

**BEYOND EMPIRE:  
VIJAYANAGARA IMPERIALISM AND THE EMERGENCE  
OF THE KELADI-IKKERI NAYAKA STATE, 1499-1763 C.E.**

by

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## **DEDICATION**

To my parents, Douglas L. and Jane D. Bridges

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## LIST OF ABBREVIATIONS

ARSIE	Annual Reports on South Indian Epigraphy
ASI	Archaeological Survey of India
EC	Epigraphia Carnatica (old series)
ECN	Epigraphia Carnatica (new series) / Epigraphia Karnataka
EI	Epigraphia Indica
ICHR IVR	Indian Council of Historical Research Inscriptions of the Vijayanagara Rulers
KDAM	Karnataka Department of Archaeology and Museums
KINZS	Keladi-Ikkeri Nayaka Zone Survey
MAR	Mysore Archaeological Reports
SII	South Indian Inscriptions
VMS	Vijayanagara Metropolitan Survey
VRP	Vijayanagara Research Project

## **NOTE ON ORTHOGRAPHY**

This work includes terms and proper names from specific Indo-European and Dravidian languages and also of general South Asian origin. In their original usage, these words are written in non-Latin scripts and many include sounds which do not occur in English. In order to make this work accessible to a broad audience of readers, I have chosen to employ simplified Latin spellings of South Asian words and proper names. Instead of adopting a technical orthography which employs diacritical marks, I have chosen to regularize spellings of the closest English approximations of South Asian words. In cases where I do use a foreign term, I italicize only its first occurrence in the text, where it is defined. Names are not italicized.

## **CHAPTER 1: THE VIJAYANAGARA EMPIRE AND THE KELADI-IKKERI NAYAKA STATE**

At the turn of the twentieth century in colonial India, a British civil servant named Robert Sewell canonized the Vijayanagara Empire (c. 1336-1615 C.E.) into western literature as “the Forgotten Empire” (1900), a perspective shaped by the intersection of his professional career as a magistrate and administrator in the Madras Presidency and his avid personal (and later semi-professional) interest in the antiquarian aspects of Indian culture. As a long-time member of the Royal Asiatic Society of Bengal, Sewell was particularly well-positioned to recognize and investigate the significance of the former capital of Vijayanagara. In 1890, he was appointed Collector and Magistrate of Bellary (Rao 1915:390), the district of the modern state of Karnataka in which the former city was located. Though he was not the only Westerner to notice the capital of what was one of the largest pre-colonial empires of the Indian subcontinent, Sewell was the first to inaugurate systematic scholarly work on both the Vijayanagara imperial historical record and its archaeological remains.

Sewell belonged to a particular lineage of European orientalist who wished to ‘rediscover’ glories of the Indian past so they could serve as inspiring examples for the restoration of civilization and order under the paternal watch of the British Empire. Thus, it was expedient to observe parity across time in the scale of ambition and complexity displayed by the then-ruling empire and another from the pre-colonial Indian past. This connection served to mutually reinforce interpretations and perceptions of the strength and righteousness of both brands of power: one as a global evangelizer of industrial and economic superiority, and the other as a pinnacle of authentic Hindu kingship—both myths we can see through today. This intertwining and coopting of power ideology was by no means new to the Indian subcontinent; for hundreds of years before Vijayanagara’s emperors were born, dynasties had claimed inheritance and exercised creative manipulation over the achievements and rights of sovereignty of past kingdoms. In the time since Sewell christened Vijayanagara ‘long forgotten’

and enshrined it as a glorious peak in Indian history, it has become either a foundation for or a foil against which a majority of subsequent studies of south Indian states have been conducted.

Building on the legacy of Sewell and his successors, this dissertation investigates the Keladi-Ikkeri *Nayaka* Kings (c. 1499-1763 C.E.), whose claims to power were first made as regional rulers under the Vijayanagara Empire and later parlayed into independent statehood in the post-imperial period. *Nayaka* is a title which was granted by Vijayanagara emperors to subordinates engaged in a contractual relationship—the historiographically contested nature of which is discussed throughout this work. This research incorporates archaeological and historical sources and is grounded in anthropological perspectives on the political dynamics of pre-modern states and empires. It addresses the dynamics of political process, investigating relationships between imperial regions and cores, and long-term processes of regional governance under higher level political change. Concepts including ‘cycling of states’ and ‘collapse’ are reframed into discussion of how political authority is organized over time and integrated both horizontally (or heterarchically) and vertically (or hierarchically), and of where sovereignty is located within states and empires. This work is based primarily on archaeological survey of the first two Keladi-Ikkeri *Nayaka* capitals, and presents an analysis of the political process of regional governance which spanned the transition from imperial subordinates to independent kings. I explore idealized conceptions and enacted realities of political process— as well as the tension between these perspectives. Ultimately, this work aims to move beyond a monolithic presentation of empire and toward a contextualized and historicized perspective of political process.

### **Definition of Research Questions and the Study Area**

The Vijayanagara Empire was founded in the 1330s in the arid interior of South India during a time of political fragmentation. The state was established on the southern bank of the Tungabhadra River in northern Karnataka state at the eponymous capital of Vijayanagara, the ruins of which are now the UNESCO World Heritage Site known as Group of Monuments at Hampi. Thanks to recent research, most of which was conducted after 1980, Vijayanagara is well-known archaeologically, and historically, through a corpus of inscriptions and vast body of secondary literature. At the height of its power in the early 16<sup>th</sup> century, emperors claimed

sovereignty over some 360,000 square kilometers which included as many as 25 million people (Stein 1989). Its capital of c. 30 square kilometers was supported by a hinterland of at least 450 square kilometers, together inhabited by over 250,000 people (Sinopoli 2000).

Despite its impressive size and historical importance, Vijayanagara settlements outside the capital area remain largely undocumented by systematic archaeological fieldwork. This project compares what is known about the imperial capital with data collected in systematic archaeological survey of Keladi and Ikkeri, the first two of three sequent capitals of a region that ruled first under Vijayanagara and later as independent nayaka kings. These sites were documented in a field project, the Keladi-Ikkeri Nayaka Zone Survey (KINZS), conducted in 2007-2009; the nayakas' third and final capital was located at Bidnur and was not included in survey. These sites are all located in the eastern foothills of the Western Ghats of India in modern Shimoga District of Karnataka State. This is west of and in a very different ecological zone from arid Deccan Plateau location of the primary capital of Vijayanagara in modern Bellary District, Karnataka, or from its two subsequent capitals, Penukonda and Chandragiri, in modern Andhra Pradesh state (Figure 1.1).

This project is situated within anthropological and archaeological approaches to states and empires. Recent studies recognize the significance of subsidiary regional settlements as loci that exercise authority in mediating top-down and bottom-up interactions within imperial polities (Berdan et al. 1996; D'Altroy 1992; Elson and Covey 2006; Hodge and Smith 1994; Stanish 2001; Woolf 1995, 1997). Nayaka polities were the most politically complex administrative units integrated into the Vijayanagara Empire. As regional kings who ruled over designated territories by mandate from the central imperial authority, nayaka rulers were committed to military and financial obligations in return for privileges of rule. The degree to which these political leaders were independent or subordinate to the imperial center is an ongoing historical debate, at least part of which is likely due to variability in the nature of this relationship throughout the historical span and geographical extent of the empire (Dirks 1993; Karashima 2000; Narayana Rao et al. 1992; Stein 1989). In any case, this is a problematic dichotomy and best recast as more fluid, responsive to historical factors and dynamics in both the imperial core and within and between individual subject polities, as well as to external political pressures. In addition, a variety of 'extra-political' factors) affected inter-polity relations and potential

autonomy, including, in the South Indian context: socio-economic (e.g., caste membership, status, and the availability of specialized labor; flow of foreign goods; Sinopoli 2003; Subrahmanyam 1990), ideological (temples and sectarian affiliations (Appadurai 1977), and environmental conditions (e.g., droughts and famines; Morrison 1995). Thus, my investigation of relations between the Keladi-Ikkeri Nayaka State and the Vijayanagara Empire takes into account the political, military, social, economic, and ideological processes that shaped them.

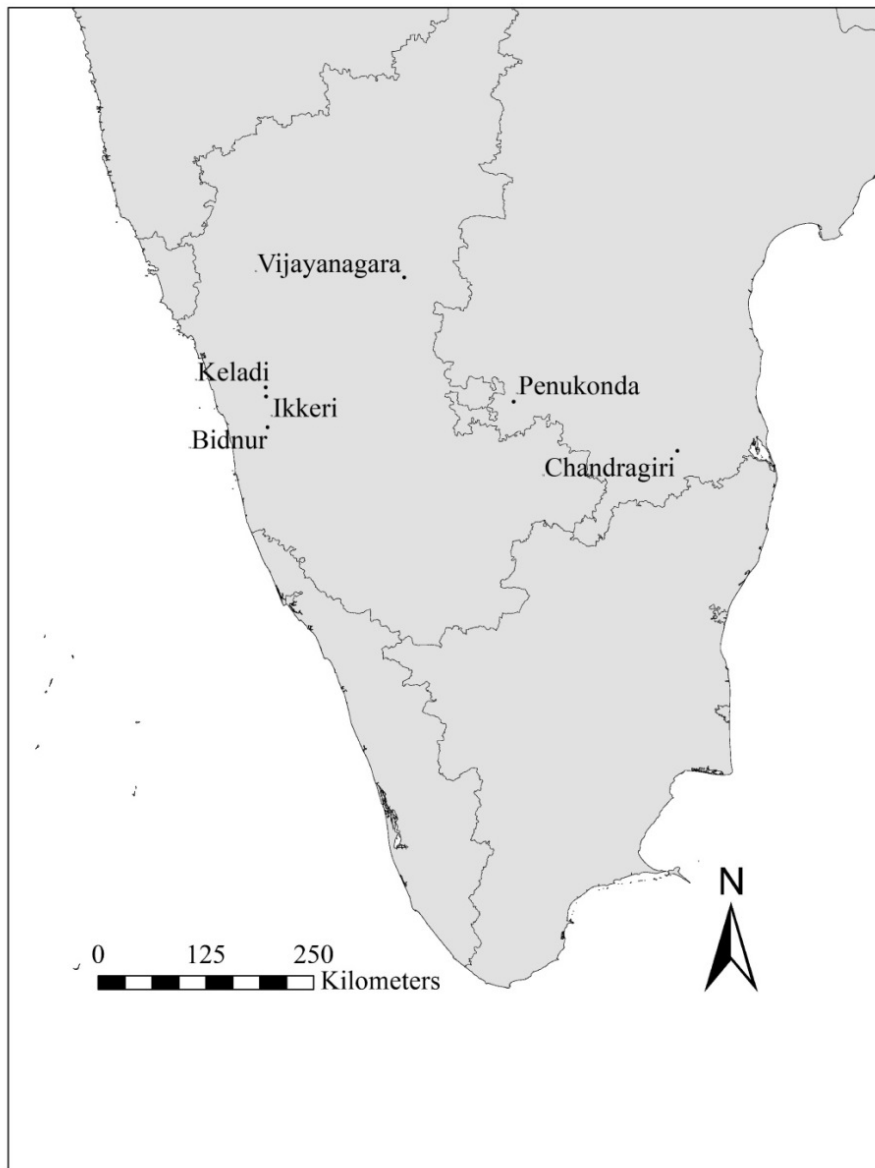


Figure 1.1: Vijayanagara Imperial and Keladi-Ikkeri Nayaka Capital Cities

As expansionist states encompassing multiple polities and significant internal diversity, there is enormous variability in the strategies and practices used by imperial rulers and administrators to establish and maintain authority, as well as in the extent to which empires are vertically and horizontally integrated over time (Morrison 2001; Sinopoli 2001). Broad cycles of imperial consolidation, expansion, and collapse provide an example of what Marcus (1998) has termed “the dynamic model,” a continuous process of integration and disintegration of complex political formations that is observed worldwide. This process is an outcome of the difficulties in managing the inherent volatility of large-scale political structures over sustained periods. Empires may be especially volatile, since they are internally heterogeneous and emerge in spatiotemporal contexts in which they interact with and conquer neighbors. To understand the larger processes of political consolidation, expansion, and collapse of imperial states it is vital both to document the external spheres of interaction in which these polities operate and to break them down into their internal constituent parts. In addition, research must consider cross-cutting factors that constitute the fabric of society both within and outside imperial borders.

This dissertation contributes to research on imperial organization through an examination of the nature and exercise of political authority in a regional polity—both as an emergent subordinate and then as an independent entity after imperial disintegration. Political authority, as I define it here (after Smith 2003), has two dimensions: (1) the effective ability of elites to direct others (i.e., administrative authority), and (2) recognition of the legitimacy of leadership by diverse social groups (i.e., ideological authority). As such, authority is broadly constituted. Although enacted in the political realm, political authority is supported and contested through social, economic, religious, military, and ideological relations. Within states and empires, authority exists and is supported (or contested) by varying degrees of legitimacy at multiple levels of decision-making, including: households, villages and towns, regional settlements, and the imperial center; decision-makers also exercise authority within specialized sociopolitical contexts (Wright 1986, 2000). Recent studies recognize the significance of subsidiary regional settlements as loci that exercise authority in mediating top-down and bottom-up interactions within imperial polities (Berdan et al. 1996; D’Altroy 1992; Elson and Covey 2006; Hodge and Smith 1994; Stanish 2001; Woolf 1995, 1997). Imperial-subject interactions thus cannot be viewed as one-dimensional relationships of domination or independence. Rather, they are the result of multi-dimensional, dynamic processes, which in this case exhibit longitudinal continuity



beyond the imperial crucible in which the Keladi-Ikkeri Nayaka State was established.

Historical and archaeological research on numerous empires has provided important information on the range of factors that influence relations between imperial cores and their subject polities (Alcock 1993; Alcock et al 2001; Algaze 1993; Champion 1989; Doyle 1986; Hodge 1994; Kardulias 1999; Morrison and Lycett 1994; Naum 2010; Parker 2013; Ray 1986; Smith and Schreiber 2005, 2006; Sinopoli 1994; Sinopoli and Morrison 1995; Thapar 1997; Woolf 1998; Yoffee 2005). In many cases, these factors are described anecdotally and rely on rich historical information on changing political conditions, which often occur in such rapid time-frames that they cannot be assessed to high resolution by archaeological indicators. These conditions are best viewed using both historical and archaeological sources, a synergy within which various textual claims may be viewed in parallel with the reality of the material record, and vice-versa (Brumfiel 2003; Marcus 1993; Moreland 2001, 2006; Morrison and Lycett 1997; Trautmann and Sinopoli 2002). The interplay of imperial claims and on the ground reality is not one which terminates with the empire itself; rather, it is one that continues to influence the component parts of the whole during and after the process of imperial collapse as factions and regions build and shape the political empire. Factors relevant to relations between imperial centers and imperial subsidiaries as well as to the processes that bind and separate these polities in cycles of disintegration and collapse, include: political conditions within the imperial center, composition of incorporated territories, political relations outside the empire, access to natural and cultural resources, and ideological structures and diversity.

Political conditions within the imperial center can include internal conflicts over dynastic control, conflicts between subsidiary elites and administrative offices at the center, conditions of urbanization, internal and external economic health, among others. When imperial authority is strong at the core, imperial rulers may seek or take advantage of opportunities to expand territory through conflict, diplomacy, or the promise of shared power. Existing subsidiaries may be required to aid expansion, though coercion or reward. When imperial authority is weak or threatened at the center, subsidiary polities are more likely to seek to assert their autonomy than when such power is strong. Independence may be expressed by a failure to meet financial or military obligations, increased investment in fortifications and regional infrastructure, autonomous diplomatic efforts with other subject polities and independent states, attempts to

exert control over key economic routes and resources, or ideological or sacred claims to sovereignty—to name but a few ways in which this can be expressed. It is also possible that negative conditions at the center will prompt efforts at increased regional control by the imperial core, either as preemptory caution or reactive response to perceived conditions.

Political relations outside the empire include aggressive or defensive conflict, peacemaking or coercive diplomacy, and indirect ramifications of external conflict. When empires are strategically secure in their external relations, this may allow for internal independence or, in contrast, conditions may be optimal for efforts to restructure internal imperial administration and increase centralized authority. When empires are negatively impacted by extra-polity events, they are more likely to place increased demands on subsidiary polities, but this situation can also create strategic opportunities for alliance building and/or reformulating relations with the imperial core, especially if local polities control strategic resources (including people) or territories.

Factors determining the nature and structures of imperial involvement in incorporated territories include the degree to which regional authority existed previously or was instituted by the imperial presence, and degrees of sociocultural similarity and difference (language, religion, ethnicity, etc.). When it is possible for imperial centers to draw on local structures for administration, I expect that local elites will maintain considerable authority. When administrative infrastructure is either lacking in the subject regions or is so well developed that the regions pose a potential threat to the empire, than direct imperial intervention in local administration is expected.

Factors affecting access to natural and cultural resources include distribution of natural (ore, metals, minerals, stone, wood and forest products, water, etc.) and cultural (agricultural staples, foreign and domestic elite and commodity goods, labor, etc.) resources, and short and long term environmental variability. I expect that economic and social demands for goods and materials, strategic significance of particular resources, and control of access to resources within the imperial center (or centers, as some empires operate from multiple or specialized centers of power at the highest level) core will lead to increased extraction efforts at subsidiary centers. Extraction may be coercive, though such efforts may also be accomplished by the creation of attractive terms of commerce, such as provision by the core to the subsidiary elite goods

sanctioned by imperial power or through promised participation in a larger network of trade.

Ideological structures and diversity are involved in legitimation of imperial rule, goals of territorial expansionism, participation in elite culture, and, in some contexts, efforts at religious conversion. I expect that when imperial ideologies conflict with those of their subsidiaries the potential for conflict (domination/resistance) or replacement of local leaders increases. I also expect that ideologies of imperial power may in some cases be an attractive axis of local political authority for subsidiaries that choose to participate, whether in an independent or integrated manner.

This work/study examines these aspects of regional authority using the case of the Keladi-Ikkeri Nayakas, local kings whose line was first established under the Vijayanagara Empire and later an independent state operating in the early colonial global sphere. Specifically, I evaluate the extent to which this authority was constituted in relation to political conditions within the imperial core of Vijayanagara, by external political relations outside the empire, and by the internal composition and dynamics of Keladi-Ikkeri's sociopolitical and economic elites. My research seeks to document and clarify the impact of each of these factors on Keladi-Ikkeri as a regional imperial polity, and to explore how these changed throughout the evolution of polity and empire.

As defined above, political authority encompasses both the effective ability of elites to direct others and the recognition of the legitimacy of leadership by diverse social groups. Although enacted in the political realm, authority is broadly constituted—supported and contested through social, economic, religious, and ideological relations. In states, political authority is both institutionalized and situational. The ability to direct others requires the development of networks of people and institutions and people upon whom the ruling elite can depend (or hope to depend) to enforce decision-making. Legitimacy is derived through (more or less) widespread recognition of the right of the ruling elite to enact decisions on behalf of other, and is often enacted by targeting a particular audience (Brumfiel 1993). Underlying both of these principles is the fundamental ability of a leader or class of leaders to participate with the subject population in a *quid pro quo* arrangement. Whether implicit or explicit, instantaneous or delayed, reciprocal or unequal, relations of authority are a contract between the rulers and the ruled. Keladi-Ikkeri rulers appear in the epigraphic record as possessing regional political

authority sanctioned by the Vijayanagara Empire, with a series of increasingly superlative titles granted over time. However, the texts offer an incomplete picture of the relationships underlying these claims. Integrating archaeology and history creates an additional dimension for examination of these relationships through the following research questions.

First, how was Keladi-Ikkeri regional political authority constituted and how did it change over time? Did the Keladi-Ikkeri polity possess independent regional political authority prior to investment with imperial titles or did it emerge through interactions with the Vijayanagara Empire? Historical sources suggest that the first regional capital at Keladi formed prior to interaction with Vijayanagara, though they offer little information on its size or resource base and how interaction with imperial authorities might have influenced its development.

Second, what role did the Vijayanagara Empire play in the constitution of political authority in the Keladi-Ikkeri Nayaka State? By the early 16<sup>th</sup> century, the Keladi-Ikkeri polity was nominally subordinate to the empire, though it is unclear from the historical record how involved Vijayanagara was in its development and operation. Preliminary fieldwork indicates more extensive settlement over time with more specialized activity areas at the second capital, Ikkeri. Was this development more a result of independent rule or of integration into the empire? Though it may not be possible to assess the degree to which imperial involvement was coercive or voluntarily received, the adoption of imperial material culture is used as a proxy for assessing the degree to which regional political authority was established and legitimized by relations with the empire.

This project entails documentation of core and outlying zones of medieval settlement at each site with the goal of understanding regional political authority at the following scales of analysis: 1) individual sites of Keladi and Ikkeri; 2) inter-site comparisons between the two; and 3) comparison of the project area with the imperial capital (and briefly with a third nayaka capital at Bidnur, which was occupied in the late independent period—though it has been systematically investigated archaeologically). The first level of analysis is critical to understanding the internal organization of each of the centers and their changes over time. At the second level of analysis, comparisons of Keladi and Ikkeri urban form and context will allow for synchronic and diachronic perspectives on regional authority within the polity. At the third level of analysis, my research at the two sites will be compared with results from work at the first

imperial capital to examine the constitution of regional political authority in relation to imperial political authority. Evidence of state infrastructure—including administrative architecture, fortifications, and state-sponsored temples and irrigation works-- will provide data for establishing the presence and development of regional political authority. Evidence for the adoption of imperial material culture and practices will be used to evaluate both the nature of relationship between the empire and the regional state, and the position of the regional state during and after disintegration of the empire itself. Such evidence can include styles and types of administrative, military and religious structures, titles and epigraphs, and courtly representations in sculpture, among others, and is integrated with historical sources as outlined next.

### **Sources of South Asian Archaeology and History**

Interpreting the South Indian past requires utilizing diverse sources that are often challenging to integrate and reconcile into a coherent view; this is especially true from the perspective of historical archaeology, which seeks to integrate analyses of multiple scales of material culture with textual and epigraphic sources. Historians of the South Asian past routinely bring together information from diverse sources including art, architecture, inscriptions, linguistic evidence, coins, texts and ethnographic studies; it is less common that these sources are paired with analyses of materials systematically recovered from archaeological contexts. Archaeological materials are diverse: generated from both surface survey of broad areas and subsurface excavation of smaller locales. Both of these methodologies encounter a spectrum of material culture ranging from microscopic to monumental and drawn from contexts that range from private to public. Though archaeology can always augment history, this is especially true when the historical record is sparse— it offers a new source of data that can be integrated to provide a more robust view. Archaeologists have not always been amenable to this integration any more than historians have been.

Variation in philosophies of field methodology further complicates the process of integrating archaeological data with more traditional historical sources—this is true both within North American archaeology and in comparing North American practices with South Asian approaches. North American anthropological archaeology practices field methods that can be

broadly categorized as survey and excavation. Excavation is generally a more familiar method to the non-specialist, and involves systematic recovery of archaeological materials from subsurface contexts.

Since archaeological survey was a key component of my research, I briefly introduce this approach here. Survey fieldwork is generally concerned with site location and delineation, in which large areas are transected, artifacts collected and features recorded according to an appropriate and consistent methodology. Current methods of systematic survey emerged out of mid-twentieth century interest in regional cultural processes and environmental context, during what Gordon R. Willey and Jeremy A. Sabloff (1973:148-156) term the Classificatory-Historical Period (1940-60) of archaeology. According to Bruce Trigger (1989), this period was also marked by increasing criticism of the “invidious dichotomy between history and science,” based on a perspective which viewed “culture-historical integration as an objective that was inferior to formulating general rules of cultural behavior” (302).

The emphasis on science that emerged during the New Archaeology of the 1960s and 1970s encouraged the development of more rigorous and comprehensive field methods, including excavation techniques that controlled for natural and cultural stratigraphy and the development of “systematic regional surveys” that addressed the distribution of archaeological sites and explored their off-site contexts (Parsons 2004). It is ironic that these rigorous methodologies emerged during a period in which history was increasingly demonized in favor of science. Lewis Binford, perhaps the most prominent theorist of the period, “viewed archaeologists’ efforts to explain particular historical events as inductive behavior that would doom archaeology to remain a particularistic, non-generalizing field. He argued instead that “archaeologists must see to formulate laws of cultural dynamics” (Trigger 1989:302). Fortunately, developments in anthropological archaeology seem to be moving toward synthesis rather than division. Sinopoli (2001) noted the movement toward reintegrating history and archaeology, both as sources and as disciplines, and its significance as an advantage for studies of early empires. She stated:

The interplay of written and material sources of information available for the study of most early empires is extraordinarily valuable. The texts offer insights into motivations, beliefs and individual actors that are difficult to obtain from archaeological data alone; the archaeological evidence allows us to explore broad

material consequences of empire and the lives of non-elites in ways that the texts seldom afford (440)

In contrast to the United States, archaeology in India has traditionally been a historical discipline, and its institutional structure built around history departments. Though as Ray and Sinopoli (2004:1) noted, research agendas addressing historical periods involved historians establishing the major questions, with the role of archaeology “limited to providing corroboration in terms of material culture”. Additionally, they asserted that “the production of histories requires a close and detailed engagement with diverse sources of data” (4). As Sinopoli (2004:156) noted in the same volume, systematic regional survey is a relatively new and invaluable technique for site discovery in South Asian archaeology. The Vijayanagara Metropolitan survey, led by Sinopoli and Kathleen Morrison, is the most significant application of this method in India and an excellent example of synergistic blending of history and archaeology; methodology and findings which emerged from this project will be discussed in detail below.

I move now from discussing how archaeological perspectives have changed over time to a discussion of how historical perspectives on South Indian history have evolved. Burton Stein (1989: 2-12) provided a concise outline of the historiography of the Vijayanagara Empire , in which he noted Col. Colin Mackenzie (1815), Mark Wilks (1810) and Robert Sewell (1900) as early presenters of Vijayanagara to the English speaking world. In fact, accounts by travelers had been trickling out of South Asia for centuries before that, such as the sixteenth century narrative of Pietro della Valle and the nineteenth century memoir by Francis Buchanan. Scholars of the European Orientalist period, the first period of historiography (the nineteenth century) were members of the civil service, some of whom were officially charged with and others of whom were personally interested in collecting and making sense of the South Indian past. It is from their works that the Keladi-Ikkeri Nayakas were also introduced to the west.

The second and third periods of Vijayanagara historiography (to 1940) were an “intermediate custodianship,” during which narratives of Vijayanagara were imbued with a nationalistic and broadly anti-Muslim bias, and then with more narrow regional patriotisms for Kannada and Telugu speakers, which after Indian independence in 1947 correlated with the creation of the Karnataka and Andhra Pradesh states (Stein 1989:7). Stein saw Nilakanta Sastri,

who published a monumental *History of South India* in 1957, as having practiced history with a reliance on “chaste, datable, and locatable epigraphic records,” though he synthesized large numbers of these on a new order of magnitude. By the time Nilakanta Sastri’s synthetic history was published, major series of inscriptions had been published, such as *Epigraphia India*, *South Indian Inscriptions*, *Epigraphia Carnatica*, and *Annual Report on South Indian Epigraphy*, as well as *Sources of Vijaynagara History* (Aiyangar, ed. 1916), *Further Sources of Vijayanagara History* (Nilakanta Sastri and Venkataramanayya 1946). Col. Mackenzie’s work was later catalogued as the *Mackenzie Manuscripts* (Mahalingam 1972), but much remains unpublished or published in limited formats.

The sources that are the building blocks of history and archaeology in South Asia are diverse, including both primary sources: inscriptions (stone, copper plate), literature (palm leaf and paper manuscripts), historical accounts (by travelers, colonialists and historians), architectural and archaeological investigations, and also secondary sources. It is important to note that the diversity of languages is a key factor in determining how thoroughly researchers can access relevant textual, epigraphic and oral sources. The languages of ancient and modern India fall into the Dravidian (e.g., Tamil, Telugu, Malayalam, Kannada), Indo-European (Sanskrit and Persian), and Munda families, with literary languages generally possessing their own scripts (though some languages can be and were written in more than one script). These scripts evolved over time from more ancient forms of the language. In addition, there is a long history of classical languages, including Sanskrit and Prakrit, and several now extinct scripts, including Brahmi and Karoshthi.

Both the Keladi-Ikkeri Nayakas and the Vijayanagara Empire were headquartered in the modern state of Karnataka, the boundaries of which were drawn to roughly correlate with the modern distribution of speakers of Kannada. However, as Narayana Rao (1995:25) observed, there is “no evidence of language serving as a symbol of ‘national’ unity before the nineteenth century”. The vernacular language of the Keladi-Ikkeri Nayakas and many of the Vijayanagara Emperors was Medieval Kannada; those emperors who did not speak Kannada spoke Telugu, or perhaps Tulu, another Dravidian language spoken on the western coast of India. Elites were educated in Sanskrit, “the language of pride and power,” however knowing multiple vernacular languages was always of benefit (Narayana Rao 1995: 25, 37). As Europeans arrived, Dutch,



Portuguese, French and English, were added to the mix. These and further issues on the integration of sources of South Asian history with archaeological data will enter into further discussions below.

## **Outline of Chapters**

Having framed the work in terms of research questions and sources available for analysis, I conclude by presenting an outline of what is covered in subsequent chapter. Chapter 2 expands on the larger anthropological questions within which this research was conducted. Situated within broad discussions of imperial state formations, conceptual frameworks for evaluating regional political dynamics and interaction between capital and outlying settlements are discussed, as they apply under both operation and disintegration of the larger empire. First, the degree to which imperial integration and consolidation affect regional political dynamics is explored. The Vijayanagara Empire is most often viewed as having been a loosely integrated polity; models for regional management versus autonomy are presented for subsequent evaluation against the case of the Keladi-Ikkeri Nayakas. Second, the process of regional state emergence is discussed in the context of ‘failure’ of the central imperial state. The Keladi-Ikkeri Nayakas emerged from Vijayanagara ‘collapse’ as a small, yet successful, independent polity that operated within an increasingly global context; models for state emergence and transformation are presented for later discussion of the independent nayaka period. The discussion of collapse and state formation is reoriented in a discussion of the nature and location of sovereignty and political authority, specifically in the political process of regional government. It is argued that strong horizontal (or heterarchical) relationships between those vested with political authority and other loci of power, such as socially and economically dominant groups and individuals, may be a cost-minimal imperial strategy which also ends up buffering specific regions against vertical (or hierarchical) change.

Chapters 3 and 4 present the historical background of the study, for both the empire and the local region. Chapter 3 explores how Vijayanagara emerged, expanded, and declined as an empire, with particular emphasis on regional political strategies. This chapter presents a narrative of the political trajectory of the Empire with a special focus on regional political divisions that

subsequently became independent as the empire weakened, and presents an attempt to understand how the original participants' motivations and historiographical perspectives shaped our modern view of this path. Chapter 4 traces the Keladi-Ikkeri line from establishment under the Vijayanagara Empire through emergence as leaders of an independent territory in the early colonial period; this period encompasses occupation of three sequent capitals: Keladi, Ikkeri, and Bidnur, during which leaders parlayed their strategic position into diplomatic relationships with Vijayanagara, as well as the Portuguese, English, Dutch and French, and fought numerous wars and military campaigns with a host of allies against a wide range of opponents.

Chapter 5 moves beyond background on the Vijayanagara Empire and Keladi-Ikkeri to the archaeological field work which, as original research, is the primary contribution of this dissertation. The environmental and cultural settings of modern day Shimoga District, Karnataka are outlined as context for a discussion of the archaeological survey I conducted at Keladi and Ikkeri. Field methods are described and results of survey are presented and discussed by site type, which includes: fortifications, a palace area, religious architecture, carved stones, laterite constructions and carved laterite, water management, structure mounds, and several other unique types. Highlights from analyses of artifacts collected are outlined and the issue of chronology is addressed, with reference to historical demography and modern land use.

Chapter 6 argues that Keladi-Ikkeri Nayakas Nayaka sovereignty was enacted through a political process which consolidated authority at a regional level, and thus was conducive to a successful transition from imperial subordinate to independent state. Using the archaeological evidence presented in chapter five, in comparison with historical and archaeological evidence from the imperial capital and other subordinate centers, Keladi-Ikkeri political authority is examined through the following themes: territorial sovereignty and military control, courtly culture and ideologies of regional governance, religious institutions and the politics of elite patronage, the regional economy from local production to long-distance trade, and finally, freedom and subjection in local traditions. The chapter concludes with a brief look at the continuance of Keladi-Ikkeri rule after their move from Ikkeri to the final capital at Bidnur.

In conclusion, Chapter 7 examines contributions and connections to anthropological understandings of empire, states, and regional political authority, as well as to our understandings of the South Asian historical landscape. I also discuss directions for future

archaeological research, including new methodological directions, and discuss how future research might further illuminate our insight into imperial states and the political process of regional government under the Keladi-Ikkeri Nayakas.

## **CHAPTER 2: IMPERIAL MYTHOLOGIES AND THE POLITICAL PROCESS OF REGIONAL GOVERNMENT**

The Keladi-Ikkeri Nayakas have historically been known for, and frequently aggrandized through, their association with the Vijayanagara Empire; the Nayakas' own trajectory began during the peak of imperial power, continued through a transition to independent statehood, and ended abruptly during the early Colonial period. This chapter lays out theoretical perspectives for a reexamination of Keladi-Ikkeri through the study of regional governance as an historicized political process which transcends reified political structures and categories in anthropological theory. Though Keladi-Ikkeri is traditionally viewed as an imperial region which established an independent state following imperial collapse, I argue that the mythologizing of cycling complexity has obscured continuities which cohere regional governance.

The Vijayanagara Empire was ascending toward the height of its power when Keladi-Ikkeri emerged as a significant regional political subdivision at the start of the 16<sup>th</sup> century. By the time Vijayanagara was founded almost two centuries earlier, South India had been dominated by state level polities for well over a millennium; the new imperial state was founded from a capital located adjacent to former seats of rule. In less than two centuries, Vijayanagara grew from a nascent polity in the arid interior of the Deccan Plateau to an imperial juggernaut that dominated the majority of peninsular south India. As it grew, the empire incorporated diverse regions through varying strategies of conquest and alliance.

Among the methods of governance deployed by Vijayanagara throughout its imperial regions was the creation of nayaka ruler positions (also known as nayakaships, or nayankara), a contract for leadership rights based on military and financial obligations to the central authority (Dirks 1993; Karashima 2000; Narayana Rao et al 1992; Stein 1989). Nayakaships were a relatively late imperial innovation, an adoption of an older administrative concept (Mahalingam 1969; Talbot 2001) that was modified to fit specialized local leadership needs in certain regions of the empire; the development of the nayaka system and other imperial administrative divisions

is discussed further in chapter three. According to the historical record, one of the best known nayakaships is Keladi-Ikkeri, geographically well-positioned between lucrative western ports and the interior imperial capital. Like other contemporary nayakaships, Keladi-Ikkeri functioned as a semi-autonomous political region of the empire until the mid-16<sup>th</sup> century, when imperial forces suffered a crushing military defeat and the administration was forced to abandon its first capital city. Though Keladi-Ikkeri continued to claim imperial affiliation, by the early 17<sup>th</sup> century they, and other surviving nayakaships, declared formal independence from Vijayanagara, which by that time was only an ideological shadow of its former imperial incarnation. Spanning inception to independence, the political trajectory of the Keladi-Ikkeri Nayakas under and after the Vijayanagara Empire presents a historically specific and archaeologically accessible case study that builds on anthropological perspectives of the emergence and operation of imperial regions and transformation of subordinate regions into independent states under post-imperial conditions.

This chapter outlines the theoretical underpinnings of the basic idea that interpreting regional governance as a political process transcends categorizations like ‘imperial region,’ ‘independent state,’ and ‘collapse.’ It provides a holistic framework for understanding the trajectory of the Keladi-Ikkeri Nayakas through the concept of sovereignty as constituted in relations of authority and subjection. Though traditionally conceived as a privilege of state level governance, I argue that sovereignty is best viewed at multiple scales. That Keladi-Ikkeri actually was created as an imperial region and operated as an independent state throughout and after the gradual collapse of the Vijayanagara Empire is secondary (though not unimportant) to the larger political process of regional governance through which political rulers and elites created and maintained authority and under which the larger population lived in subject conditions (cf. Adam T. Smith 2011). The core question guiding my research is: what is regional governance and what is the political process through which authority and subjection are constituted?

I address the political process of regional governance beginning with a review of relevant background on imperial and state dynamics in anthropological perspective. My approach is additive. It builds on past studies of empire which are not explicitly grounded in a sovereignty-based perspective rather than rejecting them wholesale. I outline a definition of political process and its constitution in relationships of authority and subjection, moving toward what this means for government at an intermediate level of power. I then transition to the geography of regional

governance, discussing how imperial regions exist and are connected on the ground, including interaction beyond immediate political boundaries and how the materiality of sovereignty can be viewed through the archaeological record. Next, the state and its subjects as conceived in South Asia are considered: who the ‘political’ actors are, how their actions create and maintain regional governance, and on the political contexts of the process. My discussion emphasizes empire, kingship and philosophies of rule in south India and the creation of nayaka rulers under the Vijayanagara Empire. I also discuss the emergence of a courtly elite culture which spanned political boundaries in the imperial and early colonial periods. Finally, questions regarding the emergence and transformation of the Keladi-Ikkeri Nayaka State are reframed and positioned for analysis against field data in subsequent chapters.

### **Imperial States in Anthropological Perspective**

My discussion of imperial states is grounded in an anthropological perspective that eschews typological categorization in favor of exploring embedded and historicized political process. In anthropological archaeology, empires have been part of a long historical discussion of pre-modern states and civilization that encompasses the ontology of primary and secondary state formations (Algaze 1993b; Claessen and Skalnik 1978; Cohen and Service 1978; Feinman and Marcus 1998; Service 1975; Smith and Schreiber 2005, 2006; Spencer 2010; Wright 1986; Yoffee 2005). My approach draws on the rich intellectual history of anthropological theories of states, though with an explicit bias against the more teleological aspects of evolutionary thought. Theories of pre-modern states have been concerned with structure and operation of individual polities, as well as with diachronic processes of emergence and collapse (or cycling) of states (Marcus 1998; McAnanay and Yoffee 2010; Tainter 1995; Wright 2000; Yoffee and Cowgill 1988), and synchronic processes of interaction between multiple state polities or states within larger interaction spheres (Algaze 1993a; ; Champion 1989; Gottman 1980; Kardulias 1999; Kardulias and Hall 2008; Renfrew and Cherry 1986; Stein 1998). I return to these issues below. Broadly, empires have been conceived as expansionist states, variable in the scale of their ambitions and organizational strategies (Alcock 1993; Alcock et al 2001; Berdan et alia 1996; Covey 2003; Khatchadourian 2008; Potts 2012; Sinopoli 1994, 2001; Smith and Schreiber 2005, 2006). Recent archaeological research on empires have focused on scales such as households (D’Altroy and Hastorf 2001; McAnanay 2002; Smith 2002) regions outside the core/capital

(D'Altroy 1992, 2001; Elson and Covey, eds. 2006; Hodge and Smith 1994; Khatchadourian 2012; Malpass and Alconini 2010; Stanish 2001).

