the Aegean Bronze Age World-System'. *Journal of World-Systems Research* 2(11).
1999   'Multiple Levels in the Aegean Bronze Age World-System'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 179-201. Lanham: Rowman and Littlefield.
2007   'Negotiation and incorporation on the margins of world-systems: examples from Cyprus and North America'. *Journal of World-Systems Research* 13: 55-82.

Karmarkar, A. P.
1938   'Boundaries of ancient Maharashtra and Karnataka'. *Indian Historical Quarterly* 14: 679-786.

Kasthurba, A.K., Manu Santhanam, and M.S. Mathews

2007   'Investigation of laterite stones for building purpose from Malabar region, Kerala state, SW India - Part 1: Field studies and profile characterisation'. *Construction and Building Materials* 21: 73-82.

Katti, Madhav N.
1985   'Inscriptions of the Hyderabad-Karnataka and Telengana Regions and Their Bearing on Art History'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 237-243. New Delhi: Oxford and IBH.
2003   'Impact of Sanskrit on Inscriptions of Karnataka'. In *Purā Prakāśa (Recent researches in epigraphy, numismatics, manuscriptology, Persian literature, art, architecture, archaeology, history and conservation). Dr. Z. A. Desai commemoration volume)*. A.K. Sharma, M.I. Quddusi, M.Y. Quddusi, and G.S. Khwaja, eds. Pp. 146-153. Delhi: Bharat Kala Prakashan.
2006   'Early Scripts of the Deccan'. In *Pancatantra: Recent Researches in Indian Archaeology (Dr. C. S. Patil Commemoration Volume)*. K.M. Suresh, C.T.M. Kotraiah, and S.Y. Somashekhar, eds. Pp. 217-226. Delhi: Bharatiya Kala Prakashan.

Keeley, Lawrence H., Marisa Fontana, and Russel Quick
2007   'Baffles and Bastions: The Universal Features of Fortifications'. *Journal of Archaeologcal Research* 15: 55-95.

Kepecs, S. M., and Philip L. Kohl
2003   'Conceptualizing macroregional interaction: World-Systems theory and the archaeological record'. In *The Postclassic Mesoamerican World*. M.E. Smith and F.F. Berdan, eds. Pp. 14-20. Salt Lake City: The University of Utah Press.

Kielhorn, F.
1900-01   'Two Kadamba Grants'. *Epigraphia Indica* VI:12-20.
1905-06   'No. 5: Talagunda Pillar Inscription of Kakusthavarman'. *Epigraphia Indica* VIII: 24-36.

Knapp, A. Bernard, ed.
1992   *Archaeology, Annales, and ethnohistory*. Cambridge: Cambridge University Press.

Kohl, Philip L.
1987   'The Use and Abuse of World Systems Theory: The Case of the Pristine West Asian State'. *Advances in Archaeological Method and Theory* 11: 1-35.
1992   'The Transcaucasian "Periphery" in the Bronze Age: A Preliminary Formulation'. In *Resources, Power and Interregional Interaction*. E. Schortman and P. Urban, eds. New York: Plenum Press.
2006   'The Materiality of History: Reflections on the Strengths of the Archaeological Record'. In *Excavatin Asian History: Inetrdisciplinary Studies in Archaeology*

and History. N. Yoffee and B.L. Crowell, eds. Pp. 327-338. Tucson: The University of Arizona Press.

Koontz, Rex, Kathryn Reese-Taylor, and Annabeth Headrick, eds.
2001 *Landscape and Power in Anceint Mesoamerica*. Boulder: Wetview Press.

Kooyman, Brian
2006 'Boundary theory as a means to understanding social space in archaeological sites'. *Journal of Anthropological Archaeology* 25(4): 424-435.

Korisettar, Ravi, and S. N. Rajaguru
2002 'Understanding Man-Land Relationships in Peninsular Deccan: With Special Reference to Karnataka'. In *Indian Archaeology in Retrospect: Archaeology and Historiography- History, Theory and Method*. S. Settar and R. Korisettar, eds. Pp. 243-296. New Delhi: Indian Council of Historical Research, Manohar.

Korisettar, Ravi, et al.
2010 'The Origin and Genesis of a Fertility Deity: Prehistoric Antecedents of the Lajjagauri Cult and New Discoveries in South Asia'. *Karnatak University Journal of Social Sciences* 34: 99-123.

Kosiba, Steve, and Andrew M. Bauer
2012 'Mapping the Political Landscape: Toward a GIS Analysis of Environmental and Social Difference'. *Journal of Archaeological Method and Theory*. In press. (DOI)10.1007/s10816-011-9126-z.

Kowalewski, Stephen A.
1990 'The Evolution of Complexity in the Valley of Oaxaca'. *Annual Review of Anthropology* 19: 39-58.
1997 'A Spatial Method for Integrating Data of Different Types'. *Journal of Archaeological Method and Theory* 4(3/4): 287-306.
2008 'Regional Settlement Pattern Studies'. *Journal of Archaeological Research* 16: 225-285.

Kramrisch, Stella
1956 'An Image of Aditi-Uttānapad'. *Artibus Asiae* 19(3/4): 259-270.

Kratochwil, Friedrich
1986 'Of Systems, Boundaries and Territoriality: AN Inquiry into the Formation of the State System'. *World Politics* 39(1): 27-52.

Krishna, M. H.
1945 'Mayurasarman Kadamba's Territories'. In *Proceedings of the Indian History Congress, 7th Session, Madras*. M.K. Dikshit, ed. Pp. 108-111. Allahabad: General Secretary, Indian History Congress.

Krishnan, Chitra, and Srinivas V. Veeravalli

    2006   'Tanks and Anicuts of South India: Examples of an Alternative Science of Engineering'. In *Traditional Knowledge Systems of India and Sri Lanka*. A.V. Balasubramanian and T.D.N. Devi, eds. Pp. 220-226. *Compas series on worldviews and sciences*. Delhi: Centre for Indian Knowledge Systems.

Krishnan, K. G.

    1995   'A Note on Kadamba Chronology'. In *Śrī Nāgābhinandanam. Dr. M. S. Nagaraja Rao Festschrift. Essays on Art, History, Archaeology, Epigraphy and Conservation of Cultural Property of India and Neighbouring Countries*. L.K. Srinivasan and S. Nagaraju, eds. Pp. 501-504. Bangalore: Dr. M. S. Nagaraja Rao Felicitation Committee.

Krishnarao, B. V.

    N.d.   'The Cutu-Satakarni or the Andhrabrtya Dynasty of Vanavasa and the Rise of the Pallavas'. In *Proceedings of the Indian History Congress, 2nd Session, Allahabad 1938*. S.A. Khan, ed. Pp. 71-84. Allahabad: General Secretary, Indian History Congress.

Kulke, H.

    1977   'Early State Formation and Royal Legitimation in Tribal Areas of Eastern India'. In *Aspects of Tribal Life in South Asia I. Strategy and Survival*. R.r. Moser and M.K. Gautam, eds. Pp. 29-37. Bern: Studia Ethnologics Bernensia.

    1978   'Royal temple policy and the structure of medieval Hindu kingdoms'. In *The Cult of Jagannath and the Regional Traditions of Orissa*. A. Eschmann, H. Kulke, and G.C. Tripathi, eds. Pp. 125-138. New Delhi: Manohar.

    1995a 'The Early and the Imperial Kingdom: A Processual Model of Integrative State Formation in Early Medieval India'. In *The State in India, 1000-1700*. H. Kulke, ed. Delhi: Oxford University Press.

    1995b 'Introduction: The Study of the State in Pre-modern India'. In *The State in India, 1000-1700*. H. Kulke, ed. Pp. 1-47. Delhi: Oxford University Press.

    1997   'Some Observations on the Political Functions of Copper-Plate Grants in Early Medieval India'. In *Recht, Staat und Verwaltung im klassischen Indien/ The State, the Law, and Administration in Classical India*. B. Kolver and E. Muller-Luckner, eds. Pp. 237-244. Munchen: R. Oldenbourg Verlag.

Kumar, Sunil

    1999   'Perceiving 'your' land: neighbourhood settlements and the Hauz-i Rani'. In *The Archaeology and Anthropology of Landscape: Shaping your landscape*. P.J. Ucko and R. Layton, eds. Pp. 161-176. London and New York: Routledge.

Kuznar, Lawrence A.

    1996   'Periphery/Core Relations in the Inca Empire'. *Journal of World-Systems Research* 2(9).

Lahiri, A. N.
    1995   'Circulation and Use of Early Coins in the Karnataka Region'. In *Epigraphy, Numismatics and Other Aspects in Karnataka*. D.V. Devaraj and C.B. Patil, eds. Pp. 93-99. Mysore: Directorate of Archaeology and Museums.

Lahiri, Nayanjot
    1992   *The Archaeology of Indian Trade Routes Upto c. 200 BC: Resource Ue, Resource Access and Lines of Communication*. Delhi: Oxford University Press.
    2000   'Archaeology and identity in colonial India'. *Antiquity* 74(285): 687-692.
    2005-06   'Archaeological Theory: A Perspective from Outside the Western Academy'. *Puratattva* 36: 1-11.

Lahiri, Nayanjot, and Elisabeth A. Bacus
    2004   'Exploring the Archaeology of Hindusim'. *World Archaeology* 36(No. 3): 313-325.

Lal, Makkhan
    1984   *Settlement history and rise of civilization in Ganga-Yamuna Doab*. Delhi: B. R. Publishing.

Lalitha, N.
    1983   *Political and Cultural Studies of Kadambas of Karnataka*. Unpublished Dissertation. Department of Post-Graduate Studies and Research in Ancient History and Archaeology, University of Mysore.

Lane, Kevin
    2009   'Engineered highlands: the social organization of water in the ancient north-central Andes (AD 1000-1480)'. *World Archaeology* 41(1): 169-190.

Lansing, J. Stephen
    1987   'Balinese "Water Temples" and the Management of Irrigation'. *American Anthropologist* 89(2): 326-341.

Lau, George F.
    2005   'Core-periphery relations in the Recuay hinterlands: economic interaction at Chinchawas, Peru'. *Antiquity* 79:78-99.

Law, B. C.
    1954   *Historical Geography of Ancient India*. Paris: Societe Asiatique de Paris.

Layton, Robert
    1999   'The Alawa totemic landscape: ecology, religion and politics'. In *The Archaeology and Anthropology of Landscape: Shaping your landscape*. P.J. Ucko and R. Layton, eds. Pp. 221-241. London and New York: Routledge.

Layton, Robert, and Peter J. Ucko
    1999   'Introduction: gazing on the landscape and encountering the environment'. In *The Archaeology and Anthropology of Landscape: Shaping your landscape*. P.J. Ucko and R. Layton, eds. Pp. 1-20. London and New York: Routledge.

Leach, E. R.
    1959   'Hydraulic Society in Ceylon'. *Past and Present* 15: 2-26.

Lewarch, Dennis E., and Michael J. O'Brien
    1981   'The Expanding Role of Surface Assemblages in Archaeological Research'. *Advances in Archaeological Method and Theory* 4: 297-342.

Lewis, Barry
    2005   'The Mysore Kingdom at AD 1800: Archaeological Applications of the Mysore Survey of Colin Mackenzie'. In *South Asian Archaeology 2001*. C. Jarrige and V. Lefèvre, eds. Pp. 557-565. Paris: Editioons Recherche Sur les Civilizations.
    2006   'Chitradurga in early 1800: Archaeological interpretations of colonial drawings'. In *Pancatantra: Recent Researches in Indian Archaeology (Dr. Channabasappa S. Patil Commemoration Volume)*. K.M. Suresh, C.T.M. Kotriah, and S.Y. Somashekhar, eds. Pp. 334-357. Delhi: Bharatiya Kala Prakashan.
    2009   'Village Defenses of the Karnataka Maidan, AD 1600-1800'. *South Asian Studies* 25(1): 91-111.

Lewis, Barry, and C. S. Patil
    2003   'Chitradurga: Spatial Patterns of a Nayaka Period Successor State in South India'. *Asian Perspectives* 42(2): 267-286.

Llobera, Marcos
    2007   'Reconstructing visual landscapes'. *World Archaeology* 39(1): 51-69.

Lock, Gary, and Brian Leigh Molyneaux
    2006   'Introduction: Confronting Scale'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 1-11. New York: Springer.

Ludden, David
    1979   'Patronage and Irrigation in Tamil Nadu: A Long-Term View'. *Indian Economic and Social History Review* 16(3): 347-365.

Mahalingam, T. V.
    1964   'Early Pallava-Kadamba Relations'. *Journal of Indian History* 42(2): 315-322.

Majumdar, R. C., ed.
    1970   *A Comprehensive History of India*. Delhi: Peoples Publishing House.

Maloney, Clarence Thomas
    1968   *The Effect of Early Coastal Sea Traffic on the Development of Civilization in South India*. Unpublished Ph.D. Thesis. Anthropology, University of Pennsylvania.

Mangalam, S. S.
    1979   'Numerical Appelation in some Ancient Administrative Divisions'. In *Proceedings of the Indian History Congress, 39th Session, Hyderabad 1978*. M.A. Ali, ed. Pp. 48-54. Aligarh: M. Athar Ali, Secretary, Indian History Congress, Aligarh Muslim University.

Marcus, Joyce
    1976   *Emblem and State in the Maya Lowlands*. Washington: Dumbarton Oaks.
    1992   *Mesoamerican Writing Systems: Propaganda, Myth, and History in Four Ancient Civilizations*. Princeton: Princeton University Press.
    1998   'The Peaks and Valleys of Ancient States: An Extension of the Dynamic Model'. In *Archaic States*. G. Feinman and J. Marcus, eds. Pp. 59-94. Santa Fe: School of American Research Press.
    2006   'Identifying Elites and Their Strategies'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 212-246. Tucson: University of Arizona Press.

Margabandhu, C.
    2005   'Roman Influence on the Art of Clay Modelling of the Satavahanas: A Study in Cultural Fusion'. *Indian Historical review* XXXII(No. 1): 165-188.

Martens, F., H. Vanhaverbeke, and M. Waelkens
    2008   'Town and suburbium ar Sagalassos: An interaction investigated through survey'. In *Thinking About Space: The Potential of Surface Survey and Contextual Analysis in the Definition of Space in Roman Times*. H. Vanhaverbeke, J. Poblome, F. Vermeulen, M. Waelkens, and R. Brulet, eds. Pp. 127-149. *Studies in Eastern Mediterranean Archaeology VIII*. Turnhout: Brepols.

Mate, M. S.
    1990   'Some Problems in Medieval Archaeology'. In *Archaeology in Karnataka (Papers presented at the National Seminar on Archaeology, 1985)*. A. Sundara and K.G. Bhatsoori, eds. Pp. 308-310. Mysore: Directorate of Archaeology and Museums.

Matney, Timothy
    2010   'Material Culture and Identity: Assyrians, Aramaeans, and the Indigenous Peoples of Iron Age Southeastern Anatolia'. In *Agency and Identity in the Ancient Near East: New Paths Forward*. S.R. Steadman and J.C. Ross, eds. Pp. 129-147. London: Equinox.

McCorriston, J. , and M. Harrower
2005   'Annales history, geographic information systems, and the analysis of landscape in Hadramawt, Yemen.'. In *Temps et Espaces de l'Homme en Société, Analyses et Modéles Spatiaux en Archéologies. ,*. J.-F. Berger, F. Bertoncello, F. Braemer, G. Davtian, and M. Gazenbeek, eds. Pp. 31-41. Antibes: APDCA.

Meister, Michael W.
1986   'Regional Variations in Mātṛkā Conventions'. *Artibus Asiae* 47(3/4): 233-262.

Meister, Michael W., and M. A. Dhaky, eds.
1986   *Encyclopaedia of Indian Temple Architecture: South India, Upper Drāviḍadēśa (early phase, A.D. 550-1075)*. Volume I, Part 2. Delhi: American Institute of Indian Studies, Indira Gandhi National Centre for the Arts.

Menchelli, S.
2008   'Surface material, sites and landscapes in South Picenum (Marche, Italy)'. In *Thinking About Space: The Potential of Surface Survey and Contextual Analysis in the Definition of Space in Roman Times*. H. Vanhaverbeke, J. Poblome, F. Vermeulen, M. Waelkens, and R. Brulet, eds. Pp. 21-30. *Studies in Eastern Mediterranean Archaeology VIII*. Turnhout: Brepols.

Mishra, T. N.
1997   *Ancient Indian Bricks and Brick Remains*. Delhi: Harman Publishing House.

Modelski, George, and William R. Thompson
1999   'The Evolutionary Pulse of the World System: Hinterland Incursions and Migrations, 4000 B.C. to A.D. 1500'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 241-274. Lanham: Rowman and Littlefield.

Mohanty, R. K., and V. Selvakumar
2001   'The Archaeology of the Megaliths in India: 1947-1997'. In *Indian Archaeology in Retrospect: Prehistory, Archaeology of South Asia*. S. Settar and R. Korisettar, eds. Pp. 313-481. New Delhi: Manohar.

Montmollin, Olivier de
1988   'Scales of Settlement Study for Complex Societies: Analytical Issues from the Classic Maya Area'. *Journal of Field Archaeology* 15(2): 151-168.

Moore, Elizabeth, and San Win
2007   'The Gold Coast: Suvannabhumi? Lower Myanmar Walled Sites of the First Millenium A.D.'. *Asian Perspectives* 46(1): 202-232.

Moraes, G. M.

N.d. 'Notes on the Pre-Kadamba History of Goa'. In *Proceedings of the Indian History Congress, 5th Session, Hyderabad 1941*. Pp. 164-174.

1931 *The Kadamba Kula: a history of ancient and medieval Karnataka*. Bombay: B. X. Furtado and Sons.

Morris, Craig

1998 'Inka Strategies of Incorporation and Governance'. In *Archaic States*. G. Feinman and J. Marcus, eds. Pp. 293-309. Santa Fe: School of American Research Press.

Morris, Craig, and R Alan Covey

2006 'The Management of Scale or the Creation of Scale: Administrative Processes in Two Inka Provinces'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 136-153. Tucson: University of Arizona Press.

Morris, Ian

1999 'Negotiated Peripherality in Iron Age Greece: Accepting and Resisting the East'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 63-84. Lanham: Rowman and Littlefield.

Morrison, Barrie M.

1970 *Political Centers and Cultural Regions in Early Bengal*. Tucson: University of Arizona Press.

Morrison, Kathleen D.

1991 'Small-scale Agricultural Features. Three Vijayanagara Embankments'. In *Vijayanagara: Progress of Research 1987-88*. D.V. Devaraj and C.B. Patil, eds. Pp. 81-84. Mysore: Directorate of Archaeology and Museums.

1993 'Supplying the City: The Role of Reservoirs in an Indian Urban Landscape'. *Asian Perspectives* 32(2): 133-151.