Taking a step back for a moment, I'd like to put anthropological perspectives on empires in intellectual context. The study of imperialism is relevant not only within other academic disciplines but also across the contemporary spheres of global politics, foreign policy and social justice. Close kin to Anthropological Archaeology, Classical Studies (both philological and archaeological) and Near Eastern Studies continue to address pre-modern empires in research that is often adopted by and overlaps with anthropological work (e.g., Potts 2012; Wells 2008). Other social sciences include ongoing discussions of imperial political formations and their social and historical implications, including History (Armitage 1998; Pagden 1995, 2003; Pomper 2005), Political Science (Münkler 2007; Muthu 2012; Pitts 2010), Sociology (Eisenstadt 1979; Steinmetz 2005). Contemporary analyses and policy applications of imperial political practices tend to cross disciplinary divides (Calhoun et al. 2006; Hardt and Negri 2001, 2005; Kelley 2008; Luttwak 1979; Mann 2003). Though the study of empires may span disciplinary boundaries, often to mutual benefit, some epistemological divides persist between studies of pre-modern and modern empires; indeed, much modern thought on imperialism emerged as a perspective on European colonial strategies and the emergence of globalization. Rather than view this as an insoluble impasse between categorically separate entities, for the purposes of this analysis, I simply state my belief that familiarity with work on both sides of this divide is of benefit to each perspective.

Returning to archaeology, empires have been analytically defined in a range of ways though with generally agreed upon core traits. Sinopoli (1994) has defined them as “geographically and politically expansive powers” (195) incorporating significant internal heterogeneity, the large scale and variability of which present considerable challenges to scholarly study. Sinopoli (2001) emphasized the “relative fragility and the high regional diversity, regional autonomy, and relative lack of centralization that characterized many early empires,” (443) and noted that in contrast to other states, the larger scale and increased heterogeneity of empires is consequential to “the costs of and ability to exercise authority over the territories they claim to rule” (444). Disagreements over what empires are can usually be attributed to differences in specific cases of imperialism, including Old World polities such as Egypt, Achaemenid, Rome, Mauryan, Mughal, Vijayanagara, Ottoman, China, and New World

polities such as Wari, Inka, Zapotec, and Aztec. Such differences in interpretation are best discussed in terms of the variability observed in imperial leadership strategies.

As expansionist states, empires move through different political stages during which they are founded, extended, and inevitably end; those that are more successful experience relative longevity through internal transformation and development of administration, technology, and power. A key challenge during imperial expansion is the integration and consolidation of new population(s) and territory(y)(ries) into the cultural and political life of the state; the goals and effects of this process have been highly variable between different empires. Some seek to achieve a high degree of cultural and political homogeneity through administration of population and territory, while at the other end of the spectrum, some empires are content to allow or even promote cultural and administrative diversity; this continuum is influenced by political development, that is the relative youth or maturity of the polity, as well as by other factors, such as ideological foundations—a polity founded on religious principles have a stronger impetus toward seeking homogeneity in that sphere, for example. Empires which have the time and resources to consider consolidation as well as expansion, as opposed to those operating in an ad hoc mode of management, may exercise cohesively planned and more comprehensive choice in imperial policy, including the degree of administrative penetration into regional politics. In the case of Vijayanagara, I argue that consolidation of acquired or conquered territory into the imperial organization does not follow a uniform framework, in the sense that such would entail adoption of particular regimes of culture, language, religion, and ideology, among others. There is no doubt that incorporation into Vijayanagara influenced both political structures and the operation of daily life in areas formerly independent, but I view this as differential over time and space, rather than comprehensively planned, and relatively less inclined toward top-down imposed change than other historical cases.

One conception of variability in imperial management strategies, either deliberate or by default, is that presented by D’Altroy (1992) to encompass variability in governance of different Inka territories. Inspired by the work of Luttwak on Rome (1976) and Hassig on the Aztec (1985, 1992), D’Altroy outlined a continuum of territorial versus hegemonic control. Described well by Malpass and Alconini (2010) at one extreme, “direct territorial control entailed a high-control, high-extraction strategy where the empire invested significantly in support infrastructure and military control in the provinces in order to ensure large economic gains for the imperial



core...At the other extreme of the spectrum lies indirect hegemonic control, involving a low-control, low-extraction strategy” (4). Of hegemonic control, they observed, “the empire ruled indirectly through patron-client ties established with native elites with the consequent low levels of economic revenues...One advantage of indirect hegemonic rule was that although the economic gains were low, it allowed the empire to expand over large stretches of land with minimum investment” (4). The simple continuum actually has several different dichotomies built into it: high versus low extraction of resources and/or tribute, high versus low degree of control, presumably in a universal sense as backed by military force, and the implication by nomenclature of imminent versus threatened imperial presence. Alconini expanded on this continuum by combining the axes of revenue (extraction) and investment (control): high revenue/high investment represented territorial control, while low investment and low revenue represented hegemonic control. Of the combinations in the middle, she termed high investment/low revenues as “dis-imbedded centers” and low investment/high revenue as “optimum control” (2008:64). The latter category entailed native elites absorbing costs of administration and defense, and through “Inkanization” being put in charge of transferring the imperial agenda to locals (66); in other cases, I would argue that this “optimal control” category could also include elites playing both sides of the relationship, in effect, fulfilling imperial obligations while essentially buffering the local population from its demands. Alconini (2008: 78) defines the former case, dis-embedded centers, as “those Inka provincial installations built with fine architecture, and following the imperial canons, that nevertheless, were divorced from indigenous socioeconomic processes”; one might also conceive of this category as a high economic cost plus high symbolic return category, in order to expand its utility beyond the Inka example.

Deliberate maintenance of regional political autonomy and/or diversity by an imperial authority as an adaptive and potentially cost-effective management choice may be considered from an analytical perspective as a passive consolidation strategy (of non-integration), though in this regard intention can be difficult to distinguish from the historical and archaeological records. As observed above, ad hoc administration may or may not be by choice at the highest levels of political leadership. Morrison and Sinopoli observed of Vijayanagara that there was no singular imperial economy, “nor should the focus on integration and incorporation necessarily imply inefficiency or even success in extraction and control on the part of the imperial elite. Rather, a

multiplicity of forms and degrees of integration are apparent, only some of which provided gain to the center” (1992:335). Specific ways in which this holds true for the Vijayanagara political realm will be discussed in detail in the following chapter on imperial regional governance.

Consolidation and integration are key aspects of operating imperial states—but what of their beginnings? Indeed, in working toward the argument that regional governance may both offer and rely on continuities that mitigate political changes at higher levels, it is important to consider the conditions under which imperial states emerge. Vijayanagara emerged in a fully developed state context, which is to say that it was formed in a geographic region which had seen over a millennium of the creation and collapse of numerous state polities, punctuated by the emergence of earlier empires. Thus, my interest in the emergence of empires is not in the invention or local inception of the political form, rather in its diachronic state context. To come at this problem from the opposite end, we may consider the question of “collapse,” largely a misnomer for the end of particular political entities. Recent perspectives on collapse have reformulated the collapse concept beyond its catastrophic connotations. (McAnany and Yoffee, eds. 2010). McAnany and Yoffee (2010:10-11) view resilience in human society as “the rule rather than the exception,” noting that “some kinds of change, especially political change, can be quick and episodic, whereas other kinds of change, for example, changes in kinship structures and belief systems, can be slower moving”. This focus on resilience foreshadows an important part of this discussion: in traditional terms, what allows states to ‘cycle,’ that is to say wax, wane, persist, and be reconstituted, rather than having to rebuild from scratch? In particular, what is it that we observe as disappearing, persisting, or being reinvented in diachronic perspective? Can cultural resilience facilitate political continuity even through high level leadership change? That is, to what do features of complex political systems connect that allow continuities through larger transformation, especially in empires which emerge in the context of a history of previous state and imperial polities?

I argue throughout this dissertation that in the case of Vijayanagara and the Keladi-Ikkeri Nayakas continuity prevails throughout what has been viewed as collapse—that political structures of empire weather both small and large challenges of fragmentation by dynastic change, military defeat (and subsequent capitol abandonment), and disintegration of administration and subjection from the highest levels. Nevertheless, this process allows for the gradual transformation of an empire into a collection of smaller states of variable size and

strength. I also argue that political continuity is underwritten by such connections as persisting physical infrastructure, administrative specialists and their traditions, strong religious institutions, and a social fabric strongly interwoven with kin, caste, and corporate collectives.

Working toward a framework through which these aspects of continuity may be evaluated, I now turn to the seminal work of Michael Mann (1986). Some archaeological analyses of empires, especially those from the 1990s, have drawn on *The Sources of Social Power* (D'Altroy 1992; Sinopoli 1992). Norman Yoffee (2005:34-35) contextualizes Mann's arguments and couples his arguments with those made earlier by W. G. Runciman in addressing the origin of the state in Archaic Greece (1982) (34-35). Whatever his inspiration, Mann produced an epic multi-volume analysis of the history of societal structural transformations relied on a model of four interrelated sources of social power: ideological, economic, military, and political (IEMP). Mann viewed these as "1) *overlapping networks of social interaction*, not dimensions, levels, or factors of a single totality...2) They are also *organizations, institutional means of attaining human goals.*" (1986:2; original emphasis). While I disagree with many of the specific historical examples that Mann used to illustrate his own model, I find some aspects of his approach useful. Mann's specific categories: ideology, economy, military, and political (IEMP), serve as useful heuristics for considering how social power is constituted. For my own purpose of examining political process, I invert Mann's IEMP to IEMS: ideological, economic, military, and social, as categories for exploring the construction of political power.

For Mann, political power was centralized and territorial, exercised outward from the core, with political organization territorially centralized in the domestic sphere and an outward-focused interest in "geopolitical diplomacy" (1985:27). I vehemently disagree with a unidirectional view of the exercise of political power; hegemony is not the only means or motivation for the possession and exercise of governance. I argue that political power can exist decentralized, and that decentralization can be a symptom of systemic inefficiency or an intentional strategy of management—even a combination of these two factors. Thus, ideological, economic, military, and social spheres are not limited to being sources of political power but rather are spheres of a cultural landscape in which action and actors operate. Imperial leadership is enacted within an historicized cultural landscape composed of territory—contiguous, colonial and borderland, and population— elites, people of other social strata, and interested outsiders. Individual actors participate in multiple networks—kin, corporate groups, institutions, all of

which can also be viewed as composite actors. Actors' identities and actions are materialized to varying degrees in geography, architecture, features and artifacts. I return below to the concepts of territory and people (that is geography, actors, and action) after addressing the principles ordering relations between them.

Adam T. Smith criticized anthropological essentialization of political categories as lacking attention “to the creation and maintenance of sovereignty in practical negotiations between variously formalized authorities and a publically specified community of subjects...an historical negotiation over the logics of authorization and subjection that stitch together the polity and differentiate the terrain of personal will from that of sovereign privilege” (2011:416). Factors such as “competition over preciosities, subsistence goods, raw materials, information, or status” were viewed by Smith, and perhaps rightly so, as reducing complex political relationships to categorical explanations of imperial politics (Smith 2011:416). I argue in detail below, that prior anthropological approaches to empires are not incompatible with a sovereignty-based perspective. Indeed, commodities—whether ideological or material, play a key role in structuring political relationships, especially asymmetrical ones. However, like all aspects of culture within which the political process is enmeshed, economics must be grounded in a historically relevant analysis of the principles involved in authorization and subjection both in theory and on the ground.

### **The Political Process of Regional Government**

In the case presented in this dissertation, the Keladi-Ikkeri Nayakas began their political trajectory as an imperially mandated authority and transitioned into an independent state power, governing a subject territory of increasingly large size over time. I argue that the success of this transformation resulted from continuities in political process which spanned political ‘collapse’ at the highest level and operated within the political process of regional governance. Examining this political process requires looking at more than the composition of leadership structures over time and throughout space. There is no question such structures and strategies of regional governance changed over time as Keladi-Ikkeri weathered the decline of the Vijayanagara Empire and participated in an increasingly complex sphere of maritime trade in the early colonial period. However, there was also underlying coherence in leadership and daily life within the region. Such coherence drew in part on diachronic social continuities, yet at the same time, also

resulted from agent-driven actions in response to transformations and tests of the cultural fabric of the regional community. I argue that an interpretation of this historical case which focuses solely on transformations in the highest levels of political structure (i.e., collapse and the formation of a new state) is a one-way perspective on a dynamically interconnected political process. So what conception of political process also accounts for continuities of regional leadership through high level political change? Is regional government a valid analytical category, and if so, what does exploring it contribute to understanding political process?

I define political process as historically contextualized relations between political actors and institutions and subject populations; in part, the materiality of actions and relationships is reflected in the archaeological record. Before expanding on political process, it is worth pausing to consider a more basic question: what is the political? This is an issue of great contention even today as we argue what the proper scope and role of government is in society; it is likely that in one form or another, politics and what it means to be political have always been contested in one way or another within particular societies. The Oxford English Dictionary Online defines “political” as either a noun meaning politics or that which is political, or as an adjective which can be used in a number of different ways, including: “1a)...concerned with the form, organization, and administration of a state, and with the regulation of its relations with other states,” “3)...having regard to or affected by the interests of a party or parties rather than principle; partisan, factious,” “4) having an organized form of government or society,” and “5) relating to or concerned with public life and affairs as involving questions of authority and government; relating to or concerned with the theory or practice of politics” (accessed online 17 February 2014). Thus, ‘political’ encompasses the internal organization and administration of a polity through its structures as well as its foreign relations. But the political also extends beyond this simple definition to encompass areas of society and public life that involve authority and governance—those aspects of society, public life and affairs that are defined and contested within the context of and in relation to the state, rather than simply as private or ‘secular’ matters. Finally, it is an obvious point to make, the political is often (or always?) factionalized and motivated rather than disinterested practice.

Political process is then historically contextualized relations between actors and institutions and subject populations as concerned with the organization and administration of a state, its foreign relations, and the aspects of life which are defined or contested in the public

sphere. Connecting this definition back to the idea of regional governance, I define a region as a geographically-defined politically cohesive unit which is politically autonomous or articulated with a larger leadership structure. Regional political cohesion does not mean homogeneous or uncontested authority, only that leadership (or competition over such) operates in reference to a particular geographical extent; variability in composition of regional geography is discussed below. The geographical extent of a single region can and does vary over time, as political processes and political actors operate to expand and contract leadership, whether through warfare, colonization, diplomacy, or practicalities of administration. Authority often transitions over time between autonomous and integrated or affiliated political status, as in the case of the Keladi-Ikkeri Nayakas. Once political process is defined, it can be understood by undertaking an heuristic discussion of historicized ideological, economic, military, and social conditions.

Below I explore the political process of regional government by addressing the constitution of politics, discussing the actors involved and how action is exercised and perceived, and defining the political context of regions—both domestically and in terms of external relationships. I begin by breaking down political process into an examination of sovereignty as constituted in the dialectic between authority and subjection. These concepts are applied in following discussions of how the geographical context of regional governance is conceived and the South Asian context is populated by actors and their actions, with emphasis on and how stratified state society is intersected by various corporate and individual identities.

### **Sovereignty, Authority and Subjection**

Adam T. Smith defines sovereignty in archaeological thought as “an ultimate authority, an apparatus of supremacy within a delimited territory that insinuates itself into all other domains of association—the home, the workplace, etc...not a substantive quality to be possessed but rather a condition of political interactions, embedded in the ‘actualities of relations’” (2011:416). On a purely philosophical level, “Perhaps nowhere else does the paradox of sovereignty show itself so fully as in the problem of constituting power and its relation to constituted power” (Agamben 1998: 39). On the ground, authority perpetuates power inequality and allows not only for coercive/hegemonic domination but also for negotiated relationships; constituting and constituted power are most simply conceived as a delicate dialectic between the fundamental

right to rule and the means through which leadership is enacted—neither supremacy nor action can be so strong or so weak as to break the connection between them.

Sovereignty as a conceptual framework is not without its critics. Jennings (2011:53) criticized the Agambenian perspective in particular as one which a priori limits contemporary political action, within which it is impossible to “imagine the full implications of the colonial and imperial imposition of sovereignty on the traditional institutions of the world”. Appadurai argued for a post-national geography of sovereignty which separates from its traditional anchor in territory (1996). Though worth mentioning here, these views (among others) which question the utility of sovereignty in considering the political are grounded in hyperglobalized modernity rather than the pre-industrialized world of Vijayanagara and its political predecessors.

Returning to the arena of pre-modern states and empires, if the political process is understood as historically contextualized relations between political actors and institutions and subject populations, then sovereignty is the relationship of authority which underwrites it. Leadership, whether mutual, *détente*, or hegemonic, exists in the enacted balance between sovereign right and sovereign action. The degree to which negotiated relationships based on inequality can involve voluntary cooperation is a critical question. Certainly, many states exercise hegemonic dominance over part or all of their populace—and here I use the term hegemony more in the sense of the imminent power of state violence and control as experienced by Gramsci (1971), than in the manner the term is used by D’Altroy (1992) or Luttwak (1979). However, hegemonic vigilance is expensive in both in the sense of operational costs and lost opportunities of potential. In the case of Vijayanagara, it is well documented that compelling force could be and sometimes was used by imperial rulers against their own subjects, though this was not a continuous strategy through time or over the territorial extent of the empire.

How far reaching into daily life was imperial authority? This question echoes the most fundamental question of ‘what is the political?’ Subjection is most basically conceived as the condition of subjugation as experienced by the populace which is being governed, though if leadership is enacted at multiple levels then everyone but a divine sovereign would experience some degree of subjection in relation to others. Subjugation is a slippery term to pin down, as it operates differentially under historical circumstances, however, its use is meant to reflect a constant of state mandated conditions of existence as backed by means of enforcement, and these range from administrative to military. I argue that this is variable within specific historical cases,

revelatory of both the authority vested at various levels of the state apparatus and also its relationship with larger society.

### **Geographies of Political Process and the Archaeology of Regional Governance**

How is the political process of regional governance materialized? How can it be investigated archaeologically? This section discusses how political process is spatially constituted and how regional governance may be viewed at varying scales of perspective in archaeological interpretation. I adopt the term geography here in both its traditional sense, as “a science that deals with the description, distribution, and interaction of the diverse physical, biological, and cultural features of the earth's surface,” and in its more figurative usage, as “a delineation or systematic arrangement of constituent elements” (Merriam-Webster Dictionary, accessed online 28 February, 2014). As Smith (2011: 423) has stated, the “archaeology of sovereignty locates the work of authorization and subjection in the mediations of the material world. In general these mediations have been pursued under two related, yet heuristically different, conceptual rubrics: landscape and material culture”. I begin by discussing conceptual rubrics useful for archaeological approaches to the geography of empires. I then explore how varying scales of analysis can be used to view regional political process through the archaeological record, including ‘internal’ political landscapes as well as conceptions of ‘external’ interaction. I then broaden the discussion of archaeological approaches to encompass material culture, artifacts, and other ‘smaller’ types of data, in preparation for the next section, which turns to the legacy of perspectives on empire and kingship in South Asia.

Regions have been defined in different ways within archaeology and other disciplines. Abstractly, definition begins with the idea of the region itself, its relational parts and the conceptual entirety to which these belong, and the other entities with which that whole interacts. Regions are generally continuous and contiguous, though this is not always the case. How regions are defined can follow a number of different schemas which recognize coherence in one or more characteristics, such as physical geography or cultural identity. Geographer Daniel R. Montello has a four category typology of regional types: 1) administrative (formed by political or legal action, e.g. provinces, property ownership), 2) thematic (formed by measurement and mapping of one or more content variables or themes that are natural or human in origin, e.g. rainfall, languages), 3) function (formed by patterns of interaction among separate locations, e.g.



people, commodities, water), and 4) cognitive (also called vernacular; produced by people's informal perceptions and conceptions, e.g., downtown, the Midwest) (2003:173, 176-7). This typology modified widespread geographical categorization of regions, which is generally agreed to include three categories: formal, functional, and general/cognitive/perceptual/vernacular. Montello pointed out that while both his thematic and administrative categories are traditionally categorized as formal regions, they "share very little conceptually," in that human intentionality in creating and shaping explicit territorial boundaries is underrepresented by grouping them together (179).

I argue that regions are always layered, meaning that places always have multiple types of identities in the same way that people do as actors. Thus, regions defined by singular analytical characteristics, such as settlement size (hierarchy), economic networks, or linguistic zones, as well as other traditional categories considered to define archaeological regions, should be considered in the context of other geographically significant cultural patterns. Such intersections illustrate coherence that I argue can buffer regional governance through high level political changes such as imperial dissolution. I discuss this idea further below, but first consider more about how regions are conceived and represented by both their past inhabitants and by archaeologists.

Archaeological analysis on a regional scale traces its origins back to Julian Steward in the early 20<sup>th</sup> century, but has since been punctuated by a number of methodological and theoretical shifts. Traditional regional analysis, translated from geography in the 1970s and marked by techniques such as catchment studies and rank-size distributions (Carol A. Smith 1976a, 1976b; Johnson 1977), has declined in popularity, while new methods have emerged to facilitate regional scale analysis, including: modern full-coverage survey (using GPS, satellite and remote sensing imagery, and geophysical survey), GIS for data management and spatial analysis (including 3D rendering), predictive modeling and simulation (including complex systems), demographic reconstruction (enhanced by modern computational capacity), compositional studies (such as INAA, which explore wide networks of materials exchange), and osteological studies (allowing comparative analyses of health and diet) (Kantner 2008:47-55). Kantner (2008: 55-62) classified new theoretical approaches as: landscape archaeology, historical ecology, evolutionary archaeology, which join with "traditional functional and adaptationist approaches" (or processual) as divergent theoretical perspectives separated by a philosophical divide between

scientific method and “social theory situated in hermeneutic or dialectical epistemologies.” I disagree with the idea that these two perspectives must always be opposed, and argue that there are meaningful aspects of each that can be integrated in theory and practice. Obviously, no single approach can reconcile theoretical debates or make use of all available methodologies. Below I highlight those which I believe useful for understanding political process of regional governance in the archaeological record of the Keladi-Ikkeri Nayakas.

Sinopoli has defined problems of scale in empires as multidimensional, including “the physical scale of our archaeological research focus and the temporal scales of our chronologies, which are often much grosser than the pace of political transformations. In addition, we also must consider the cultural scales of the phenomena we seek to explore, whether local responses to empire or empire-wide phenomena, potentially involving both internal and external processes and relations” (2001:447). Some regional archaeological perspectives on states and empires, generally among those labeled as “processual,” have viewed different scales identifying regional settlement patterns and hierarchy through surface survey and excavation. Classically, states and empires are said to have a three to four tier hierarchical structure which is composed of subunits of varying administrative types (Johnson 1977; Kowalewski 2008; Peterson and Drennan 2012). This type of approach has been criticized for its inherently classificatory, often evolutionarily teleological approach, rather than interpretive potential (A. Smith 2003:19). I argue that understanding historical and archaeological settlement patterns is critical to addressing regional-scale research questions, and that divorcing this perspective from deterministic evolutionary schema is a worthwhile project. I argue that understanding the context of sites, that is, their relationships with other sites of varying scales within the larger landscape, is essential to understanding past networks of cultural relationships; this project, however, has a very long time horizon, as will be discussed further below.

Landscape archaeology has become so well integrated into anthropological archaeology method and theory that some of the basic theoretical lacunae which led to its adoption have been ameliorated, if not definitively addressed. The dominant motivator of landscape approaches has been transform overly stylized and teleological perspectives on broad human experience: “what was once theorized as a passive backdrop or forcible determinant of culture is now seen as an active and far more complex entity in relation to human lives” (Knapp and Ashmore 1999:2). Another synthetic review suggests, “a landscape approach is relevant to archaeology’s goal to

explain humanity's past through its ability to facilitate the recognition and evaluation of the dynamic, interdependent relationships that people maintain with the physical, social, and cultural dimensions of their environments across space and time" (Anschuetz et al. 2001:159). Or, as Adam Smith (2003:69) has stated, the question is "rephrased from an attempt to assay the essential nature of space to an exploration of the practices which give rise to, solidify, and overturn particular configurations. The relational position argues that meaningful discussions of space center on relationships between subjects and objects rather than essential properties of either....so too space is only intelligible as sets of relationships". If, then, space is best understood as a historically contingent set of relationships grounded in a dialectic between subject and object, then we return to the question of how is such a material understanding practically achieved? And how is it understood archaeologically?

Generating enough archaeological data portray a particular landscape has to begin somewhere, though in the present case the model for understanding has to take into account the current scope of available evidence: there just isn't a fine-grained, on the ground understanding of wide portions of Vijayanagara imperial territory or its successors. Furthering this project begins with understanding settlement patterns—not the idealized modally distributed circles connected in linear web fashion, but documentation of textual and archaeological evidence of culturally connected settlements; such research has, most notably, occurred at the primary imperial capital, including its hinterlands. Building this broad picture in one or more regional areas, much less to a resolution illuminating changes over time to their administration, is obviously a long-term project (Covey 2006:19). In the case of both Vijayanagara and the Keladi-Ikkeri Nayakas, for example, some dimensions of settlement patterns can be inferred from historical sources but are sparsely known archaeologically. As noted, studies of the empire and its successor states have focused largely on the first imperial capital, supplemented by studies on subsequent imperial capitals and a handful of regional sites. This research cannot present a complete on the ground picture of either Vijayanagara or Keladi-Ikkeri archaeological sites; rather, it acknowledges the utility of such a project by making an early contribution to the picture. It isn't simply a question of locating archaeologically the sites in text, but rather, is a problem of understanding both textual and archaeological patterns and evaluating these sets of data against each other.

How, then, should we view Vijayanagara Imperial and Keladi-Ikkeri Nayaka landscapes? As states which routinely sought to expand, and inevitably, were sometimes forced to contract, it is fair to assume that imperial political geography wasn't static. Empires are frequently discussed in terms of processes of administrative consolidation and integration; it is also often posited that (in)adequately integrating or consolidating imperial holdings could contribute to or drive state failure. It is assumed that conquered or subsumed areas were routinely integrated in some manner, somewhere on a spectrum from hegemonic domination through external administration/military control to nominal incorporation and maintenance of existing government; presumably, territorial loss would have required compensatory reaction as well. Vijayanagara employed variable strategies of administration, including both imperially-administrated regions as well as nayaka-administrated regions, as discussed in chapter three. Thus, while Vijayanagara is often given as an example of loose imperial integration, it is also a good example of strategic variability within a single empire; it may also serve, perhaps, as a cautionary tale against extrapolating empire-wide phenomena from any singular geographic focus of research.

If the concepts of integration and consolidation serve to discuss connectivity between components of imperial geography, what then of the components and their connectivity? Let us assume that regions may be defined from disparate perspectives, including those both externally- and internally-defined—a point of distinction especially relevant when incorporating varied sources, including period inscriptions and archaeological data. One of the traditional strengths of anthropological archaeology has been its comparative approach; however, in observing patterns of culture we also risk overlooking significant variability. In the case of imperial geography, assuming a one size fits all territorial composition, settlement pattern, or urban form may elide some of the most fascinating aspects of political expression.

Rulers of empires have defined their own territories in different ways, but primarily as units for administrative and economic purposes, though this does not preclude other organizational schema, or even the parallel coexistence of organizational divisions. Sinopoli (2001:441) stated, “imperial centers ruled imperial territories, typically organized into provinces or districts. However, it is important to note that these territories could be, and often were, discontinuous and that autonomous regions and communities often survived within imperial borders...Simple concentric core-periphery models are not sufficient to account for the complex

geography of most empires.” . Several aspects of this observation are particularly important: both the discontinuous nature of imperial geography and the varying utility of the concept of ‘core’ versus ‘periphery.’ Additionally, Parker (2003: 526) noted, “since the administrative and military apparatuses that integrate otherwise diverse areas into an imperial system are often superimposed over existing structures, material remains indicative of imperial integration can be elusive in the archaeological record.” Parker also observed that imperial control is often discontinuous, illustrating this with data from Assyrian “agricultural colonies” in southeastern Anatolia, frontier outposts that were territorially buffered against hostile neighbors (2003:526).

Monica Smith (2007:28) argued that cartographic representations of state and imperial territories by “neatly-bounded and color-coded,” “precise, non-overlapping spaces,” and “single-criterion boundaries are insufficient for understanding the organization and impact of political claims on territory even for modern states”. Instead, she argues that biological models such as territories, corridors, and networks might better represent on the ground reality, or at least, our incomplete picture of it. Regardless of the ultimate utility of adopting those particular models, Smith makes a valuable point. The composition of imperial territory may indeed be patchy, and so, too, may be connectivity between settlements. Cities themselves may be different than we might picture, not always high density, concentrated urban settlements. Isendahl and Michael E. Smith observe that in the neotropics, some Aztec and Maya cities exhibit “low-density urbanism,” cities serving traditional urban functions, yet marked by low populations and densities with extensive integrated agricultural areas; these settlement are sometimes not viewed as cities due to an appearance different than typical urbanism, but are observed to be functionally similar (2012). Roland Fletcher (2012) also discusses low-density urbanism in various cases including the Asian contexts of Cambodia (at and around Angkor Wat) and Sri Lanka (Anuradhapura).

Speaking to challenges of approaching particular areas archaeologically, especially in locations where state level polities have a deep history, Suvrathan observed, “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...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” (2013:1). Glatz argued that empire is best viewed as, “both a relationship and a process that underlie recurring episodes of individual and collective interaction on a multitude of socio-political and cultural levels...An archaeology of imperial relationships is, thus, the investigation of overlapping spatial and temporal patterns of material culture that are diagnostic of inter-regional interaction” (2009:127). It is these overlapping patterns, Glatz argues, that reveal cultural, political, economic, and ideological relationships that connect a “political and militarily central region” and its “surrounding societies;” her approach is particularly suited, then, to a more “nuanced and bottom-up perspective on the continuum of territorial and hegemonic domination” (2009:127). Until this point, the discussion of imperial geography has been concerned with internal composition of the empire, but I turn now to the “surrounding societies” and to various theoretical ways in which they have been conceived. I also move from more abstract theory toward the specifics of the case at hand.

As observed above, by the time the Vijayanagara empire was founded, states had been a force in South Asia for well over a millennium. Political cohesion within any single state or imperial entity was, arguably, both positively reinforced and also adversely challenged by external interaction. With whom did states and empires interact at and beyond their borders? Most commonly by the Vijayanagara era, external interaction was with other states and their official representatives (e.g., military forces or diplomatic envoys) or private entities (e.g. merchants, travelers, craftsmen), and sometimes with entities deliberately in the grey area between the two (e.g., semi-private military, religious, or economic missions, such as became the norm in the imminent early colonial period). Vijayanagara also interacted with a diverse array of groups who were not subsumed under state organization or citizenship, such as forager traders—often referred to as ‘forest people,’ since by that time they had retreated to remaining pockets of wooded and ‘wild’ land and engaged in economic exchange, offering spices, timber, plants, animals, and animal products that were highly desired by predominantly agro-pastoral societies (Morrison 2007; Morrison and Junker 2003). While models for external interaction are inherently geographical in their conceptions, they are more usefully viewed for the ways they conceive of relationships; thus, I address them further in the following section.

## **Political Action and Actors in South Asia**

I proceed now to briefly consider how the South Asian political process is embodied and enacted—in and by actors and their actions, and through relationships between individuals and groups. As Sinopoli (2001: 451) noted, “all polities, empires are comprised of manifold individuals and social groups, each with unique motivations and scope for social action. Such a focus on elites and their monuments is, of course, essential to understanding the operation of empires, which were in large part the creation of elite decision making and actions. However, the study of the interplay between imperial elites and the various subjects of empires—both local elites and nonelites—is equally essential”. I begin by situating my perspective on sociopolitical dynamics within theoretical perspectives on actors, action, and agency, focusing on the idea of elite actors at the regional level. I then move to specifics of the South Asian historical context, addressing who the actors are in both the individual and corporate sense; categories addressed include kingship, caste, religious institutions (e.g. temples and monasteries), and craft guilds, among others. I discuss the concept of an elite sphere which cross-cuts political boundaries, and which I term, ‘courtly culture,’ after the ‘courtly style’ observed in Vijayanagara-era architecture by George Michell (1992). I discuss this phenomenon in relation to anthropological models of external political relationships, such as world systems theory and peer-polity interaction. I conclude by posing questions regarding the political process of regional government are framed in terms of analyzing the Keladi-Ikkeri Nayaka case.

On from the broadest perspective, imperial states have been conceived as having a stratified social structure—that is to say a conceptual multi-level pyramid topped by a core group of elites who rule over lower social strata which are increasingly larger toward the base. While arguably true in many ways, the view of state populations as classed into a small number of hierarchical strata hardly provides a nuanced view of social dynamics—much less their articulation with political process, or more contemporary concepts like individual and collective action, agency and identity. Viewed at its most fine-grained, human society is a seemingly infinite network of one-on-one relationships, institutions created and maintained by individuals, and the emergent institutions formed by these connections; to provide a useful model for analysis, these relationships must be conceived of in a more generalized framework. This section

briefly discusses a few models which illuminate sociopolitical dynamics of actors and their actions, emphasizing the role of political elites at the regional level.

Addressing agricultural intensification in precolonial South India, Kathleen D. Morrison stated (2006:240) of the social and political contexts of production that, “human action...must consider not only individuals, but also households, kin groups, communities, associations, and institutions such as temples that operated as more than simply aggregates of individuals” . Morrison further argued that “we must constantly shift scales and units of analysis, depending on the nature of the question we are asking” (245). For analytical purposes, neither the finest- nor the broadest- grained perspective is practical—so how do we arrive at a resolution in scale appropriate to both the questions at hand and the evidence available to answer them? In locating a scale of perspective that is appropriate for archaeological inquiry, we must also consider not only how social status is possessed and expressed, but also how it is materialized such that it might be preserved and recovered in the archaeological and historical records. In this case, we are interested in examining leaders, subjects, and how they interacted in the political process of regional government by the Keladi-Ikkeri Nayakas under and after their affiliation with the Vijayanagara Empire.

The concept of agency has been largely accepted into anthropological archaeology, if not embraced in a single incarnation by everyone, since its introduction in the early 1980s. Robb states that it was “introduced into archaeological theory primarily as a corrective, a way or turning from system-oriented views back to views centred around individual people...agency has been digested and entered the bloodstream of normal archaeological practice” (2010:515). Based largely on the social theories of Anthony Giddens (1984) Pierre Bourdieu (1977; 1992), Dobres and Robb termed agency as used in archaeology, “a notoriously labile concept” (2000:8). Robb noted more recently that archaeological applications of agency theory have gone through at least two stages, and in its current iteration has to be applied in historicized contexts—and thus is compatible with this project. Robb concluded: “it is argued here that agency—the capacity for effective and meaningful action—is really a quality of the relationships in which humans act. This is so regardless of the elements forming them (people in specific contexts, people acting across contexts, groups, things). Hence, in thinking about how people are able to act, we open the door to lots of new questions which, with previous versions of agency theory, were very difficult to think—multiple agencies, collective agencies and material agencies” (2010:515). I



adopt this perspective, that agency goes beyond individual embodiment and may be imbued in multiple people, by collectives (a departure from the dialectic struggle against structure), and even by material things, “as long as humans interact meaningfully with them” (505).

Indeed, for archaeologists especially, materiality and embodiment of social dynamics are vital components of relevant high-level theory. William Walker and Michael Schiffer observed, “*all* human activities—from hunting rabbits to a wedding ceremony—are composed of people-artifact interactions. Even activities that apparently are exceptions, such as verbal communication involve artifacts. Not only do artifacts of activity and place define and signal social contexts, but artifacts such as body modifications, ornaments, and clothing explicitly take part in the making of meaning. (2006:70). Lynn Meskell highlighted the importance of the individual to the examination of society and the understanding of its social networks, distinguishing between conceptions of person, identity, and self. If a person is a “skin-bound mortal human,” then “identity is what is draped over a person by the group of which he or she is a part. Identity is subject to change and is multiple. The person is constituted from a host of identities, all relying on social attitudes to age, sex, class, marital status, ethnicity, nationality, *et cetera*...none of these terms is fixed and all are interconnected in lived experience” (1999:32). Connected to these is the idea of the self, an concept that is obviously a subject of extensive philosophical debate and highly culturally (and historically) relative. Meskell described the self as, “the inner, subjective sense of being. The presentation of the self is thus the negotiation between this inner self and an outer layer modified by social expectation, role and setting. From bodily change to psychosocial behavioural alterations, the process of being is one of constant renegotiation” (34). One can viscerally imagine the sarcastic processual criticism that selves cannot be excavated or tested archaeologically, and yet the integral connection between self and the material world should echo strongly in response.

Lori Khatchadourian’s work on the Achaemenid Empire also underscored the theoretical lability of conceptions of “the social,” as alternately too restrictive or overly expansive in varied usages (2008:32). She advocated a “perspective on the study of imperial provinces that focuses our analytical gaze on social logics, the practical understandings that articulate structures, social roles, and temporal rhythms within given historical contexts” (11). Drawing heavily on the work of William Sewell (2005), Khatchadourian argued that, “transformations in social structures are brought about through social interaction within particular historical circumstances,” not by

external forces such as imperial power, but by “relationships amongst different elements of the social world—structures, agents or positions, collectivities.” These relationships are organized by “social logics that are the dynamic principles that articulate structures and positions” (41-42). And yet Khatchadourian, following Sewell and Bruno Latour (2005), also cautioned against a “seemingly intuitive understanding of ‘the social’ that begins with groupings formed by mediations and associations (e.g., women, classes, professions, ethnicities), rather than with the mediations and associations themselves (which as Latour argues, leave *traces*)” (34). She also cautioned against “transporting contemporary groupings into the past,” citing Adam T. Smith (2004), in calling for attention to “the *material constitution* of the interactions in everyday human association, which produce (or prevent) fault lines within various collectivities” (35).

Looking at Latour’s appropriation of Actor-Network-Theory (ANT) (2005) itself provides a balance between a lack of conceptual foundation and choosing an overly deterministic model of social interaction. While I do not, “cast off agency, structure, psyche, time, and space along with every other philosophical and anthropological category” as Latour recommended (24-25), his reexamination of what the social means is worth exploring. He approaches a “reassembling” of the social through five “sources of uncertainty.” The first three are relevant here: “the nature of groups: there exist many contradictory ways for actors to be given an identity,” “the nature of actions: in each course of action a great variety of agents seem to barge in and displace the original goals, and “the nature of objects: the type of agencies participating in interaction seems wide open.” (22). His final two uncertainties are the nature of facts or empiricism in the social sciences. As highlighted by Khatchadourian, Latour is highly skeptical of defining social groupings; for him, the social is in constant flux, inherently performative and dominated by mediators who “transform, translate, distort, and modify, the meaning of the elements they are supposed to carry,” rather than the intermediary who “transports meaning without transformation” (39). “Sociologists of the social believe in *one* type of social aggregates, *few* mediators, and *many* intermediaries; for ANT, there is *no* preferable type of social aggregates, there exist *endless* number of mediators, and when those are transformed into faithful intermediaries it is not the rule, but a *rare* exception” (40).

Though Latour and his cohort are skeptical of defining and bounding groups, there remains a practical utility to choosing a starting point from which to focus discussion and analysis, remaining ever mindful of the changeability of social aggregates and the relativity of

one's own spatio-temporal perspective. Since this work is concerned with the political process of regional government, it is by necessity concerned most of all with the regional elites from whose ranks the office holders and power brokers most often arose. Roderick Campbell, in examining Late Shang networks of power in complex polities, called for "polity systems...to be studied in terms of their discursive structures of authority, their practices of power and legitimation, and the networks of capital (social, symbolic, economic, coercive, etc.) that support them, while polity ideas can be seen in terms of imagined communities or boundaries of identity created through patterning practices intertwined with networks of power and legitimation" (2009:839). He cautioned against focus on elites at the expense of "reasons why the majority follow or the effects their resistances or potential counterclaims have on shaping the practices of those in more strategic positions" (823). Categorical criticism aside, this work joins an ongoing discussion in South Asian history, anthropology, and archaeology. If new categorizations emerge, we must be open to them, and understand that political process denotes a perspective particularly open to change. Indeed, the imperial and nayaka periods saw many transformations, in the social realm, and also in the connected political, economic, and religious spheres (and these too are all complex and dynamic constructs).