1994 'Investigating regional land use patterns: pollen, charcoal and archaeological analyses in precolonial South India'. In *South Asian Archaeology 1993*. A. Parpola and P. Koskikallio, eds. Pp. 539-550. Helsinki: Suomalainen Tiedeakatemia.

1995a 'Agriculture at the Edges: Archaeology and History in the Vijayanagara Hinterland'. In *South Asian Archaeology 1995*. B. Allchin, ed. Pp. 783-791. Delhi: Oxford and IBH.

1995b 'Trade, urbanism, and agricultural expansion: Buddhist monastic institutions and the state in the Early Historic western Deccan'. *World Archaeology* 27(2): 203-221.

1997a 'Agriculture at the Edges: Archaeology and history in the Vijayanagara hinterland'. In *South Asian Archaeology, 1995: Proceedings of the 13th Conference of the European Association of South Asian Archaeologists*. R. Allchin and B. Allchin, eds. Pp. 465-474. Delhi: Oxford and IBH.

1997b 'Commerce and Culture in South Asia: Perspectives from Archaeology and History'. *Annual Review of Anthropology* 26: 87-108.

2001 'Coercion, resistance, and hierarchy: local processes and imperial strategies in the Vijayanagara empire'. In *Empires: Perspectives from Archaeology and History*. S.E. Alcock, T.N. D'Altroy, K.D. Morrison, and C.M. Sinopoli, eds. Pp. 252-278. Cambridge: Cambridge University Press.

2005 'Brahmagiri Revisited: a Re-analysis of the South Indian Sequence'. In *South Asian Archaeology 2001*. C.Jarrige and V. Lefèvre, eds. Pp. 271-275. Paris: Editions Recherche sur les Civilisations-ADPF.

2009 *Daroji Valley: Landscape History, Place, and the Making of a Dryland Reservoir System*. Delhi: Manohar & The American Institute of Indian Studies.

Morrison, Kathleen D., and Mark T. Lycett

1997 'Inscriptions as Artifacts: Precolonial South India and the Analysis of Texts'. *Journal of Archaeological Method and Theory* 4(Nos. 3/4): 215-237.

Morrison, Kathleen D., and Carla M. Sinopoli

1992 'Economic Diversity and Integration in a Pre-Colonial Indian Empire'. *World Archaeology* 23(3): 335-352.

2005 'Production and Landscape in the Vijayanagara Metropolitan Region: Contributions of the Vijayanagara Metropolitan Survey'. In *Vijayanagara: Archaeological Exploration, 1990-2000 (Papers in memory of Channabasappa S. Patil)*. J.M. Fritz, R. Brubaker, and T. Raczek, eds. Pp. 423-434. *Monograph Series of the Vijayanagara Research Project*. New Delhi: Manohar and American Institute of Indian Studies.

Mosse, D.

1999 'Colonial and Contemporary Ideologies of Community Management: The Case of Tank Irrigation Development in South India'. *Modern Asian Studies* 33(2): 303-338.

Mosse, David

1997 The Symbolic Making of a Common Property Resource: History, Ecology and Locality in a Tank-irrigated Landscape in South India'. *Development and Change* 28:467-504.

Mughal, M. Rafique

1997 'A Preliminary Review of Archaeological Surveys in Punjab and Sindh: 1993-95'. *South Asian Studies* 13(1): 241-249.

Mukhia, Harbans

1995 'Was There Feudalism in Indian History?'. In *The State in India, 1000-1700*. H. Kulke, ed. Pp. 86-133. Delhi: Oxford University Press.

Murthy, A. V. Narasimha

1973 'Numismatic Data from Banavasi'. In *Srikanthika: Dr S. Srikantha Sastri Felicitation Volume*. K.V. Ramesh and e. al., eds. Mysore: Geetha Publishing House.

1978 *Archaeology of Karnataka*. Mysore: Vidyasagara Printing and Publishing House.

1985 'The role of epigraphy in the study of south indian numismatics'. In *Indus Valley to Mekong Delta: Explorations in Epigraphy*. N. Karashima, ed. Pp. 77-85. Madras: New Era Publications.

1989 'Sculptural Representations on the Memorial Stones'. In *Ratna-Chandrikā: Panorama of Oriental Studies (Shri R. C. Agrawala Festchrift)*. D. Handa and A. Agrawal, eds. Pp. 371-376. New Delhi: Harman Publishing House.

1991 *Some Aspects of Early Historic Archaeology and Numismatics of Karnataka (Prof. T. Balakrishnan Nayar Endowment Lectures, 1987-88)*. Madras: Department of Ancient History and Archaeology, University of Madras.

1997a *Coins and Currency System in Karnataka*. Mysore: Directorate of Archaeology and Museums

2000 'Early Historic Cultures of Karnataka'. In *South Indian Archaeology*. G. Kamalakar, ed. Pp. 29-34. Delhi: Bharatiya Kala Prakashan.

2002 'Excavations at Banavasi'. In *Puraratna: Emerging trends in Archaeology, Art, Anthropology, conservation and History (In Honour of Jagat Pati Joshi)*. C. Margabandhu, A.K. Sharma, and R.S. Bisht, eds. Pp. 272-277. Delhi: Agam Kala Prakashan

Murthy, A. V. N., and T. Dayananda Patel

1998 'Two Brāhmī Letters on a Bead-making Mould from Banavāsi'. *Journal of the Epigaphical Scoiety of India* 28:91-92.

Murthy, A. V. Narasimha, and H. R. R. Bhat

1974 'Banavasi Inscription of Siva Siva Siri Pulumavi'. *Studies in indian Epigraphy* I: 34-39.

Murthy, A. V. Narasimha, et al., eds.

1997 *Excavations at Banavasi*. Mysore: Directorate of Archaeology and Museums.

Murthy, H. V. S., and R. Ramakrishnan

1977 *A History of Karnataka (From the earliest times to the present day)*. New Delhi: S. Chand and Co.

Murthy, M. L. K.

1989 'Pre-Iron Age Agricultural Settlements in South India: An Ecological Perspective'. *Man and Environment* XIV(I):65-81.

1997b 'The God Narasimha in the Folk Religion of Andhra Pradesh, South India'. *South Asian Studies* 13(1): 179-188.

Murthy, P. N. Narasimha

2011   'History of Jainism in Karnataka: Developments from the Tenth to Thirteenth Centuries CE'. In *The Jaina Heritage: Distinction, Decline and Resilience*. J.A.B. Hegewald, ed. Pp. 38-62. *Heidelberg Series in South Asian and Comparative Studies, Vol II*. Delhi: Samskriti.

Mysore Archaeological Reports (M.A.R.)
    1906-1956   *Annual Report of the Mysore Archaeological Department (M.A.R.)*. Mysore: University of Mysore.

Nagar, Shantilal
    1999   *Iconography of Jaina Deities*. II vols. Volume I. Delhi: B. R. Publishing Corporation.

Nagaraju, S.
    1990   'The Early Historical Phase in the History and Archaeology of Karnataka'. In *Archaeology in Karnataka (Papers presented at the National Seminar on Archaeology, 1985)*. A. Sundara and K.G. Bhatsoori, eds. Pp. 287-295. Mysore: Directorate of Archaeology and Museums.

Nagnur, Shobha, Geeta Chnnal, and N. Channamma
    2006   'Indigenous grain structures and methods of storage'. *Indian Journal of Traditional Knowledge* 5(1): 114-117.

Nance, Jack D.
    1983   'Regional Sampling in Archaeological Survey: The Statistical Perspective'. *Advances in Archaeological Method and Theory* 6: 289-356.

Nandi, R. N.
    1973   'Clan Name and Social Mobility in the Deccan'. In *Proceedings of the Indian History Congress, 33rd Session, Muzaffarpur 1972*. S. Chandra, ed. Pp. 111-117. Delhi: Satish Chandra, Secretary, Indian History Congress, Centre for Historical Studies, Jawaharlal Nehru University, Delhi.
    2000a   'Agrarian Growth and Social Conflicts in Early India'. In *The Feudal Order: State, Society and Ideology in Early Medieval India*. D.N. Jha, ed. Pp. 303-344. New Delhi: Manohar.
    2000b   *State Formation, Agrarian Growth and Social CHange in Feudal South India, c. AD 600-1200*. Delhi: Manohar.

Nath, A
    1990   'Lajjā Gaurī and her Possible Genesis'. *Lalit Kala* 25(13/14): 42-47.

Nath, Vijay
    2001   'From 'Brahmanism' to 'Hinduism': Negotiating the Myth of the Great Tradition'. *Social Scientist* 29(3/4): 19-50.

Nichol, D.

    2000   'The geo-engineering significance of laterite construction in Goa, SW India'. *Quarterly Journal of Engineering Geology & Hydrogeology* 33(3): 181-185.

Ohnersorgen, Michael A.

    2006   'Aztec provincial administration at Cuetlaxtlan, Veracruz'. *Journal of Anthropological Archaeology* 25: 1-32.

Ojha, Dinesh Kumar

    2008   'Understanding the Ideas and Notions about Ancient India in the Early Imperialistic Historiography: A New Perspective'. In *Proceedings of the Indian History Congress, 68th Session, Delhi 2007*. B.P. Sahu, ed. Pp. 229-239. Delhi: B. P. Sahu, Secretary, Indian History Congress, Dept. of History, Delhi University, Delhi.

Oliver, Jeff

    2011   'On mapping and its afterlife: unfolding landscapes in northwestern North America'. *World Archaeology* 2011(43):66-85.

Oubina, Cesar Parcero , Felipe Criado Boado, and Manuel Santos Estevez

    1998   'Rewriting landscape: incorporating sacred landscapes into cultural traditions'. *World Archaeology* 30(1): 159-176.

Owoc, Mary Ann

    2006   'Beyond Geoarchaeology: Pragmatist Explorations of Alternative Vuewscapes in the British Bronze Age and Beyond'. In *Space and Spatial Analysis in Archaeology.* E.C. Robertson, J.D. Seibert, D.C. Fernandez, and M.U. Zender, eds. Pp. 3-13. Calgary: University of Calgary Press.

Paddayya, K.

    1973   *Investigations into the Neolithic Culture of the Shorapur Doab*. Leiden: E. J. Brill. 1982   *The Acheulian Culture of the Hunsgi Valley (Peninsular India): A Settlement System Perspective*. Pune: Deccan College.

    2008   'Is Archaeology a Reliable Approach for Studying the Historical Period of India'. 57-67. New Delhi: Pragati Publications.

Padma, Sree

    2011   'Hariti: Village Origins, Buddhist Elaborations and Saivite Accomodations'. *Asian and African Area Studies* 11(1): 1-17.

Pai, G. M.

    1933   'The geneology and early chronology of the early Kadambas of Banavasi'. *Journal of Indian History* 12(1): 354-373.

    1934a   'The geneology and early chronology of the early Kadambas of Banavasi'. *Journal of Indian History* 13(1): 18-34.

1934b 'The geneology and early chronology of the early Kadambas of Banavasi'. *Journal of Indian History* 13(2): 132-173.

Pandey, M. S.
    1963   *The Historical Geography and Topography of Bihar*. New Delhi: Motilal Banarsidass.

Panja, Sheena
    2002   'The 'Third Space': The Creation of Archaeological Knowledge in Post-Independance India'. *Studies in History* 18(1): 1-22.

Pappu, Shanti
    1974   *Pleistocene Studies in the Upper Krishna Basin*. Poona: Deccan College.
    1988   'Site Catchment Analysis'. In *Excavations at Inamgaon*. M.K. Dhavalikar, H.D. Sankalia, and Z.D. Ansari, eds. Pp. 107-120. Pune Deccan College.
    2008   'Prehistoric Antiquities and Personal Lives: The Untold Story of Robert Bruce Foote'. *Man and Environment* XXXIII(1): 30-50.

Pappu, Shanti, and S. G. Deo
    1994   *Man-Land Relationships During Palaeolithic Times in the Kaladgi Basin*. Pune: Deccan College.

Parasher-Sen, Aloka
    1992   'Nature of society and civilisation in early Deccan'. *Indian Economic Social History Review* 29: 437-477.
    1993a   'Culture and Civilization: the beginnings'. In *Social and Economic History of Early Deccan*. A. Parasher-Sen, ed. Delhi: Manohar.
    1993b   'Introduction-Problems of Interpretation'. In *Social and Economic History of Early Deccan*. A. Parasher-Sen, ed. Pp. 1-65. Delhi: Manohar.
    1996   'The Archaeology of Regions: Existing Perspectives and Challenges'. In *Indian Archaeology Since Independance*. K.M. Shrimali, ed. Pp. 19-33. Delhi: Association for the Study of History and Archaeology.
    1999   'Urban Settlements in the Deccan and Satavahana History'. In *The Age of the Satavahanas*. A.M. Shastri, ed. Pp. 159-191. New Delhi: Aryan Books International.
    2000   'Origin of Settlements, Culture and Civilization in the Deccan'. In *Deccan Heritage*. H.K. Gupta, A. Parasher-Sen, and D. Balasubramanian, eds. Hyderabad: Universities Press, Orient Longman.
    2007a   'Localities, Coins and the Transition to the Early State in the Deccan'. *Studies in History* 23(2): 231-269.
    2007b   'Names, Travellers and Inscriptions in Early Historic South India'. *Indian Historical review* XXXIV(No.1): 47-90.

Parasher, Aloka

2000   'The Use of Archaeological Sources and Recent Trends in the Writing of South Indian History'. In *South Indian Archaeology*. G. Kamalakar, ed. Pp. 221- 226. Delhi: Bharatiya Kala Prakashan.

Parker, Bradley J.
2002a   'At the edge of empire: conceptualizing Assyria's Anatolian Frontier ca. 700 BC'. *Journal of Anthropological Archaeology* 21: 371-395.
2003   'Archaeological Manifestations of Empire: Assyria's Imprint on Southeastern Anatolia'. *American Journal of Archaeology* 107: 525-557.

Parker, G
2002b   'Ex Oriente Lux: Roman Commodities and Indian Experience'. *Journal of the Economic and Social History of the Orient* 45(Part 1): 40-95.

Parsons, J. R.
1972   'Archaeological Settlement Patterns'. *Annual Review of Anthropology* 1: 127-150.
1974   'The Development of a Prehistoric Complex Society: A Regional Perspective from the Valley of Mexico'. *Journal of Field Archaeology* 1(1/2): 81-108.
2004   *Critical Reflections on Forty Years of 'Systematic Regional Survey'*. In *69th Annual Meeting of the Society for American Archaeology*. Montreal.

Pasquinucci, M., and S. Menchelli
2008   'Pisae and its suburbium: looking for the ancient landscape in the urban periphery'. In *Thinking About Space: The Potential of Surface Survey and Contextual Analysis in the Definition of Space in Roman Times*. H. Vanhaverbeke, J. Poblome, F. Vermeulen, M. Waelkens, and R. Brulet, eds. Pp. 115-125. *Studies in Eastern Mediterranean Archaeology VIII*. Turnhout: Brepols.

Patil, C. B.
2006   'Historiography of Archaeology of the Coastal Karnataka'. In *Mahasenasiri: Riches of Indian Archaeological and Cultural Studies (A felicitation volume in Honour of Dr. I. K. Sarma)*. P.C. Reddy, ed. Pp. 234-253. Delhi: Sharada Publishing House.

Patil, C. S.
1996   'Mudugal Fort and its bearing on Defence System at Vijayanagara'. In *Vijayanagara - Progress of Research 1988-91* D.V. Devaraj and C.S. Patil, eds. Pp. 197-209. Mysore: Directorate of Archaeology and Museums.

Paton, T. R., and M. A. J. Williams
1972   'The Concept of Laterite'. *Annals of the Association of American Geographers,* 62(1): 42-56.

Plog, Fred

1978   'Sampling in Archaeological Surveys: A Critique'. *American Antiquity* 43(2): 280-285.

Plog, Stephen, Fred Plog, and Walter Wait
1978   'Decision Making in Modern Surveys'. *Advances in Archaeological Method and Theory* 1: 383-421.

Pollock, Sheldon
1996   'The Sanskrit cosmopolis, 300-1300: Transculturation, vernacularization, and the question of ideology'. In *Ideology and Status of Sanskrit: Contributions to the History of the Sanskrit Language*. J.E.M. Houben, ed. Pp. 197-247. Leiden: E. J. Brill.

Possehl, G. L, and M. Witzel
2002   'Vedic'. In *Encyclopedia of Prehistory*. P.N. Peregrine, ed. Pp. 391-397. New York: Kluwer Academic/ Plenum Publishers.

Preston, J. J.
1980   'Sacred Centers and Symbolic Networks in South Asia'. *Mankind Quarterly Edinburgh* 20(3-4): 259-293.

Pryce, T. O., and S. Natapintu
2009   'Smelting Iron from Laterite: Technical Possibility or Ethnographic Aberration?'. *Asian Perspectives* 48(2): 249-264.

Radcliffe, Carol E.
1981   *Early Chalukya Sculpture*, Unpublished Dissertation. .Graduate School of Arts and Science, New York University.

Rajan, K.
1994   *Archaeology of Tamil Nadu (Kongu Country)*. Noida: Book India Publishing Co.

Ramesh, K. V.
1985a   'Epigraphy and Indian Art and Architecture'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 77-82. New Delhi: Oxford and IBH.
1985b   'Recent discoveries and research methods in the field of South Asian epigraphy'. In *Indus Valley to Mekong Delta: Explorations in Epigraphy*. N. Karashima, ed. Pp. 1-32. Madras: New Era Publications.

Rao, J. Vara Prasada
2000   'Memorial Stones from Sannati'. In *Narasimhapriyā (Prof. A. V. N. Murthy Felicitation Volume): Essays on Indian archaeology, epigraphy, numismatics, art, architecture, iconography and cultural history*. I.K. Sarma, D.V. Devaraj, and R. Gopal, eds. Pp. 97-111. New Delhi: Sundeep Prakashan.

Rao, J. Vara Prasada, M. Kasturi Bai, and S. V. Venkateshaiah
    N.d.   *Excavations at Chandor, Goa (2000-2003)*. Archaeological Survey of India, Dharwad Circle.

Rao, M. S. Nagaraja
    1985   'Brāhmī Inscriptions and Their Bearing on the Great Stūpa at Sannati'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 41-45. New Delhi: Oxford and IBH.

Rao, M. S. Nagaraja, and K. V. Ramesh, eds.
    1985   *Copper Plate Inscriptions from Karnataka: Recent Discoveries*. Mysore: Directorate of Archaeology and Museums.

Rao, T. A. Gopinatha, and G. Venkoba Rao
    1905-06   'Nilambur Plates of Ravivarman'. *Epigraphia Indica* VIII: 146-149.

Rathje, W. L., and J. A. Sabloff
    1973   'Ancient Maya commercial systems: A research design for the island of Cozumel, Mexico'. *World Archaeology* 5: 221-231.