Accordingly, I move to specifics of the South Asian historical context. Concepts, roles and groups commonly discussed as playing key roles relevant to the discussion of the political process of regional governance include kingship, nayakaship and other subordinate titles; caste (and the component identities of varna, jat, and gotra); religious institutions (such as temples and monasteries); and craft guilds, among others. All of these are complex constructs, with enormous literatures and much debate. More specifics regarding them and their dynamics and transformations as specifically concerns my research during the imperial and independent nayaka periods are discussed in the presentation historical background (chapters 3 and 4) and the analysis of the Keladi-Ikkeri archaeological and historical records (chapter 6). Here, I focus on the idea of courtly culture, which involves, and yet was an emergent phenomenon distinct from, the concepts, roles, and groups mentioned above. During the imperial and post-imperial periods, political authority was underwritten by a highly developed, yet informally delineated, elite courtly culture that spanned South India and was through time increasingly connected to the larger world. While George Michell's (1992) treatment of courtly style focused largely on

secular architecture, I expand the concept to include a suite of elite behaviors, customs, and material accoutrements, and thus term it courtly culture.

Courtly culture as it emerged in the Vijayanagara period built on traditions from the past, but was qualitatively new. Courtly culture was practiced by elite actors—emperor, royals, subordinate rulers, in a sphere of interaction that cross-cut political boundaries, as well as significant religious and social ones. It was practiced during the nayaka period as well, and continued to evolve, an idea which will be explored using the Keladi-Ikkeri nayaka case. Both Philip Wagoner (1996) and Sinopoli (2000)

In contrast to temples, elite residential and administrative architecture is markedly lacking from the South Indian archaeological record until the Vijayanagara era. Only a few excavated exceptions, including Gangaikonda Cholapuram (a Chola capital in Tamil Nadu) and Dorasamudra (or Halebidu, a Hoysala capital in Karnataka), “were constructed of ephemeral materials such as wood for supporting columns, earth and rubble for walls, and earthenware tiles for roofs” (Michell 1992:7). George Michell’s study of courtly style architecture (1992) focused mainly on the first imperial capital of Vijayanagara at Hampi, though also included structures from subsequent capitals at Penukonda and Chandragiri, and also from nayaka centers at Gingee, Madurai, and Thanjavur. Michell observed that debates on the nature of kingship during the period, ranging from more defined and ‘feudal roles to a more ceremonial and ideological leadership approach, are likely to influence interpretations of elite architecture. However, he concluded that the “functional attributions of the courtly monuments discussed here do not appear to be connected with the bureaucratic and administrative roles of kings and courtiers, whatever these might have been. On the contrary, the architecture that still stands at the three Vijayanagara capitals is more obviously linked with martial sports, reception, entertainment and pleasure, together with an overall concern for security” (59).

Michell viewed the courtly style as, “an attempt to introduce a universal character into the architecture of the city. In this respect, the style of the courtly monuments may be considered as a manifestation of the cosmopolitan nature of the capital” (1992:67). The cosmopolitan nature of courtly style, and of my translation of it to courtly culture, denotes a practical worldly aspect of sociopolitical interaction across political boundaries. Building on the work of Immanuel Wallerstein (1974; 1980), some archaeologists have conceptualized models of cross-polity interaction as ‘World Systems’ (e.g., Hall et al. 2011; Kardulias and Hall 2008; Kardulias 1999;

Stein 1998). My own work informally adopts a world-systems perspective in that it assumes participation in a network larger than a single polity—indeed the period over which Vijayanagara declined and the nayakas rise in power parallels the period which spawned Wallerstein’s seminal work; with my research focused on regional governance, I do not adopt a world-system level of analysis. Another aspect of a world-systems perspective which I do not wholeheartedly adopt is the idea of one-way core-periphery power dynamic. The regional perspective I adopt is inextricably linked to larger spheres of interaction which change over time, and the change over time of peers and the balances of power in interaction with them is included in the historical background which follows this chapter. Courtly culture as I conceive it was bounded in a smaller sphere than that in which its participants participated on the increasingly larger global stage, but it in turn drew on influences from the widening world.

Having discussed the theoretical issues and perspectives of this work, the remaining chapters address specifics of the political process of regional government in the Keladi-Ikkeri Nayaka case, under and after the Vijayanagara Empire. I present imperial and regional historical background, the survey-documented archaeological record of the first and second nayaka capitals at Keladi and Ikkeri, and analyze that material record. The Keladi-Ikkeri Nayakas emerged as imperial regional governors under Vijayanagara. I argue, relying on both the historical record and an analysis of archaeological evidence against it, that Keladi-Ikkeri regional governance weathered imperial decline through a political process of consolidation of power through political, military, economic, and ideological networks. These strategies were enacted in historical context by actors whose interests and options were both constrained and enabled by practical considerations of authority and subjection.

### **CHAPTER 3: VIJAYANAGARA AND THE IMPERIAL NAYAKAS**

This chapter transitions from underlying theoretical perspective to the concrete historical background of the Vijayanagara Empire and its subordinate Imperial Nayakas. That sovereignty vested to varying degrees in the imperial and regional levels is an argument that is developed for the specific case of Keladi-Ikkeri, and is presented in chapter six. Thus, I begin with a background of the origins and development of Vijayanagara Empire, including the major imperial nayaka political formations that subsequently became independent—a group to which Keladi-Ikkeri belonged. I begin with an outline of the political chronology of the four ruling dynasties of Vijayanagara; this trajectory is significant for its overall arc from rise to decline, as well as for the periodic periods of prosperity and turbulence in between. Next follows a discussion of perspectives on the organization of the Imperial Nayakas and the most powerful and enduring nayaka polities are outlined. The chapter concludes with an outline of what is known of the material record of Vijayanagara and its Nayakas, though it is by no means an exhaustive summary of that knowledge. Instead, discussion takes a broad perspective appropriate to a comparison with archaeological survey at Keladi and Ikkeri, focusing on settlement organization, standing architecture, and iconographic themes.

#### **Political Chronology of the Dynasties of Vijayanagara**

Vijayanagara first emerged as a political entity following a period of disintegration in a near-millennium long process of cycling of secondary states in peninsular India. From the mid-sixth to mid-ninth centuries C.E., the peninsula was largely ruled by three major competing states: the Pallavas of Kanchi (centered in northeastern Tamil Nadu), the Pandyas of Madurai (southern central Tamil Nadu), and the Chalukyas of Badami (northern Karnataka); territorial control of these polities was discontinuous spatially and temporally, and there were many smaller dynasties and polities competing for supremacy on the ground. By the mid-eighth century, the Chalukyas of Badami had already ceded authority to a new power, the Rashtrakutas of

Manyakheta (extreme northeastern Karnataka). From the mid-ninth to the end of the twelfth centuries, the Chola state (Tamil Nadu) competed first with the Rashtrakutas, and then with their conquerors, the Chalukyas of Kalyani (also extreme northeastern Karnataka).

By the beginning of the thirteenth century, the once powerful Chola state and its competitors had weakened and left a period of opportunity in which four new states emerged: the Pandyas and Hoysalas of Dvarasamudra in the south and the Kakatiyas of Warangal and Yadavas of Devagiri in the north. Throughout the thirteenth century, these polities and their feudatories competed for dominance and survival in a climate of shifting alliances and increasing pressure from expansionist powers to the north, particularly the Delhi Sultanate—though it is important to note that this competition was political, rather than grounded in religious ideology. Muslim and Hindu rulers both routinely employed soldiers practicing religions other than their own and governed religiously heterogeneous populations, though the historical literature sometimes misrepresents these facts. The foundations of Vijayanagara lie buried in this period, and can be only partially glimpsed through legend. The sources we do have are contemporary inscriptions and texts from throughout the Deccan; these are neither temporally nor spatially continuous and have produced competing interpretations of the origins of Vijayanagara. In order to understand the context in which subordinate regional polities, including the Keladi-Ikkeri Nayakas, later emerge it is necessary to draw a broad portrait of the inception and development of Vijayanagara in the fourteenth and fifteenth centuries— with special emphasis on the people, places and associations which will be important for understanding regional political formations.

All historical narratives of the foundations of the Vijayanagara Empire focus on two brothers, Harihara and Bukka, two of the five sons of Sangama, after whom the first of four dynastic lines was named. The early careers of these brothers reflect the tumultuous political climate of early fourteenth century southern India, and the reality that continuity of statecraft throughout the cycling states process was perpetuated by political and military elites. In one version of the story, the brothers served under Prataparudra II (1295-1323?), last ruler of the Kakatiyas, who spent much of his reign fighting and ultimately became subordinate to Muhammad bin Tughlak of the Delhi Sultanate. When the Kakatiya capital at Warangal fell to northern sultanate powers, Harihara and Bukka allied themselves with Kampilideva, head of an eponymous small neighboring state. Kampil, today a small walled settlement, is located just east of the eventual capital of Vijayanagara and also lies on the banks of the Tungabhadra River. The

king of Kampili had established independence through his service to Ramadeva (?-1312), ruler of the Yadavas of Devagiri, in conflict with the Hoysalas under Ballala III (1291-1342). Kampili ultimately succumbed to the northern sultanate and when Harihara and Bukka were captured they were taken to Delhi, where they swore loyalty to the Tughlak dynasty and converted to Islam. They were then sent back to Kampili to work as administrators of territory, but quickly and quietly consolidated their own power and converted back to Hinduism. They founded a new settlement on the banks of the Tungabhadra opposite the established town of Anegondi.

According to some (Nilakanta Sastri 1955), this new city was initially given two names, Vijayanagara, or City of Victory, and Vidyanagara, or City of Learning. The latter title was supposedly inspired by the brothers' acquaintance with the sage Vidyanaraya, a Vaishnavite holy man, who is credited with converting them back to Hinduism after their allegiance to the Sultan and his Muslim faith (206-217). Others believe that the title of Vidyanagara and the brothers' association with Vidyanaraya were revisionist strategies employed by the subsequent Tuluva Dynasty to justify their adoption of Vaishnavite rather than Shaivite Hinduism. According to Hermann Kulke (1985), the Reverend Henry Heras of Bombay concluded that all documents pertaining to Vidyanagara had been forged at Shringeri maṭha in the sixteenth century after patronage of the emperors shifted to support of the temple or Shri Venkateshvara at Tirupati in southeast Andhra Pradesh (124-25). Indeed, this latter interpretation seems plausible as it is well accepted that the Sangama rulers were Shaivite, as borne out by period inscriptions and temple architecture—though remembering still that Vijayanagara was religiously diverse to varying degrees throughout its history.

Another implication of this account of the brothers' origins is the attribution of Sangama genealogy to an Andhra, specifically Kakatiya, rather than Karnatak origin. An alternate version of the story associates the Sangamas with Ballala III of the Hoysalas, indicating a Kannadiga rather than Telugu heritage. Scholars have recognized the value of constructing dynastic histories in actively creating and maintaining legitimacy and power of kings, and have suggested this motivation might be relevant to stories of the formation of Vijayanagara (Brubaker 2004; Sinopoli 2000). The controlled presentation of history and lineage may play a role in the ambiguity of evidence supporting either theory; in any case, heritage and its conscious presentation and maintenance play an ongoing role throughout the evolution of the empire, with



geographical and dynastic loyalties shifting over time. It is also important to remember these points when considering the origins of the Keladi-Ikkeri Nayakas, whose interest in establishing and maintaining legitimacy was certainly as equal to any other rulers’.

The dynastic chronologies of Vijayanagara Emperors varies by source due to differences in interpretations of inscriptions and historical narratives; this leads to variation in the years attributed to each ruler, to whether or not there is overlap indicating joint rule in the South Indian tradition, and even in which rulers are listed as dynastic members, as opposed to challengers or pretenders in times of conflict over succession. Most historical surveys of Vijayanagara history gloss over these variations and uncertainties, however, such ambiguities in the record may also have been a result of contested leadership and uncertain times in the past. It is important to preserve rather than to normalize variability in the political chronology and examine whether such variability can add to our understandings of political process. A number of scholars have presented relatively complete Vijayanagara dynastic chronologies based mostly on inscriptional evidence. Unfortunately, focusing only on complete dynastic chronologies eliminates some important authors, including: Aiyangar (1916), whose work was instrumental in stimulating publication and translation of historical literature and documents, and B. A. Saletore (1934) and T. V. Mahalingam (1969 revision of 1940 first edition), whose works represented an important transition to exploring social life as well as political events.

I have produced a synthesis of Vijayanagara chronologies by Sewell (1883, 1900), Rice (1909), Nilakanta Sastri (1955), Subrahmanyam (1973), and Rama Sharma (1978, 1980), which reveals key periods of political uncertainty that are critical moments in the political process of the Vijayanagara Empire (Table 2.1); these will be discussed in detail below. There is also some variation due to the period in which these historians worked; Sewell and, in some cases, Rice suffered from working with incomplete bodies of inscriptions and they both appear to have gaps in chronology. Later works offer more complete chronologies, though their interpretation of dates varies. This could be due in part to which inscriptions are privileged or contested as possibly fake. Indian inscriptions are often judged on their legitimacy by the accuracy of the *Shaka* dates contained within them. Shaka is a term used to indicate dates based on a Hindu calendrical reckoning. There have been many different types of Hindu calendars throughout history and in different regions, and variations among them are not discussed here. What these

systems have in common is a complex manner of representing dates, which includes a year, month, day, and various associated time periods as based on lunar or solar calculations made and reckoned by a religious specialist. One test of original inscriptional veracity has historically been whether or not the Shaka date is represented correctly within—that is, without errors such as the day of the week being correct for the numerical date given. Whether or not original error could have been possible, such as in the specialist’s reckoning or the carver’s representation of it, is generally not considered. In any case, such Shaka errors in an inscription can lead to historian’s disputing its legitimacy. My own conclusions regarding dates of reigns based on concordances between the sources I used are located in the text; often, I have retained the uncertainty in the historical record rather than attempting to normalize succession.

In addition to the internal chronology of dynastic succession, it is important to provide external context for the empire. I have included for reference a timeline of Vijayanagara contemporaries (Figure 2.1). These include other major nayakaships, many of which, like Keladi-Ikkeri, emerged as independent states in the post-imperial era, and also southern Sultanates that were alternately allies and enemies whose relations and configurations shifted over time. These larger political and temporal landscapes are discussed further below.

Whatever the true political and genealogical heritage of the Sangamas might have been, multiple sources agree that Harihara I (1336-57 C.E.) ascended to the throne in a coronation ceremony held on April 18, 1336. According to inscriptional evidence (rather than later documentary accounts), he took on the mantle of kingship in the name of the deity Virupaksha, an incarnation of Shiva for whom there was and is a major temple at Hampi, and to whom all land south of the Krishna river was supposed to belong (Nilakanta Sastri 1955:217). The Hoysala dynasty came to an end in this period, when king Ballala III died in 1342 in a battle with the Sultan of Madurai, and after the unexplained disappearance of his heir, Ballala IV in 1346. The last date of an inscription occurring in Harihara I’s reign is 1357.

Table 3.1: Chronologies of the Vijayanagara Emperors and Genealogical Relationships by Dynasty (dates in C.E.)

Emperor / Regnal Term (No=accepted emperor, Letter=contested figure)	Relationships	Sewell 1900 (1883)	Rice 1909	Nilakanta Sastri 1955 <sup>1</sup>	Subrah- manyam 1973	Rama Sharma 1978/1980
<b>SANGAMA DYNASTY</b>						
<b>1. Harihara I (1336-57)</b>	eldest of five sons of Sangama, elder brother of 2, uncle of 3	1336-1343 (1336-1350)	1336-1353	1336-1357	1336-1354/5	1336-1354
<b>2. Bukka I (1344-77; acc. 1357)</b>	third of five sons of Sangama, younger brother of 2, father of 3	1343-1379 (1350-1379)	1353-1377	1344-1377	1354/5-1377	1354-1377
<b>3. Harihara II (1376-1404)</b>	third son of 2, nephew of 1, father o A, 4, and 5	1379-1399 (1379-1401)	1377-1404	1377-1404	1377-1404	1376-1404
<b>A. Virupaksha I (1404)</b>	eldest son of 3, elder brother of 4 and 5, uncle of B and 6	-- (--)	[1404]	1404	1404	1404-1405
<b>4. Bukka II (1405-6)</b>	second son of 3, younger brother of A, elder brother of 5, uncle of 7 and 8	end of 1399- Nov 1406 (--)	1405-1406	1405-1406	1405-1406	1405-1406
<b>5. Devaraya I (Pratapa Devaraya or Vira Praudhadeva) (1406-22)</b>	third son of 3, younger brother of A and 4, father of B and 6	Nov 1406- 1412/13 (inscr. 1406- 1412)	1406-1416	1406-1422	1406-1422	1406-1422
<b>B. Ramachandraraya (Harihara Raya?)<sup>2</sup> [1422]</b>	elder son of 5, elder brother of 6, uncle of 7	-- (--)	[1422]	1422	1422	--
<b>6. Vijaya Raya I (Vira Vijaya or Vijaya Bhupati or Vira Bukka III) (1422-1423/5/6)</b>	younger son of 5, younger brother of B, father of 7 and C(?)	1412/3-1419 (inscr. 1418)	1416-1417	1422- 1426(?)	1422-1425/6	1422-1423
<b>7. Devaraya II (Praudha Devaraya) (1422/4/5-1446)</b>	son of 6, father of 8, uncle of 9	1419-1444? (1422- 1447?)	1419-1446	1422-1446	1425/6- 1446/7	1423-1446

<sup>1</sup> This work builds on the chronological narrative in Nilakanta Sastri and Ventakaramanayya 1946.

<sup>2</sup> Rice doesn't include a Ramachandraraya in his genealogy, but does include as a brother of Vijaya Raya, another Harihara Raya, whose date of potential rule is given as 1422.

<b>Emperor / Regnal Term (No=accepted emperor, Letter=contested figure)</b>	<b>Relationships</b>	<b>Sewell 1900 (1883)</b>	<b>Rice 1909</b>	<b>Nilakanta Sastri 1955<sup>1</sup></b>	<b>Subrah- manyam 1973</b>	<b>Rama Sharma 1978/1980</b>
<b>C. Vijayaraya II<sup>3</sup> [1446-7]</b>	younger brother of 7?	--	--	1446-1447		1446-1447
<b>8. Mallikarjuna (or Devaraya III) (1446-1465)</b>	son of 7, grandson of 6, father of D	(inscr. 1459)	1446-1467	1447-1465	1446/7-1465	1447-1465
<b>9. Virupaksha II (1465-1485)</b>	son of 7, grandson of 6, father of E	(inscr. 1470, 1473)	1467-1478	1465-1485	1465-1485	1465-1486
<b>D. Rajashehkara</b>	son of 8	--	--	1466	--	--
<b>E. Praudharaya (or Praudha Devaraya)</b>	son of 9	--	--	1485	1485	--
<b>SALUVA DYNASTY</b>						
<b>10. Saluva Narasimha (1485/6-1490/1/3)</b>	general who usurped throne from Sangamas	1490-? <sup>4</sup>	1478-1493	1486-1491	1485-1490	1486-1493
<b>Fa. Timmabhupala [1493]</b>	elder son of 10		--	--	--	1493
<b>Fb. Immadi Narasimha (or Tamma or Tammaya or Narasimha Raya II) [1491/2/3-1501/5; killed 1505]</b>	younger son of 10		1493-1496		1490-1505	1493-1501

<sup>3</sup> Rama Sharma refers to this ruler as Vira Devaraya III.

<sup>4</sup> Sewell's understanding of this transitional period was limited. He appears to have recognized only one Saluva, who ruled from 1490 to an undetermined date. As a result, he only names three, rather than four dynasties (1900:108-9), and some subsequent historians follow his interpretation. Accordingly, I refer to the dynasties by name rather than number as much as possible so as to minimize confusion, as the Tuluvas are the second or third, and the Aravidus are either the third or fourth depending on how the Saluvas are viewed. Personally, however, I think of the Saluvas as the second of four dynasties, which I believe reflects both their ambitions and efforts.

Emperor / Regnal Term (No=accepted emperor, Letter=contested figure)	Relationships	Sewell 1900 (1883)	Rice 1909	Nilakanta Sastri 1955 <sup>1</sup>	Subrah- manyam 1973	Rama Sharma 1978/1980
<b>TULUVA DYNASTY<sup>5</sup></b>						
<b>G. Narasa Nayaka</b> [regent 1591/2/3- 1503/5/6]	son of Ishvara Nayaka, father of 11	--	1496-1503	--	[1485-1506]	1501-1502 <sup>6</sup>
<b>11. Vira Narasimha</b> (1503/5/6-1509; first as regent then crowned)	son of G, elder brother of 12	?-1509 <sup>7</sup>	1503-1509	1505-1509	1506-1509	1503-1509 <sup>8</sup>
<b>12. Krishadeva Raya</b> (1509-29)	son of G, younger brother of 11, father-in-law to Rama Raja (J), half-brother of 13	1509-1530 (1509-1530)	1509-1529	1509-1529	1509-1530	1509-1530
<b>13. Achyutadeva Raya</b> (1529-42)	son of 11, half-brother of 12, father of 14	1530-1542	1530-1542	1529-1542	1530-1542	1530-1542
<b>14. Venkata I</b> (1542/3)	son of 13, nephew of 12	--	1542	1542	1542	1542-1543
<b>H. Salakarayu Tirumala</b> [1543?]	regent for 14, brother of the child's mother	--	--	[1542]	[1542]	[1543]
<b>15. Sadashiva</b> (1542/3-1572/6)	son of 13, imprisoned under regency of Rama Raja	1542-1567	1543-1567	1542-1576	1542-1572 [inscr. 1576]	1543-1568

<sup>5</sup> Note that Sewell combined what most scholars agree are the second and third dynasties of Vijayanagara in both his 1883 and 1900 works. His genealogies reveal that he thought Krishnadeva Raya to be the son of Saluva Narasimha. They were not actually related.

<sup>6</sup> Rama Sharma refers to Narasa Nayaka as Vira Narasimha Raya I (1978:101-106).

<sup>7</sup> Again, Sewell's understanding of this transitional period was limited. He appears not to have acknowledged the role of Narasa Nayaka, and to have recognized only Vira Narasimha, who ruled from an undetermined date to 1509. As a result, he only names three, rather than four dynasties, as discussed in note four above (1900:108-9).

<sup>8</sup> Rama Sharma refers to Vira Narasimha as Vira Narasimha Raya II (1978:107-112).

Emperor / Regnal Term (No=accepted emperor, Letter=contested figure)	Relationships	Sewell 1900 (1883)	Rice 1909	Nilakanta Sastri 1955 <sup>1</sup>	Subrah- manyam 1973	Rama Sharma 1978/1980
<b>ARAVIDU DYNASTY</b>						
<b>J. Rama Raja</b> (Aliya Rama Raja) [regent 1542/3-1565]	son-in-law of 12, brother of 16	[1542-1565]	[d. 1565]	[1542-1565]	[1542-1565]	[1543-1565]
<b>16. Tirumala</b> (1565-1572; first as regent, then crowned)	brother of J, father of 17 and 18	[1565-1567] <sup>9</sup> 1567-1575?	1567-1571	1570-1572	[1565-1570] 1570-1572	1569-1572
<b>17. Shriranga I</b> (1572-1584/5/6)	eldest son of 16	1575-1586 <sup>10</sup>	1573-1584	1572-1585	1572-1584/5	1572-1586
<b>18. Venkata II</b> <sup>11</sup> (1584/5/6-1614)	second son of 16, father of 19, grandfather of 20	1586-1614 <sup>12</sup>	1586-1615	1586-1614	1584-1614	1586-1614
<b>19. Shriranga II</b> (1614)	nephew of 17 and 18 (son of their brother, Rama)	--	--	1614	1614	1614-1615
<b>K. Chikkaraya</b> [1614]	supposed son of 18 (Brahmin child passed off as her own by one of 18's six wives)	--	--	--	1614-1617	[disinherited 1614]
<b>20. Ramadevaraya</b> (1617-1630)	son of 19	--	1615-1625	1618-1630	1617-1630	1615-1633
<b>21. Venkata III</b> <sup>13</sup> (Peda Venkata) (1630-1642)	grandson of J (Rama Raja)	(inscr. 1634, 1636)	1626-1640	1630-1641	1630-1642	1633-1646

<sup>9</sup> Sewell refers to Aliya Rama Raja and Tirumala as “practically sovereign” but not actually kings until Tirumala ascended to the throne in 1567 (1900:214, 404).

<sup>10</sup> Sewell names this ruler Ranga II (1900:404).

<sup>11</sup> Rice names this ruler Venkatapati Raya I (1909:120).

<sup>12</sup> Sewell names this ruler Venkata I (1900:214, 404).

<b>Emperor / Regnal Term (No=accepted emperor, Letter=contested figure)</b>	<b>Relationships</b>	<b>Sewell 1900 (1883)</b>	<b>Rice 1909</b>	<b>Nilakanta Sastri 1955<sup>1</sup></b>	<b>Subrah- manyam 1973</b>	<b>Rama Sharma 1978/1980</b>
<b>22. Shriranga III<sup>14</sup> (1642-1664)</b>	nephew of 21, great-grandson of J	-- <sup>15</sup>	1643-1664	1642-1649 [d. 1672]	1642-1664 (inscr. 1669) [d. ?]	1642-1685

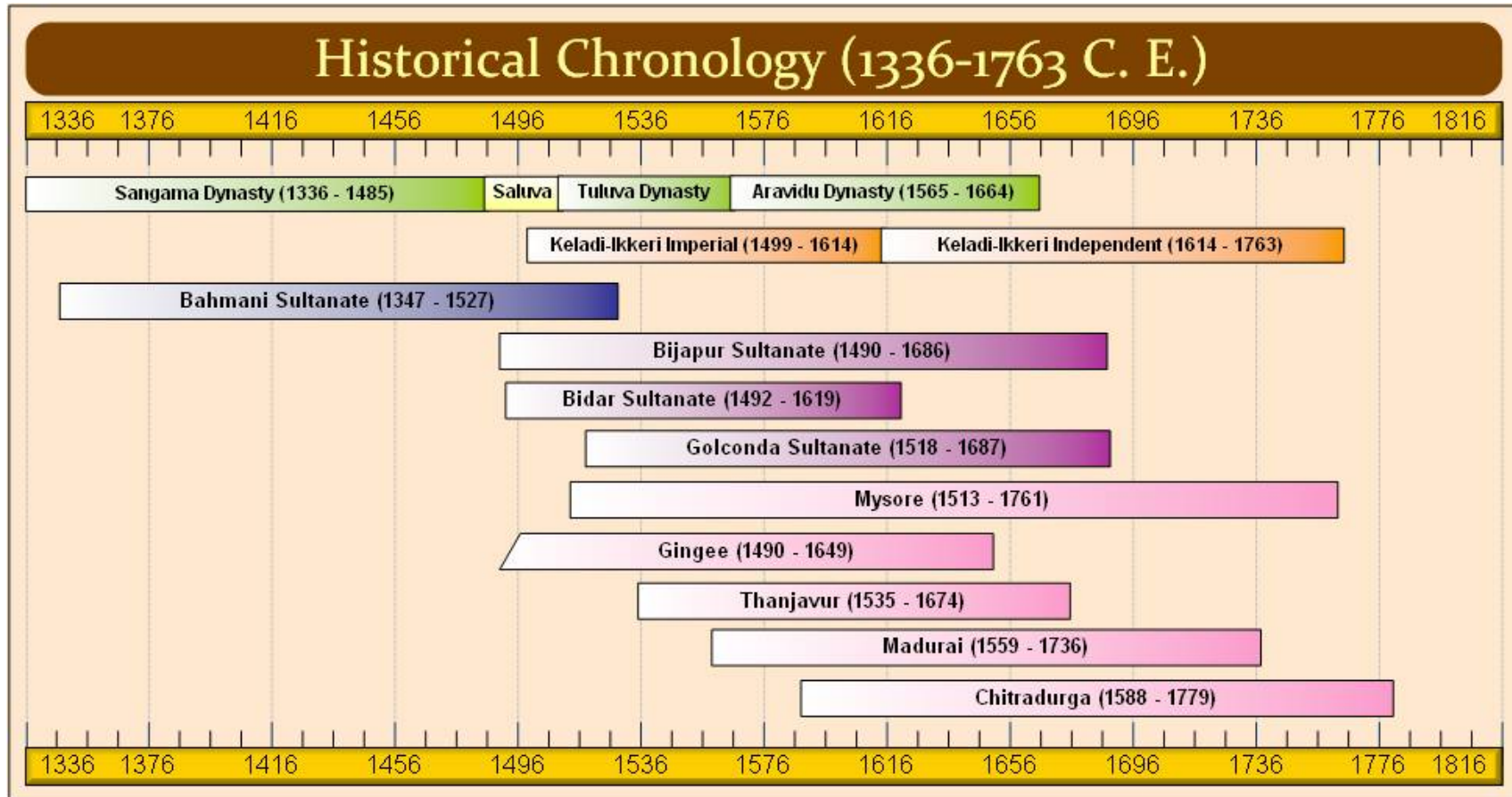
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<sup>13</sup> Rice calls this man Vekatapati Raya II (1919:120).

<sup>14</sup> Rice calls this man Shriranga Raya II (1919:120).

<sup>15</sup> Sewell refers to this man as Ranga IV (1900:214-215).

Figure 3.1: Historical Chronology of the Vijayanagara Empire, Southern Sultanates, and Nayaka Polities, 1336-1763 C. E.





Following a long tradition of joint rulership in South Asia, according to which a king or emperor might rule jointly with a brother or an heir (sometimes the same person), Bukka I (1344-1377)<sup>16</sup>, reigned together with his brother from a date much earlier than his formal accession in 1357. During the tenure of Bukka I, his son Kumara Kampana undertook significant and successful campaigns into the southwest, reaching and ultimately conquering the Sultanate of Madurai in the modern state of Tamil Nadu. When Bukka died the country was still at war with the Bahmani Sultanate over territory to the north of the Vijayanagara capital (Nilakanta Sastri 1955:281).

Harihara II (1376-1404) changed both rule and succession in that when he ascended to the throne he removed his cousins from power in their principalities and replaced them with his own children. His son Devaraya was appointed as governor of Udayagiri, a fort in southeast Andhra. From that point, wars continued in that region until the third dynasty assumed power. During Harihara's reign, Vijayanagara annexed territory in the Kurnool, Guntur and Nellore Districts and engaged in minor wars with the Bahmanis to their north. On the death of Harihara, the heir Virupaksha I (1404) ascended to the throne, only to be immediately usurped by his brother Bukka II (1405-1406), whose reign was also brief. Devaraya I (1406-1422) assumed power during what was the first civil war of succession. He spent the first years of his reign repelling attacks by the Reddis and Bahmani Sultanate, both of whom made bids to take advantage of perceived weakness and ultimately failed in their attempts to reclaim territory. Devaraya was considered a great soldier and statesman as well as a builder; his civic works included a dam across the Tungabhadra River at the capital and extensive canals and waterworks that served the city and its fields.

Around the end of Devaraya's rule, we have our earliest of seven substantive accounts of the first capital of Vijayanagara recorded by foreign observers during its occupation. In the early fifteenth century, Nicolo di Conti, a merchant of Venetian origin who lived in Damascus, embarked on a journey to the east during which he visited the capital of Vijayanagara and several

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<sup>16</sup> Nilakanta Sastri gives 1344 as the date of Bukka I's accession, though he states in text that his joint rulership began as early as 1346, with a separate capital at Gutti (Nilakanta Sastri 1955:240). Others date his accession to 1357, the date of Harihara I's death.

cities under imperial control<sup>17</sup>. Di Conti (1857; Major 1857) described the capital, as he saw it in 1423, as being sixty miles in circumference and surrounded by walls that utilized mountains as part of the defense. His brief account strays into the fantastic, noting that the king has 12,000 wives, but his estimate of 90,000 men in the city who “are fit to bear arms” seems within the realm of possibility given later population estimates.

At the death of Devaraya I, his son Ramachandraraya assumed the throne but only occupied it for several months. He was ousted by his brother Vijaya Raya I (1422-1423/5/6), whose reign was also short and during which his son was already very politically active. Sources give the length of Vijaya Raya I’s rule as varying from 2-5 years, and the most salient point about the man is that we know little about him. This might be a result of the uncertain manner in which his son, Devaraya II (1422/4/5-1446), assumed the throne from his father.

By the time Devaraya II (1422/4/5-1446) came to power, the Vijayanagara state had assumed imperial proportions; the empire had a well-developed core state combined with a successful expansionist policy that maintained or increased territorial acquisitions beyond the heartland. Though concessions were made to the Bahmanis in the north during this period, the entire south (including much of Kerala) was captured. Subrahmanyam refers to this time as “the height of Vijayanagar glory,” a compliment usually reserved for the later reign of Krishnadeva Raya (1973:99). Devaraya is also credited with organizing the army and incorporating Muslim soldiers; it is unclear whether such heterogeneity was a novel innovation, or was merely one perfected under Devaraya. By this time, the capital city was defended by seven concentric walls and entertained active markets. It is from the final years of the reign of Devaraya II that we have the second surviving account of a foreign traveler to the capital.

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<sup>17</sup> According to Major, Di Conti traveled 300 miles inland to “Bizenegalia” [Vijayanagara]. He then proceeded on an eight day journey to “Pelagonda” [Penukonda]. From there he traveled 20 days over land to the seaport of “Peudifitania” [Tellichpassing through “Odeschiria” [possibly Udayagiri] and “Cenderghiria” [probably Chandragiri] on the way. From “Peudifitania” he sailed to the port of “Malepur, situated in the Second Gulf beyond the Indus” [Mylapore area of Chennai], where St. Thomas is supposed to have been buried (di Conti 1857:6-7; Major 1857:lxii-ii). It is more likely that Di Conti traveled by land from the west to the east coast of the peninsula, passing through Imperial territory which already in the early fifteenth century contained the subsequent sixteenth century capitals of Chandragiri and Penukonda, as well as the key military fort of Udayagiri in southeastern Andhra Pradesh.

Abd ar-Razzaq came to India from Herat as an ambassador from the Central Asian Timurid ruler Shah Rukh. He spent six months at the capital of Vijayanagara and traveling in the interior of southern India from May to November of 1443<sup>18</sup>. His mission seems to have been political with important economic implications regarding trade between the two powers; indeed, competing merchants from Ormuz ultimately undermined the envoy by impugning ar-Razzaq's official credentials to the emperor, prompting the ambassador to depart in disgrace (Major 1857:lxvii-lxxiv). However, his arrival was more auspicious than his final departure. At first, ar-Razzaq was recognized as an ambassador and upon arriving in the capital city he was lodged in a large home. He brought five horses, silk and damask as gifts for the king, and when granted an audience was in turn presented with a handheld fan, betel nuts, a purse of silver fanam coins, and camphor. His house was provisioned daily with two sheep, eight fowl, rice, butter, sugar and two gold *varaha* coins, a large denomination named for its depiction of the incarnation of Vishnu as a boar, known as Varaha. Such formal presentations continued daily and at biweekly audiences with the emperor ar-Razzaq continued to receive betel, silver, and camphor, which according to the account served as a proxy feast because the king was unable to dine with the ambassador—presumably for religious and/or political reasons. Ar-Razzaq also witnessed the annual Mahanavami festival, a part of the Hindu holiday of Dasara, in September/October; this series of rituals was key in establishing and reaffirming the divinity and power of the king among nobles and commoners alike (ar-Razzaq 1857:20-43; Stein 1993:36). Ar-Razzaq also described an assassination attempt on the king made by his brother; though it is hard to know whether the bloody account is accurate, it does substantiate the assertion that power was actively contested by dissidents among the nobility. In addition, the ambassador notes that when news of the attempt spread, the ruler of the Sultanate at Gulbarga demanded a tribute payment in return for not invading during what he perceived to be a time of weakness for Vijayanagara. This demand indicates the importance of maintaining the outward display of political authority in foreign

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<sup>18</sup> Abd ar-Razzaq was born in Herat in modern Afghanistan. It was in Calicut that an envoy from the Vijayanagara ruler arrived to invite the ambassador to court at the capital, to which he traveled through Mangalore and Bellare (possibly Bellur). He left the capital on 5 November, 1443, reaching Mangalore 18 days later from where he set sail back to Kalahat on 28 January, 1444. Ar-Razzak later served as an ambassador to various cities in Iran, Iraq and Egypt before returning to Herat to end his career serving as the head of a religious community (Major 1857:lxvii-lxxiv; ar-Razzaq:2-49).

relations; in this case, negotiations failed and ultimately led to military conflict between the two powers (ar-Razzaq 1857:33-35).

Around when Devaraya II died in 1446, there were minor struggles for the succession in which Vijayaraya II emerged, briefly claiming leadership for some period during 1446-47. According to the extant historical record, Mallikarjuna (1446-1465) assumed the throne in 1446, a date which may have been retroactively determined after his eventual success against his rival claimant to the throne. Gajapati invasions of the northeastern frontier which had begun after the death of Devaraya continued to occupy much of the empire's resources throughout Mallikarjuna's reign. The Orissan Gajapatis made great territorial gains, including the fort of Udayagiri, which would not return to Vijayanagara control until its recapture by Krishadeva Raya in the early sixteenth century; the Gajapatis were a powerful, yet shorter-lived, state which was centered in modern day Orissa state, and existed from the early fifteenth to the mid-sixteenth centuries. Under Mallikarjuna, Saluva Narasimha, a governor and skilled general, was transferred to Penukonda, and Chandragiri was left in charge of Saluva Ramachandra; these key forts became the later capitals after Vijayanagara was sacked in 1565. These posts indicate Saluva Narasimha was already playing a vital role in politics at that the time, one which he eventually used to usurp total power.

After the death of Mallikarjuna, Virupaksha II (1465-1485/6) assumed the throne. The exact nature of his relationship to the previous ruler is subject to extensive debate. My analysis accepts the assumption that they were brothers, but the leading alternate theory suggests that he was a cousin, the son of Pratapadevaraya. Aiyangar (1916:I:123-5) presents the best summary of this debate. Virupaksha's accession is generally described as forceful, and several questionable sources suggest he murdered all possible challengers (125); however, the later presence of later contenders Rajashehkara and Praudharaya suggest that if this was true, Virupaksha didn't do a very thorough job.

The last years of the Sangamas were politically turbulent and events are under documented in the inscriptional record. The period was again marked by intense military conflict, in which the generals Saluva Narasimha and Ishvara Nayaka distinguished themselves and presumably developed bases of power among the people and in the provinces. It is known that Virupaksha II was murdered in 1485, probably by his son (Rajashehkara?), who then refused

to assume the throne. He instead allowed it to pass to a younger brother (Praudharaya?), whose purportedly dissolute ways led to revolt among the nobility (Aiyangar 1916:139-40). Thus, weak heirs and ambitious military officers made the last decades of the fifteenth century a tumultuous time in the Vijayanagara Empire.

As an accomplished military general and political governor, Saluva Narasimha (1485/6-1490/1/3) had many years to build a power base among the nobility. It is reported that he ordered Narasa Nayaka, son of Ishvara Nayaka, to invade the capital and secure power as a proxy for Saluva Narasimha. Inscriptions and copper plate records indicate he had proclaimed himself raya. Events of the period likely necessitated Saluva Narasimha's attention to protecting Vijayanagara territory against foreign incursions, which likely led to neglect of domestic intrigue and the forming of a cabal that led to yet another usurpation. The circumstances of his death are unknown, though according to one report he is supposed to have died in 1491 after a long and unsuccessful siege against the fort of Udayagiri. He left his trusted general Narasa Nayaka as an advisor for his two sons; he did not seem to have learned from his own ambitions. This choice turned out to be a fateful decision for the Sangama dynasty.

Narasa Nayaka quickly consolidated his considerable power into a regency rule that would build a foundation for establishing the Saluvas as the second dynasty of Vijayanagara. He oversaw the coronation of Saluva Narasimha's eldest son Timmabhupala (1493) (also known as Timma and Tirumala). The reign of Timma was of extremely short duration, brought to an untimely end when he was assassinated by Tymmarasa, a rival of Narasa Nayaka. Immadi Narasimha (1491/2/3-1501/5), the younger prince, was crowned as successor, reportedly in the same year in which his brother and father had died (most other histories agree that their father died sometime in 1490-91). Apparently underestimating the power of Narasa, the young king defied the wishes of his advisor and refused to punish Tymmarasa for the murder of his brother. Narasa marched on the capital and transported the king to Penukonda; he was a virtual prisoner, and certainly not a ruler, for the rest of his life. Though he was never crowned king, Narasa navigated the dirty politics of succession until his death in the early 1500s, when he was succeeded as regent by his eldest son, Vira Narasimha (1503/5/6-1509). The nominal sovereign Immadi Narasimha remained a virtual prisoner of the regent until his eventual assassination in 1505. Vira Narasimha (1503/5-1509) spent most of his rule fighting domestic and foreign

enemies. He died while preparing for a military campaign. The Keladi-Ikkeri Nayakas emerged during this extended interval of political confusion and upheaval, and this makes their origins obscure—perhaps conveniently so, as will be discussed further below.

The third traveler's account dates to this period of political uncertainty. Ludovico de Varthema was an Italian traveler of obscure origin who visited the capital in 1504 (Badger 1863; di Varthema, et al. 1863; Rubiés 2000). Unlike ar-Razzaq, who noted seven concentric walls, di Varthema recorded only three—perhaps as a result of his lower status and unofficial capacity, he was denied access into the inner compounds to which the ambassador had been admitted. In any regard, his knowledge of the city comes across as more limited; the capital is only briefly described as a city of great merchandise and indirect knowledge of some customs of the king are related. Regarding trade, however, his knowledge was significant: he stated that all horses arriving in Cannanore on the coast were sent to Vijayanagara, though mares were withheld, perhaps as a restriction on attempts at breeding rather than on acquiring them from Arabian sources<sup>19</sup>. As valuable military tools, as well as powerful symbols of authority, horses were a much-desired commodity, and thus, a monopoly on their import would have been especially valuable; efforts at breeding and maintaining a native supply of horses were never successful in the pre-modern era.

An end to in-fighting among the Vijayanagara nobility did not come until the reign of Krishnadeva Raya (1509-29), whose tenure as emperor is widely regarded as the height of Vijayanagara power. Despite his family's origins in the Tulu country of Dakshina Kannada, at a remove from the capital in its location on the western coast, he firmly established the right of the Tuluva dynasty to lead. Though he had ascended in spite of claims by his brother's sons, Krishnadevaraya's strong leadership skills through external conflict seem to have assuaged any

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<sup>19</sup> His motivations for visiting the east seem to have been a combination of fame-seeking curiosity and unlike other travelers of the period he funded his journey by working occasionally along the way, in both mercenary and economic agent capacities; in Saudi Arabia he found a paying position on a military expedition, and in the latter stages of his travels he worked for eighteen months as a Portuguese factor (he was knighted and served as an official trade authority) in coastal Kerala. De Varthema visited the Bijapur Sultanate and made a second journey inland to visit Vijayanagara. A number of his later exploits are rather fantastic and should be questioned; what is clear is that he traveled in India and the east extensively and must have supported himself in some fashion as he went along, as his lack of status and wealth did not mark him as an independent man during that time (Badger 1863; de Varthema, et al. 1863; Rubiés 2000)

lingering doubts over his succession. Adil Shah and the Bahmani Sultan were at war with the empire and the Portuguese had established supremacy in Indian waters. Krishnadeva Raya's military conquests led to consolidation of territory that was never again equaled until British colonial power; they are too numerous to list here, but yielded the maximal extent of Vijayanagara territory. Even in his glory, though, the roots of eventual dynastic downfall took hold; among his children was a daughter, Tirumaladevi, who married Aliya Rama Raja, the ambitious man later responsible for establishing the Aravidu dynasty—Vijayanagara's last line.

From the reign of Krishnadeva Raya we have the fourth and fifth travelers' accounts: those of Duarte Barbosa, a Portuguese merchant who visited the capital in 1518,<sup>20</sup> and of Domingo Paes, another Portuguese merchant who visited the capital in 1520 (Barbosa and Stanley 1866; Paes 1900). Barbosa's account of the capital, though brief and of a typically exaggerated nature, confirms observations of the sumptuous life led by the king and court elites, including elaborate residences, dress and jewels, travel by litter, and court activities.

Toward the end of his life, Krishnadeva Raya nominated his six year old son as his heir, however, the child predeceased his father, who himself died of illness in 1529. Succession disputes had begun before Achyutadeva Raya (1529-42), assumed the throne. Though Krishnadeva Raya had made alternate preparations for succession by his half-brother, the decision was unpopular; another young son of the emperor was championed by Rama Raja, who presumably did not wish for succession to pass away from a line that would include his own heirs. Rama Raja's immediate efforts to gain power failed at the hands of other nobles, who held the capital for the emperor until he could arrive from Chandragiri. Unfortunately, Achyutadeva Raya chose to negotiate with his enemies at court and to share power with them. Rather than strengthening his position, this made him more unpopular with his original supporters. In 1542/3, he was imprisoned by Rama Raja and is said to have lived out his life as a well-kept prisoner.

Though ambitious himself, Rama Raja installed on the throne Venkata I (1542/3), the young son of Achyutadeva Raya. This was followed by a bloody conflict between nobles that lasted for two to three years, during which the young king and most of his family were killed. Finally, Sadashiva (1542/3-1572/6) ascended and Rama Raja ruled as nominal regent while

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<sup>20</sup> Barbosa was a cousin of Magellan the explorer.

keeping him a prisoner for the rest of his life. This was, in effect, the establishment of Vijayanagara's fourth and final dynasty, the Aravidus, which was only solidified as a line of rulers after the death of its founder. Rama Raja ruled at first as regent, but after a few years seems to have assumed royal titles for himself. Under his leadership, Vijayanagara became more involved with politics among the Deccani Sultanates, as well as with conflicts between Portuguese trading interests. Rama Raja signed a treaty with the Portuguese governor in 1546, but later violated it by attacking missionaries at San Thome and sending troops to Goa.

The year 1565 C.E. was a watershed for the Vijayanagara Empire and for South India. Rama Rāja had been playing shell game style diplomacy with the Deccani Sultanates, playing one against another in a strategy of shifting alliances. Finally on the weak side of configured alliances, Vijayanagara faced the united Sultanates at the Battle of Talikota.<sup>21</sup> Generally placed in the early months of 1565, the battle was a dramatic crescendo to six months of warfare. Various accounts all enumerate large numbers of foot, horse and elephant troops on both sides and all agree that heavy casualties were sustained. These included Rama Raja, who died from a shot to the head. Unfortunately, analyses of the battle colored by Hindu nationalism have sought to portray defeat of Vijayanagara forces as anti-Hindu or as a result of treachery on the part of some Muslim actors; these interpretations appear to be supported only by the discounting of Sultanate sources and the contortion of other accounts (see Nilakanta Sastri and Venkataramanayya 1946:I:260-90).

What is clear from all sources is that after defeat, the remnants of the army retreated and were unable to organize resistance to forces that advanced against the capital city of Vijayanagara. It appears that remaining court elites and at least some portion of the population were able to gather resources and flee the city before Sultanate armies arrived to pillage and burn. Rama Raja's brother and heir apparent, Tirumala, retreated southwest to the fortress of Penukonda. A second capital was established there, at which Tirumala was eventually crowned

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<sup>21</sup>The Battle of Talikota is sometimes called the Battle of Rakshasi-Tangadi. Controversies over the name stem from disagreements between historians as to the true location of the conflict. It is generally accepted that the battle took place somewhere in the vicinity of a fortified town named Talikota, located 25 miles north of the Krishna River on one of its small tributaries. However, a few historians believe that the battle took place on the northern bank of the Krishna itself, between the villages of Rakshasi and Tangadi. Yet another version has the action taking place at the fortress Mudgal, located in the Raichur Doab south of the Krishna River (see Nilakanta Sastri and Ventakaramanayya 1946:260-290). As far as I know, the actual site has never been materially verified in the modern era.



and the Aravidu line formally established. Though constant conflict among the nobility and continued territorial threats made this a time many described as anarchy, it is perhaps best viewed as the inception of a transition back to regional government, though with full belief of having inherited the empire. Subrahmanyam suggests that it was by choice rather than by necessity that Tirumala remained at Penukonda, thus avoiding direct opposition from supporters of Rama Raja's son Pedu Tirumala (also the grandson of Krishnadeva Raya).

The last known traveler's account of the capital was written by the Italian Cesaro Federici after his visit during early 1566. Though it occurred after the defeat of the empire's forces at the Battle of Talikota, it is notable because the city is hardly completely abandoned or forgotten in the description (Federici 1588; Rubiés 2000:303-6). A considerable population remained and destruction of the city was far from complete. A recent study by Mark Lycett and Kathleen Morrison (2013) of damage to monuments and remains at Hampi found that the patterning of destruction was highly differential. They noted that it, "is evident that patterns of temple destruction within the city are highly variable and that patterns of destruction are organized and targeted rather than random or indiscriminate. Politically active temples closely associated with the ruling dynasty show a pattern of axial damage to the main shrine, locus of the deity whose shared sovereignty with the Tuluva rulers posed an existential threat to alternative locations of authority." (462) While succession disputes, in addition to military challenges, and other factors, led the new dynasty to continue its rule at a remove rather than returning to the former capital, there was a logical reorganization at Vijayanagara itself and a continuation of the power of the Empire:

To contemporary observers, the material negation of royal authority, sovereignty, and power embodied in the invasion of the city would have been evident. The intensive and orchestrated pattern of axial destruction to the Vitthala and Tiruvengalnatha temple complexes were political postures set in granite. Despite the loss of most of its great temples, elite precincts, and urban populace, Vijayanagara, as both empire and place, continued into the succeeding centuries. Rural populations continued to thrive, irrigation systems continued to be maintained, and worship continued to be practiced in both institutional and informal settings. Patterns of temple maintenance and rededication suggest a loss of elite patronage and a reconfiguration of sacred landscapes in terms of popular associations and traditions. The empire, forgotten or never-forgotten, may have moved on, but the active constitution of social space as both experience and symbol never stopped...Just as its materiality and symbolic power retain their effective claim on history, in the centuries after 1565, Vijayanagara hegemony

continued to circulate as a powerful, but potentially dangerous substance in narratives of South Indian sovereignty. (Lycett and Morrison 2013:465)

It was during this time of reorganization, dynastic transition, and capital relocation that some nayaka rulers took the opportunity to consolidate their own power, in polities such as Madurai, Thanjavur, and Gingee (Nilakanta Sastri and Venkataramanayya 1946:I:295); it is likely to have been a situation closely monitored by all imperial subordinates, both out of necessity as well as for potential opportunity. At the same time, the empire was divided into three administrative districts to keep control over the “powerful Nayaks,” and the three sons of Tirumala were assigned as follows: the eldest, Shriranga, to Penukonda to rule over the Telugu speaking area; the second, Rama, to Shrirangapattana to rule over the Kannada speaking area; the youngest, Venkatapati to Chandragiri to rule over the Tamil speaking area (Subrahmanyam 1973:129-30). These two accounts may be reconciled if one takes a perspective that the political landscape of the period was transforming to more locally adapted forms of government—including within the empire itself.

In the meantime, the Aravidu dynasty continued under Shriranga I (1572-1584/5/6), who ascended to the throne after the retirement of his father. In 1576, Adil Shah of Bijapur and Timma Nayaka of the Hande chiefs marched on Penukonda, initiating a time of conflict that persisted to the end of Shriranga I’s rule. Though Chandragiri had been a center of activity previously, it became the capital at this time. Shriranga died without children, so succession passed to his younger brother. Venkata II (1584/5/6-1614) was “the greatest sovereign of the Aravidu family” (Subrahmanyam 1973:133). He took the kingdom from a weak and warfare-ravaged state to one that wielded enough power and poise to maintain effective diplomatic relationships with various Sultanates, the Portuguese, the Dutch and the Spanish. It is unfortunate for the Aravidu dynasty that he died without any true heirs. For nominally allegiant polities such as Keladi-Ikkeri, however, it created an opportunity for finally declaring true independence from the empire, which they did in 1614, the year of Venkata II’s death, and during the reign of Venkatappa Nayaka.

Following the death of Venkata II, there were several years of succession struggles. It was during and immediately after this time that many polities which remained nominally

subordinate to the empire felt empowered to officially declare their independence, signaling an end to the advantage of either practical or ideological affiliation with Vijayanagara. Venkata II had had six wives, one of whom pretended to be pregnant and attempted to pass off a Brahmin boy as her child. Though the boy, Chikkaraya, was raised as an heir, he was passed over in favor of a nephew. The ensuing dispute over succession led quickly to civil war. Shriranga II (1614) ruled only briefly and was almost immediately imprisoned with his family by a nobleman, Jaggaraya, who also enthroned his own favorite, Chikkaraya (1614). There was an attempt to rescue the royal family, but only one son of Shriranga survived and the rest of his family were put to death. After two years of fighting, Jaggaraya was killed in battle and the surviving heir, Ramadevaraya (1617-1630), was crowned. His reign was followed by the last ruler of Vijayanagara, Venkata III (1630-42), a grandson of Rama Raja. By that time, Vijayanagara was a relatively weak peer in a larger sphere of competing polities which would soon come to be dominated by British interests, which were established in the area at Madras, only a short distance from Chandragiri, under the East India Company in 1639.

### **The Imperial Nayakas and the Material Record**

Like other imperial polities, the Vijayanagara Empire employed diverse strategies of political and economic administration of its territories and resources. This section introduces broad historical debates over the nature of Vijayanagara Nayaka polities and then turns to the material record of the Empire and its one-time regional subordinates, as much as it has been documented by archaeological and architectural studies.

Nayakaships were the most politically complex polities integrated into the empire. Nayakas were regional kings who ruled over designated territories by mandate from the central imperial authority, committing to military and financial obligations in return for the privilege of ruling over what can be considered internal state polities. Though nayaka titles existed prior to Vijayanagara, the empire seems to have begun granting them in larger numbers and to more significant territories in the late fifteenth and early sixteenth centuries (Mahalingam 1969; Talbot 2001). By the mid-sixteenth century, the five most significant nayakaships were Madurai, Tanjavur and Gingee in modern Tamil Nadu and Mysore and Keladi-Ikkeri in modern

Karnataka; each of these polities was powerful enough and sufficiently internally developed to assume independent state status upon the eventual disintegration of the empire (Narayana Rao, et al. 1992).

The precise nature of nayaka–imperial relationships is debated in South Asian historiography, with interpretations ranging from mutually beneficial to problematic struggles of domination and resistance (Dirks 1993; Karashima 2001a; Stein 1993). Under the Vijayanagara Empire, nayaka relationships fostered internal polities that were, in theory, functionally autonomous while being materially and symbolically beholden to the central imperial power. Nayakas functioned as indirect administrators, establishing local authority and dynastic continuity within their own territories, rather than participating in a system of administration by imperially appointed bureaucrats, a type of structure that prevailed in some regions during some periods of the empire (Saletore 1934). Sometimes characterized as extractive feudal overlords (see discussion in Rao et alia 1992:28-32), nayaka relationships are also seen as having been supported through cooperation with traditional village level assemblies and the people in general (Karashima 2001a; Narayana Rao et alia 1992). What is clear from historical and epigraphic sources is that the nayaka state rulers played a key intermediary role between local populations and imperial infrastructure. Formally, nayakas were leaders whose political authority mediated local-imperial relations. Nayaka political authority was constituted through control, management and networking of political, economic, social and ideological resources, as much or more than through their acknowledgement of the sovereignty of the imperial core.

In his essay on historiography of the empire, Stein stated that Nilakanta Sastri (1955; and with Venkataramanayya 1946) not only contributed a pro-Hindu and anti-Muslim perspective but also established the notion that Vijayanagara was a centralized empire. He offered his own alternative political model of the empire as “segmentary state,” a concept borrowed from cultural anthropology. His model deliberately referenced the perspective of historian Krishnaswamy Aiyangar, whose vision of the empire was one of “relations among great warrior families, rather than about conventional, centralized administration” (1993:9-10). Unlike empires that exercised strong top down control through integrated structures of organization, Vijayanagara seems to have deployed what Morrison (2001: 256) refers to as, “a wide range of degrees of imperial control over and interference in local patterns of governance and revenue extraction.” She

continues, “While the Vijayanagara empire was certainly a conquest state, critically dependent on force and the threat of force to incorporate and hold together its domains, the polity was also integrated in other ways, notably through complex sets of ritual relationships that were built on relations of hierarchy rather than simply coercion” (2001:256).

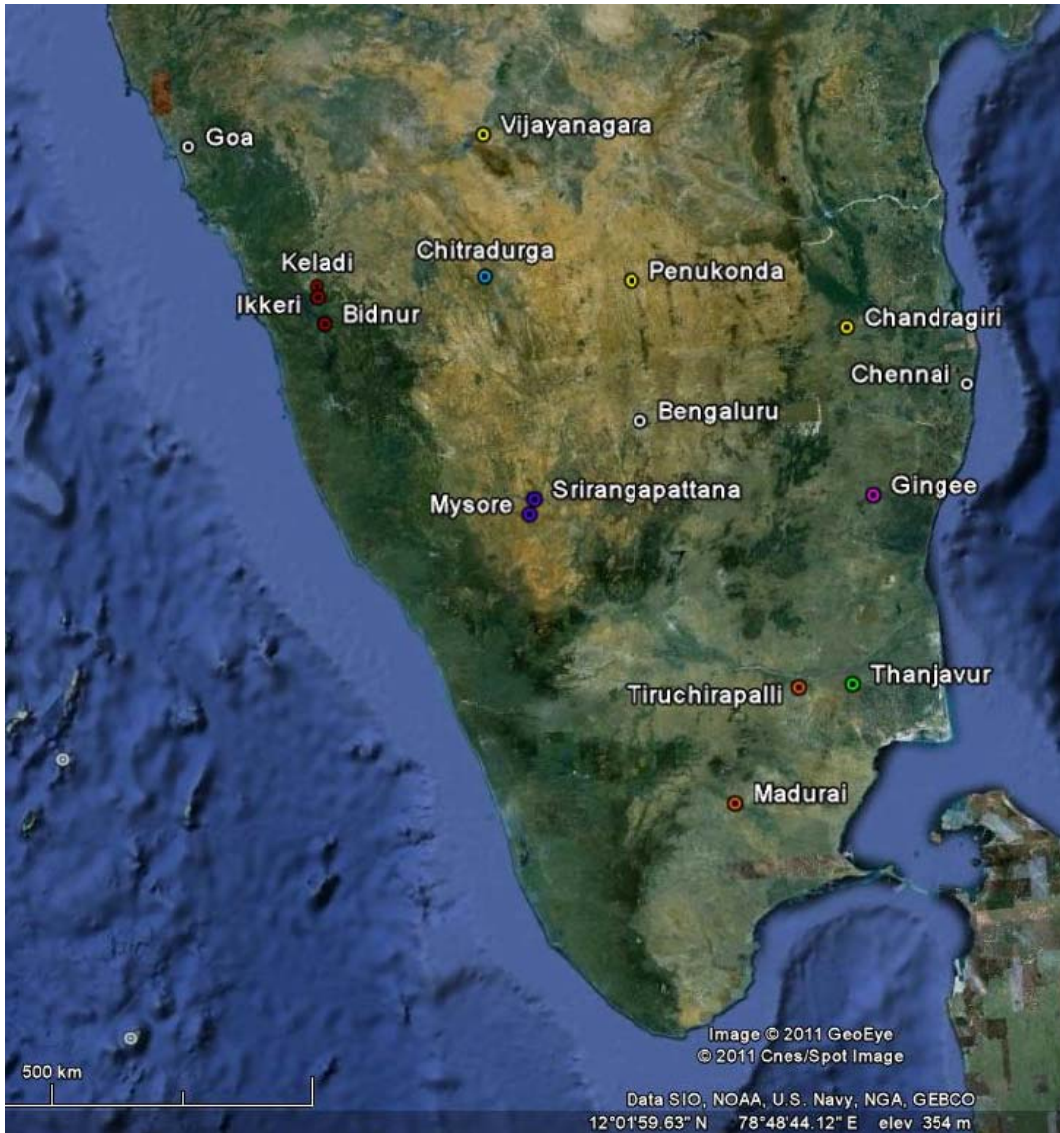
The major nayakaships of the secondary historical literature include Keladi-Ikkeri and Mysore in the modern state of Karnataka and Gingee, Thanjavur, and Madurai in the modern state of Tamil Nadu (Rao et alia 1992). As will become evident in chapter four, the historical literature relating to these regional polities is far less robust and accessible than that which is available for the empire as a whole—this is true both in terms of primary sources, such as inscriptions, as well as for secondary sources. I do not go into each case in detail in this work. In terms of particulars relating to cases other than Keladi-Ikkeri, I will state that while there were regional variations in the origins and development of the Imperial Nayaka polities, one common factor is a shifting of capital settlements over time, for either strategic reasons or necessity (Figure 3.2).

The material culture of the Vijayanagara Empire and its Nayakas is known indirectly through textual descriptions and inscriptions and directly through remaining monumental architecture and its iconography, sculpture, and archaeological surface remains and deposits. Documentation of Vijayanagara’s material remains has been concentrated at the former capital (modern Hampi); this site is a UNESCO World Heritage Site, “Group of Monuments at Hampi,” and has been extensively mapped (Figure 3.3). Located along the Tungabhadra River in the semi-arid uplands of northern Karnataka, this area has been the focus of intensive large-scale archaeological research since the late 1970’s, including excavations by the Karnataka Department of Archaeology and Museums and the Archaeological Survey of India (Devaraj and Patil 1991a, 1991b, 1996; Nagaraja Rao 1983, 1985). The Vijayanagara Research Project (VRP), led by Dr. George Michell and Dr. John Fritz and M.S. Nagaraja Rao, undertook detailed architectural studies of the capital, documenting monumental architecture, including temple complexes and administrative structures, as well as a host of other less imposing structures that together present a rich picture of spatial relationships at the capital over time (Fritz and Michell 1984, 1985a, 1985b, 1991; Michell 1983, 1985, 1990, 1991). Beyond the 30 square kilometer core area of the capital, the Vijayanagara Metropolitan Survey (VMS), 1987-1997, co-directed

by Dr. Carla M. Sinopoli (University of Michigan) and Dr. Kathleen D. Morrison (University of Chicago), documented over 800 sites in the c. 450 sq km fortified zone surrounding the capital (Morrison and Sinopoli 1996, 2006; Sinopoli and Morrison 1991, 2006, 2007); project member Robert Brubaker conducted important research on the extensive military fortifications (Brubaker 2004, 2014). This is perhaps the most significant regional survey that has been conducted in South Asia to date. These complementary projects have produced a picture of the capital that reveal: changing strategies of city planning, settlement distributions, religious activities and features, defensive infrastructure and transport, agricultural production, and specialized craft production of everyday and elite goods. The scale of the city and its metropolitan region as seen in its overall plan (Figure 3.2) are of a different magnitude than subsequent imperial capitals at Penkonda (Figure 3.3) and Chandragiri (Figure 3.4) and those of its subordinates and successors.

Several categories of material culture, which I described in chapter two as ‘courtly culture,’ radiated out from the imperial capital throughout the empire; this suite included new styles of administrative and palace architecture and elite styles of dress that can be observed in sculpture, carvings, and rare paintings. This work is interested the extent to which the builders of Keladi and Ikkeri adopted such imperial symbols, in the sense that we regard them as emblems of empire, and ways of doing at various points in the history of the polity might serve as a proxy measure of their integration into the imperial state; this is discussed fully in chapter six. Elements of courtly culture are visible not only at the initial capital of Vijayanagara but also at the second and third capitals at Penukonda and Chandragiri (Figures 3.4 and 3.5). The plans of these cities compared with their predecessor indicate clearly the difference in scale between imperial and nayaka centers, especially when compared with plans of other nayaka sites, such as Thanjavur and Madurai (Figures 3.6 and 3.7).

Figure 3.2: Progression of Vijayanagara Imperial and Nayaka Capitals (C.E.)



Keladi-Ikkeri Nayakas (1499-1763)	Thanjavur Nayakas (1535-1674)
Keladi (1499-1525/51)	Madurai Nayakas (1559-1736)
Ikkeri (1525/51-1639)	Madurai (1559-1616)
Bidnur (1639-1763)	Tiruchirapalli (1616-1634)
Mysore Nayakas (1513-1761)	Madurai (1634-1736)
Mysore (1513-1610)	Vijayanagara Empire
Srirangapattana (1610-1761)	Vijayanagara (1330s-1565?)
Gingee Nayakas (1490-1649)	Penukonda (1570-1610)
	Chandragiri (1610-1646)

Figure 3.2: Plan of the Imperial Capital at Vijayanagara (Sinopoli 1988)

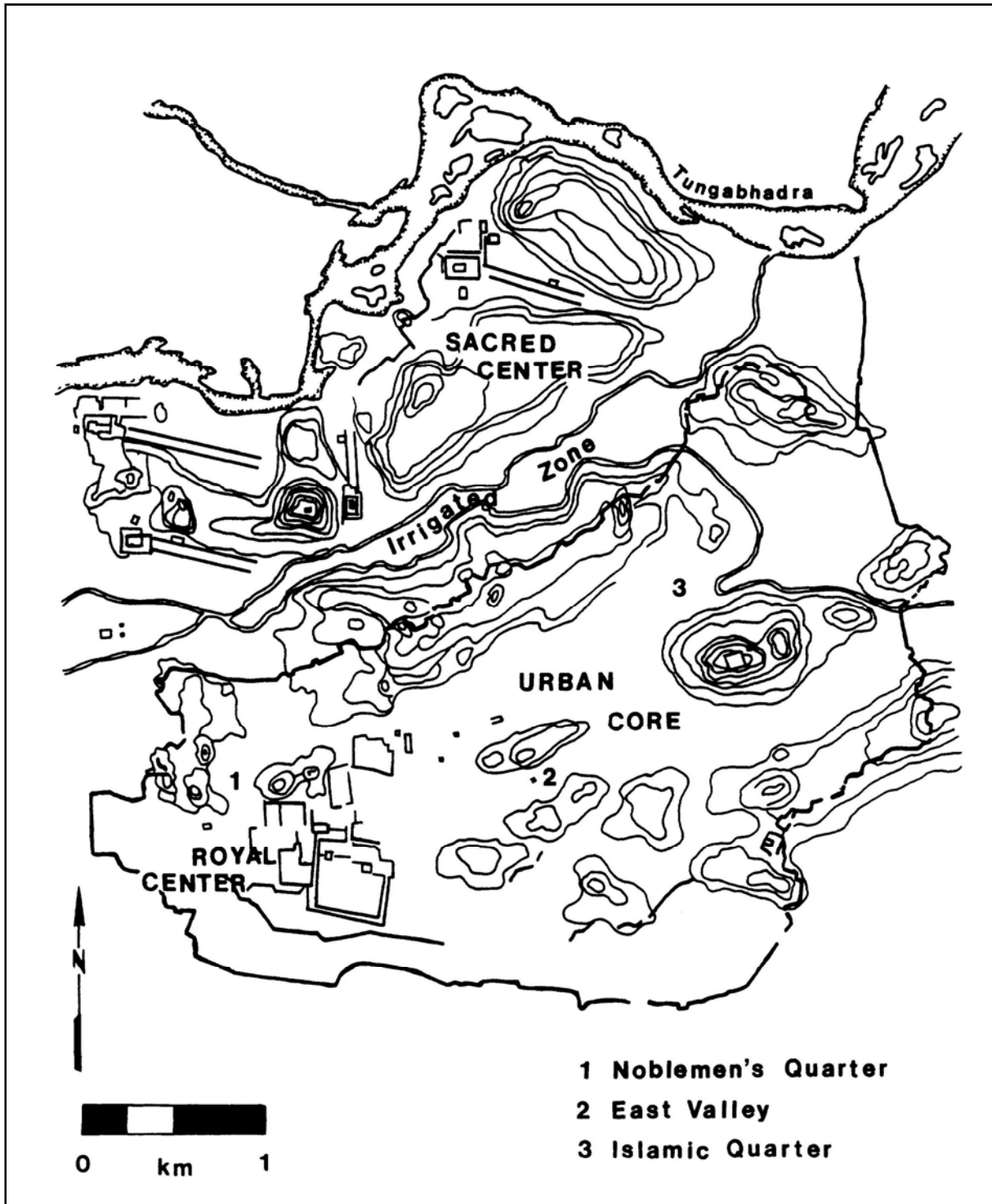




Figure 3.4: Second Vijayanagara Imperial Capital at Penukonda, after S. N. Mitra (Deloche 2007)

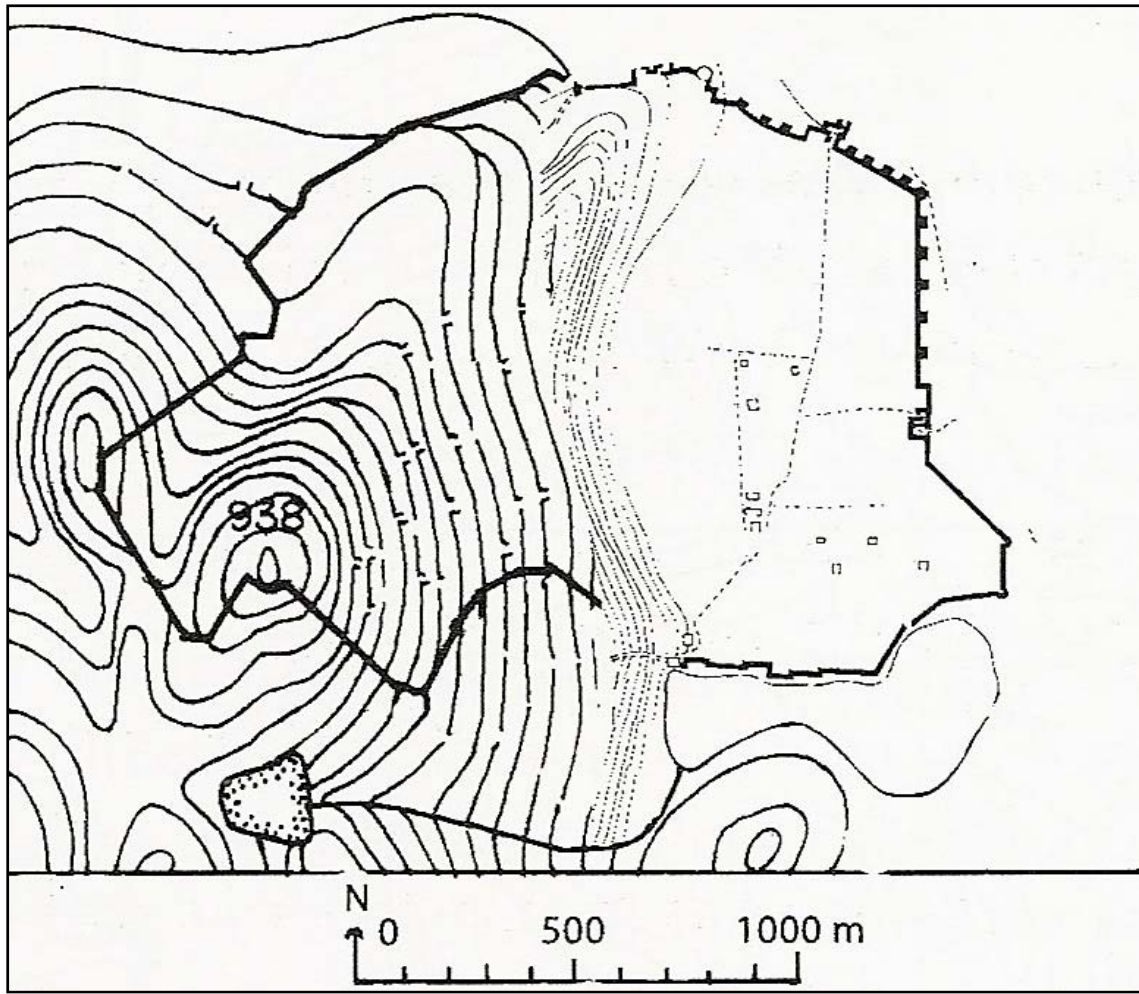


Figure 3.5: Third Imperial Vijayanagara Capital at Chandragiri, after N. S. Ramachandra Murthy (Deloche 2007)

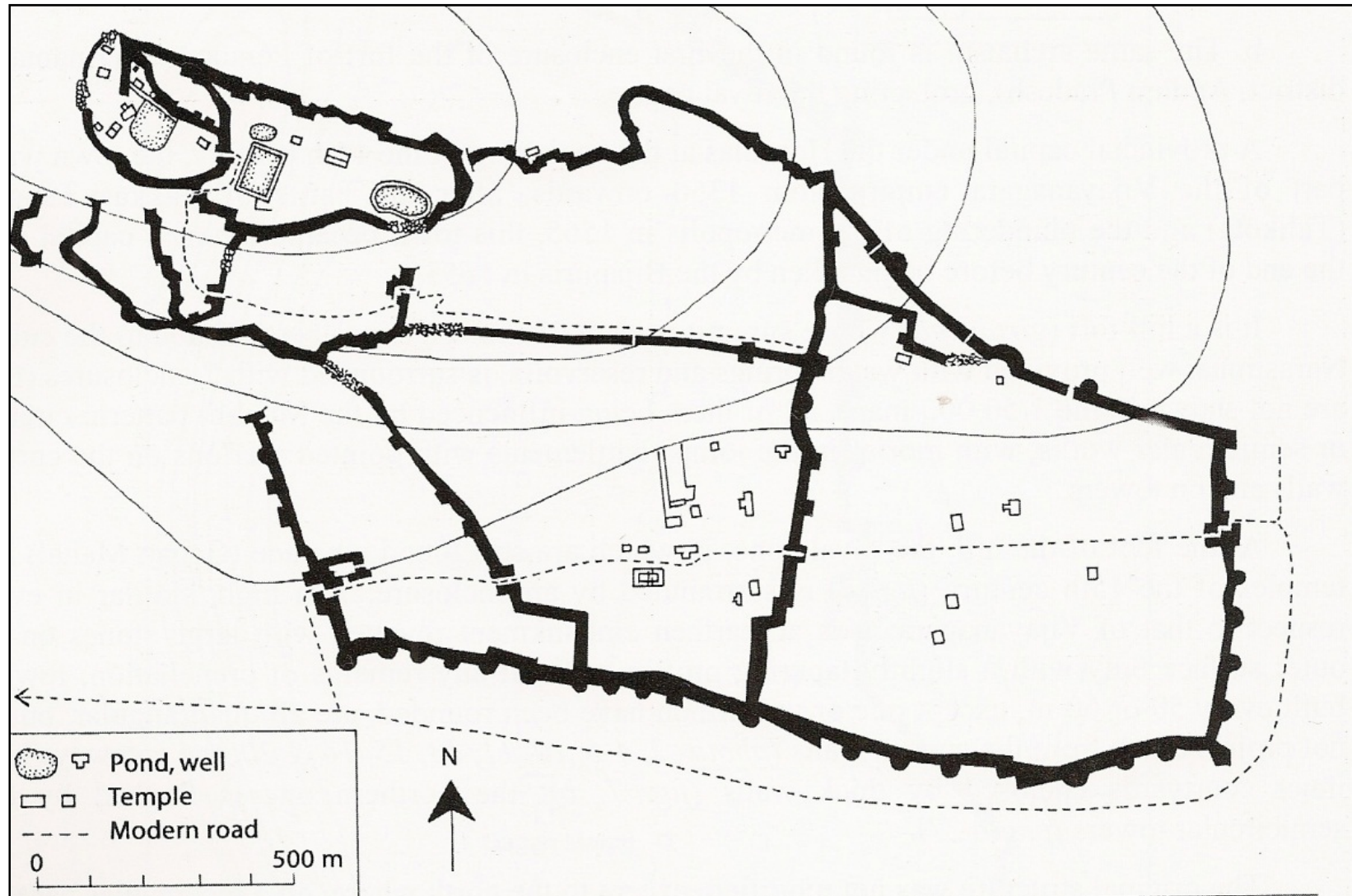


Figure 3.6: Madurai in 1757, after W. Francis (Deloche 2005)

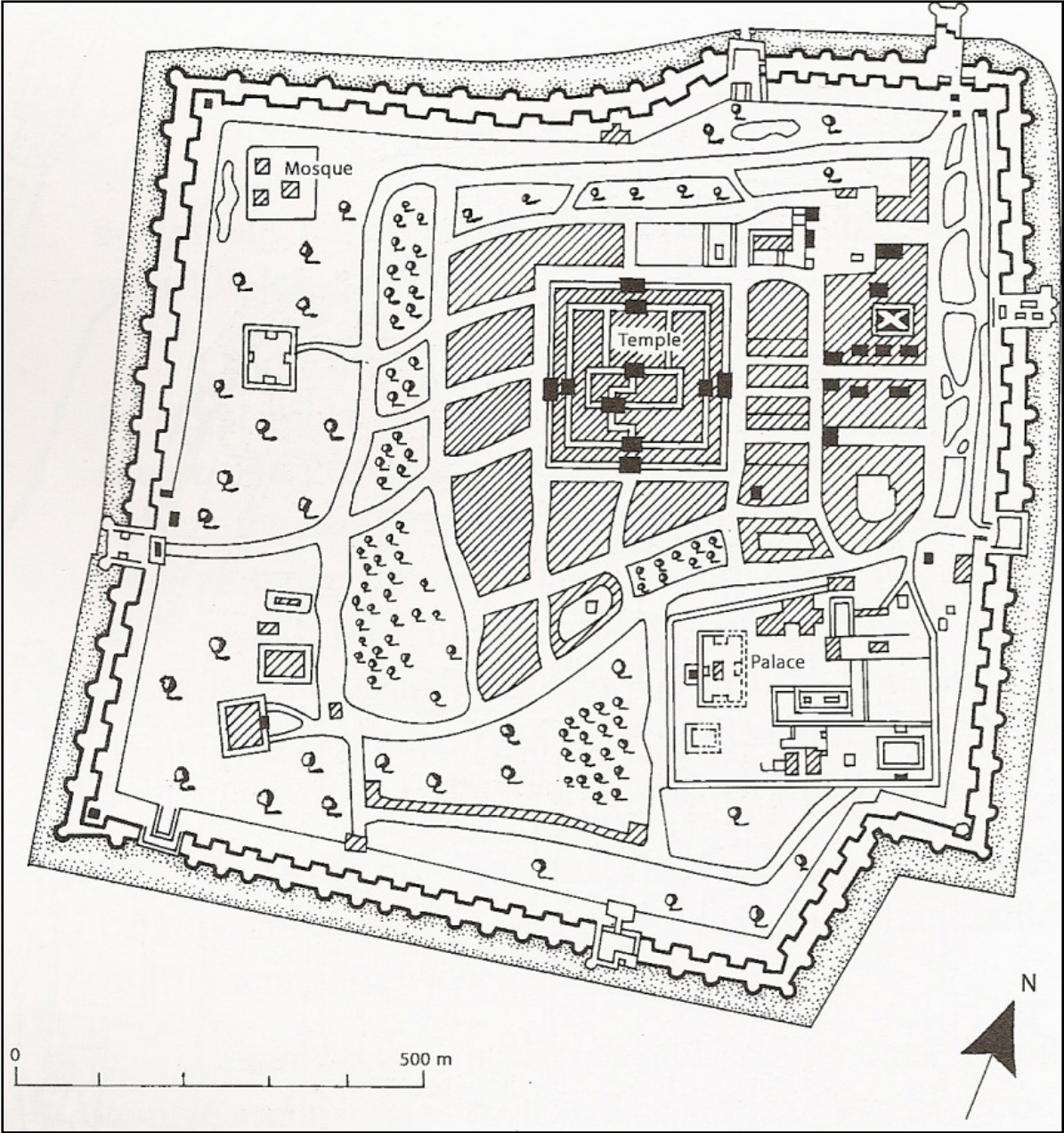


Figure 3.7: Thanjavur, after R. Orme (Deloche 2007)