Ratnagar, Shereen
    2001   'The Bronze Age: Unique Instance of a Pre-Industrial World System?'. *Current Anthropology* 42(3): 351-379.

Rautman, M.
    2008   'Site-specific survey in a Cypriot setting: Settlement definition and verification in the Vasilikos valley'. In *Thinking About Space: The Potential of Surface Survey and Contextual Analysis in the Definition of Space in Roman Times*. H. Vanhaverbeke, J. Poblome, F. Vermeulen, M. Waelkens, and R. Brulet, eds. Pp. 11-19. *Studies in Eastern Mediterranean Archaeology VIII*. Turnhout: Brepols.

Ray, H. P.
    1995a   'Trade and Contacts'. In *Recent Perspectives of Early Indian History*. R. Thapar, ed. Pp. 142-175. Bombay: Popular Prakashan.
    1995b   'The Yavana Presence in Ancient India'. In *Athens, Aden and Arikamedu*. M.-F. Boussac and J.-F. Salles, eds. Pp. 75-95. New Delhi: Manohar.
    2003   *The Archaeology of Seafaring in Ancient South Asia*. Cambridge: Cambridge University Press.
    1985   'Trade in the Western Deccan under the Satavahanas'. *Studies in History* 1(1):15-35.
    1986   *Monastery and Guild: Commerce under the Satavahanas*. Delhi: Oxford University Press.
    1989   'Early historical trade: An overview'. *Indian Economic Social History Review* 26(4): 437-457.

1999   'Early Buddhist Monachism and its Socio-Economic Implications'. In *The Age of the Satavahanas*. A.M. Shastri, ed. Pp. 199-204. Delhi: Aryan Books International

2004   'The Apsidal Shrine in Early Hinduism: Origins, Cultic Affiliation, Patronage'. *World Archaeology* 36(No. 3): 343-359.

2006   'The Axial Age in Asia: The Archaeology of Buddhism (500 B.C.-A.D.500)'. In *Archaeology of Asia*. M.T. Stark, ed. Pp. 303-323. *Blackwell Studies in Global Archaeology*. Malden Blackwell.

Raychaudhuri, H. C.
1953   *Political history of ancient India, from the accession of Parikshit to the extinction of the Gupta dynasty*. Calcutta: University of Calcutta.

Redfield, Robert
1955   'The Social Organization of Tradition'. *The Far Eastern Quarterly* 15(1): 13-21.

Redmond, Elsa M., Rafael A. Gasson, and Charles S. Spencer
1999   'A Macroregional View of Cycling Chiefdoms in the Western Venezuelan Llanos'. *Archaeological Papers of the American Anthropological Association* 9(1): 109-129.

Renfrew, Colin
1986   'Introduction: peer polity interaction and socio-political change'. In *Peer Polity Interaction and Socio-Political Change*. C. Renfrew and J.F. Cherry, eds. Pp. 1-18. Cambridge: Cambridge University Press.

Renfrew, Colin, and John F. Cherry, eds.
1986   *Peer Polity Interaction and Socio-Political Change*. Cambridge: Cambridge University Press.

Rice, B. L.
1879 (1878)   *Mysore Inscriptions*. Bangalore: Mysore Government Press.

1897 (1917)   *Mysore: A Gazetteer Compiled for Government*. III vols. Volume I. Westminster: Archibald Constable and Company.

1904   *Epigraphia Carnatica: Inscriptions in the Shimoga District, part II*. Volume VIII. Bangalore: Mysore Government Central Press.

1909   *Mysore and Coorg from the inscriptions*. London: Archibald Constable and Co. Ltd.

Rice, Prudence M.
1998   'Contexts of Contact and Change: Peripheries, Frontiers and Boundaries'. In *Studies in Culture Contact: Interaction, Culture Change, and Archaeology*. J.G. Cusick, ed. Pp. 44-66. *Southern Illinois University, Carbondale, Occasional Paper No. 25*. Carbondale: Center for Archaeological Investigations.

Ritti, S.

1985   'Karnataka epigraphy: Progress and approaches'. In *Indus Valley to Mekong Delta: Explorations in Epigraphy*. N. Karashima, ed. Pp. 57-70. Madras: New Era Publications.

1989   'Buddhism in Kannada Inscriptions'. In *Ratna-Chandrikā: Panorama of Oriental Studies (Shri R. C. Agrawala Festchrift)*. D. Handa and A. Agrawal, eds. Pp. 315-321. New Delhi: Harman Publishing House.

1991   'Palaeography of Early Inscriptions in Karnataka'. In *Indian Archaeological Heritage. Shri. K. V. Soundara Rajan Festschrift*. C. Margabandhu, K.S. Ramachandran, A.P. Sagar, and D.K. Sinha, eds. Pp. 301-306. Delhi: Agam Kala Prakashan.

1996   'Kadamba Mandala Through the Ages'. In *Kadambas: Their History and Culture*. B.R. Gopal and N.S. Tharanatha, eds. Pp. 35-36. Mysore: Directorate of Archaeology and Museums.

Ritti, S., and Shrinivas V. Padigar
2010   'A New Early Kadamba Copper Plate Record'. *Studies in Indian Epigraphy* XXXV: 23-30.

Robb, Peter
1998   'Completing "Our Stock of Geography", or an Object "Still More Sublime": Colin Mackenzie's Survey of Mysore, 1799-1810'. *Journal of the Royal Asiatic Society of Great Britain & Ireland* 8:181-206.

Roberts, B. K.
1987   'Landscape Archaeology'. In *Landscape and Culture: Geograhical and Archaeological Perspectives*. J.M. Wagstaff, ed. Pp. 77-95. Oxford: Blackwell.

2003   *Landscapes of Settlement: Prehistory to the present*. London and New York: Routledge.

Roper, Donna C.
1979   'The Method and Theory of Site Catchment Analysis: A Review'. *Advances in Archaeological Method and Theory* 2: 119-140.

Rowlands, Michael, Mogens Trolle Larsen, and Kristian Kristiansen, eds.
1987   *Centre and Periphery in the Ancient World*. Cambridge: Cambrdge University Press.

Saletore, B. A.
1936   *Ancient Karnataka*. Poona: Oriental Book Agency.

Salomon, Richard
1998   *Indian Epigraphy: A Guide to the Study of Inscriptions in Sanskrit, Prakrit, and the Other Indo-Aryan Languages*. New York: Oxford University Press.

Samak, S. G.

2012   'Priyaratnavarma: A New Entrant into the Early Kadamba Genealogy'. In
        *Pratnakirti: Recent Studies in Indian Epigraphy, History, Archaeology and Art
        (Essays in Honour of Prof. Shrinivas Ritti)*. S.V. Padigar and V. Shivananda, eds.
        Pp. 30-33. Delhi: Agam Kala Prakashan.

Sanders, Lena, ed.
        2001   *Models in Spatial Analysis*. London: ISTE Limited.

Sankalia, H. D.
        1960   'The Nude Goddess or "Shameless Woman" in Westrn Asia, india, and South-
        Eastern Asia'. *Artibus Asiae* 23(2): 111-123.

Santley, Robert S., and Rani T. Alexander
        1992   'The Political Economy of Core-Periphery Systems'. In *Resources, Power and
        Interregional Interaction*. E. Schortman and P. Urban, eds. Pp. 23-49. New York:
        Plenum Press.

Sarma, I. K.
        1990-91   'Ceramics and Maritime Routes of India: New Evidence'. *Puratattva* 21:
        37-42.

Sastri, K. A. N.
        1955   *A History of South India from Prehistorical Time to the Fall of Vijayanagar*.
        Madras: Oxford University Press.
        1957   *A Comprehensive History of India: The Mauryas and Satavahanas*. Volume II.
        Bombay: Orient Longman.
        1967   *The Age of the Nandas and Mauryas*. Delhi: Orient Book Distributors.

Sastry, R. Sesha
        1996   'The Memorial Stones of Karnataka'. In *Art and Architecture in Karnataka
        (Papers presented at the National Seminar on Archaeology 1985)*. D.V. Devaraj
        and C.B. Patil, eds. Pp. 124-143. Mysore: Directorate of Archaeology and
        Museums.

Sastry, T. V. Venkatachala
        1998   *A Bibliography of Karnataka Studies*. Volume II. Mysore: Prasaranga.

Scarre, Chris, ed.
        2002   *Monuments and Landscape in Atlantic Europe: Perception and Society during the
        Neolithic and Early Bronze Age*. London and New York: Routledge.

Schenk, H.
        2001   'The Development of Pottery at Tissamaharama'. In *Ancient Ruhuna: Sri Lankan-
        German Archaeological Project in the Southern Province*. H.-J. Weisshaar, H.
        Roth, and W. Wijeyapala, eds. Pp. 59-195. Mainz am Rhein: von Zabern.

Schiffer, Michael B., Alan P. Sullivan, and Timothy C. Klinger
    1978   'The Design of Archaeological Surveys'. *World Archaeology* 10(No. 1): 1-28.

Schneider, Jane
    1977   'Was There a Pre-Capitalist World-System?'. *Peasant Studies* 6: 20-29.
    1991   'Was There a Precapitalist World-System?'. In *Core-Periphery Relations in Precapitalist Worlds*. C. Chase-Dunn and T.D. Hall, eds. Pp. 45-66. Boulder: Westview Press.

Schortman, Edward
    1989   'Interregional Interaction in Prehistory: The Need for a New Perspective'. *American Antiquity* 54(1): 52-65.