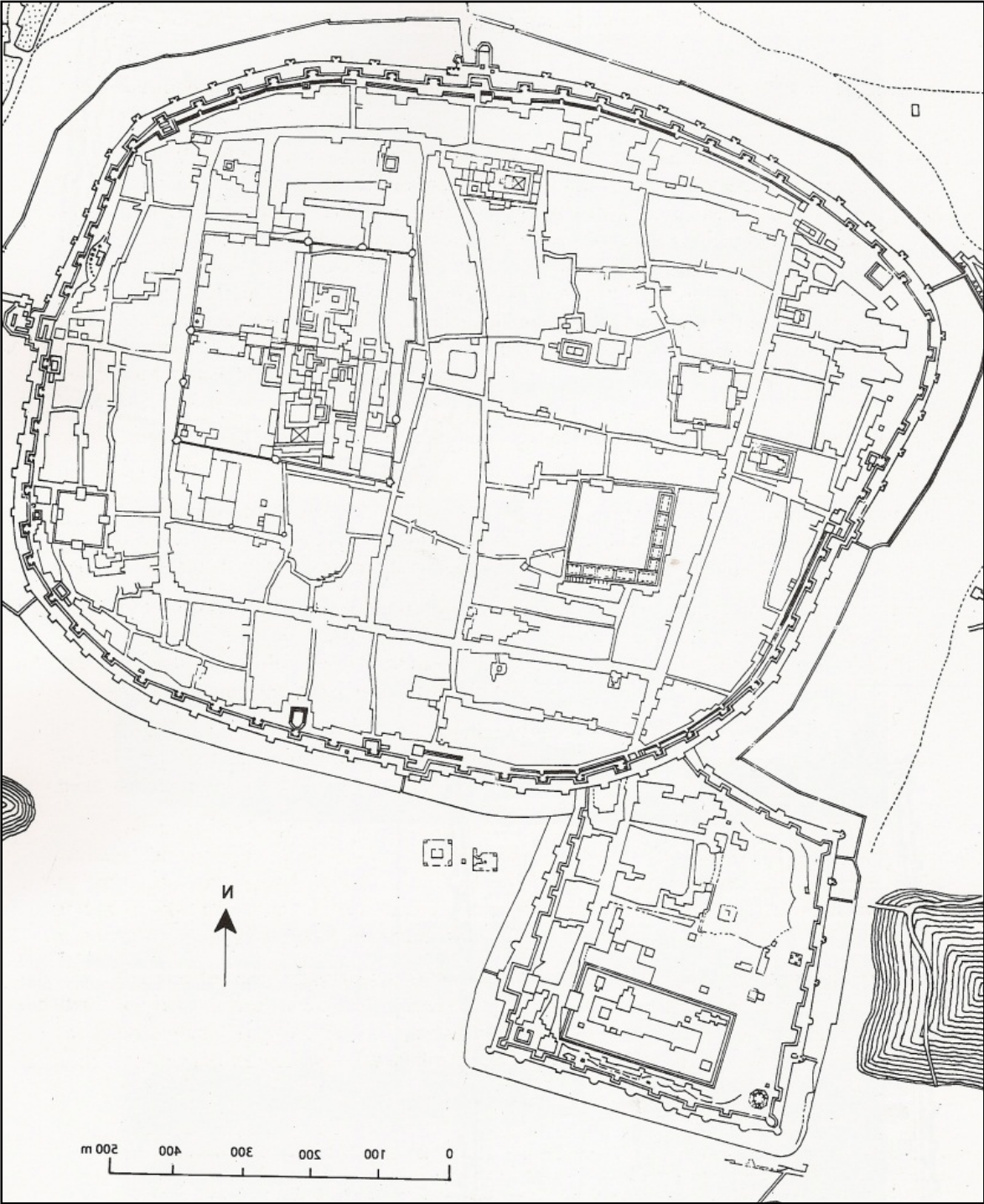
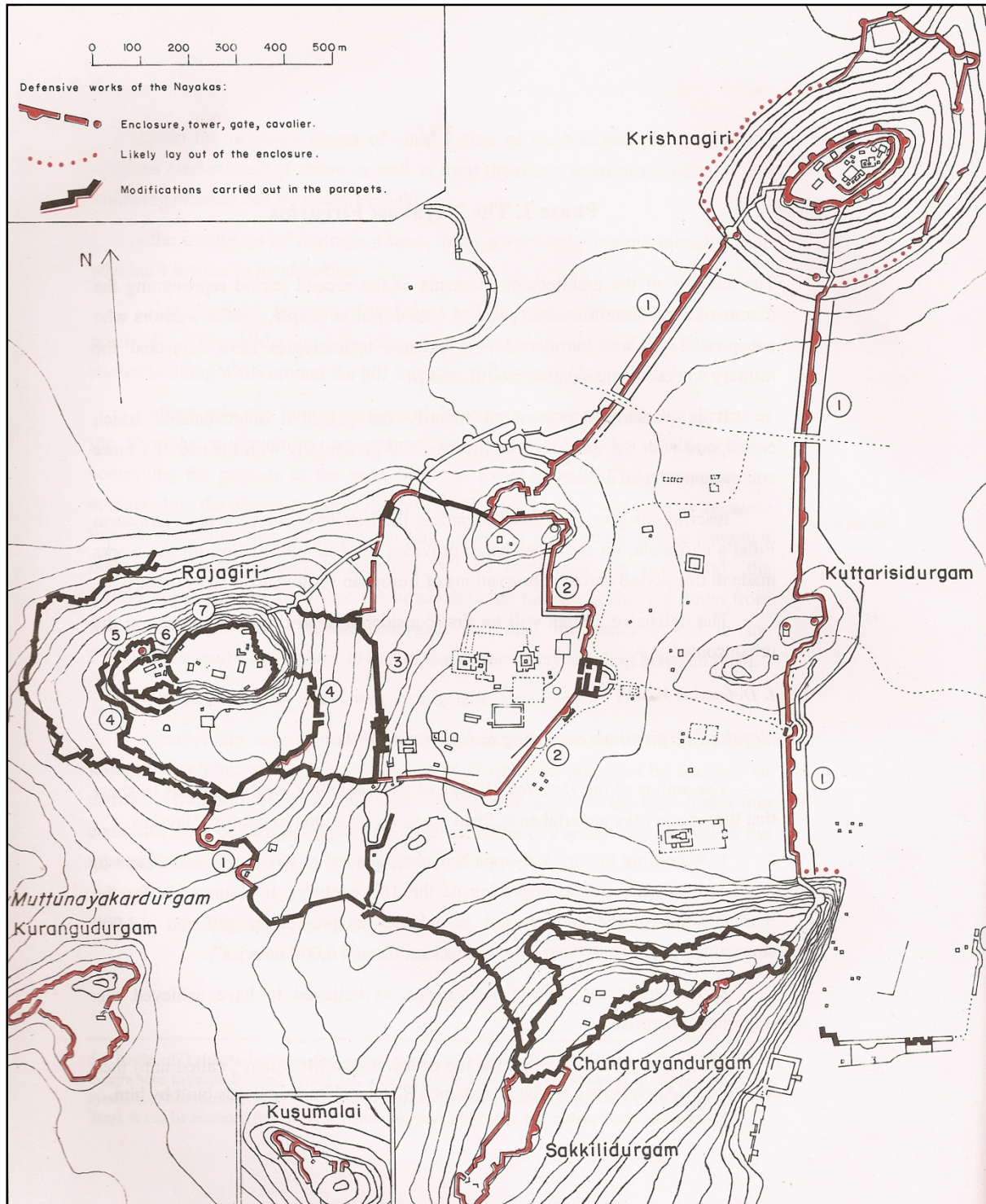


Figure 3.8: Gingee, Nayaka Period Fortifications (Deloche 2007)



The most extensive work on a nayaka period site was undertaken at Gingee by the French scholar Jean Deloche (2005). This research focused on understanding the nature of military fortifications at the site, rather than being a holistic project recording all types of sites and remains. The Gingee<sup>22</sup> Nayakas ruled territory which was located in what is now northeastern Tamil Nadu. At its peak it comprised of the modern districts of Kanchipuram and Thiruvallur (together formerly Chingleput, Tiruvannamalai) and Vellore (together formerly North Arcot), Cuddalore and Villupuram (together formerly South Arcot) and South Arcot, (Rajayyan 1974, 1982; Srinivasachari 1943). Architectural remains at Gingee were documented with the goal of understanding the sequence of south Indian military infrastructure from the imperial period through the Colonial era and illustrate extensive defenses that likely date to the later independent period of the polity (Deloche 2005) (Figure 3.8).

That the Vijayanagara Empire was vested with sovereignty over its territory and people is a given assumption, and it is evident from historical chronology that its power waxed and waned and varied throughout its territory. The broad view presented in this chapter serves as a background for a more localized discussion of the Keladi-Ikkeri region in chapter four. The site plans presented in this chapter serve as scales against which the sites at Keladi and Ikkeri, discussed in chapter five, might be compared. Taken together, these build a background for moving toward an understanding of sovereignty as vested at the regional level in the Keladi-Ikkeri Nayakas.

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<sup>22</sup> Gingee appears in the literature under many different names and spellings, including: Cenci and Senji (Tamil transliterations); Gengi, Gingi, Giny (French); Gingee (British); Badshahbad (Bijapur); Candi (Maratha); and Nushratgarh (Mughal) (Deloche 2000:16-17). For purposes of continuity, the common English spelling has been adopted throughout this paper.

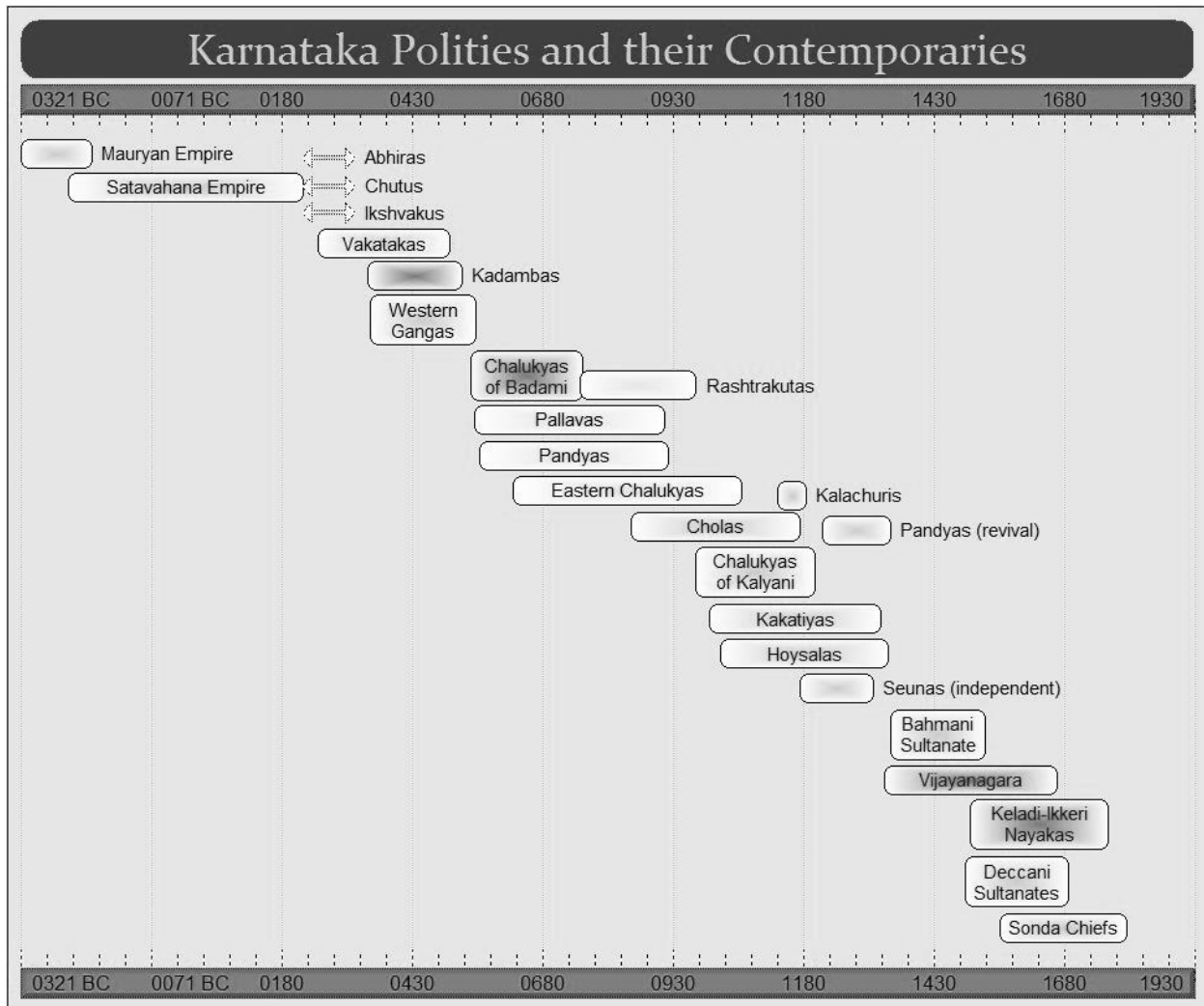
## **CHAPTER 4: KELADI-IKKERI IN REGIONAL CONTEXT**

Following the broad imperial scope of the preceding chapter, this one focuses more closely on the Keladi-Ikkeri Nayakas and their core territory, providing a background for presentation of the results of archaeological survey and a discussion of their political process of regional government. I begin with a chronology and historiography of Keladi-Ikkeri Nayakas, tracing their dynastic history and discussing their inscriptional record. Of particular interest, is the period of transition from Imperial to Independent Nayakas. I also discuss Keladi-Ikkeri in the modern era, which here encompasses their rule while at the final capital of Bidnur, and time between their fall and the present. I briefly address contemporary Shimoga District, and outline administrative and historiographical issues deriving from colonial boundaries and documentation.

### **Chronology and Historiography of Keladi-Ikkeri**

The heartland of Keladi-Ikkeri lies in the eastern foothills of the Western Ghats of India in modern Shimoga District of Karnataka State, where the Nayakas ruled from 1499-1763 C. E. Karnataka has been ruled by states for over two millennia; some of these are presented in Figure 4.1. Most recently before their incorporation into Vijayanagara, Keladi and Ikkeri were part of a larger network of Hoysala subordinates; it is unclear exactly who was ruling and what the territorial subdivisions were directly before Vijayanagara claimed rule over the region. It is likely, however, that following a pattern which continued into the Nayaka period, there were local divisions which persisted after the end of Hoysala rule.

Figure 4.1 Timeline of Dynasties in Karnataka



The Keladi-Ikkeri Nayakas have enjoyed variable credibility in the historical record. Depending on the historian, they range from pretenders to sovereigns and from powerful to insignificant. If Vijayanagara is the “forgotten empire” according to Sewell (1883), then in his view the Keladi-Ikkeri Nayakas could be called the forgettable kings. According to him, the *rajās*, or kings, of Ikkeri, Keladi or Bidnur ruled over a principality in Maisur [colonial Mysore] from 1560-1763 and these “chiefs do not appear to have been very powerful at any time” (37). Indeed, Sewell devotes little more than a page to the rulers in his *Sketch of the Dynasties of Southern India* (37-38), within which he presents what may be termed in light of later works as an abbreviated and inaccurate genealogy; his stated sources were Buchanan (1807), Wilks (1810) and Rice (1876-



78). Interestingly, Buchanan does have a lot to say on the subject of “Ikeri,” as further discussed below. Though Rice’s later works are informative regarding the Keladi-Ikkeri Nayakas, this early version of later gazetteers is sparse on the subject. In contrast to Sewell’s perspective, Rice (1909) stated of the Keladi kings that “their State was the most considerable and wealthy of those to have been conquered by Haidar Ali and annexed to Mysore” (156). Stein (1993) stated the “Keladi chiefs...arose in Vijayanagara times and came to enjoy an extensive sovereignty...At its greatest, the Ikkeri rajas controlled a territory nearly as large as the Vijayanagara heartland, some 20,000 square miles, extending about 180 miles south from Goa along the trade-rich Kanara coast” (83-84). In contrast to Sewell’s perspective, Rice stated of the Keladi kings that “their State was the most considerable and wealthy of those to have been conquered by Haidar Ali and annexed to Mysore” (1909:156).

According to literary sources from the seventeenth century, the dynasty was formally established at Keladi in 1499 by Chaudappa (1499-1513), who received a mandate to govern from the imperial king (Chitnis 1974; Dikshit 1981). In the period preceding this event, Chaudappa and his brother Bhadrappa are said to have been divinely guided to a treasure trove which elevated them from their born status as agriculturalists to the position of local rulers. Their power attracted the attention of the rulers of Vijayanagara, for whom the brothers undertook military service and from whom they eventually earned land grants and the nayaka title. There is some debate as to the exact order of these events, and some additional mythology involving the sacrifice of two servants, whose voluntary deaths secured the fortune of the family, is related by Rice (1909:156) but cannot be substantiated.

Krishnamurthy (1988: 235) provided the earliest cited date, for establishment of the Keladi-Ikkeri kingdom at 1429 C.E., though this isn’t substantiated epigraphic evidence. It is likely drawn from the *Shivatattva Ratnakara*, an encyclopedic work in Sanskrit authored by a later nayaka; this work has not been translated into English, only summarized in detail (Krishnamurthy 1995). Confusingly, Chitnis (1974:5) states both that it was compiled by Basavappa Nayaka, who ruled at the beginning of the eighteenth century, and that it seems to have been written between 1763 and 1804. Another work of significance to establishing the history of the Keladi-Ikkeri Nayakas is the *Keladinrupavijayam*, written in Kannada by the court poet Linganna. This work has not been published in English, and is available only in print in

Kannada, as edited by R. Shama Sastry in 1921 (second edition 1973). A colonial era translation exists in handwritten manuscript form (British Library 19<sup>th</sup> c). This handwritten manuscript was likely made as part of the British colonial investigations after the Mysore Wars of the late eighteenth and early nineteenth centuries, and is part of the Mackenzie Collection of manuscripts.

As was done for the Vijayanagara Empire in chapter three, chronologies and genealogies of the Keladi-Ikkeri dynasty as presented by historians have been compared using data from major secondary sources (Table 4.1). Though there is only one Keladi-Ikkeri dynasty to represent, there are similarities in the historiographic interpretation which result from different views of the inscriptions, succession, and of joint rulership. Accompanying this comparative table is a study of Keladi-Ikkeri inscriptions which I have undertaken from summaries and translations published in English. As for the Vijayanagara Empire, Nayaka inscriptions are dominated by stone stela and copper plate inscriptions, though there are also inscriptions made on temples and objects (such as donor icons), as will be discussed further below.

The first known epigraph of the dynasty (Table A.1: EJB 1) is stone stela land grant from 1506, in which Chaudappa, the founder the Keladi-Ikkeri line, is referred to only as Edava-Murari, and the title of nayaka is not used; the title of Edava-Murari is sometimes interpreted to refer to the two servants who are said to have sacrificed themselves to the family for its fortune (REF). The second, and last, epigraph attributed to Chaudappa (Table A.1: EJB 2) is a copper plate grant shared with his son Sadashiva, making over a priest the right to collect a land tax in certain villages for priestly rituals honoring Shiva; it was mentioned as given in the presence of Rameshvara on the bank of the Varada River. In this grant, Chaudappa is also called Edava-Murari, and also kote-kolahala, and is given many honorary religious titles of patronage, but only Sadashiva is called Nayaka.

Table 4.1: Chronologies and Genealogical Relationships of the Keladi-Ikkeri Nayakas (C. E.)

<b>Nayaka/Regnal Term (No=accepted ruler, Letter=contested)</b>	<b>Relationships</b>	<b>Sewell (1883)</b>	<b>Rice (1909)</b>	<b>Naraharayya (1930/31, 1931/32)</b>	<b>Swaminathan (1957)</b>	<b>Chitnis (1974)</b>
<b>1. Chaudappa<sup>1</sup></b>	son of Basavappa, elder brother of Bhadra, father of 2 and A	--	1499-1513	1499-1515	1500-1540	1499-1513
<b>2. Sadashiva<sup>2</sup></b>	son of 1, elder brother of 2, father of 3 (by Viramambe) and 4 (by Bhadramambe)	1560-1576	1513-1545	1513-1545	1540?-1565	1513-1563
<b>A. Immadi Sadashiva (Bhadrapa)<sup>3</sup></b>	son of 1, younger brother of 2	1576-1585	--	--	1566	--
<b>3. Dodda Shankanna (Shankanna I)</b>	son of 2, elder (half) brother of 4, father of 5 and 6, uncle of B	1585-1596	1545-1558	1545-1558	1566/7-1571	1563-1570
<b>4. Chikka Shankanna (Shankanna II)</b>	son of 2, younger (half) brother of 4, father of B, uncle of 6 and 5	1596-1603	1558-1570	1558-1570	1570-1586	1570-1580

<sup>1</sup> Sewell named Sadashiva as the first ruler and dynastic founder, and stated that he was the eldest son of Basavappa-gauda. Chaudappa and his ancestors do not appear in his genealogy.

<sup>2</sup> Stein follows Swaminathan in assigning the later date of 1540 to the transition between Chaudappa and Sadashiva (1993:84).

<sup>3</sup> Sewell referred to this ruler as Bhadrappa and illustrated his relationship as the brother of Sadashiva. Swaminathan referred to this ruler as Immadi Sadashiva or Bhadra and also illustrated his relationship as the brother of Sadashiva. Rice showed no brother of Sadashiva in his genealogical chart, while Chitnis named Sadashiva's brother as Bhadrappa; both agree that this man did not rule.

<b>Nayaka/Regnal Term (No=accepted ruler, Letter=contested)</b>	<b>Relationships</b>	<b>Sewell (1883)</b>	<b>Rice (1909)</b>	<b>Naraharayya (1930/31, 1931/32)</b>	<b>Swaminathan (1957)</b>	<b>Chitnis (1974)</b>
<b>B. Siddhappa<sup>4</sup></b>	son of 4, first cousin of 5 and 6, father of 8 and 9	1603-1604	--	--	--	--
<b>5. Ramaraja</b>	son of 3, elder brother of 6, first cousin of B, uncle of 8 and 9, and C <sup>5</sup>	--	1570-1582	1570-1582	--	--
<b>6. Venkatappa I</b>	son of 3, younger brother of 5, first cousin of 5, father of C, uncle of 8 and 9, grandfather of 7	1604-1626	1582-1629	1582-1629	1586-1629	1582-1629
<b>C. Bhadrappa<sup>6</sup></b>	son of 6, nephew of 5, father of 7	1626-?	--	--	--	--
<b>7. Virabhadra</b>	son of C, shared great-grandfather with 8 and 9	?-1649	1629-1645	1629-1645	1629-1645	1629-1645

<sup>4</sup> These sources all agree in illustrating Siddhappa as the son of Chikka Shankanna but only Sewell illustrates him as the elder brother of Shivappa. All other sources agree that he did not rule.

<sup>5</sup> Chitnis and Rice illustrated Ramaraja as elder to Venkatappa I, while Swaminathan illustrated him as younger. Sewell doesn't include this man in his chart.

<sup>6</sup> Sewell seems erroneously to have attributed rulership first to Bhadrappa, the son of Venkatappa I, and next, to Bhadrappa's son Virabhadra. Other sources appear to agree that Bhadrappa never ruled as nayaka.

<b>Nayaka/Regnal Term (No=accepted ruler, Letter=contested)</b>	<b>Relationships</b>	<b>Sewell (1883)</b>	<b>Rice (1909)</b>	<b>Naraharayya (1930/31, 1931/32)</b>	<b>Swaminathan (1957)</b>	<b>Chitnis (1974)</b>
<b>8. Shivappa</b>	son of B, shared great-grandfather with 7, brother of 9, father of 10 (by second wife, Shantammaji) and 11 (by fourth wife, Basavalingammaji), father-in-law of 12	1649-1671	1645-1660	1645-1660	1645-1660	1645-1660
<b>9. Venkatappa II<sup>7</sup></b>	son of B, shared great-grandfather with 7, brother of 8, uncle of 10 and 11, uncle-in-law of 12	--	1660-1661	1660-1661	1660-1661	1660-1661
<b>10. Bhadrappa</b>	son of 8 (by second wife, Shantammaji), nephew of 9, half brother of 11, brother-in-law of 12, uncle of 13	1671-1681	1661-1663	1661-1663	1662-1664	1661-1663
<b>11. Somashekhara I</b>	son of 8 (by fourth wife, Basavalingammaji), nephew of 9, half-brother of 10, husband of 12, adopted father of 13	1681-1686	1663-1671	1663-1671	1664-1671	1661-1667

<sup>7</sup> He is omitted from Sewell's genealogy.

<b>Nayaka/Regnal Term (No=accepted ruler, Letter=contested)</b>	<b>Relationships</b>	<b>Sewell (1883)</b>	<b>Rice (1909)</b>	<b>Naraharayya (1930/31, 1931/32)</b>	<b>Swaminathan (1957)</b>	<b>Chitnis (1974)</b>
<b>12. Chennammaji (Dodda Chennammaji)</b>	daughter-in-law of 8, niece-by-marriage of 9, sister-in-law of 10, wife of 12, adopted mother of 13	1686- 1698	1671-1697	1671-1679	1671-1696	1661- 1697
<b>13. Basavappa I (Basappa I or Basavaraja or Basava Bhupala)</b>	adopted son of 11 and 12, natural son of Mariyappa Shetti, father of 14 (by third wife, Chenna Basavammaji), grandfather of 15 (who was the son of a son by his fourth wife)	1698- 1714	1697-1714	1679-1714	1696-1714	1697- 1714
<b>14. Somashekhara II</b>	son of 13 (by third wife, Chenna Basavammaji), half-uncle of 15	1714- 1740	1714-1739	1714-1739	1714-1739	1714- 1739
<b>15. Basavappa II (Basappa II or Buddhi Basavappa)</b>	grandson of 13 (son of Virabhadra, son by 13's fourth wife, Hebbe Chennammaji), husband of 17, adoptive father of 16 and 18	1740- 1753	1739-1754	1739-1754	1739-1p757	1739- 1754
<b>16. Chennabasavappa (Chinna Basavanna or Channa Basappa)</b>	adopted son of 15 (and 17?), natural son of Guruvappa	1753- 1755	1754-1757	1754	--	1754- 1757

<b>Nayaka/Regnal Term (No=accepted ruler, Letter=contested)</b>	<b>Relationships</b>	<b>Sewell (1883)</b>	<b>Rice (1909)</b>	<b>Naraharayya (1930/31, 1931/32)</b>	<b>Swaminathan (1957)</b>	<b>Chitnis (1974)</b>
<b>17.Virammaji</b>	wife of 15, adoptive mother of 18 (and 16?)	--	1757-1763	1754-1757	1757-1763	1757- 1763
<b>18.Somashekhara III</b>	adopted son of 15 and 17	1755- 1763	n.d.	1757-1763	--	1757- 1763

Textual sources are in conflict regarding the move of the capital to Ikkeri. Based on the *Keladinrupavijayam*, Chitnis stated that this was undertaken by Chaudappa (1499-1513) himself in 1511-12, though he noted that Rice placed the transition later at 1560. One would expect that forty years difference might have an impact on the extent of investment in infrastructure at the first capital. The first Nayaka is credited with founding the town and temple and with building a palace, but there is a dearth of secondary evidence of other civic structures. What we do know is that by the end of the second Nayaka's rule the capital was established at Ikkeri, while the Nayakas' names continue to be prefaced by Keladi in the inscriptional record. At a later point, Ikkeri becomes a common reference as well. The issue of chronology between the capitals and implications for the timing of moves is discussed further in subsequent chapters.

Since we have moved from the period of literary sources to discussion of the inscriptional record, it is important to step back and consider that body of work as a whole before proceeding. I have documented 117 published inscriptions (3 joint mentions) representing the record from Chaudappa through Virabhadra (Figure 4.2), which corresponds generally to the period of study in which this research is interested, ending in 1645 (see Appendix A for references). Though it is not discussed here, the inscriptional record of the Keladi-Ikkeri Nayakas continues to the last of its rulers, encompassing almost three hundred total inscriptions. This number is somewhat misleading, however, because as the dynasty progressed through time, the traditional means of inscription were increasingly replaced by documentary communications and daily recordkeeping, at least in terms of what is reflected in the record which survives from the later period. The beginning of this trend can be seen in the progression from stone stela dominated to copper plate dominated record over the tenure of the first seven Nayakas (Figure 4.3). Chaudappa was succeeded by his son Sadashiva (1513-1563/5), who appears in later epigraphs with numerous honorific titles, including that of *Raya Nayaka*, indicating his position as a state ruler, the earliest mention of this title being in a copper plate from 1524 (Table A.1:15), though the earliest wholly reliable inscription in which Sadashiva is titled *Nayaka* is a 1544 record of donation for temple worship, in which Sadashiva is given the title of *Raya-Nayaka* (Table A.1: EJB 3). This stela was set up in front of the Hanuman Temple (Table A.1: EJB 9).



Figure 4.2: Keladi-Ikkeri Inscriptions, Number Issued Under Each Ruler

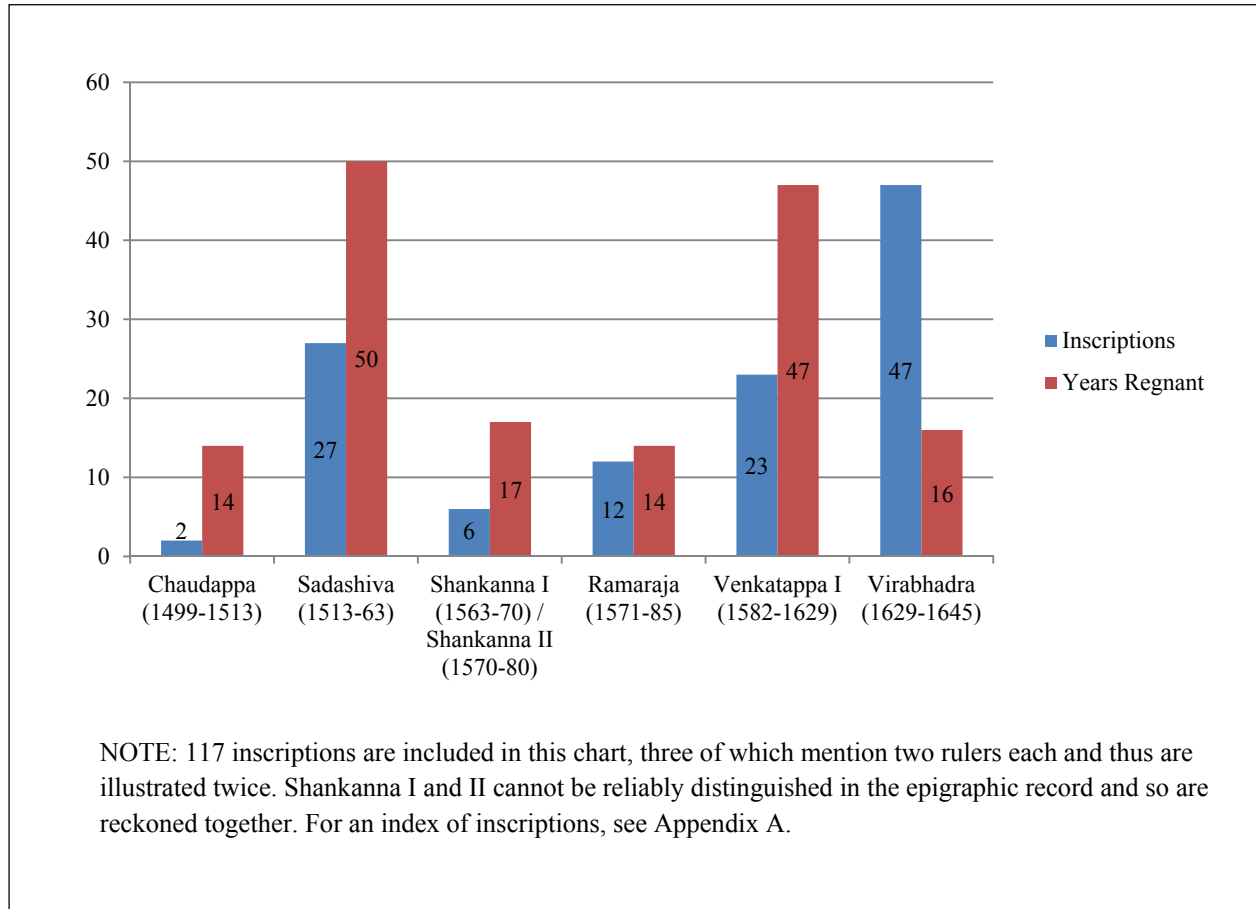
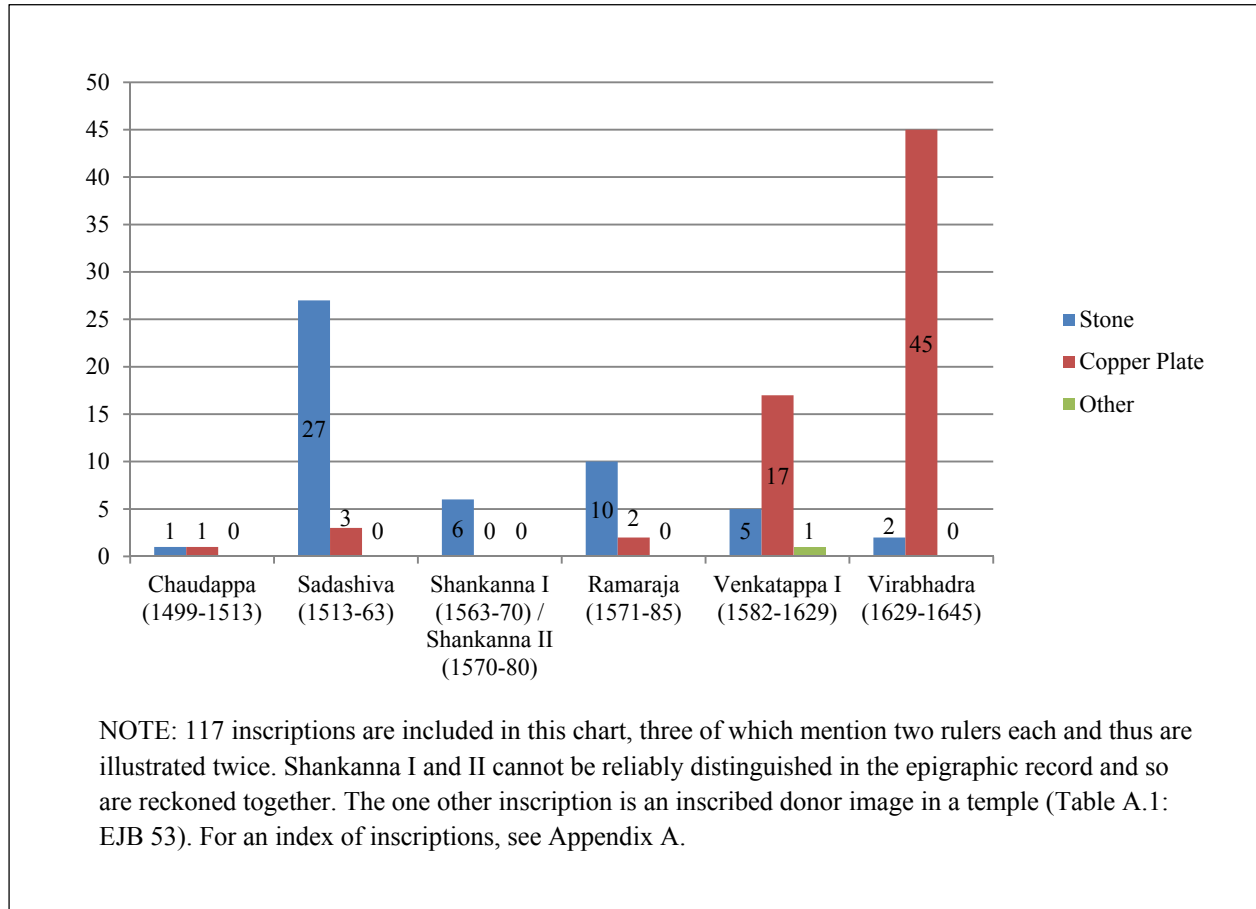


Figure 4.3: Keladi-Ikkeri Inscriptions, Types of Inscriptions Issued Under Each Ruler



There is a significant break in the timeline of inscriptions between 1509 and the next known inscription of 1544, with only two being issued in that interim period (Table A.1: EJB 15 and 18). It may be assumed that the inscriptional record we have to study is incomplete through processes of loss, damage, and recycling of stone or valuable copper that can easily happen in the years between the end of a ruling authority and subsequent historical interest. Nevertheless, such stone and copper plate evidence of rights granted long ago is still used today to justify current claims, both legal and moral, in communities. So it is worth considering whether such a slow rate of inscription issuance over that thirty-five year period might have some past cultural significance, being not merely a result of incompleteness, and this requires a closer examination of the record over time. When the patterning of issuance is considered by reign, the results produce three unconvincing peaks (Figure 4.4), however, when the results are considered by year the patterning is much more dramatic (Figure 4.5).