Schortman, Edward M., and Patricia Urban, eds.
    1992   *Resources, Power and Interregional Interaction*. New York: Plenum Press.
    1994   'Living on the Edge: Core/Periphery Relations in Ancient Southeastern Mesoamerica'. *Current Anthropology* 35(4): 401-430.

Schortman, Edward, et al.
    1986   'Interregional Interaction in the SE Maya Periphery: The Santa Barbara Archaeological Project 1983-1984 Seasons'. *Journal of Field Archaeology* 13(3): 259-272.

Schreiber, Katharina
    2005   'Sacred Landscapes and Imperial Ideologies: The Wari Empire in Sondondo, Peru'. *Archaeological Papers of the American Anthropological Association* 14: 131-150.

Schwartzberg, Joseph
    1967   'Prologmena to the Study of South Asian Regions and Regionalism'. In *Regions and Regionalism in South Asian Studies: An Exploratory Study*. R.I. Crane, ed. Pp. 89-11. *Duke University, Program in Comparative Studies on Southern Asia, Monograph and Occasional Papers Series, Number 5*. Durham: Duke University.
    1992   *A Historical Atlas of South Asia*. Chicago: University of Chicago Press.

Senart, E.
    1905-06   'The inscriptions in the caves at Nasik'. *Epigraphia Indica* VIII: 59-96.

Seneviratne, Sudarsan
    1978   'The Mauryan State'. H.J.M. Claessen and P. Skalnik, eds. Pp. 381-401. The Hague: Mouton.
    1981   'Kalinga and Andhra: The process of secondary state formation in early India'. *Indian Historical Review* 7(1-2): 54-69.

Seshadri, M.

    1963   'Mahiṣāsuramardinī: Images, Iconography and Interpretation'. *The Half-Yearly Journal of the Mysore University* XXII(2): 1-28.

    1970-71   'Excavations of a Brick Apsidal temple at Banavasi, District North Canara'. *Puratattva* 4: 56-57.

Settar, S.

    1969   'The Cult of Jvālāmālinī and the Earliest Images of Jvālā and Śyāma'. *Artibus Asiae* 31(4): 309-320.

    1986   *Inviting Death: Historical Experiments on Sepulchral Hill*. Dharwad: Institute of Indian Art History.

    1992   *The Hoysala Temples*. II vols. Volume I. Dharwad: Institute of Indian Art History and Kala Yatra Publications.

Settar, S., and Ravi Korisettar

    1982   'Niśidis in Karnataka--A Survey'. In *Memorial Stones: a study of their origin, significance and variety*. S. Settar and G.D. Sontheimer, eds. Pp. 283-297. Dharwad and Heidelberg: Institute of Indian Art History, Karnatak University; South Asia Institute, University of Heidelberg.

Shah, Esha

    2008   'Telling Otherwise. A Historical Anthropology of Tank Irrigation Technology in South India'. *Technology and Culture* 49(3): 652-674.

Shah, U. P.

    1947   'Iconography of the Sixteen Jaina Mahāvidyās'. *Journal of the Indian Society of Oriental Art* XV: 114-177.

Sharma, R. S.

    1995   'How Feudal was Indian Feudalism?'. In *The State in India, 1000-1700* H. Kulke, ed. Pp. 48-85. Delhi: Oxford University Press.

    2001   *Early Medieval Indian Society: A Study in Feudalisation*. Hyderabad: Orient Longman.

    2000   'The Kali Age: A Period of Social Crisis'. In *The Feudal Order: State, Society and Ideology in Early Medieval India*. D.N. Jha, ed. Pp. 61-77. New Delhi: Manohar.

Sharma, Yogesh

    2009   'The Circuit of Life: Water and Water Reservoirs in Pre-modern India'. *Studies in History* 25(1): 69-108.

Shastri, A. M.

    1987   'Epoch of the Satavahana Rule: A Re-appraisal'. In *Early History of the Deccan: problems and perspectives*. A.M. Shastri, ed. Pp. 3-15. Delhi: Sundeep Prakashan.

    1991   'The Mūdigera plates of Simhavarman and Vākāṭaka-Kadamba Relations'. In *Indian Archaeological Heritage. Shri. K. V. Soundara Rajan Festschrift*. C.

Margabandhu, K.S. Ramachandran, A.P. Sagar, and D.K. Sinha, eds. Pp. 317-319. Delhi: Agam Kala Prakashan.

2001   'Buddhist Schools in Early Andhra'. *Indian Historical Review* VVVIII(Nos 1-2): 1-17.

2006   'Buddhism in the Deccan during the Sātavāhana Age'. In *Hari Smriti: Studies on Art, Archaeology and Indology (Papers Presented in Memory of Dr. Haribishnu Sarkar)*. A. Banerji, ed. Pp. 71-83. New Delhi: Kaveri Books.

Shaw, Julia

2004   'Nāga Sculptures in Sanchi's Archaeological Landscape: Buddhism, Vaiṣṇavism, and Local Agricultural Cults in Central india, First Century BCE to Fifth Century CE'. *Artibus Asiae* 64(1): 5-59.

2009   'Stupas, Monasteries, and Relics in the Landscape: Typological, Spatial, and Temporal Patterns in the Sanchi Area'. In *Buddhist Stupas in South Asia: Recent Archaeological, Art-Historical, and Historical Perspectives*. J. Hawkes and A. Shimada, eds. Pp. 114-145. Oxford: Oxford University Press.

Shaw, Julia, and John Sutcliffe

2001   'Ancient irrigation works in the Sanchi area: an archaeological and hydrological investigation'. *South Asian Studies* 17(1): 55-75.

2003   'Water Management, Patronage Networks and Religious Change: New evidence from the Sanchi dam complex and counterparts in Gujarat and Sri Lanka'. *South Asian Studies* 19(1): 73-104.

2005   'Ancient Dams and Buddhist Landscapes in the Sanchi area: New evidence on Irrigation, Land use and Monasticism in Central India'. *South Asian Studies* 21(1): 1-24.

Shaw, Julia, et al.

2007   'Ancient Irrigation and Buddhist History in Central India: Optically Stimulated Luminescence Dates and pollen Sequences from the Sanchi Dams'. *Asian Perspectives* 46(1): 166-201.

Shaw, Leslie C.

2012   The Elusive Maya Marketplace: An Archaeological Consideration of the Evidence'. *Journal of Archaeological Research* 20: 117-155.

Shinde, V.

1985   'Kaothe: A Late Harappan Settlement in the Central Tapi Basin'. *Bulletin of the Deccan College Post-Graduate and Research Institute* 44: 173-177.

Simmons, Caleb

2008   *She Who Slays the Buffalo-Demon: Divinity, Identity, and Authority in Iconography of Mahisasuramardhini*. Unpublished M.A. Thesis. College of Arts and Sciences, Florida State University.

Singer, Milton
    1955   'The Cultural Pattern of Indian Civilization: A Preliminary Report of a
               Methodological Field Study'. *The Journal of Asian Studies* 15(1): 23-36.

Singh, K. S.
    1993   'Hinduism and Tribal Religion'. *Man in India* LXXIII(1): 1-16.

Singh, Ram Bhushan
    1973   'Jaina Goddesses in Karnataka and their Association with Tantricism during Early
               Medieval Times'. In *Proceedings of the Indian History Congress, 33rd Session,
               Muzaffarpur 1972*. S. Chandra, ed. Pp. 165-171. Delhi: Satish Chandra, Secretary,
               Indian History Congress, Centre for Historical Studies, Jawaharlal Nehru
               University, Delhi.

Singh, Upinder
    2009   *A History of Ancient and Early Medieval India: From the Stone Age to the 12th
               Century*. New Delhi: Pearson.

Sinopoli, Carla M.
    1991   *Approaches to Archaeological Ceramics*. New York: Plenum Press.
    1993   'Defining a sacred landscape: temple architecture and divine images in the
               vijayanagar suburbs'. In *South Asian Archaeology 1991*. A.J. Gail and G.J.R.
               Mevissen, eds. Pp. 847-868. Stuttgart: Franz Steiner Verlag.
    1994   'The Archaeology of Empires'. *Annual Review of Anthropology* 23: 159-180.
    1995   'Nucleated Settlements in the Vijayanagar Metropolitan Region'. In *South Asian
               Archaeology 1995*. B. Allchin, ed. Pp. 475-487. Delhi: Oxford and IBH.
    2001   'On the edge of empire: form and substance in the Satavahana dynasty'. In
               Empires: Perspectives from Archaeology and History. S.E. Alcock, T.N.
               D'Altroy, K.D. Morrison, and C.M. Sinopoli, eds. Pp. 155-178. Cambridge:
               Cambridge University Press.
    2003   *The Political Economy of Craft Production: crafting empire in South India, c.
               1350-1650*. Cambridge: Cambridge University Press.
    2006   'Imperial Landscapes of South Asia'. In *Archaeology of Asia*. M.T. Stark, ed. Pp.
               324-349. Malden: Blackwell.

Sinopoli, Carla M., and Kathleen D. Morrison
    1995   'Dimensions of Imperial Control: The Vijayanagara Capital'. *American
               Anthropologist* 97(1): 83-96.
    2006   'Land Use and Settlement in the Vijayanagara Metropolitan Region: Results of the
               Vijayanagara Metropolitan Survey'. In *Recent Advances in Vijayanagara Studies*.
               P. Shanmugan, ed. Pp. 91-109. Chennai: New Era.
    2007   *The Vijayanagara Metropolitan Survey*. Volume I. Ann Arbor: Museum of
               Anthropology, University of Michigan.