Figure 4.4: Keladi-Ikkeri Inscriptions, Average Per Year Under Each Ruler

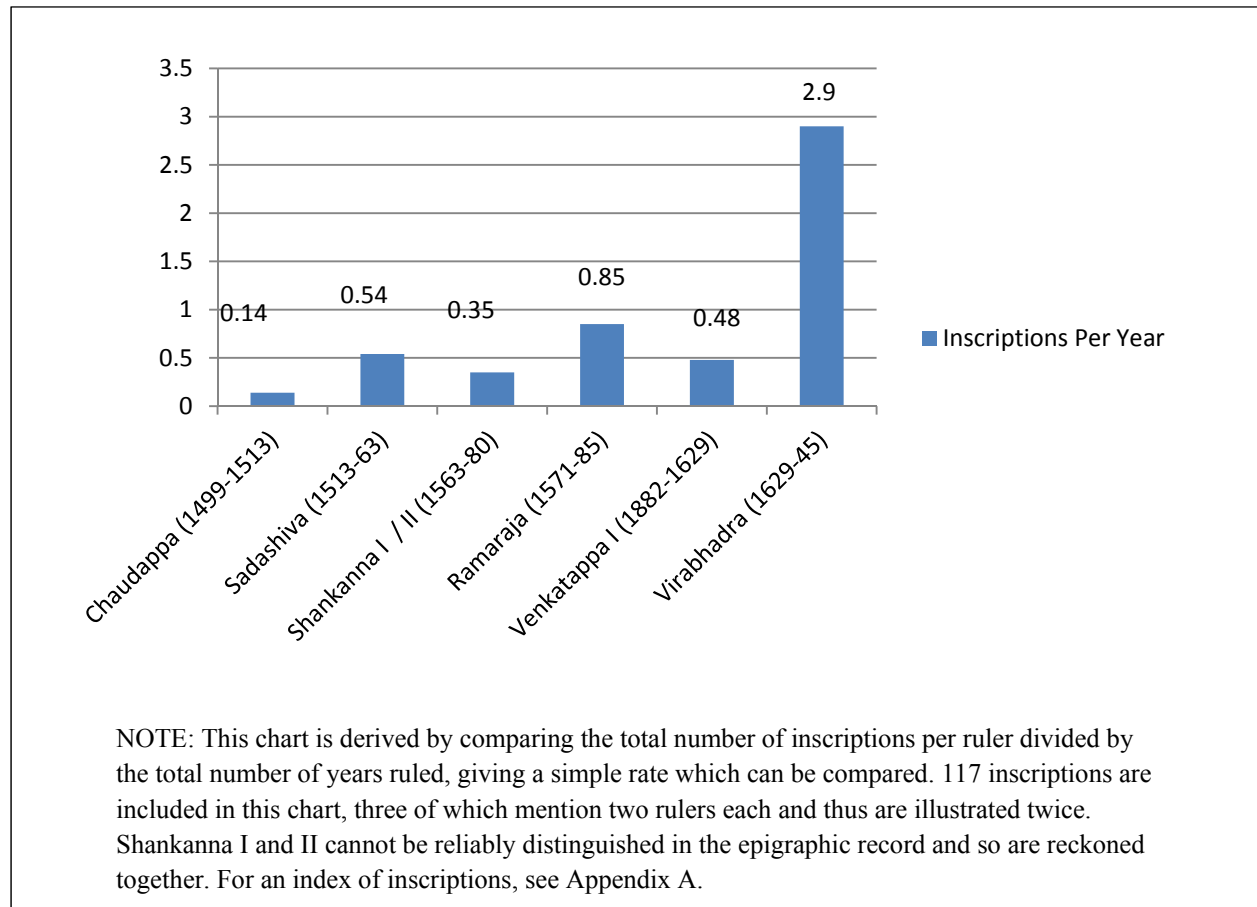
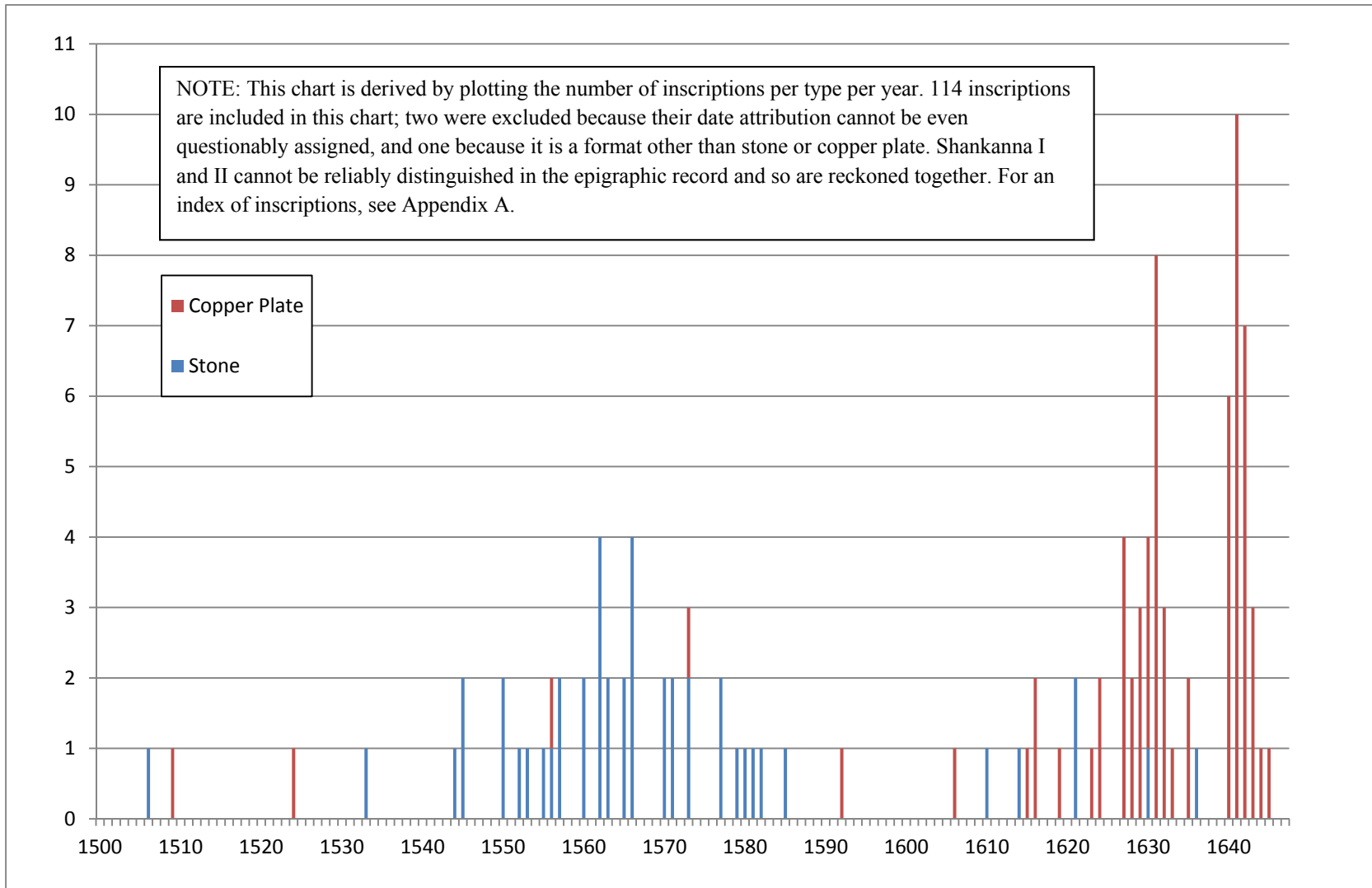


Figure 4.5: Keladi-Ikkeri Inscriptions, Types of Inscriptions Issued by Year



The only two inscriptions we have for a 35 year period from 1509 to 1544 are somewhat unusual. The inscription of 1524 is a copper plate granting titles from Sadashiva Nayaka to a local leader, though the dating in the inscription does not reconcile and it is quite worn; whether or not this is a legitimate inscription may be taken up elsewhere. The inscription of 1533 would be a straightforward stone stela land grant made to a temple by Shankanna Nayaka, though it is far before his own rule and Sadashiva is not mentioned.

What is obvious in looking at overall distribution of inscriptions is that they correlate well with periods of major change in the history: the peak of stone inscriptions falls around the 1565 Battle of Talikota and Vijayanagara dynastic shift from the Tuluvas to the Aravidus, and the peak of copper plate inscriptions surrounds the 1639 shift of capitals from Ikkeri to Bidnur. As Morrison and Lycett have noted (1994) regarding Vijayanagara inscriptions, “two kinds of inscriptions exist: public and semi-public lithic inscriptions carved into temples, built into reservoirs, and set up on slabs in villages and fields; and private and semiprivate copper-plate inscriptions held by individuals or associations. Additionally, stone is immovable (or difficult to move), and its large display sends a message even to illiterate observers who cannot read the actual text, while copper plate is portable, made in a more valuable material, and small enough to move (and make disappear) quite easily (Morrison and Lycett 1997:219). Copper plates could, and were, often forged (Nilkanta Shastri 1955; Morrison and Lycett 1997: 219), and the semi-private or private nature of their ownership made this much more possible than for stone inscriptions.

What the difference in audience between stone and copper plate inscriptions tells us about the two peaks of issuance under the Keladi-Ikkeri Nayakas, is that during the first peak it was quite important to have a public message of leadership conveyed, which makes sense given that Vijayanagara was undergoing succession struggles and political challenges in the years preceding their crushing military loss in 1565, and that there was an abrupt dynastic change and shifting of capitals afterward. Looking at the inscriptions of this period, it is obvious that even when the event commemorated was undertaken by someone other than the Nayaka himself, it was still of prime importance that proper homage be paid to the actual rulers of Vijayanagara, regardless of dynasty or location.

In 1552, a stone inscription (Table A.1: EJB 7) referred to Sadashiva of Vijayanagara as

Raja Maharaya, or king of kings. By the time of a 1556 copper plate inscription (Table A.1: EJB 10), Ramarajayya was named as ruling as lieutenant for Sadashiva Raya at Vijayanagara. And in 1562, one stone inscription (Table A.1: EJB 12) named Ramaraja as “ruling from the jeweled throne” for Sadashiva at Vijayanagara, a second stone inscription (Table A.1: EJB 14) named Venkatadri as administrator for Sadashiva at Vijayanagara, and a third stone inscription (Table A.1: EJB 21) named both Ramaraja and Venkatadri as ruling for Sadashiva at Vijayanagara. Thus, the Keladi-Ikkeri Nayakas and their own subordinates were well aware of the usurpation in progress and had begun to place public bets in favor of Aravidu dominance.

During the second peak of inscriptions surrounding the 1639 shift from Ikkeri to Bidnur, the type used in abundance was copper plates, which were used in most cases to document land grants. The majority of land grants were made to religious institutions, including three to Mosques (Table A.1: EJB 57, 58, 78). Accompanying some of the land grants were also remissions from taxes, indicating that there was a well-developed revenue system which was expensive enough that a break from its rates was a significant advantage. This body of inscriptions was devoted to patronage, revelatory of economic conditions, and reflected significant Nayaka investment in maintaining relationships with institutions whose religious authority could underwrite their political power.

Turning back now to the Nayakas themselves, we continue with the lengthy reign of Sadashiva Nayaka (1513-1563/5), which was fruitful in establishing the Keladi-Ikkeri rulers as leaders upon whom the Vijayanagara Empire could depend. He was rewarded for services with the Chandragutti, Barkur, and Mangalore provinces; these included important coastal areas that would ensure the fortunes of later rulers in trade, especially with foreign arrivals. His military contributions to the empire included successful campaigns against Kalyana, Gulbarga and Bijapur; he was also given the right to affix the title Raya Nayaka to his name. Like his father and the entire line of nayakas after him, Sadashiva was a devout Lingayat, or practitioner of Virashaivism. He made many donations to religious institutions, including to the monastery at Shringeri, which was also of great symbolic significance to the Vijayanagara Emperors until a transition to Vaishnavism in the Tuluva Dynasty.

However, the Keladi-Ikkeri Nayakas soon faced a succession dispute of their own. After the death of Sadashiva, Immadi Sadashiva (1566?) briefly asserted rule before Dodda Shankanna (1563/5-1570) took power. Dodda Shankanna defeated many petty chieftains to take control of

the coast in the west, and demonstrated a will to expand nayaka territory. He was succeeded by his brother Chikka Shankanna (1570-1580), who also fought military campaigns to expand Keladi-Ikkeri territory, defeating Salabat Khan of Bijapur and gaining the fort of Udugani. He is also credited with having built a grand palace at Ikkeri. Chikka Shankanna opted to follow rules of succession that passed over his own son, Siddhappa, who according to Swaminathan did not rule as was asserted by Rice (Chitnis 1974:38). The eldest son of Dodda Shankanna, Venkatappa I, was named as successor and his younger brother, Ramaraja was designated heir. Though the status of the Vijayanagara Empire had changed dramatically after 1565, the Keladi-Ikkeri Nayakas didn't formally assert their own independence until well after the accession of Venkatappa I (1582-1629).

Busy with internal politics and now geographically more distant from the Vijayanagara court, the Keladi-Ikkeri Nayakas maintained sovereignty under empire even after the defeat at Talikota in 1565. Venkatappa I (1582-1629) was the first nayaka to openly declare independence from the empire; it is likely that loyalty to the remnants of Vijayanagara had been maintained until that point more out of convenience than necessity. Sewell (1900) stated that "the Ikkeri or Bednur chiefs styled themselves under-lords Vijayanagara until 1650, though as evidence he cites only an account by Pietro della Valle of his 1623 visit to Ikkeri (220). According to Rice, his main achievements were driving back the forces of Bijapur as commanded by Randulha Khan and extending Keladi-Ikkeri territory in the north and east to Masur, Shimoga, Kadur and Kavaledurga. Venkatappa I also secured victory over the queen of Gersoppa, the "pepper queen of the Portuguese," who had been a feudatory of Bijapur, thus securing coastal territory south to the borders of Malabar. In 1621 he re-established the Shringeri matha. In 1623, the Viceroy of Goa sent an embassy to him to form an alliance that would secure the pepper trade from British and Dutch interference (1909:157-8). Also under Venkatappa, a tree-lined road was built from Sagara to Ikkeri, and a new palace was built at the capital (Naraharayya 1931-32:75).

Venkatappa I is credited with building Kavaledurga (or Bhuvanagidurga), now an ASI protected fort of built on the one of the highest peaks in the Western Ghats; some historians cite this fort as a fourth capital (K. G. Jois 2008, K. V. Jois 2011). Venkatappa I is said to have built the fort (renaming it Bhuvanagiri; though it is more likely this was actually a refurbishment) and with installed the linga at the Kashiviveshvara Temple that was built inside what Michell terms

as the uppermost circuit of walls at this formidable fort (2001:271-2). Again, archaeological remains here are very extensive and unpublished. Whether or not Kavaledurga was a functioning capital is not a question considered in this work, but there is no doubt given its location and scale that it was a significant location of political and economic importance in the later part of the Independent Nayaka Period.

In his work on the political economy of late medieval South India, Subrahmanyam (2004: 85) observed that the sixteenth century was a time of reorientation of great overland arteries of trade, during which Ikkeri became linked to Basrur, Bhatkal and Honawar along the west coast of India. He also noted that, “in the ten years following 1565, the imperial centre of Vijayanagara effectively ceased to be a power as far as the western reaches of the peninsula were concerned, leaving a vacuum that was eventually filled by Ikkeri and Mysore,” the latter of which remained a landlocked polity (Subrahmanyam 2004: 134, 232).

Though historians agree that independence was declared under Venkatappa I, it seems that ties to the waning empire were not completely severed. One of Venkatappa's daughters married Venkatadri Nayaka of Belur, who was of the Vijayanagara line (possibly brother to Rama Raja, though sources are unclear on this). Chitnis (1974:14) stated that inscriptional evidence indicates that in 1614 Venkatappa was still loyal to Vijayanagara, but that by 1623 he was an independent monarch. This is based on an account by the Italian traveler Pietro della Valle, who visited Ikkeri in that year; the trip inland was motivated by nayaka accession of valuable coastal territory. Though he acknowledged Venkatappa as sovereign, Della Valle noted a lack of the usual trappings of kingship, stating that there were no monumental cities, armies or palaces, and was unimpressed by the “smallness of this court and prince” (Rubiés 2000:361-2).

It is easy to understand why independence from Vijayanagara would be desirable by the early seventeenth century. After a bitter and bloody succession dispute, Ramadevaraya (1616/8-1630/3) was crowned king, though his energies were devoted to maintaining his own sovereignty over a local region surrounding Chandragiri. He was succeeded by a grandson of Rama Raja, Peda Venkata, who was eventually crowned as Venkata III (1630/3-1642 C.E.). However, the uncle of Ramadevaraya questioned his mandate to rule, seized the government, and forced Venkata to remain at Anegondi, across the river from the remains of Vijayanagara. During this time, Ikkeri, no longer the nayaka capital, was apparently besieged and conquered by both



Bijapur and Vijayanagara's Aravidu dynasty. Shriranga III (1642-1664/9), Venkata's nephew, was the last acknowledged ruler of the line. He was overwhelmed militarily by the allied forces of Bijapur and the Madurai Nayakas; his ultimate end is not known.

Sewell stated that, the "history of the seventeenth century in Southern India is one of confusion and disturbance. The different governors became independent. The kings of the decadent empire wasted their wealth and lost their territories, so that at length they held a mere nominal shadow of the once great name—the prestige of family" (1900:219-20). In contrast, Narayana Rao et al. stated, "the Nayakas witnessed (and partly produced) a profound shift in the conceptual and institutional bases of south Indian civilization...Moreover, as just noted, Nayaka south India has been largely ignored, its cultural universe devalued and disdained, until very recent times" (1992:x). If the former scholar was disenchanted by what he viewed as the decay of a great institution, then the latter suggest that the period was one of dynamic change and development.

Venkatappa I was succeeded by his nephew, Virabhadra Nayaka (1629-1645), whose main claim to fame was relocating the capital away from Ikkeri. Under obvious pressure from rising power of Bijapur in the north, he moved the capital of the kingdom to Bidnur in 1639. Though Ikkeri was attacked repeatedly, Virabhadra avoided multiple incursions by Bijapur through an alliance with the rajas of Sonda and Bilige and the chiefs of Tarikere and Banavar. Connections with Vijayanagara rulers had not ceased completely, as Virabhadra was referred to as "the long right arm" to Venkata III. It is unclear exactly how much power Virabhadra himself exercised. Some sources state that Shivappa Nayaka ruled jointly from the beginning of his reign, and there is no doubt that he eventually became the most powerful of the Keladi-Ikkeri Nayakas.

Shivappa Nayaka (1645-1660), as a military leader before his accession, is given credit for most of the military victories that occurred during Virabhadra's reign, and by the time he assumed the throne he had established the kingdom as a strong force. Throughout his reign, he was involved in the affairs of the last Aravidu ruler, Shriranga III, whose conflicts with Bijapur and Gulbarga eventually led to his taking refuge at Bidnur from 1656-59. Support of Shriranga was portrayed as loyalty to the putative Vijayanagara ruler and resulted in the granting of many superlative titles to Shivappa, though it was obvious that the actual balance of power favored the

Nayaka. As a skilled diplomat, it is possible that Shivappa involved himself in the affair to gain leverage against the powers at his northern borders, and possibly to establish a presence as far to the southeast as Chandragiri, where he repaired the fort (Swaminathan 1957:95). He was acknowledged to have control over the western coast, and thus controlled access to valuable commodities like pepper and rice. Trading relations and diplomacy were conducted with Portuguese, Dutch and English interests, and the resulting wealth enabled Shivappa to maintain formidable military forces.

The reign of the next ruler, Venkatappa II (1660-1661), likely lasted only a year. According to the *Shivatattva Ratnakara*, he crowned his nephew Bhadrappa before he died. Foreign and neighboring powers seem to have been aware of the power vacuum left behind after the death of Shivappa; conflicts with and between the Dutch, English and Portuguese escalated, and Mysore and Bijapur were engaged with wars that continued for some time. Relations with the Dutch were prioritized, while relations with the Portuguese declined.

The reign of Bhadrappa (1661-1661/3/4 C.E.) was also brief and turbulent. Warfare occupied much of the nayaka's energies, as conflict continued with Adil Shah of Bijapur in the north and was initiated against Mysore in the south. In the short time he reigned, Bhadrappa did make attempts to remain on good terms with the Dutch. However, Chitnis (1974) noted that he was "more successful for his generosity and piety than for his military exploits and diplomacy" (20). The circumstances of his death are obscure and the date debated, as can be observed by differences in regnal chronologies. Swaminathan (1957) stated, that the "English records mention that Śivappa Nayaka's son, evidently Bhadrappa, was killed by some Brahmins... This is confirmed by the Dutch sources that advices from Kanara that Bhadrappa Nayaka had been poisoned" (:108, fn18) .

At some point in the early 1660s, Bhadrappa was succeeded by his younger brother, Somashekhara I (1661/3/4-1667). Apparently, Somashekhara was very young at the time and emerged from court intrigue to assume the throne under the protection of a court merchant, Narane Maloe (Swaminathan 1957:109). Early in his reign, the Maratha leader Shivaji raided Keladi-Ikkeri territory and arrived at the gates of Bidnur; his goal was not territorial supremacy, rather, the gain of a large payment with which he departed. Diplomacy with Dutch, English and Portuguese colonial trading powers continued, with concessions of reduced levies granted from

Bidnur during the period. The war against Mysore concluded with Somashekhara suing for peace and paying a large indemnity. Though he was known for liberal patronage of religious institutions, it seems his character was viewed quite differently sometime after he married. He married Chennammaji (1667-1697), who effectively assumed rule in the face of her husband's incompetence. During his decline, Somashekhara is described as mad, addicted to intoxicants, and to have committed atrocities that included murdering a pregnant woman. A late inscription suggests that he was alive until 1677, around which time he was murdered by his own nobles or by a Brahmin named Somayya (Chitnis 1974:20; Swaminathan 1957:114-5).

For a woman placed in a position of great power, the origins of Chennammaji (1667-1697) are strangely unknown. An inscription which records an independent grant she made during Bhadrappa's reign suggests that she possessed some independent power even before her marriage to Somashekhara (Swaminathan 1957:118, fn5). According to the *Keladinrupavijayam*, she learned of plots by two nobles who planned to back separate rivals to the throne. She invited them to Bhuvanagiri (Kavaledurga), where she settled with them and was crowned in March of 1672. Obviously a skillful politician and diplomat, she is regarded as one of the greatest Keladi-Ikkeri rulers and enjoyed a long tenure as queen. She again engaged in war against Mysore; these conflicts were marked mostly by defeat of Keladi-Ikkeri forces and seem only to have ended in a symbolic victory when she captured a general's son who was later released. Her greatest claim to fame was her protection of Shivaji's son Rajaram, who fled Maratha country pursued by Aurangzeb of the Mughals. Chennammaji offered sanctuary to Rajaram and defeated the forces of Aurangzeb in 1690. She was also a great patron of Lingayat religious institutions.

Having no natural children of her own, Cannammaji adopted Basavappa I (1697-1714), reportedly the son of Mariyappa Shetti, a name which indicates his origin in a merchant class; this origin, rather than a higher caste choice among religious or military categories, suggests that the economics of the age might have been a factor in selection of the adoptive heir. The choice, however made, seems to have provoked a local rebellion around Nagara, which was ended after Chennammaji took shelter in another fort and blockaded her capital from the inflow of goods. Basavappa was apparently accepted as the legitimate heir; by the time his adopted mother retired in 1696/7, she had married him to two appropriate wives. Chennammaji died in 1698. Not much is known about the heritage of Basavappa I, aside from his Shetti name is, which is derived from

the Sanskrit for merchant and likely means the nayaka was of the Vaishnava *varna*, the third highest of a four-level inherited group membership which is the part of the derivation of caste. He participated in minor conflicts with Mysore and in major conflicts with the Portuguese; these ended with granting of a trade monopoly to Goa. Basavappa was an avid patron of Lingayat institutions, and was known as an artist as well as a patron of the arts. He is the attributed author of the Sanskrit work *Shivatattva Ratnakara*, as well as other works in Sanskrit and Kannada. His apparent mastery of Sanskrit was befitting to a ruler of his stature, if not to his origins, and probably helped to establish him as such.

Shortly before his death, Basavappa abdicated for his son Somashekhara II (1714-1739), who according to inscriptions had participated in government for several decades. His reign was marked by a series of wars between the ruling houses of the Malabar Coast, the English East India Company, and the Dutch, the Portuguese, and Arab traders. These conflicts were over commercial concerns and led Keladi-Ikkeri to close the port of Mangalore, which was the main west coast trading port at the time (Swaminathan 1957:131). He also built a palace and pleasure garden to the west of the fort at Nagara (these are probably what are now known as the Dēvagaṅga Ponds) and renovated the fort at Bhuvanagiri. Chitnis called Somashekhara II “the last notable king of the Keladi dynasty” (1974:22).

In 1739, Somashekhara fell ill and died in Shimoga, though as with most of the later kings, his body was taken to Bidnur for burial; this practice is in direct contrast with most sects of Hinduism, which opt for cremation over interment, as practiced only by Virashaivites. He was succeeded by his nephew Basavappa II (1739-1754/5), who was “more rich than powerful” (Chitnis 1974:22). The main event of his reign was the arrival of the French East India Company, which the Nayaka managed to use as leverage in his dealings with other foreign interests. Having no children of his own, he adopted a son of Guruvappa, a notable diplomat. Chennabasavappa (1754/5-1757) succeeded to the throne after the death of his adoptive father. As one of Basavappa’s two wives, Virammaji (1757-1763) seems to have been loath to see power pass on to a member of the next generation who was beyond her influence, and it is rumored that she ordered him killed. In a somewhat undignified coda to the story of rulers whose ends remain unknown in the historical record, Swaminathan reported that he was strangled in his bath by a professional athlete who used to shampoo him (1957:151), leading one to conclude that there

might be a logical reason why such ends might remain obscure. Virammaji next adopted a son of her uncle and crowned him Somashekhara III (1757-1763), for whom she ruled as regent.

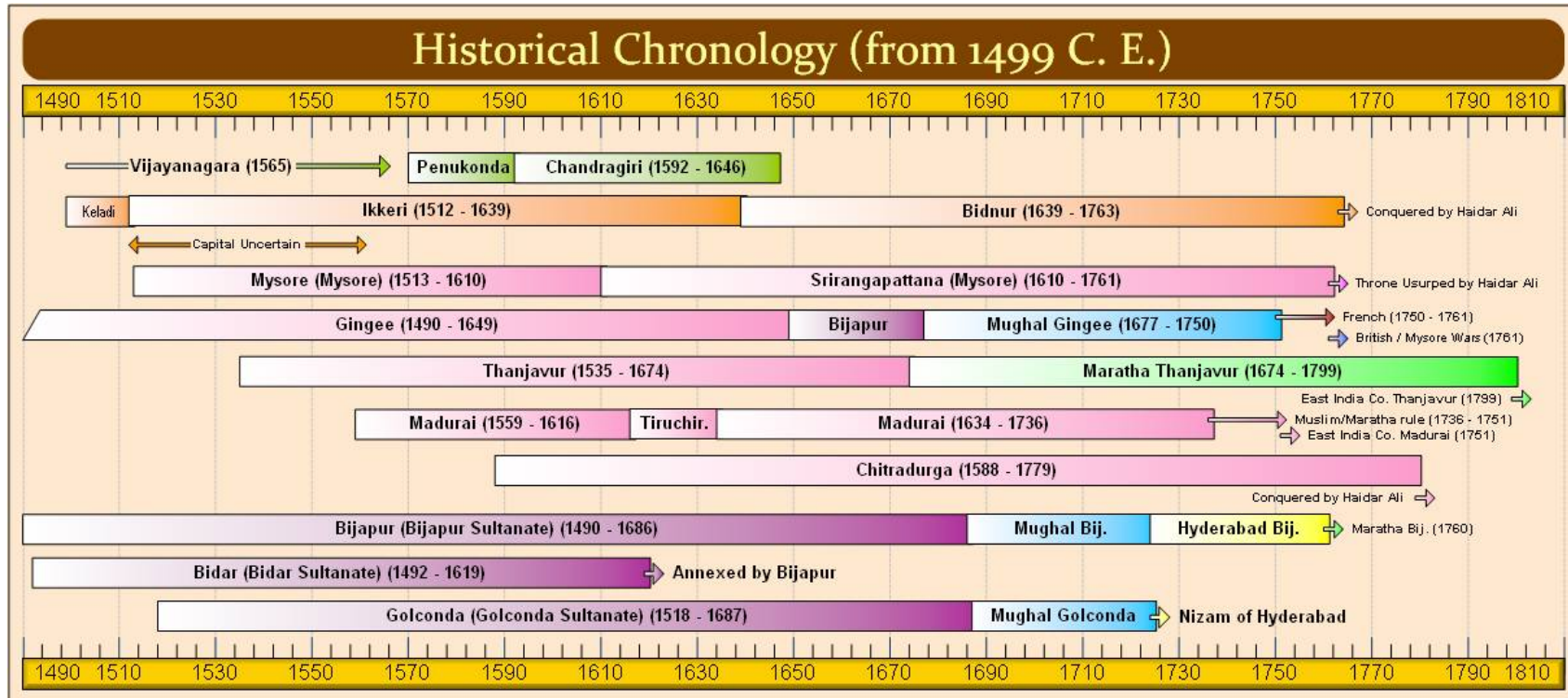
Bidnur fell to Mysore in 1763, effectively ending rule of the Keladi-Ikkeri Nayakas. Virammaji died in 1764, after being liberated by the Marathas from imprisonment by Mysore. By some accounts, Somashekhara died as a bachelor sometime later, and by other accounts married and lived out his life in obscurity.

### **Keladi-Ikkeri in the Modern Era**

This section is a coda to the Keladi-Ikkeri Nayaka story, one that is intended to bridge the past with the present in preparation for the presentation of archaeological survey data in chapter five. By the close of the eighteenth century, the political geography of the Indian subcontinent had been radically transformed by colonial powers, including the British, Portuguese, French, and Dutch (Figure 4.6). In the post-nayaka era, Keladi and Ikkeri were largely encompassed by Mysore, first under Haidar Ali and Tipu Sultan, and second under colonial rulers. From the time Keladi-Ikkeri was conquered in 1763 to 1799, the former nayaka territory was ruled in the name of Mysore first by its conqueror, Haidar Ali, and then by his son, Tipu Sultan. When the British defeated Tipu Sultan at the Battle of Srirangapattana in 1799, closing the Mysore Wars which had been ongoing since 1763, they nominally restored Mysore to the Wodeyar family of former Nayakas who were represented by a then five year old prince and a regent Diwan administrator. During this period, the Madras Presidency was actively involved in documenting and cataloguing Tipu Sultan's former dominions.

At this time, Buchanan reported of Ikkeri that the fort had three concentric enclosures “rather than fortifications”, and was garrisoned up until ten years before he visited in March, 1801. Within it was the palace of the king, constructed of mud and wood, which he described as carved and covered with false gilding, and did not consider it to be a large building. He stated that, “at Ikeri there remains no town, but the devastation has not been occasioned by any calamity. When the court removed to Bidderuru [Bidnur], the inhabitants willingly followed” (Buchanan 1807 :III:257). He noted that the mint was also removed at that time. The town was located where Buchanan saw the temple of Shiva [Aghoreshvara]. Buchanan was told that it contained 100,000 houses, a report he regarded as “the usual exaggeration” (257).

Figure 4.6: Nayaka Chronology and Colonial Transformations



The third capital at Bidnur (from 1639; also known as Bidanuru, Nagara, Hosanagara and Venupura) is about 75 kilometers west of Shimoga. It was a city of a different magnitude than the first two capitals and of a much more strategically situation military location. Though “few temples of interest survive” in Nagara (on the outskirts of the settlement), there is a Venkataramana temple (Michell 2001:270-1). The ASI protects what they call Shivappa Naik’s Fort, which is a very extensive walled hilltop complex. The ASI also protects the Devaganga Ponds at Basavanabayane, outside but near the fort. These are said to be pleasure gardens of the queens of Bidnur and consist of sub-ground level tanks and a small temple. The Princely State of Mysore was largely independent until 1831, when it was taken over in direct rule by the British Commission in Mysore, a unit of the Madras Presidency, for a half century. In 1881, the Princely State of Mysore was returned to relative independence from Madras, though it continued to be administered in conjunction with the Presidency through use of an appointed Diwan administrator. From Indian Independence in 1947, the former Princely State was known as the Mysore State. In 1956 annexations to Mysore from Hyderabad, Coorg and the Madras Presidency united Kannada speaking populations, and in 1973 the territory was renamed Karnataka State. The location of Keladi and Ikkeri at the intersection of colonial boundaries worked both for and against the region: it was much less intensively exploited for resources than other areas of the British Empire, but it is also difficult to locate in the administrative record, and thus is less historiographically accessible.

From here, I move to what we know of the Keladi-Ikkeri heartland today. The climate and ecology contrast sharply with that of the arid interior zone, where the first Vijayanagara capital is located. Modern Shimoga District is situated on the eastern aspect of the Western Ghats mountains chain. The district is characterized by high elevation (940-1250 m), plentiful and reliable rainfall (1.5 m annually, <25% variability), and lush vegetation. It is part of a larger north-south mountain zone known as the Malnad, a coastal belt designated climatically as tropical monsoon: to the northeast is tropical savannah and to the southeast is tropical steppe; Shimoga is positioned just west of this transitional zone (Government of India 1984; Misra 1973). The Keladi-Ikkeri heartland lies in the Krishna River Basin; though non-navigable, the Krishna is the second largest peninsular river and eventually discharges into the Bay of Bengal. Among its key tributaries is the (also non-navigable) Tungabhadra River, on which the first capital of Vijayanagara was located.

The wet climate of Shimoga makes it an excellent place for agriculture. The modern economy of Shimoga is still predominantly agricultural, though this has shifted over time more in favor of industry, which is dominated by steel production out of Bhadravati. The agricultural economy is dominated by animal husbandry of cows and water buffalo, which are kept for dairy production, and by the cultivation of betel palm, rice, and wood. Betel nuts have been a key agricultural product of the area for a long time, likely extending back into the Nayaka Period, though there is no data supporting intensity of production, only its presence. Once a key place for such tropical cash crop woods as sandalwood and teak, Shimoga's forestry now concentrates on plantings for pulp wood, such as acacia, with remaining tracts of intact forest largely preserved.

Even when archaeological sources are plentiful and robust they are challenging to integrate with historical sources – and the lack of systematic archaeological research as a foundation in the region was a central challenge in developing and undertaking this project. This chapter has presented an outline of the political chronology, as it can be critically understood, to serve as a background in which dynamic processes of social, economic and ideological changes occurred; such a foundation is necessary to address the more complex questions of how these occurred and what they looked like on the ground as opposed to the historical record. Next, chapter presents the archaeological data which will complement this background as a prelude to chapter six analysis of the political processes of the Keladi-Ikkeri Nayakas' regional government



## **CHAPTER 5: ARCHAEOLOGICAL SURVEY OF KELADI AND IKKERI**

In this chapter, results from archaeological survey at Keladi and Ikkeri are presented. I begin by discussing the Keladi-Ikkeri Nayaka Zone Survey (KINZS), outlining its goals and methodology. I then present results of the KINZS survey, emphasizing variability between the Keladi and Ikkeri areas. This is followed by a detailed discussion of results by site type, including: fortification, palace area, religious architecture, carved stones, carved and constructed laterite, structure mounds, and several sites of unique type. Finally, I outline the methodology of artifact collection and discuss the assemblage; highlights from analyses of artifacts are presented and the critical issue of chronology is addressed.

### **The Keladi-Ikkeri Nayaka Zone Survey: Goals and Methodology**

In late 2006, permits for fieldwork in two five kilometer by five kilometer blocks around the sites of Keladi and Ikkeri were granted by the Archaeological Survey of India (ASI) and the Karnataka Department of Archaeology and Monuments (KDAM) (Figure 5.1). The Keladi-Ikkeri-Nayaka Zone Survey (KINZS) began in March, 2007 during the post-monsoon dry season when conditions are optimal for locating surface archaeological remains. Based in the centrally located modern town of Sagara, fieldwork was conducted during three field seasons, from March to May 2007, from January to May 2008, and from May to June 2009; additional artifact analysis was conducted in January-February 2010.

Two five by five kilometer survey areas were defined prior to fieldwork by roughly centering them around known nayaka period archaeological remains—at Keladi the ASI protected Rameshvara Temple Complex and at Ikkeri, the ASI protected Aghoreshvara Temple complex. Each area was subdivided into 25 single square kilometer blocks (Figure 5.2); these can be conceived of a central block of 9 square kilometers surrounded by an outer tier of 16 square kilometers. Blocks were labeled alphabetically from A to Z within each survey area,

starting at the northwest block and proceeding east within each row and moving south to the next row (the letter I was omitted to reduce confusion with the similar numeral for one). Individual blocks were subdivided vertically into quarters, numbered left to right from 1-4, which represent individual transects, or the minimum unit of survey area (Figure 5.2). Survey focused on the central nine square kilometers at each site, with all of these recorded at Ikkeri and eight of nine recorded at Keladi. Including outlying sites identified by local consultants and one block recorded in the outer tier at Keladi, over 18 square kilometers were surveyed with some biased recorded done in the outer tier of survey blocks (Figure 5.3). In the Keladi area, archaeological remains were observed to extend south in a concentration which favored prioritizing the survey of block X over other areas. Areas which remain unsurveyed systematically were not covered due to limits on time and resources, rather than reasons based on the archaeological record.



Figure 5.1: Map of Permitted KINZS Survey Areas (5x5 kilometer blocks, to scale)

Figure 5.2: KINZS Survey Areas, Blocks, and Transects

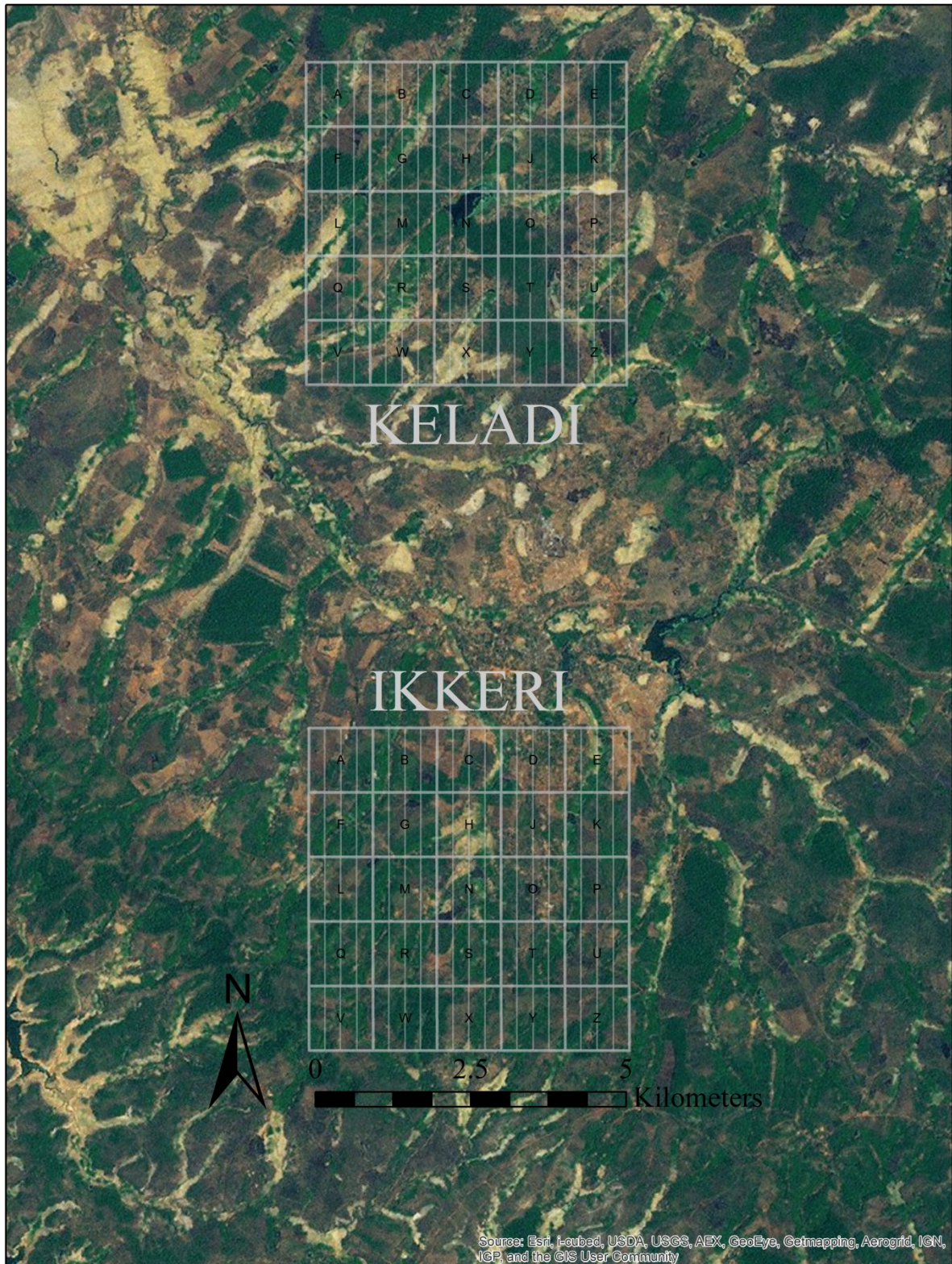
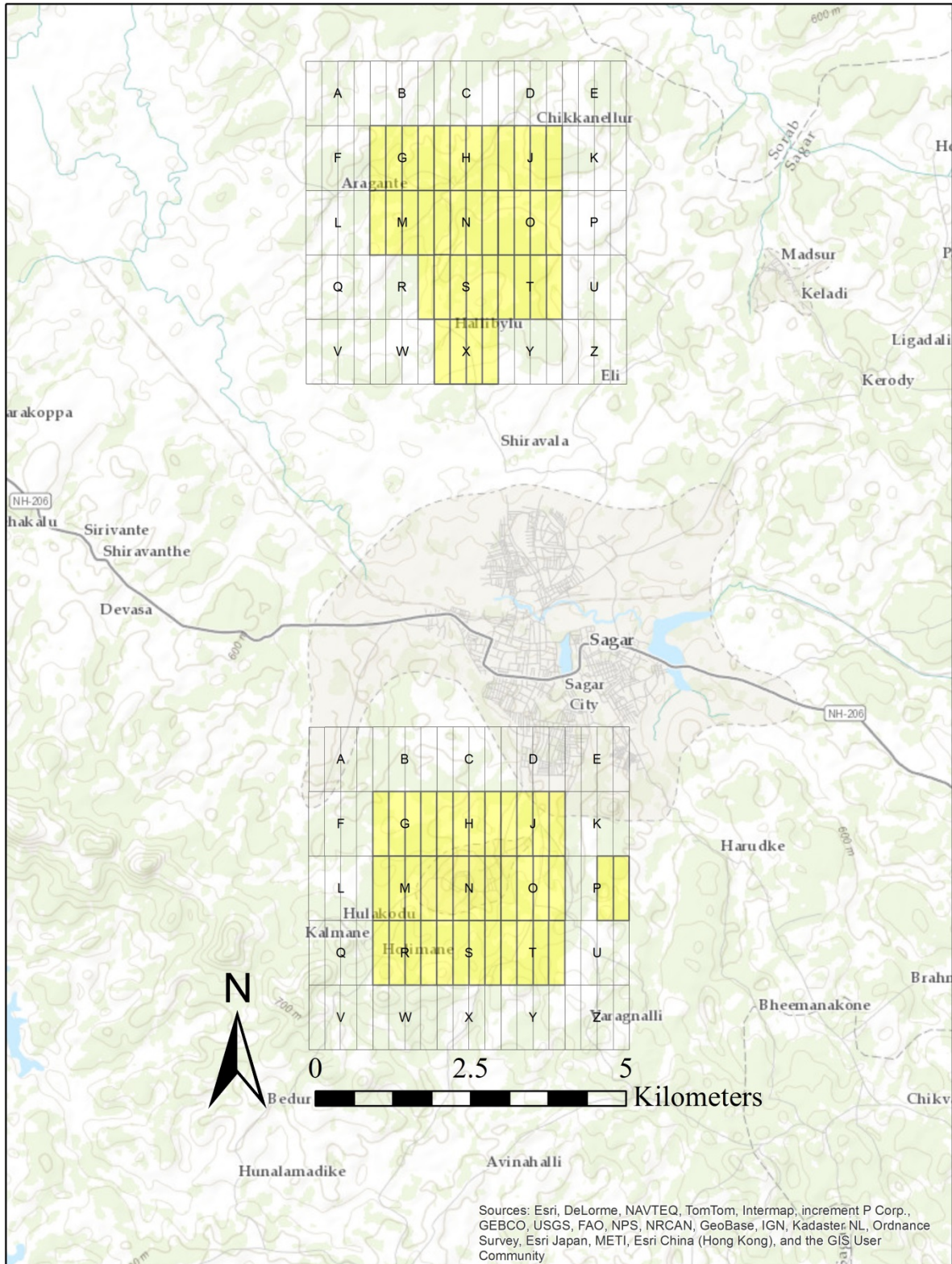


Figure 5.3: KINZS Surveyed Transects (shaded in yellow)



Using full-coverage systematic archaeological survey, the Keladi-Ikkeri Nayaka Zone Survey identified 257 sites and features of archaeological significance located with or in the immediate area surrounding the two former medieval settlements of Keladi and Ikkeri (Table 5.1). Sites are defined as defined areas of past cultural significance recorded as discrete units, and features are defined as component areas within sites that were recorded as discrete sub-units thereof. The two survey areas contain former urban areas—which can themselves be considered sites in the larger sense, however, in this chapter I have reserved the term for use in its more technical usage.

Table 5.1: Sites and Features by Survey Area, Recorded by (KINZS), 2007-9

	<b>Keladi</b>	<b>Ikkeri</b>	<b>Combined</b>
<b>Sites</b>	57	178	235
<b>Features</b>	6	16	22
<b>Total</b>	63	194	257

The survey methodology used by KINZS was adopted and modified from that used by the Vijayanagara Metropolitan Survey (VMS). This method is based on walking 20 meter spaced transects while carefully observing the ground and surroundings for artifacts, remnants of structures, and other significant archaeological features. Once a site and its features were identified, each was given a unique site number (KIN 1-n) and, if needed, feature numbers (F1, and so on); this system is discussed further below in conjunction with definitions of the terms sites, features, locations, and components. Each site was documented by filling out standardized field forms, by taking photographs, and when appropriate, collecting artifacts, and making a scale map using a precision compass, measuring tapes, and pacing of distances. The standardized field forms were adapted from the Vijayanagara Metropolitan Survey, except for the laterite recording form, which was created for this project; for types of attributes recorded for each site, refer to the field form templates, which are included in Appendix B.

KINZS was the earliest application of these methods to an ecological zone in the Western Ghats, which unlike the arid interior of the imperial capital is a climate of reliable and plentiful rainfall; Uthara Suvrathan (2013) subsequently conducted the Banavasi-Gudnapura Regional Survey, in a Malnad area north of Keladi and Ikkeri. Impediments to survey tended less to be topographical as they are in the interior, and were more a result of heavy forest and/or vegetation growth, or agricultural activities. Government of India research approval was restricted to surface documentation, so no subsurface testing or excavations were conducted; a critical appraisal of methodological considerations is discussed in the concluding chapter.

### **KINZS Site Documentation**

From 2007-2009, KINZS identified and recorded 257 sites and features, which together comprise 463 site components. Site components are defined as a particular aspect of a site (and its features, if any), e.g., religious architecture, water management, artifact collection. Some sites or features have only one type of component, though a majority has multiple components—and this is the reason for the cross-cutting method of identification. Components are defined by functional and formal properties to include the following categories: fortifications, palace area, religious architecture, carved stones, carved laterite, laterite constructions, water management, structure mounds, continuous occupation area, artifact collections, and other (Table 5.2). Component categories are designed to be functionally descriptive and by type and also subtypes (e.g. carved stones as a component type may include linga stones, hero stones, sati stones as subtypes). Thus, on the ground, a site which is primarily a fortification, such as Ikkeri Fort, may also comprise components such as carved stones, a tank, and so on.

Sites are made up of varying combinations of different components which reflect spatially contiguous archaeological remains of past cultural significance, and there are many different combinations of components within sites. It is likely that the current configuration of sites and their components highly reflective of subsequent or present day cultural activities that have revealed archaeological materials, rather than simply reflecting type associations of past cultural significance. Component types and subtypes of sites are discussed detail below. For a complete inventory of sites and features and their recorded components, refer to Appendix C.

Table 5.2: Site Components Recorded by KINZS, 2007-9

<u>Component</u>	<u>Keladi</u>	<u>Keladi Proportion (%)</u>	<u>Ikkeri</u>	<u>Ikkeri Proportion (%)</u>	<u>Combined Total</u>
<b>Fortifications</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>100</b>	<b>10</b>
Forts	0	0	4	100	4
Bastions	0	0	2	100	2
Watchtowers	0	0	2	100	2
Gates	0	0	2	100	2
<b>Palace Complex</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>1</b>
<b>Religious Architecture</b>	<b>7</b>	<b>41.1</b>	<b>10</b>	<b>58.9</b>	<b>17</b>
Complexes	3	33.3	6	66.7	9
Unbounded Structures/Clusters	4	50	4	50	8
<b>Carved Stones</b>	<b>54</b>	<b>25.2</b>	<b>160</b>	<b>75.8</b>	<b>214</b>
Architectural Elements	3	12.5	21	87.5	24
Icons	2	16.7	10	83.3	12
Sculpture Bases	3	27.3	8	72.7	11
Devotee Stones	1	33.3	2	66.7	3
Stone Containers	1	20	4	80	5
Naga Stones	24	26.4	67	73.6	91
Linga Stones	8	25.8	23	74.2	31
Sati Stones	3	37.5	5	62.5	8
Hero Stones	3	50	3	50	6
Inscription Stones	0	0	1	100	1
Water Management Stones	0	0	2	100	2
Colonial Period Stones	0	0	6	100	6
Other Stone Types	6	42.9	8	57.1	14
<b>Carved Laterite</b>	<b>5</b>	<b>35.7</b>	<b>9</b>	<b>64.3</b>	<b>14</b>
Round Laterite Column Segments	1	50	1	50	2
Round Laterite Column Bases	1	50	1	50	2
Large Laterite Blocks	0	0	2	100	2
Laterite Monoliths	2	33.3	4	66.7	6
Other Carved Laterite	1	50	1	50	2
<b>Laterite Constructions</b>	<b>13</b>	<b>28.9</b>	<b>32</b>	<b>71.1</b>	<b>45</b>
Platforms	11	32.4	23	67.6	34
Walls	2	22.2	7	77.8	9
Squares	0	0	1	100	1
Subterranean Entrance	0	0	1	100	1
<b>Water Management</b>	<b>13</b>	<b>27.7</b>	<b>34</b>	<b>72.3</b>	<b>47</b>
Reservoirs	5	25	15	75	20
Sluice Gates	3	50	3	50	6
Tanks	3	33.3	6	66.7	9
Water Channels	0	0	2	100	2
Ducts	0	0	2	100	2
Wells	2	25	6	75	8
<b>Structure Mounds</b>	<b>3</b>	<b>16.7</b>	<b>15</b>	<b>83.3</b>	<b>18</b>
<b>Continuous Occupation Area</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>100</b>	<b>1</b>
<b>Artifact Collections</b>	<b>16</b>	<b>17.2</b>	<b>77</b>	<b>82.8</b>	<b>93</b>
Separate	1	5.6	17	94.4	18
Component	15	20	60	80	75

<u>Component</u>	<u>Keladi</u>	<u>Keladi Proportion (%)</u>	<u>Ikkeri</u>	<u>Ikkeri Proportion (%)</u>	<u>Combined Total</u>
<b>Other</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>100</b>	<b>3</b>
Production Area	0	0	1	100	1
Laterite Quarry	0	0	1	100	1
Cave	0	0	1	100	1
<b>TOTAL</b>	<b>111</b>	<b>24.0</b>	<b>352</b>	<b>76.0</b>	<b>463</b>

## **KINZS Sites**

The remainder of this chapter presents details of results from each of the main site types. Site types were defined on the basis of inferred function or physical character. As noted above, sites could and often did include multiple components that reflect their diverse use. Below, I present information on each category of site type, focusing on the distribution of remains in each survey area, presentation of the main characteristics of the recorded sites, and discussion of patterns found in the survey data.

I begin with fortification, which is notable for being documented only at Ikkeri. I discuss the distribution and nature of remains of fortifications in the Ikkeri survey area, including the Ikkeri Fort proper (KIN 1) and its component Palace Area (KIN 1/F1). I then discuss the extant religious architecture, both maintained and disused, at Ikkeri and Keladi, highlighting diversity of religious affiliation, physical layout, and the nature and scale of construction. I outline the distribution of carved stones, the most numerous site type and component in both survey areas. Some types of carved stones, including architectural elements, sculpture bases and icons, devotee stones, linga stones, and stone containers further illuminate the past religious landscapes of the nayaka period. Other types of carved stones, including sati stones, and hero stones, provide evidence of memorial practices. Still other carved stones are part of a larger system of water management practices, and these are addressed below in the context of a wider discussion of sacred, economic, and residential uses of this key resource. First, however, carved laterite and laterite construction are discussed as they pertain to remains of religious architecture, secular and residential building material, and as part of the fortified urban landscape. Then, means of water storage and transport are fully addressed, including documented ducts, wells, water channels, tanks, reservoirs, and sluice gates, as well as carved stones and laterite. Structure mounds are discussed; these are generally mounds with definable rectilinear, with or without laterite or stone



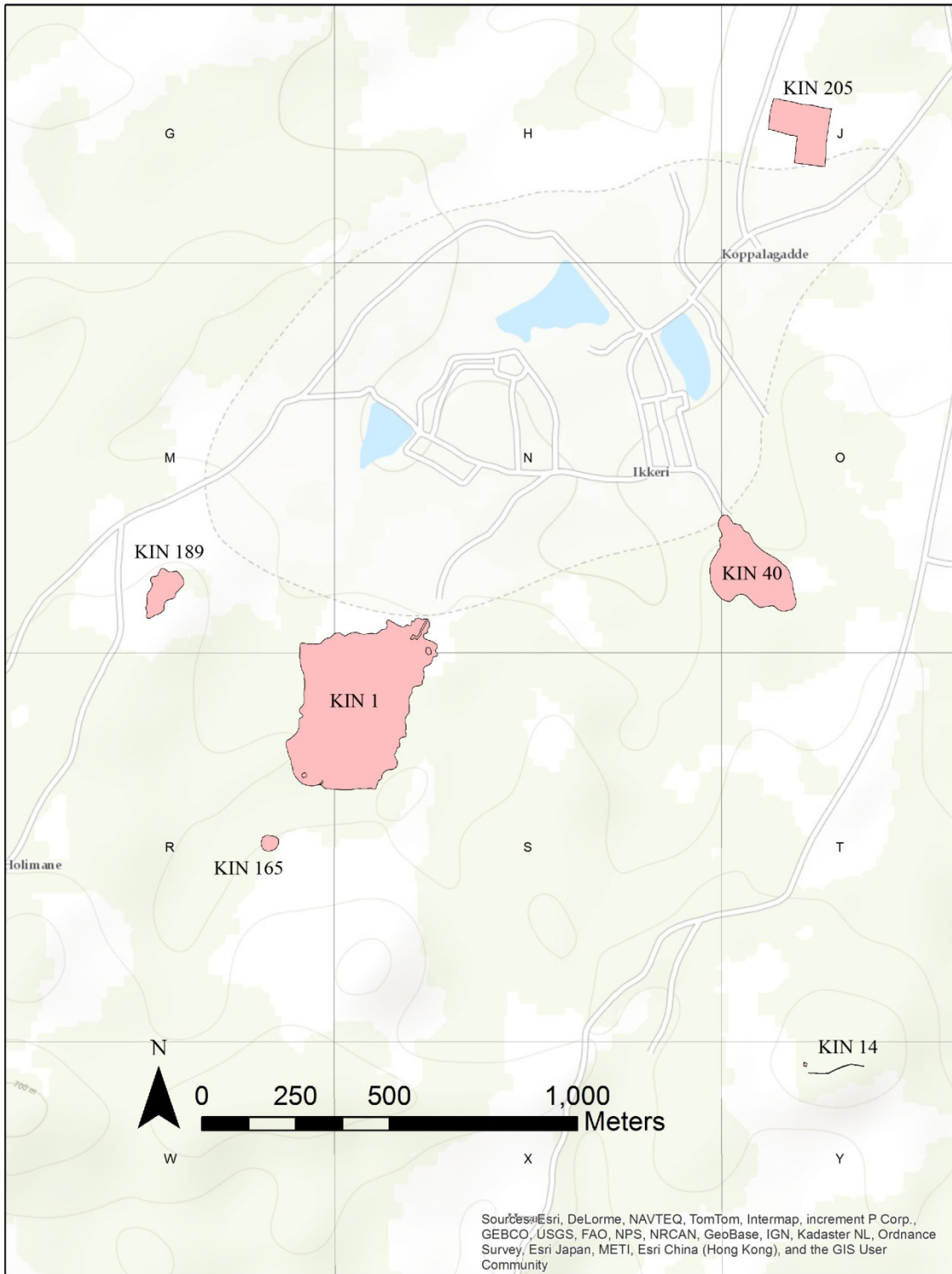
construction visible. Such mounds are found as isolated remains, in small clusters, or in the case of Ikkeri, as part of an extensive area which has been defined as an evidence of the partial extent of former occupation of the urban area.

I conclude with a review of the artifact assemblage collected and a discussion of artifacts most relevant to establishing basic chronology: earthenware roof tiles and East Asian trade ceramics, including both Chinese porcelain and glazed stoneware of unknown provenience. For additional information on artifacts and their analysis, refer to Appendix D.

## **Fortifications**

The most glaring difference between the archaeological records of Keladi and Ikkeri is the lack of any documented fortification at the earlier capital. This is in direct contrast with obvious and widely distributed fortifications at Ikkeri (Figure 5.4). Though historical records indicate that the settlement at Keladi contained a fort and palace, nothing resembling either of these was located by the survey. However, some contemporary historians suggests that fortifications once existed and argue that modern cultural activity has removed all traces of the fort at Keladi. It is possible and even likely that some village defenses once existed around Keladi. The debate here is whether or not there were substantial fortifications, and so far the evidence on the ground has shown no remains of stone or laterite construction, or even of earthworks. The geographical nature of Keladi's gently rolling terrain suggests that defensibility was not a primary concern in establishing a settlement at that location. This contrasts sharply with the natural advantages that the locations of Ikkeri and Bidnur provide—each settlement increasingly took advantage of hill terrain as well as more extensive fortification. The discussion regarding the former versus current extent of fortification at Keladi continues in the next chapter.

Figure 5.4: Map of Ikkeri Fortifications



In contrast to Keladi, Ikkeri is located in an area that provides natural mountain topographical obstructions to the south; it also features remains of multiple fortifications. With the exception of the formal Ikkeri Fort, what remains today is largely of earthen construction with an occasional associated laterite remnant or structure mound (which could reveal internal construction materials if excavated). Ikkeri Fort was described by Della Valle and is still visible today. Unfortunately, it was also extremely difficult to survey due to dense, often thorn-filled vegetation on its exterior and interior, and to vegetation and dilapidated/collapsed walls that blocked the drainage channel, or ‘moat,’ which encircles the fortification. Because of the logistical challenges, the fort was not surveyed by 20m transects on the interior. Instead, I focused on delineating the extent of the site, and where possible its exact boundaries and features.

Table 5.3: Ikkeri Fortifications: Description, Type, Site Size, and Area

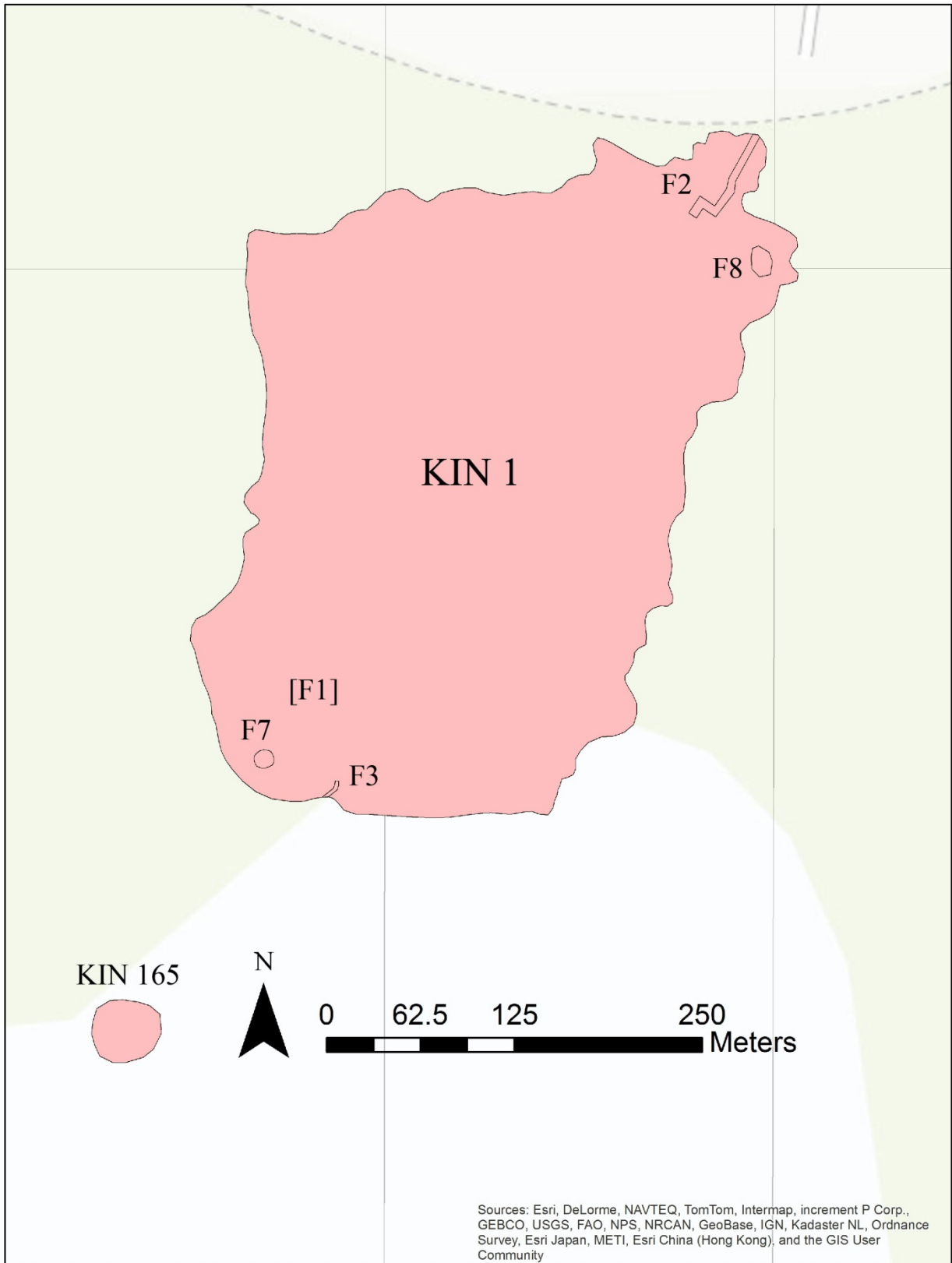
KIN/F	Description	Type	Site Size (m)	Area (m <sup>2</sup> )*
1	Ikkeri Fort (incl. structure mounds, moat, etc)	Fort	320 x 540	123,700
40	Eastern Fort (hilltop location, incl. structure mounds, subterranean entrance, laterite quarry)	Fort	210 x 310	34,000
205	Northern Fort	Fort	155 x 160	19,300
189	Western Fort	Fort	80 x 145	7,700
165	South Watchtower (hilltop location) with defined circular perimeter	Watchtower	30 x 30	1,600
1-F2	North Gate of Ikkeri Fort	Gate	17 x 70	--
1-F3	South Gate of Ikkeri Fort	Gate	2.5 x 12	--
1-F7	Southwest Bastion	Bastion	12 x 13	--
1-F8	Northeast Bastion	Bastion	15 x 32	--
14	Southeast Watchtower (hilltop location) platform with defined perimeter line to south	Watchtower	30 x 160	--

\* Area only calculated for fortifications with clearly bounded perimeters; other estimates of site size are based on observation of remaining site extent, the original extent of which was unclear in survey.

As outlined in chapter 4, the defenses of Ikkeri were with a bustling civic interior. No concrete evidence of continuous defenses was recorded; areas where there might have been ditches used for defense could have been subsumed into the drainage system deployed against heavy monsoon rainfall. During my research, multiple sites were documented with remaining evidence of fortification constructed of earth, laterite, and minimal stone usage (Table 5.3). Laterite is a readily available local building material produced by quarrying indurated iron-rich sediment into building blocks, usually rectangular but occasionally other carved shapes; this is discussed further below. The fortified sites at Ikkeri (Figure 5.4) do form a partial ring around central Ikkeri, extending from the southwest to the northeast. This fortified perimeter backs onto a line of gentle peaks which provide additional natural defense; KIN 14, a watchtower, is at the summit of the tallest peak in the survey area. It is unclear what, if any, fortifications existed to the north and west of the documented sites. It is possible that the expansion of Sagara, the taluk seat just north of Ikkeri village, both agriculturally and residentially, has reduced and obscured such sites. It is also possible that further fortifications exist outside the survey area. It is worth noting, however, that KIN 1, KIN 189, and KIN 40 are locally known by those interested in nayaka period remains. KIN 14 was also locally known, though only by residents of the closest hamlet. Local interviews yielded no knowledge of other fortifications at Ikkeri, in or out of the survey area.

Today at Ikkeri Fort (Figure 5.5), the land belongs to the government and is used by residents of Ikkeri and surrounding village. Residents occasionally collect firewood or other forest products from the interior, which is heavily covered in thorny brush and includes many mature trees. Ad hoc exploration proceeded from the north (KIN 1/F2) and south (KIN 1/F3) gates of the fortification to the interior, following human and game trails, focusing on locating features that are known to some of the residents of the local area, such as the palace complex and several bastions. The ‘moat’ was walked in its entirety twice to observe general shape and construction; however, detailed documentation was not feasible. The now dry moat ringing the complex was partially or totally lined in laterite block construction, now mostly collapsed. The shape of the fort contained some angles and crenellations, as is visible in the aerial image, though the original shaping is obscured by extensive vegetation, collapsed architecture, and erosion.

Figure 5.5: Map of Ikkeri Fort (KIN 1/F2/F3/F7/F8) and South Watchtower (KIN 165)



Ikkeri Fort possibly had only one formal entrance during the nayaka period. The north entrance (KIN 1/F2) is accessed by a substantial earthen road which crosses the moat and continues straight to a slight jog, where a large stone slab is embedded in sediment. This slab, with carved outlets, was likely part of a gate structure. The interior of the moat around this north entrance is bounded by high earthen walls, as are both sides of the entry road, before and after the gate slab. After the gate area, the road continues to a sharp right angle, still bounded on all sides by high earthen mounds. Some of the mounds include laterite wall construction, the full extent of which is obscured by overlying sediment.

In contrast, the south entrance to the fort (KIN 1/F3) is today only as wide as a footpath and crosses low into the moat itself. There is evidence of a possible gate on the interior fort side of the entrance: there are steps, roof tiles, and an elaborate carved stone panel which was likely a vertical part of an entryway of some structure or gate (Figure 5.10). It is inconclusive, however, whether the stone is in situ or was from the fort and was removed when transit became difficult. Only excavation at the site will determine whether the south entrance was planned as part of the fort or became an ad hoc means of entering the fort after its primary use, though it would be surprising if there were only one original means of ingress and egress, especially in the case of siege

Our survey documented two bastions of the Ikkeri Fort. The southwest bastion (KIN 1/F7) is round and constructed of laterite (Figure 5.7) and the northwest bastion (KIN 1/F8) is a composite of circular laterite at the base and reused stone material in the rectangular top (Figure 5.8). The southwest bastion is located near the interior perimeter of the fort and is visible from the fort exterior. It is a round tower, currently preserved over two meters in height and is constructed of laterite blocks. Though portions of the bastion have collapsed, detailing at the top (visible below, left) suggests that the laterite construction is partially complete in sections; it is unclear whether there would have been a superstructure on top, perhaps constructed of perishable materials. At present, the bastion is completely filled with sediment. The top is accessible via a rough earthen mound near its collapsed edge; the original means of ascending are not known. From the top, it has a clear view of both watchtowers discussed below.

Figure 5.6: Carved Stone at Ikkeri Fort, South Entrance (KIN 1/F3)



Figure 5.7: Southwest Bastion, Ikkeri Fort (KIN 1/F7)



In contrast, the northeast bastion (KIN 1/F8) is a composite construction, taller and also less well preserved. The base is in the moat and is a semi-circular shape constructed of very large laterite blocks. The slope upward to the moat interior is not presently faced with laterite. At the top (Figure 5.8), the bastion is a rough rectangular, constructed of stone elements that appear to be recycled from a temple; one doorway element has an inset framed Ganesha motif at its center. I do not believe that this construction dates to the Nayaka Period occupation of Ikkeri, though it seems to have been constructed for military purposes. According to the historical record, Ikkeri was sacked by Haidar Ali in the ultimate defeat of the Nayakas by Mysore in the late 18<sup>th</sup> century, an event which was followed by protracted conflict between Mysore and the British. It is possible that this bastion was constructed during a subsequent occupation of Ikkeri during that time, as I will discuss further below.

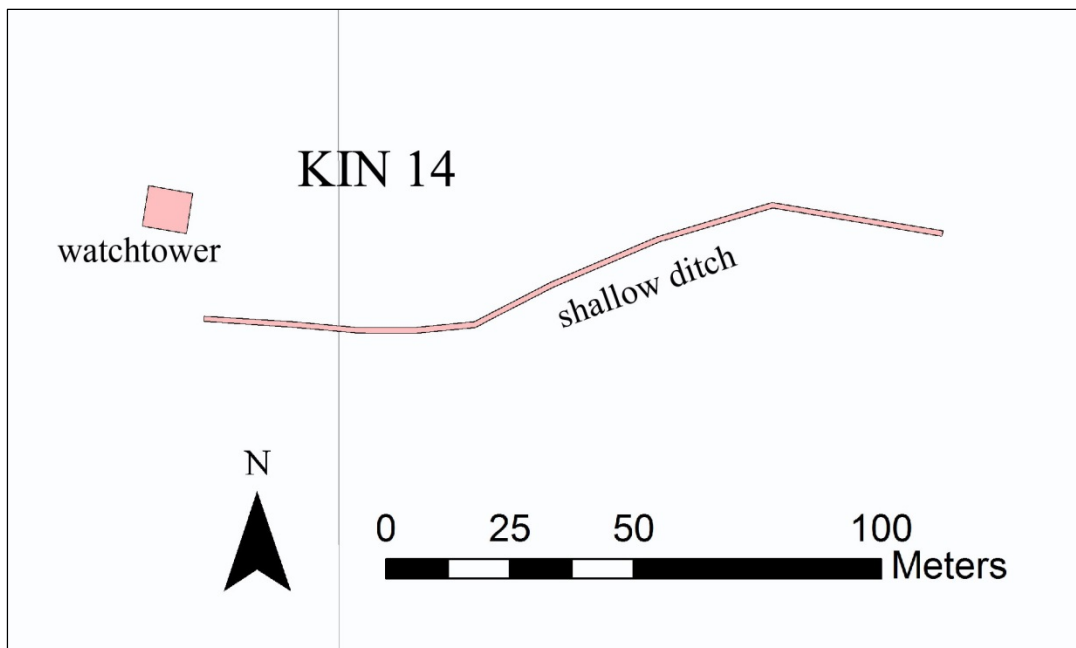
It is probable that Ikkeri Fort had additional bastions in its original construction, though these cannot be verified due to heavy vegetation on the interior and in the moat and because of erosion and collapse of laterite construction. Two documented freestanding watchtowers, KIN 165 and KIN 165, are visible from the Ikkeri Fort southwest bastion. KIN 165 offers an elevated, yet limited, view of the fort from the south looking north. It also has an elevated view of the large open space at the south of the fort, and a clear sight up to KIN 14. It is a low, rounded mound on a natural rise, constructed of laterite rubble concretion; it is not clear whether there was any superstructure on top of the mound. Much like KIN 165, KIN 14 (Figure 5.9) is a low platform constructed of laterite concretion, only in a square shape. One artifact was recovered from this context: a fragment of a ground stone plate that was obviously discarded because of a large quartzite flaw, which was used as part of the mound fill. There is no evidence of a superstructure on the mound. To the south of the mound runs a long ditch, roughly 2.5m wide, and at least 1 meter deep (difficult to measure due to vegetation). The view from KIN 14 extends for many kilometers on all sides, including a view beyond the peaks to the south of the fort. It is possible that it connects to other hilltop watchtowers, though none were found in the immediate survey area.



Figure 5.8: Northwest Bastion, Ikkeri Fort (KIN 1/F8)



Figure 5.9: Map of Southeast Watchtower (KIN 14)



The remaining three fortified sites at Ikkeri can be grouped according to style. The Eastern Fort (KIN 40) (Figure 5.10) and Western Fort (KIN 189) (Figure 5.11) are irregular, undulating shapes, while the Northern Fort (KIN 205) (Figure 5.12) is a deliberate geometric L-shape. The Eastern Fort is quite extensive, though also in a heavily forested area and thus difficult to document. It is bounded on the east by a shallow ditch and mounded slope, on the west by a deep ravine, and the southern boundary is a gradual slope roughly bounded by a very shallow ditch. There are multiple structure mounds on the northern portion of the interior (shaded below), many of which had clear wall tops visible and fragments of curved earthenware roof tiles were present. The Western Fort is much smaller than the Eastern Fort. It is completely bounded by a ditch, 2-4 meters deep (now filled with thorny vegetation), except for an entrance at the north. With the exception of an internal dividing mound running east to west, there were no features and no artifacts present.

The Northern Fort (KIN 205) (Figure 5.12) is unlike the Ikkeri, Eastern, and Western Forts. It is a deliberately geometric L-shape, and is constructed of high mounded earth with minimal use of ditches on the exterior. The interior is sunken below the higher exterior wall level. Though a portion on the northern side has been removed for such uses as road fill, the overall shape and construction is intact. The northern walls of the fort are dominated by a large mound which acts as a watchtower. From this point further to the north, separated from the site by a small swath of grazing land, are a modern mosque and Muslim memorial site, as well as a historic and contemporary Muslim cemetery of unknown date. These are located adjacent to a laterite lined tank of complex stepped shape (KIN 188). Both the northeast bastion of Ikkeri Fort and the Northern Fort itself use rectilinear rather than rounded or irregular shape, and suggest a separate tradition of fortification design than the other sites at Ikkeri. It is possible that this tradition corresponds with a later chronological time period and/or construction by different authority. These could be attributed to a subsequent occupation by Mysore after the end of the Keladi-Ikkeri Nayaka reign, though a lack of absolute dating or any historical record of such a military installation means there is no evidence currently supporting such a theory.

Figure 5.10: Map of Ikkeri Eastern Fort (KIN 40)

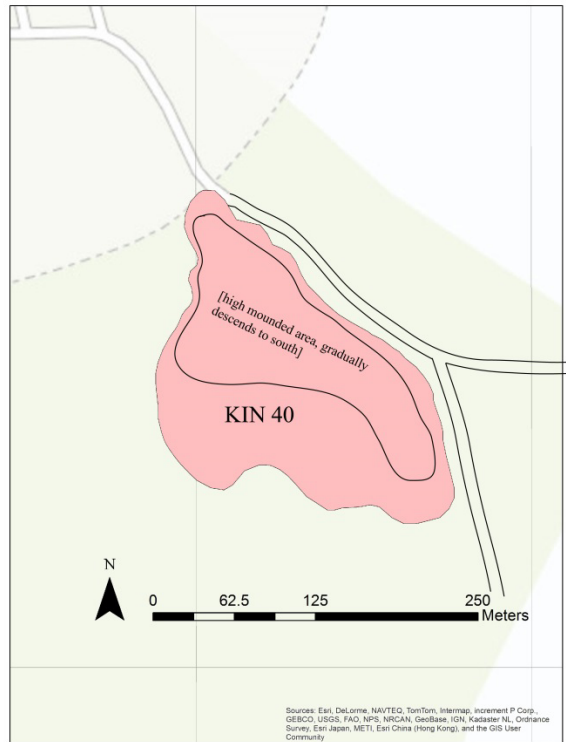


Figure 5.11: Map of Western Fort (KIN 189)

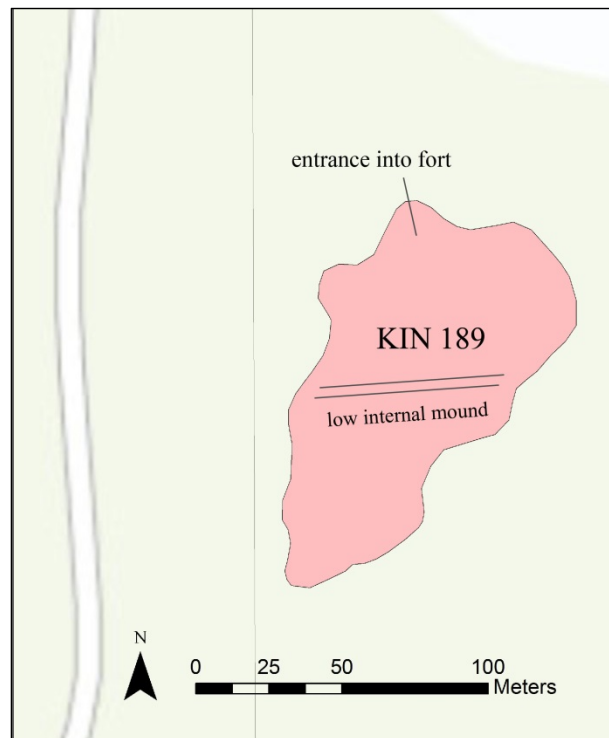
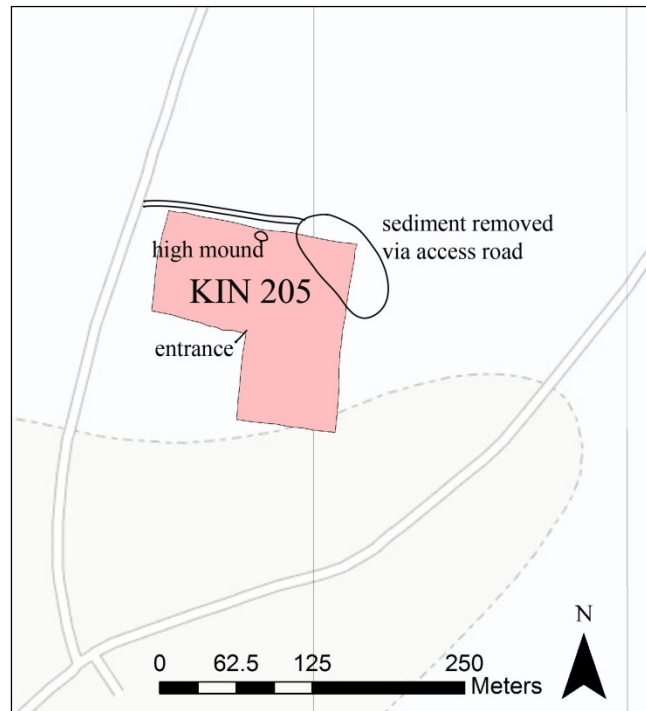


Figure 5.12: Map of Ikkeri Northern Fort (KIN 205) [NEEDS LABELS/FEATURE Not



### Palace Area

As is believed of fortifications, it is also commonly asserted by historians that palaces existed at both Keladi and Ikkeri, as previously discussed in chapter four. No evidence of a palace structure or complex was found at Keladi. This does not preclude that an elite structure or its remains existed at Keladi; however, none was documented in survey or located following oral tradition. Thus, if such existed it was likely constructed of perishable materials and/or was ephemeral in an archaeological sense. This is particularly significant given the transformation of elite civic and secular architecture in the courtly style of the Vijayanagara era, discussed in earlier chapters.

The most significant of example of this site type is a compound found in the interior of the Ikkeri Fort, identified as a palace complex (KIN 1/F1; Figure 5.4). This site is located in the southwest quadrant of Ikkeri Fort and is today accessible only via an overgrown footpath from the southern entrance to the fort. As discussed above, the southern fort entrance likely was not a nayaka period feature, and it certainly would not have been used for official entrances to the

bounded space, in contrast to the northern entrance. Thus, the palace would have been located in a private area within the fort. The palace complex is bounded by a low rectangular laterite wall foundation (less than 30 cm in height), which is obscured by vegetation in many areas; it is unclear where the entrance would have been located, what the original height of the wall would have been, or what material would have been used for its upper extent. The area of the compound itself is approximately 60 m north-south 45 m east-west and is mainly composed of an exterior wall, a courtyard structure at the south end, adjacent to courtyard walls, surrounding a sunken courtyard, to the north of which a deep tank wall was surrounded by walls. There is mounding which indicates a small exterior structure to the southeast.