2008   'The Regional Landscapes of the Imperial City of Vijayanagara: Report on the Vijayanagara Metropolitan Survey Project'. In *South Asian Archaeology 1999*. E.M. Raven, ed. Pp. 561-574. Groningen: Egbert Forsten.

2005   'Archaeological Survey in the Vijayanagara Metropolitan Region: 1990'. In *Vijayanagara: Archaeological Exploration, 1990-2000 (Papers in memory of Channabasappa S. Patil)*. J.M. Fritz, R. Brubaker, and T. Raczek, eds. Pp. 59-73. *Monograph Series of the Vijayanagara Research Project*. New Delhi: Manohar and American Institute of Indian Studies.

Sircar, D. C.

1936   'Kadamba Krishnavarman I and his Successors'. *Journal of Indian History* 15(3): 301-319.

1937-38   'Origin of the Kadambas'. *Indian Culture* 4: 118-123.

1971   *Studies in the Geography of Ancient and Medieval India*. New Delhi: Motilal Banarsidass.

1987   'Nagarjunikonda Inscription of the Time of Abhira Vasushena, Year 30'. *Epigraphia Indica* XXXIV (1960-61): 195-204.

Sisodiya, S.

1978   'Some Coins of the Kadambas of Banavasi'. *Journal of Archaeological Studies* 3: 110-113.

Sivaramamurti, C.

1999 (1948)   *Indian Epigraphy and South Indian Scripts*. Volume III, No. 4. Chennai: Principal Commissioner of Museums.

Skinner, G. William

1964   'Marketing and Social Structure in Rural China: Part I'. *The Journal of Asian Studies* 24(1): 3-43.

1965a   'Marketing and Social Structure in Rural China: Part II'. *The Journal of Asian Studies* 24(2): 195-228.

1965b   'Marketing and Social Structure in Rural China: Part III'. *The Journal of Asian Studies* 24(3): 363-399.

Small, David B.

1995   'Heterarchical Paths to Evolution: The Role of External Economies'. *Archaeological Papers of the American Anthropological Association* 6(1): 71-85.

Smith, Adam T.

2003a   *The Political Landscape: Constellations of Auhtority in Early Complex Societies*. Berkeley: University of California Press.

Smith, M. E.

1986   'The Role of Social Stratification in the Aztec Empire: A View from the Provinces'. *American Anthropologist* 88: 70-91.

1990 'Long-Distance Trade Under the Aztec Empire: The archaeological evidence'. *Ancient Mesoamerica* 1: 153-19.

2001a 'The Aztec empire and the Mesoamerican world system'. In *Empires*. S.E. Alcock, T.N. D'Altroy, K.D. Morrison, and C.M. Sinopoli, eds. Cambridge: Cambridge University Press.

Smith, M. E., and Lisa Montiel

2001 'The Archaeological Study of Empires and Imperialism in Pre-Hispanic Central Mexico'. *Journal of Anthropological Archaeology* 20: 245-284.

Smith, M. L.

2000 'Systematic Surface Survey at the Early Historic Site of Kaundinyapura'. *Man and Environment* 25(1): 75-87.

2001b *The Archaeology of an Early Historic Town in Central India*. Oxford: Archaeopress.

2002a 'The Role of Local Trade Networks in the Indian Subcontinent during the Early Historic Period'. *Man and Environment* XXVII(1): 139-151.

2002b 'Systematic Survey at the Early Historic Site of Sisupalgarh, Orissa'. In *Archaeology of Eastern India: New Perspectives*. G. Sengupta and S. Panja, eds. Pp. 111-125. Kolkata: Centre for Archaeological Studies and Training, Eastern India.

2003b 'Early Walled Cities of the Indian Subcontinent as "Small Worlds"'. In *The Social Construction of Ancient Cities*. M.L. Smith, ed. Pp. 269-289. Washington DC: Smithsonian Institution Press.

2006 'The Archaeology of South Asian Cities'. *Journal of Archaeological Research* 14: 97-142.

Spencer, Charles S., and Elsa M. Redmond

2001 'Multilevel selection and political evolution in the Valley of Oaxaca, 500-100 B.C.'. *Journal of Anthropological Archaeology* 20: 195-299.

2006 'Resistance Strategies and Early State Formation in Oaxaca, Mexico'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 21-43. Tucson: University of Arizona Press.

Srinivas, M. N.

1956 'A Note on Sankritization and Westernization'. *The Far Eastern Quarterly* 15(4): 481-496.

Staal, Fritz

1963 'Sanskrit and Sanskritization'. *Journal of Asian Studies* 22(3): 261-275.

Stark, Miriam T.

2006 'Early Mainland Southeast Asian Landscapes in the First Millenium A.D.'. *Annual Review of Anthropology* 35: 407-432.

Stark, Miriam T., and et. al.

1999 'Results of the 1995-1996 Archaeological Field Investigations at Angkor Borei, cambodia'. *Asian Perspectives* 38(1): 7-36.

Stark, Miriam T., and S. Jane Allen
    1998   'The Transition to History in Southeast Asia: An Introduction'. *International Journal of Historical Archaeology* 2(3): 163-174.

Steadman, Sharon R.
    2010   'Agency, Architecture, and Archaeology: Prehistoric Setlements in Central Anatolia'. In *Agency and Identity in the Ancient Near East: New Paths Forward*. S.R. Steadman and J.C. Ross, eds. Pp. 27-46. London: Equinox.

Stein, Aurel
    1929   *On Alexander's track to the Indus: personal narrative of explorations on the North-west frontier of India, carried out under the orders of HM Indian government*. London: Macmillan.

Stein, Burton
    1969   'Integration of the Agrarian System of South india'. In *Land Control and Social Structure in Indian History*. R.E. Frykenberg, ed. Pp. 175-213. Madison.
    1980   *Peasant State and Society in Medieval South India*. Delhi: Oxford University Press.
    1985   'State Formation and Economy Reconsidered: Part One'. *Modern Asian Studies* 19(3): 387-413.
    1995   'The Segmentary State: Interim Reflections'. In *The State in India, 1000-1700*. H. Kulke, ed. Pp. 134-161. Delhi: Oxford University Press.

Stein, Gil J.
    1998   'Heterogeneity, Power, and Political Economy: Some Current Research Issues in the Archaeology of Old World Complex Societies'. *Journal of Archaeologcal Research* 6(1): 1-44.
    1999   'Rethinking World-Systems: Power, Distance and Diasporas in the Dynamics of Interregional Interaction'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 153- 177. Lanham: Rowman and Littlefield.
    2002   'From Passive Periphery to Active Agents: Emerging Perspectives in the Archaeology of Interregional Interaction'. *American Anthropologist* 104(3): 904-916.

Stephens, C. G.
    1961   'Laterite at the Type Locality, Angadipuram, Kerala, India'. *Journal of Soil Science* 12(2): 214-217.

Stewart, Pamela J., and Andrew Strathern

2003a 'Introduction'. In *Landscape, Memory and History: Anthropological Perspectives*. P.J. Stewart and A. Strathern, eds. Pp. 1-15. London: Pluto.

2003b *Landscape, Memory and History: Anthropological Perspectives*. London: Pluto.

Storey, Glenn R.

1999 'Archaeology and Roman Society: Integrating Textual and Archaeological Data'. *Journal of Archaeologcal Research* 7(3): 203-248.

Stroobandt, R.

1974 *Corpus Topographicum Indiae Antiquae: Epigraphical Find Spots*. Volume Part I. Gent: Universitas Gandavensis.

Subbarayalu, Y.

1973 *Political Geography of the Chola Country*. Madras: State Department of Archaeology, Govt. of Tamilnadu.

1995 'The Nāṭṭār in South Karnataka in the Eleventh to Fourteenth Centuries'. In *Epigraphy, Numismatics and Other Aspects in Karnataka*. D.V. Devaraj and C.B. Patil, eds. Pp. 39-43. Mysore: Directorate of Archaeology and Museums.

2002 'State and Society during the Cola period'. In *State and Society in Pre-modern South India*. R. Champakalakshmi, K. Veluthat, and T.R. Venugopalan, eds. Pp. 84-95. Thrissur: Cosmobooks.

Sugandhi, Namita

2003 'Context, Content and Composition: Questions of Intended Meaning and the Asokan Edicts'. *Asian Perspectives* 42: 224-246.

2008 *Between the Patterns of History: Rethinking Mauryan Imperial Interaction in the Southern Deccan*. Unpublished Dissertation. Anthropology, University of Chicago.

Sukthankar, V. S.

1921-22 'Two Kadamba Grants from Sirsi'. *Epigraphia Indica* XVI:264-272.

Sundara, A.

1972 'Some Temples of the Early Chālukyan Style in North Dharwar District and the Hoysaḷa Architecture'. In *The Hoysaḷa Dynasty*. B.S. Ali, ed. Mysore: Prasaranga.

1979 'Some Noteworthy Antiquities from Banavasi Area'. *Quarterly Journal of the Mythic Society* 70(3): 160-170.

1990-91 'Some More Early Sculptures from Banavasi'. *Pragdhara: Journal of the U.P. State Archaeological Association*:130-133.

Sundara, A., and K. G. Bhatsoori, eds.

1990 *Archaeology in Karnataka (Papers presented at the National Seminar on Archaeology, 1985)*. Mysore: Directorate of Archaeology and Museums.

Tadanao, Yamamoto, and Walter Edwards

1995   'Early Buddhist Temples in Japan: Roof-Tile Manufacture and the Social Basis of Temple Construction'. *World Archaeology* 27(2): 336-353.

Talbot, Cynthia
1991   'Temples, Donors, and Gifts: Patterns of Patronage in Thirteenth-century South India'. *The Journal of Asian Studies* 50(2): 308-340.
1994   'Political intermediaries in Kakatiya Andhra, 1175-1325'. *Indian Economic Social History Review* 31(3): 261-289.
2001   *Precolonial India in Practice: Society, Region, and Identity in Medieval Andhra*. Oxford: Oxford University Press.

Tartakov, Gary Michael
1980   'The Beginning of Dravidian Temple Architecture in Stone'. *Artibus Asiae* 42(1): 39-99.
1985   'Interpreting the Inscriptions of Mahākūṭa Art Historically'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 139-152. New Delhi: Oxford and IBH.

Tartakov, Gary Michael, and Vidya Dehejia
1984   'Sharing, Intrusion, and Influence: The Mahiṣāsuramardinī Imagery of the Calukyas and the Pallavas'. *Artibus Asiae* 45(4): 287-345.

Thapar, Romila
1984   'Origin Myths and the Early Indian Historical Tradition'. In *Ancient Indian Social History: Some Interpretations*. R. Thapar, ed. Pp. 294-325. Hyderabad: Orient Longman.
1991   'Genealogical Patterns as Perceptions of the Past'. *Studies in History* 7(1): 1-36.
2006   'The Mauryan empire in early India'. *Historical Research* 79(No. 205): 287-305.

Thomas, Julian
1998   *Time, Culture and Identity: An interpretive archaeology*: Routledge.

Tieffenthaler, Joseph, et al.
1786   *Description Historique et Géographique de L'Inde*. Berlin: L'imprimerie de Pierre Bourdeaux.

Tilley, Christopher
1994   *The Phenomenology of Landscape Places, Paths and Monuments*. Oxford: Berg.

Trautmann, Thomas R.
1969   'Length of Generation and Reign in Ancient India'. *Journal of the American Oriental Society* 89(3): 564-577.
1972   'Licchavi-Dauhitra'. *Journal of the Royal Asiatic Society of Great Britain & Ireland* (No. 1): 2-15.
1995   *Dravidian Kinship*. New Delhi: Vistaar Publications..

1997 *Aryans and British India*. Berkeley: University of California Press.

2001 'Kinship, Language, and the Construction of South India'. In *Structure and Society in Early South India: Essays in Honour of Noboru Karashima*. K.R. Hall, ed. Pp. 181-197. Delhi: Oxford University Press.

Trautmann, Thomas R., and Carla M. Sinopoli

2002 'In the Beginning Was the Word: Excavating the Relations between History and Archaeology in South Asia'. *Journal of the Economic and Social History of the Orient* 45(No. 4): 492-523.

Tuan, Yi-Fu

1977 Thought and Landscape'. In *The Interpretation of Ordinary Landscapes*. D.W. Meinig, ed. Pp. 89-101. Oxford: Oxford University Press.

Tung, Tiffany A., and Anita G. Cook

2006 'Intermediate-Elite Agency in the Wari Empire: The Bioarchaeological and Mortuary Evidence'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 68-93. Tucson: University of Arizona Press.

Urban, Patricia, and Edward Schortman

1999 'Thoughts on the Periphery: The Ideological Consequences of Core/Periphery Relations'. In *World-Systems Theory in Practice: Leadership, Production and Exchange*. P.N. Kardulias, ed. Pp. 125-152. Lanham: Rowman and Littlefield.

Usman, Aribidesi A.

2000 'A View from the Periphery: Northern Yoruba Villages during the Old Oyo Empire, Nigeria'. *Journal of Field Archaeology* 27(1): 43-61.

Vanhaverbeke, H., et al., eds.

2008 *Thinking About Space: The Potential of Surface Survey and Contextual Analysis in the Definition of Space in Roman Times*. Turnhout: Brepols.

Varma, Supriya, and Jaya Menon

2008 'Archaeology and the construction of Identities in Medieval North India'. *Studies in History* 24(2): 173-193.

Veluthat, Kesavan

1993 *The Political Structure of Early Medieval South india*. Hyderabad: Orient Longman.

Verghese, A.

1995 *Religious Traditions at Vijayanagara: as revealed through its monuments*. New Delhi: Manohar, American institute of Indian Studies.

Verma, T. P.

1985   'Observations on the Epigraphic Refernces to Temple Styles'. In *Indian Epigraphy: its Bearing on the History of Art*. F.M. Asher and G.S. Gai, eds. Pp. 209-211. New Delhi: Oxford and IBH.

Vogel, J. P.
1929-30   'No. 1 Prakrit Inscriptions from a Buddhist Site at Nagarjunakonda'. *Epigraphia Indica* XX: 1-25.

Wallerstein, Immanuel
1974   'The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Amalysis'. *Comparative Studies in Society and HIstory* 16(4): 387-415.
2004   *World-Systems Analysis: An Introduction*. Durham: Duke University Press.

Wandsnider, LuAnn, and Eileen L. Camilli
1992   'The Character of Surface Archaeological Deposits and its Influence on Survey Accuracy'. *Journal of Field Archaeology* 19(2): 169-188.

Wells, Peter S.
1996   'Production Within and Beyond Imperial Boundaries: Goods, Exchange, and Power in Roman Europe'. *Journal of World-Systems Research* 2(13): 1-26.

Wernke, Steven
2006   'Collagua "Eco-Logistics": Intermediate Elites and Hybrid Community Structure in the Colca Valley, Peru'. In *Intermediate Elites in Pre-Columbian States and Empires*. C.M. Elson and R.A. Covey, eds. Pp. 175-211. Tucson: University of Arizona Press.

Wescott, Konnie L., and R. Joe Brandon, eds.
2000   *Practical Applications of GIS for Archaeologists: A Predictive Modelling Toolkit*. London: Taylor and Francis.

Wheatley, David, and Mark Gillings
2002   *Sparial Technology and Archaeology: The archaeological applications of GIS*. London: Taylor and Francis.

Wheeler, R. E. M.
1947-48   'Brahmagiri and Chandravalli 1947; Megalithic and Other Cultures in Mysore State'. *Ancient India* 4: 180-310.

White, Joyce C.
1995   'Incorporating Heterarchy into Theory on Socio-political Development: The Case from Southeast Asia'. *Archaeological Papers of the American Anthropological Association* 6(1): 101-123.

Widdowson, Mike

    2008   'Laterite and Ferricite'. In *Geochemical Sediments and Landscapes*. D.J. Nash and S.J. McLaren, eds. Oxford: Blackwell.

Widdowson, Mike, and Y. Gunnell

    1999   'Lateritization, geomorphology and geodynamics of a passive continental margin: the Konkan and Kanara coastal lowlands of western peninsular India'. In *Palaeoweathering, Palaeosurfaces and Related Continental Deposits*. M. Thiry and R. Simon-Coinçon, eds. Pp. 245-274. Oxford: Blackwell Publishing Co.

Wiley, Gordon R.

    1979   'The Concept of the "Disembedded Capital" in Comparative Perspective'. *Journal of Anthropological Research* 35(2): 123-137.

Wilkinson, David

    1991   'Cores, Peripheries, and Civilizations'. In *Core-Periphery Relations in Precapitalist Worlds*. C. Chase-Dunn and T.D. Hall, eds. Pp. 113-166. Boulder: Westview Press.

Wilkinson, T. J.

    1982   'The Definition of Ancient Manured Zones by Means of Extensive Sherd-Sampling Techniques'. *Journal of Field Archaeology* 9(3): 323-333.

    1989   'Extensive Sherd Scatters and Land-Use Intensity: Some Recent Results'. *Journal of Field Archaeology* 16(1): 31-46.

    2000   'Regional Approaches to Mesopotamian Archaeology: The Contribution of Archaeological Surveys'. *Journal of Archaeological Research* 8(3): 219-267.

Willey, Gordon R.

    1953   *Prehistoric Settlement Patterns in the Viru Valley, Peru*. Volume Bulletin 155. Washington DC: Smithsonian Institution, Bureau of American Ethnology.

Wilson, Samuel M., and Don J. Melnick

    1990   'Modelling randomness in locational archaeology'. *Archaeological Science* 17(4): 403-412.

Wobst, H. Martin

    2006   'Artifacts as Social Interference: The Politics of Spatial Scale'. In *Confronting Scale in Archaeology: Issues of Theory and Practice*. G. Lock and B.L. Molyneaux, eds. Pp. 55-64. New York: Springer.

Wolters, O. W.

    1982   *History, Culture and Region in Southeast Asian Perspectives*. Singapore: Institute of Southeast Asian Studies.

Yadava, B. N. S.

2000   'The Accounts of the Kali Age and the Social Transition from Antiquity to the Middle Ages'. In *The Feudal Order: State, Society and Ideology in Early Medieval India*. D.N. Jha, ed. Pp. 79-120. New Delhi: Manohar.

Yazdani, G.
1960   *The Early History of the Deccan*. New Delhi: Oriental Books Reprint.

Yule, Henry, and A. C. Burnell
1903   *Hobson-Jobson: A Glossary of Colloquial Anglo-Indian Words and Phrases, and of Kindred Terms, Etymological, Historical, Geographical and Discursive*. London: John Murray.

Z. K. M., Pathan
1979   'The Feudatory Families of Karnataka: A Case Study'. *The Quarterly Journal of the Mythic Society (Bangalore).* 70: 49-52.

Zagarell, Allen
1995   'Hierarchy and Heterarchy: The Unity of Opposites'. *Archeological Papers of the American Anthropological Association* 6(1): 87-100.