Partial laterite wall foundations of an exterior wall to a rectangular enclosure were recorded as bounding the palace on the west, north, and east, indicating that the space was formally bounded. The boundary of the fort interior proper was approximated to be 25 m south of the palace complex. The southern boundary of the palace complex itself was likely formed by the exterior walls of the courtyard structures, a chamber adjacent to the sunken courtyard. The central feature of this site is a deep tank cut into laterite parent material, lined with long stone blocks near the base, then laterite block-lined to the top. The tank has a zoomorphic drain spout protruding from the western wall, placed immediately below a half-circle shaped mouth (currently not functionally draining anything) (Figure 5.13; courtyard visible beyond drain spout). The eastern wall extended considerably higher than the western one, and at the top was set with four ring stones, perhaps used to suspend a canopy of some type. The base of the tank was accessed by a formal staircase on the northern side, though this has been mostly destroyed by erosion and collapse. On the southern side of the tank, is the tank with a sunken courtyard (Figure 5.14), which is lined with walls decorated with elaborately decorated arched niches that were once covered in plaster and quite ornate in style (Figure 5.15); these were constructed using recycled earthenware roof tiles of the flat style (see discussion below in chronology section). Outside of the rectangular compound foundation delineation of the site, but certainly associated with it in some way, are a number of small structure mounds to the south and southeast of the sunken courtyard with laterite block and curved roof tile rubble visible to varying degrees under surface litter.

Figure 5.13: Zoomorphic Drain Spout, Tank Interior, Palace Area, Ikkeri Fort (KIN 1/F1)



Figure 5.14: Courtyard Structure and Sunken Courtyard, Place Area, Ikkeri Fort (KIN 1/F1)



Figure 5.15: Arched Niches of the Sunken Courtyard, Palace Area, Ikkeri Fort (KIN 1/F1)



### Religious Architecture

Religious architecture in south India has the longest tradition of durable construction of any structure type, in part due to the early emergence of stone and fired brick construction. Religious architecture was documented in both the Keladi and Ikkeri survey areas, and subtypes have been termed as temples and temple complexes, with a total of 17 sites (Figures 5.16 and 5.17; Table 5.4); sites which have been previously studied are included and were given numbers. Temples are free-standing single or multi-chambered buildings with no obvious present or past bounded complex area surrounding them today. Temples not in a complex tend to be of smaller scale than those which have persisted as temple complexes. Temple complexes have associated current and/or past bounded areas around the central temple building(s), usually delineated by a rectangular wall enclosure and/or colonnade. As is customary in South Indian tradition, many of these temples have one or more associated water source: well, tank, or reservoir; water is necessary for many Hindu temple rites.

The Vijayanagara Research Project (VRP) architectural survey of the imperial capital at Hampi (Michell and Wagoner 2001:xiv-xv) and Vijayanagara Metropolitan Survey (VMS) (Sinopoli and Morrison 2007) defined single chamber religious structures as shrines rather than temples, comprised of an inner sanctuary (*garbhagriha*). VMS/VRP shrines could occur with or without an antechamber (*antarala*), with or without an open porch, and with or without a columned hall in front (*mandapa*). I modify this architectural categorization in favor of one based on function, in part because open and partially enclosed structures are less common in Shimoga, where rainfall is much heavier and plentiful than in the dry interior at Hampi. The main reason for my shift in typology has to do with religious practice. Temples and temple complexes are, or were, associated with the practice of formal religion, defined as one where the experience and/or maintenance of the institution is mediated by specialist religious practitioners. Shrines fall into what I define as vernacular religion, defined as practices which are not mediated by religious specialist practitioners. Extensive evidence of modern shrines was observed in both survey areas, though no archaeological sites of this type were documented except where older stone elements were incorporated into modern contexts. A majority of the carved stones recoded on survey, *nagas* (or snake stones), were likely found in vernacular contexts in the past as they are at present. The concept of formal versus vernacular religion and site types is discussed further in the following chapter.



Figure 5.16: Distribution of Keladi Religious Architecture Sites



Figure 5.17: Distribution of Ikkeri Religious Architecture Sites



Table 5.4: Temples and Temple Complexes Recorded by KINZS

KIN	Site Type	Temple(s)/ Enclosure	Well	Tank	Religion	Notes
KELADI SITES (n=7)						
2	Rameshvara Complex	3 Temples/ walled enclosure	Y	N	Shaivite Hindu	Stone Temples (complex, multi-chambered) Laterite Walls (plastered and painted, roofed with modern tiles)
102	Temple Complex	3 Temples/ no wall	N	N	(Vaishnavite Hindu)	Stone Temples (Hanuman, one chamber (l); Kodunandaraman (c) has a modern laterite superstructure; Bhagavati/fierce goddess (r) one chamber)
108	Temple	Single/ no wall	N	Y (KIN 106 adjacent)	(Shaivite Hindu)	Stone Temple (one chamber)
109	Basava Temple Complex (Akki Pete Matha)	1 Temple/ walled by mounds	Y	N	Virashaivite Hindu	Laterite Temple Walls presumed to be laterite (obscured inside mounds formed by sediment)
123	Jain Basadi	1 Temple/ partially walled by collapsing walls	Y	N	Jain	Laterite Basadi Laterite walls at front of compound and on south side (in disrepair)

KIN	Site Type	Temple(s)/ Enclosure	Well	Tank	Religion	Notes
130	Gopalakrishna Temple	1 Temple of modern reconstruction/ no wall, but on a low laterite foundation	N	Y (KIN 124 adjacent)	Shaivite Hindu	Modern Temple of laterite using older stone elements Laterite construction beneath
238	Temple Complex	Modern Temple/ Laterite compound walls	Y	N	Shaivite Hindu	Modern Temple (unable to access interior) Laterite compound walls, discarded round column segments, and platforms
<b>IKKERI SITES (n=10)</b>						
3	Aghoreshvara Temple Complex	2 Stone Temples, 1 Pavillion/ Laterite compound walls	Y	Y	Shaivite Hindu	Stone Temple Laterite walls, no roofing, but evidence of pillar foundations on interior suggesting roofed arcade
17	Virabhadra Temple Complex	Laterite Temple/ Laterite Compound Walls	N	Y	Shaivite Hindu	Laterite Temple (predates KIN 17)

KIN	Site Type	Temple(s)/ Enclosure	Well	Tank	Religion	Notes
18	Gopalakrishna Temple Complex	Laterite Temple/ Laterite Compound Walls	Y	Y	Vaishnavite Hindu	Laterite Temple (ca 1653), some modern remodeling Laterite compound walls
22	Lakshmi Narayana Temple Complex	Laterite Temple/ Laterite Compound Walls	Y	Y	Vaishnavite Hindu	Laterite Temple, Laterite compound walls
99	Vinayaka (Ganesha) Temple Complex	Laterite Temple/ Laterite Compound Walls	Y	Y	Shaivite Hindu	Modern Temple, some stone elements reused Laterite compound walls, with modern sections
139	Hanuman Temple	Stone Temple, no walls	N	N	Vaishnavite Hindu	Stone Temple, no walls
142	Kalikamba Temple Complex	Modern Temple, stone elements reused	Y	N	Shaivite Hindu	Modern Temple, some stone elements reused
143	Basava Temple	Laterite Temple	Y	N	(Virashaivite Hindu)	Modern Temple, Basava sculpture, no walls

KIN	Site Type	Temple(s)/ Enclosure	Well	Tank	Religion	Notes
158	Basava Temple	Stone Temple	N	N	(Virashaivite Hindu)	Stone Temple, Basava sculpture
182	Birappa Temple	Laterite Temple, no walls	N	N	Shaivite Hindu (Kuruba association)	Laterite Temple

Figure 5.18: Rameshwara Temple Complex, Keladi, exterior (KIN 2)



The majority of temples academically studied in south India, past and present, are built of stone (or cement in the modern era), however, religious architecture in practice is constructed from a more diverse array of materials. The durability of stone and its ability to hold for posterity the iconography of carving and sculpture has, understandably, biased academic interest toward structures constructed in these materials—as has its use in constructing more elaborate and elite monuments. More perishable technologies, such as laterite, wood, plaster, and paint, are capable of holding iconography as well as stone, but do not preserve in the same manner. Temples and complexes identified on survey include structures built of diverse primary materials, including stone, wood, and laterite—the last of which is the predominant material of the local area. Standing religious architecture is associated either through current worship, iconography, or oral tradition, with three major sects of Hinduism (Shaivite, Vaishnavite, and Virashivite), and Jainism. The sect and deity or deities associated with temples and temple complexes might or might not have remained the same since construction of each site, and it was generally not possible to determine the complete history of each site; when the historical continuity of a temple

sect association is questionable I have bracketed it in Table 5.4. Not all sites identified as religious architecture are still in daily worship, though a majority of locations are. Religious architecture which was deemed to be in original Nayaka Period form, or which had been remodeled in a way that older portions are still recognizable, were documented in this category; there is extensive and frequent (in a historical sense) remodeling of temples, and sites of contemporary religious worship which were not recorded may have a deeper history than their modern construction suggests. The religious architecture documented here does not represent the full Nayaka Period religious landscape of Keladi or Ikkeri, as illustrated by carved stones located across these areas, including: icons (broken), sculpture bases, and stone building elements like those incorporated into known temples.

The known religious architecture of Keladi and Ikkeri is dominated by two large Shaivite temple complexes. Both are currently declared protected monuments by the Archaeological Survey of India (ASI). These are the Rameshvara temple complex at Keladi (KIN 2; Figures 5.18, 5.19, 5.20) and the Aghoreshvara temple complex at Ikkeri (KIN 3) (Figures 5.21, 5.22, 5.23). Both date to the Nayaka Period, though each has experienced subsequent modifications and/or conservation efforts. They would likely, however, have been the main temples of the Nayaka Period occupation at each capital and are important examples of late medieval architectural style in the Malnad area (Kanekar 2010, 2009; Michell 2001; Verghese 2008). Both complexes are bounded by rectilinear compound walls, which offer from the outside entirely restricted (Keladi) or partially restricted (Ikkeri) views of the interior religious architecture. The Rameshvara complex is walled in by a roofed colonnade with exterior arched niches (Figures 5.18, 5.20), a motif also seen in tanks at Keladi and Ikkeri; this façade is plastered and painted,. The Aghoreshvara complex is walled in by unplastered laterite block walls (Figures 5.21, 5.23).

On the interior, both the Rameshvara (Figures 5.19, 5.20) and Aghoreshvara complexes (Figures 5.22, 5.23) contain multiple temples and features. The Rameshvara complex houses temples dedicated to Rameshvara, Virabhadra, and Parvati, while the Aghoreshvara complex houses Aghoreshvara and Parvati temples and a Nandi (Basava) shrine. Interior features at the Rameshvara complex include a standing pillar, and a roofed colonnade which contains several walled-in rooms. Interior features at the Aghoreshvara temple complex include a square platform (not pictured on this plan), and the foundation of what was once likely a colonnade around at



least the southern portion of the interior of the complex. Fragments of large-sized flat roof tiles were found around these foundations, so it is likely that the structure was once roofed much like the current one at Keladi. KINZS did not map or extensively document these buildings as they have been the objects of specialized study by art and architectural historians.

Like the two large temples discussed above, the much smaller Hanuman Temple at Ikkeri (Figure 5.24) has appeared (briefly) in published studies of south Indian temple architecture (Michell 2001:270). This temple is one of only three in the Ikkeri area constructed entirely in stone and assigned to the Nayaka Period. It is located along the road that leads from Ikkeri village to Ikkert Fort. According to Michell, it is associated with Venkatappa Nayaka (1586-1629 CE), though there are no known inscriptions associated with this structure. It represents the Vaishnavite Hindu sect that was closely associated with the late Vijayanagara imperial Tuluva and Aravidu dynasties and is visibly inspired by architecture at the imperial capital. It is unique in the survey areas for the combination of small size with elaborately carved elements and full stone construction. It is also an unusual investment in Vaishnavite architecture in an area which has historically had and continues to have a strong Shaivite temple tradition.

Interestingly, one of the other, though far less ornate, small stone temples recorded on survey are a cluster of three temples in central Keladi (KIN 102; Figure 5.30) which are today in Vaishnavite worship. Though the icons in each of the three temples appear to be more recent than the Nayaka Period, based on their style and execution; according to local residents, they represent Hanuman (south/left) (Figures 5.31, 5.32), Kodunandaraman (middle), and Bhagavati or a fierce goddess (north/right; the items this goddess holds do not conform to traditional Bhagavati accoutrements) (Figure 5.33), though Kallapur (2010) refers to the Hanuman Temple as the Anjaneya Temple and the Bhagavati as Padmavati. The Kodunandaraman has a more recent laterite superstructure, making it a multi-chambered temple, but the central chamber is similar in style to the other two of the cluster. Given the overwhelmingly Shaivite nature of Shimoga District in general, and the Sagara area in particular, I believe it likely that the Vaishnavite dedication of these temples is original even if the icons are not. Thus, it is a fascinating continuity that there are smaller, stone temples devoted to the religion of the Vijayanagara Emperors at each of the two capitals.

Figure 5.19: Rameshvara, Virabhadra, and Parvati Temples, Rameshvara Temple Complex Interior, Keladi (KIN 2)



Figure 5.20: Plan of Rameshvara Temple Complex, Keladi (KIN 2) (Michell 2001)



Figure 5.21: Aghoreshvara Temple Complex exterior, Ikkeri (KIN 3)



Figure 5.22: Aghoreshvara Temple Complex, view of interior, Ikkeri (KIN 3)



Figure 5.23: Plan of Aghoreshvara Temple Complex, Ikkeri (KIN 3) (Michell 2001)

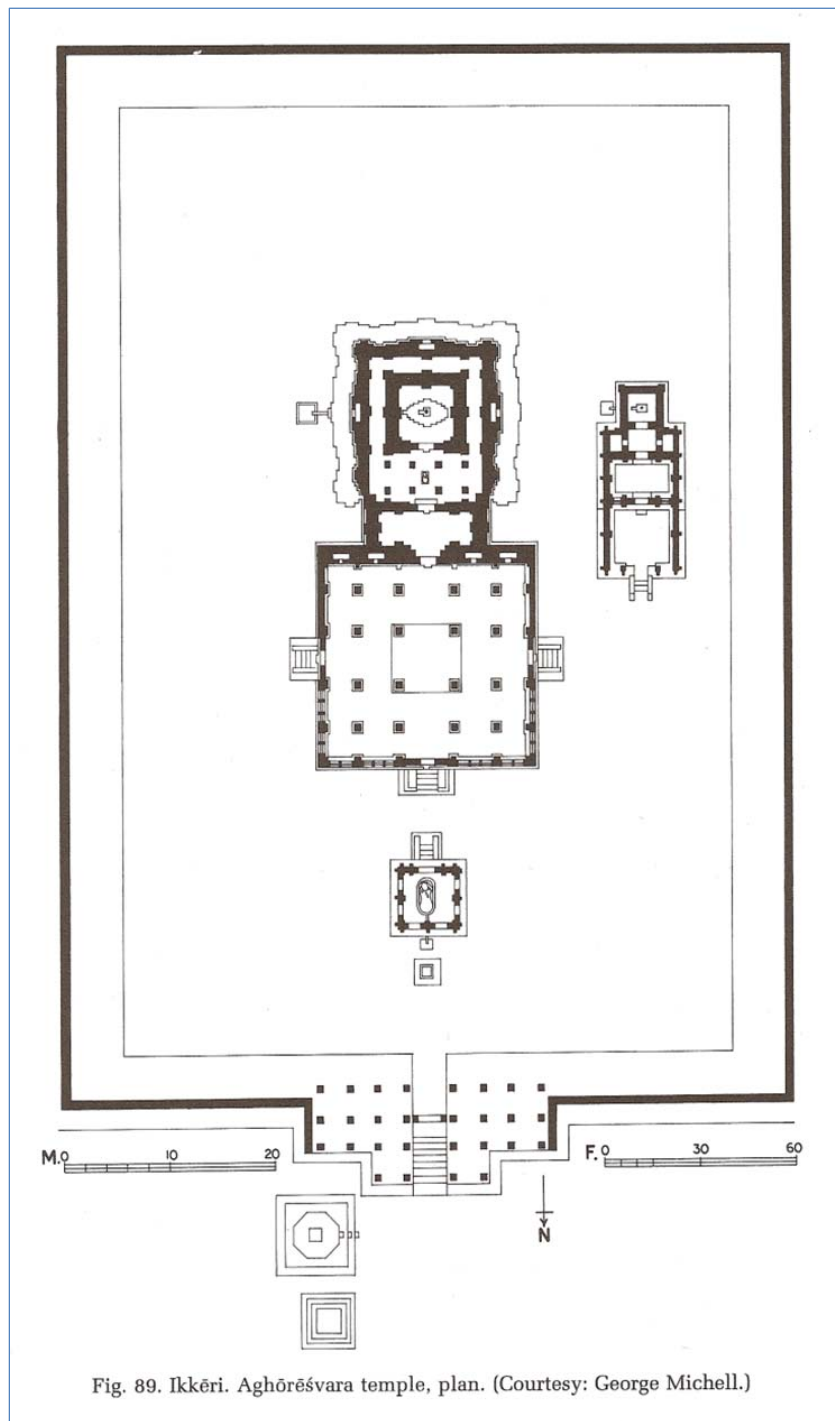


Fig. 89. Ikkēri. Aghōrēśvara temple, plan. (Courtesy: George Michell.)

Figure 5.24: Hanuman Temple, Ikkeri (KIN 139)



Also in the smaller stone temple category are the Keladi Virabhadra Temple (KIN 108; Figure 5.29), and the Ikkeri Basava Temple (KIN 143; Figure 5.37), though the haphazard nature of the interiors of these structures makes the original dedication of these structures uncertain. Each of these smaller stone temples, with the exception of the Ikkeri Hanuman Temple, is far less ornate than the main temple complexes in each area, and they are all an order of magnitude smaller.

Outside of the large and small stone temples, there are laterite temples, and hybrid stone and laterite temples, as well as sites which are modern remodels of what are clearly older sites; there were likely more wooden temples as well, and one extant example of this is the Parvati Temple (in the Rameshvara Complex), which is of partially wooden construction. An area of Keladi historically known to be the Akki Pete Monastery of Virashaivite tradition was recorded, focusing on a small laterite Basava temple (KIN 109) (Figures 5.25, 5.26) The site also contains

structure mounding, including a rectilinear mound which surrounds the Basava Temple, and its likely to have served as a compound wall, containing laterite wall construction at its core. Artifact collections made in a drainage ditch bordering the site yielded flat roof tiles. The Keladi-Ikkeri Nayakas were Virashaivite, as discussed in chapter four. Local oral history relates a sequence of three area Virashaivite mathas: one to the southwest in a now abandoned area just beyond the permitted KINZS region, then the Akki Pete Matha ('rice paddy monastery'), and the contemporary institution in Bandagadde, just north of the Hire Kere reservoir. There was also at least one Virashaivite monastery at Ikkeri.

At Keladi and Ikkeri, there is a clear earlier tradition of laterite construction that is no longer being produced in the modern era. This older construction type is well represented in the religious architecture category, and also appears in tanks and reservoirs, and thus is discussed further in that section. The laterite structure at Akki Pete (KIN 109; Figures 5.26, 5.27) is a good example of this tradition. Nayaka Period (and perhaps earlier) laterite construction utilizes laterite blocks of shapes similar to the rectangular ones quarried today, but in more size categories, including significantly larger pieces. Flat roof tiles are also associated with Akki Pete and with the early Nayaka Period (and preceding periods) (Figure 5.27; see also Appendix D, roof tile analysis). The early laterite construction tradition also incorporates shapes unknown today, such as round column segments or pillar foundations (Figure 5.64), and the round cap seen at the top of KIN 109. In addition, laterite is carved into shapes such as arches, which are represented in the doorway of KIN 109 (as well as the arched niches of the tank, KIN 188; Figure 5.85), and relief columns as seen in KIN 109, and at the Keladi Jain *Basadi* (term for a Jain temple) (KIN 123; Figure 5.28). Many of the laterite temples at Keladi and Ikkeri are located inside laterite compound walls, and relief columns are sometimes incorporated into these as well (e.g. KIN 99; Figure 5.39).

Figure 5.25: Basava Temple, Akki Pete Matha, view from front, Keladi (KIN 109)



Figure 5.26: Basava Temple, Akki Pete Matha, view from rear, Keladi (KIN 109)



Figure 5.27: Flat Roof Tile Fragments (KIN 109)



Figure 5.28: Jain Temple (Basadi), from south, Keladi (KIN 123)





Figure 5.29: Stone Temple, Keladi (KIN 108)



Figure 5.30: Stone Temple Complex, Keladi (KIN 102)



Figure 5.31: Hanuman Icon, Temple Interior (KIN 102)



Figure 5.32: Hanuman Temple, interior, ceiling detail (KIN 102)



Figure 5.33: Bhagavati/fierce goddess Temple, interior (KIN 102)



Figure 5.34: Gopalakrishna Temple, Keladi (KIN 130)



Figure 5.35: Laterite Temple Wall, cross-section, Keladi (KIN 238)



Figure 5.36: Kalikamba Temple, bannister stones, Ikkeri (KIN 142)



Figure 5.37: Basava, Basava Temple, Ikkeri (KIN 143)



Figure 5.38: Stone Temple, Ikkeri (KIN 158)



Figure 5.39: Vinayaka (Ganesha) Temple, Hosuru, Ikkeri (KIN 99)



Figure 5.40: Bannisters, Vinayaka (Ganesha) Temple, Hosuru, Ikkeri (KIN 99)



The early laterite construction tradition can be seen in combination with stone construction in many of the temple complexes. At the Rameshvara Temple Complex (KIN 2) and Aghoreshvara Temple Complex (KIN 3) compound walls. It can also be seen at the laterite temple complexes of Ikkeri (KIN 17, 18, 22, 99; not pictured for technical reasons), which exist in both the Shaivite and Vaishnavite traditions; this is notable, because one of the four is dated to 1653, and by this time the Nayakas were fully independent from the Empire. Each of these smaller temples uses stone elements in combination with laterite, for such significant things as the *tirtha*, or drainage spout which carries liquid offerings from the icon to the exterior. Wood, laterite, and stone (also modern remodeling) are all used at the Hosuru Vinayaka (Ganesha) Temple (KIN 99; Figures 5.39, 5.40), which is associated with one of the best examples of Nayaka Period reservoir bund construction (KIN 98; Figures 5.77, 7.78).

Among the locations where there has been significant remodeling, but enough basic in situ preservation to suggest original temples (if not the original dedication) are the Gopalakrishna Temple (KIN 130; Figure 5.34) and a temple of the Brahmin *Agrahara* (Brahmin village) (KIN 238; Figure 5.35) at Keladi, and the Kalikamba Temple (KIN 142; Figure 5.36), and Basava Temple (KIN 143; Figure 5.37) at Ikkeri. There are likely many additional locations of past temples of varying size and construction, the ruins of which lie buried in the Keladi and Ikkeri landscapes. Some evidence of these was recorded in a structure mound with associated stone architectural and icon fragments (KIN200; Figure 5.88), and in the location of carved stone architectural and icon fragments. These are discussed further in the relevant sections below.

Finally, I have included a photo of the Varada Mula (Figure 5.41), which is in Ikkeri Block Z, but was not included on survey. The Varada Mula is located at the origin of the Varada River, which flows past the significant site of Banavasi and on into the Tungabhadra River, on which Vijayanagara was located. Though located in the outer survey area, it was not formally documented. It is said to have been established prior to the Nayaka Period, though it has been of ongoing religious significance. It contains many smaller temples and a number of tanks, and combines laterite and stone construction.

Figure 5.41: Varada Mula, Ikkeri (Block Z)



### Carved Stones

Carved stone is the most numerous of site type components recorded on survey, both as sole site types and as components found in conjunction with other site types. Carved stone subtypes include: naga, *linga* (phallic representation of Shiva), architectural element, *sati* (memorial burning of a widow in honor of her husband at his death), hero (or *virakallu*), idol, sculpture base, devotee, water management, container, inscription, colonial period, and other (which include both eroded and unique stones) (Table 5.5). In comparison with other sites types, carved stones are relatively portable, and it is well-known that they move freely for many different reasons. In the Keladi survey areas, the Keladi Museum and Research Bureau and the Rameshvara Temple serve as repositories for many stones discovered in local contexts. Not all stones are moved to these locations, as in cases where land owners and users object to the removal. In general, original provenience is not preserved, and from an analytical perspective,



this is quite unfortunate. At both Keladi and Ikkeri, carved stones are discovered with some regularity, usually when reservoir levels go low and/or when they are dredged or undergo bund work, or when drainage ditches are created, expanded, or maintained. In the former case, it is said that a common practice of carved stone discard, after some sort of polluting event, is to place it into a reservoir; if the stone re-emerges, it will be re-charged. Another type of local repository for found carved stones is the tree shrine, which is illustrated by large numbers of naga stones which are placed in particular locations at Keladi and Ikkeri. Architectural elements are sometimes reused, either in remodeling in original context or recycled as parts of new structures. In many cases, however, stones remain in 'discarded' status at their locations of rediscovery.

Naga stones are the most ubiquitous carved stone type found on survey (Figures 5.42, 5.43, 5.44, 5.52). KINZS recorded a total of 362 naga stones: 135 stones at 24 Keladi locations and 227 stones at 67 Ikkeri locations. These are stones depicting one or more snakes in relief and/or etched carving. They are commonly described in the contemporary community as stones for protection against venomous snakes and as more generalized protectors. The snakes depicted are assumed to be cobras, a highly lethal snake native to the subcontinent, which are believed to be powerful beings and are involved in an extremely long and diverse mythology in South Asia (Vogel 1972). Based on the occasional presence of green glass bangles, they are also worshipped by women seeking assistance in fertility concerns. This practice is in line with Vogel's 1926 discussion of practices associated with naga stones, in which he stated that intertwined cobras depict two snakes in the act of copulation, offering a powerful representation of fertility which is occasionally accompanied by the iconography of small snake offspring. Protruberances on snakes' heads, usually a fez-shaped hat, symbolize a jewel worn or borne by the cobra (Vogel 1972:268-273; according to Vogel, jewels are also often associated with cobras, signaling their association with wealth and power; ). These stones are associated with vernacular Hindu religious practice and are commonly worshipped with tikka powder decoration, fresh flowers, and occasionally small lamps and rupee coins. Though mostly worshipped in open air shrines in vernacular practice, there is an intersection between naga iconography and formal religion, as these motifs are present in stone carvings on the interior of both the Keladi Rameshvara Temple (KIN 2) and the Ikkeri Aghoreshvara Temple (KIN 3). Shiva is often associated with naga iconography.

Table 5.5: KINZS Carved Stones

Stone Type	Number of Sites/Features with Type of Carved Stone Component, By Survey Area		Number of Carved Stones per Type, By Survey Area		Total Number of Carved Stones Per Type	Percentage of Carved Stones By Type		Percentage of Total Carved Stones of All Types
	Keladi	Ikkeri	Keladi	Ikkeri	Combined	Keladi	Ikkeri	Combined
<b>Naga</b>	24	67	135	227	362	37.3	62.7	57.7
<b>Architectural Element</b>	3	21	4	132	136	2.9	97.1	21.7
<b>Linga</b>	8	23	8	28	36	22.2	77.8	5.7
<b>Other</b>	6	8	10	9	19	52.6	43.4	3
<b>Colonial Period</b>	0	6	0	18	18	0	100	2.9
<b>Icon</b>	2	10	2	11	13	15.4	84.6	2.1
<b>Sculpture Base</b>	3	8	5	8	13	38.5	61.5	2.1
<b>Sati</b>	3	5	5	5	10	50	50	1.6
<b>Hero</b>	3	3	3	3	6	50	50	1
<b>Container</b>	1	4	1	4	5	20	80	0.8
<b>Devotee</b>	1	2	1	3	4	25	75	0.6
<b>Water Management</b>	0	2	0	4	4	0	100	0.6
<b>Inscription*</b>	0	1	0	1	1	0	100	0.2
<b>Total by Survey Area</b>	54	160	174	453	--	27.8	72.2	--
<b>COMBINED TOTAL</b>	214		627		627	100		100

\*Inscription as a separate carved stone type category contains only one stone, which is a carved stone with only an inscription depicted on it (KIN 9 / Ikkeri). However, there are 29 stones in other carved stone type categories which have some kind of inscription (most a single or few characters) on them in conjunction with iconography that places them in different categories. These stones include: 15 colonial period stones with inscriptions in English (KIN 11/ Ikkeri (n=2), KIN 88 / Ikkeri (n=4), KIN 93 / Ikkeri (n=2), KIN 98 / Ikkeri (n=1), KIN 206 / Ikkeri (n=6)), 11 architectural elements (KIN 144 / Ikkeri (slabs mounted in the reservoir bund, each with the same single character inscribed)), 2 sati stones (KIN 110 / Keladi, KIN 112 / Keladi), and 1 linga stone (KIN 96 / Ikkeri).

Figure 5.42: Laterite Platform with 71 Naga Stones, Keladi (KIN 244)



Figure 5.43: Naga Stones, close up, Keladi (KIN 244)



Figure 5.44: Naga Stones, Ikkeri (KIN 141)



Linga stones (Figures 5.45, 5.46) depict the stylized columnar representation of the god Shiva in relief and/or etched carving. They usually also depict a full sun and half-moon above and on either side of the central linga carving. KINZS recorded a total of 36 linga stones: eight stones at eight Keladi locations and 28 stones at 23 Ikkeri locations. These stones were likely used as boundary markers indicating land ownership (ref) and/or memorial markers. Their occurrence in a one to one site occurrence at Keladi, as well as in most locations at Ikkeri, would support use as boundary markers. Their occurrence in several small clusters just north of Ikkeri Fort would fit better with a memorial stone interpretation.

Figure 5.45: Linga Stone, Keladi (KIN 101)



Figure 5.46: Linga Stone, Ikkeri (KIN 156)



Hero (Figures 5.47, 5.48, 5.49) and Sati (Figures 5.50, 5.51, 5.52, 5.53) stones are both memorial stones, posthumous commemorations of an individual and his or her heroic death (Rajan 2000; Settar and Sontheimer 1982). Sati stone commemorate the death of a wife, often by immolation, in honor of her husband's passing; sati has a long tradition in India and in contemporary life is understandably controversial. Whether the death of a wife following her husband's demise was ever routinely voluntary is an important question, but it is not one which is not illuminated by this data. KINZS recorded 10 sati stones: five stones at three Keladi locations and five stones at five Ikkeri locations. Hero stones commemorate the death of a man in battle or while performing a heroic deed. KINZS recorded a total of six hero stones: three stones at three Keladi locations and three stones at three Ikkeri locations. Both of these changed in style and content over time; as discussed in chapter 6, the hero and sati stones recorded on survey suggest the presence of settlement at Keladi in the earlier Hoysala period as well as the later nayaka period.

Figure 5.47: Hero Stone, Keladi (KIN 121)



Figure 5.48: Hero Stone, Ikkeri (KIN 136)



Figure 5.49: Hero Stone, Ikkeri (KIN 209)



Figure 5.50: Sati Stones, Keladi (KIN 110)



Figure 5.51: Sati Stone, Ikkeri (near Varada Mula) (KIN 83)



Figure 5.52: Sati and Naga Stones, modern shrine, Ikkeri (KIN 36)



Figure 5.53: Sati Stone, recently cleared land, Ikkeri (KIN 81)





Sacred images or icons (Figures 5.55, 5.89), sculpture bases and container stones are types likely originally to have been associated with temple contexts, with the exception of stone fertility goddess icons (Figure 5.54), which were likely worshipped in a vernacular manner more similar to that of naga stones. KINZS recorded two icons at two locations at Keladi and 11 icons at 10 locations at Ikkeri, five sculpture bases at three locations at Keladi and eight sculpture bases at eight locations at Ikkeri, and one container stone at one location at Keladi and four container stones at four locations at Ikkeri. Aside from anthropomorphic gods and goddesses, icons recovered on survey include *basava* or bull sculptures (known as the vehicle of Shiva) (Figures 5.37, 5.38) and broken god and goddess icons. Sculpture bases, with and without a central square mounting hole for icon bases, were recorded; these allow for idols to be elevated and often provide functional channeling of liquids used in worshipping the deities from the central chamber of the temple to the outside. Often, such drainage spouts (Figure 5.60), whether or not they are integrated into the sculpture base itself, pour into a stone basin which rests near the foundation of the temple.

Figure 5.54: Chaudamma in modern shrine, Hire Kere Reservoir Bund, Keladi (KIN 4/F4)



Figure 5.55: Goddess Icon, broken, Ikkeri (KIN 33)



Devotee stones depict a donor's piety as signified by a donation, presumably funding the stone and supporting a religious institution in some significant way. KINZS recorded a total of four devotee stones: one stone at one Keladi location and three stones at two Ikkeri locations. Throughout south Indian history numerous donative inscriptions record details of such support, including Keladi inscriptions as discussed in chapter four. The devotee stones recorded by KINZ do not record such details, but provide only the image of a supplicant. Only a few freestanding examples of these stones were recorded in survey, though there are multiple devotee carvings in both the Keladi Rameshvara Temple (KIN 2) and the Ikkeri Aghoreshvara Temple (KIN 3).

KINZS recorded four water management stones. Water Management stones consist of a modern sluice gate element (KIN 11) and three elements of a dismantled sluice gate which are

addressed in the section on water channels (KIN 234). Colonial period stones were associated exclusively with reservoirs and thus are related to water management. These are mostly small slabs with curved top edges which label reservoirs and their bunds in some way. KINZS recorded 18 colonial period stones at 6 Keladi locations, . I could find no record of the significance of these stones and their recording system, and no local memory of their meaning could be found. Thus, since they are in English and/or Arabic numerals and are not contemporary, they have been assigned to the colonial period.

Inscriptions as a separate carved stone type category includes only one stone with a (untranslated) Kannada text inscribed on it (KIN 9 / Ikkeri) (Figure 5.56); this irregular and broken stone may be of modern origin. However, 29 stones in other carved stone type categories have inscriptions in conjunction with iconography that places them in different categories. These stones include: 15 colonial period stones with inscriptions in English (Ikkeri) (Figure 5.57), 11 architectural elements, slabs mounted in a reservoir bund, each with the same single character inscribed (Ikkeri), 2 sati stones with unpublished and only partially visible Kannada texts (Keladi), and 1 linga stone with eroded and unpublished Kannada text (Ikkeri).

Figure 5.56: Inscription Stone, Ikkeri (KIN 9)



Figure 5.57: Colonial Period Inscription Stone (KIN 88)



Figure 5.58: Stone Column, Ikkeri (KIN 59)



Figure 5.59: Basement Stones, reused in agricultural setting as bannisters, (KIN 61)



Figure 5.60: Architectural Elements, Ikkeri (KIN 178)



After naga stones, architectural elements were the most numerous category of carved stones recorded on survey (Figures 5.58, 5.59, 5.60). KINZS documented 136 architectural elements: four at three locations at Keladi and 132 at 21 locations at Ikkeri. Architectural elements included a few whole, intact stones, but were mostly fragments of stone elements, with a few stones appearing to be ‘wasters,’ or pieces which were abandoned prior to completion due to a flaw in the material or craftsmanship. Some of the elements recorded obviously resemble temple elements, such as stone bannisters and foundation stones (one with relief lizards carved on it like those found at the Aghoreshvara Temple). Together, the distribution of carved stone temple elements, sculpture bases, icons, and additional elements identified away from known temple contexts might serve as a proxy for locating additional past temple locations on the landscape. It is entirely likely given the emergence of durable secular architecture in the imperial period that some of the locations where stone architectural elements were recorded might be locations associated with functions other than religion. Finally, the “other stones” category (19 total) of carved stones included idiosyncratic types (a chicken head, a relief face, a pair of feet in relief) and eroded stones for which iconography was indeterminate.

### **Laterite Constructions and Carved Laterite**

As noted above, laterite is a readily available local building material produced by quarrying indurated soil into blocks, or occasionally, other shapes. Though still in use today, it has largely been supplanted by the availability and versatility of cement and laterite is no longer used for anything except as cheap filler for cement faced constructions, and occasionally for ephemeral uses like provisional cooking hearths for temple feast days. When quarried properly, laterite continues to harden over time. Older laterite darkens and often becomes pitted with channels, as non-bound sediment washes out and leaves behind cemented portions. Absolute dating of laterite is not possible, though based on morphology and appearance, relative chronology can often be posited; newly quarried laterite is generally bright, smoother, softer, and unpitted and unchanneled, while aged laterite is darker, often very mottled, very hard, and quite pitted and filled with vermiform channels. As well as being documented in the separate site types of laterite constructions and carved laterite which are discussed in this section, the material is a component of other site types: it is used in facing some reservoir bunds, in constructing

tanks, in fortifications, and in some temples and temple complexes. It also occurs as parent material in tanks which extend deep enough into a proper substrate. Contemporary laterite use can be observed and active quarrying still occurs in both the Keladi and Ikkeri survey areas, though on a small scale. Shaping of laterite was only observed for forming blocks, while on survey a much more diverse array of shapes and uses was documented. Carving of relief columns, use of larger and more varied shapes of blocks, and incorporation of elements with round and idiosyncratic shapes, show that laterite was used very differently in the past than it is now.

The site type documented as laterite construction includes platforms, walls, ducts and squares. Walls that were documented were either associated with other components suggesting antiquity and/or those which have no sensible modern context of their own. Wall function was not always clear; though common contemporary uses are to bound space, restrict movement of people and/or animals, and as retention walls in civic or agricultural contexts. Two ducts were documented, one carved into parent material inside the tank in the Palace Complex discussed below (KIN 1/F1) and one laterite block lined duct found in the wall of a modern areca grove very close to Ikkeri Fort (KIN 95). These ducts have been classified as laterite construction rather than water management features because connections with water channeling or storage features were not observed and both ducts were completely dry when recorded. It is possible, however, that they could formerly have been part of a water drainage system. In the case of KIN 1/F1 the laterite duct is located behind a carved stone zoomorphic spout with a drainage channel, fixed above a deep square tank which is still water filled. This does suggest a water feature, however, the duct is semi-circular in shape and large enough for a person to crawl through. It was not followed to its extent because of safety concerns. Two laterite squares, low constructions smaller than platforms, were documented in a temple complex (KIN 142); similar squares are present in the Ikkeri Aghoreshwara Temple (KIN 3).

Platforms are square (Figures 5.42, 5.62), rectangular (Figure 5.63), or at one site round (Figure 5.61), laterite constructions that are often associated with plantings of holy fig trees (also peepal or arali mara; *Ficus religiosa*) and/or carved stones (predominantly nagas). KINZS recorded platforms at 34 locations: 11 at Keladi and 23 at Ikkeri (Table 5.6). Platforms occur singly most of the time, though they are sometimes found in pairs or clusters of three. Platforms

are often located adjacent to reservoirs or along modern or former roads, and are in generally in use as contemporary shrines (Figure 5.. They are also sometimes associated with religious architecture, and there is a large platform inside the Aghoreshvara Temple Complex, though it is not in use as a shrine and contains no tree at present. Some platforms are maintained by area residents and show signs of reconstruction, patching, and even plaster facing. Other platforms are less well maintained and are partially collapsed or missing. Some platforms are visible up to four or five courses of laterite block in height and others have only one course visible and seem to be either missing upper layers or have lower courses that extend down into surrounding sediment.

Figure 5.61: Circular Platform, Ikkeri (KIN 100)





Table 5.6: Laterite Platforms Recorded by KINZS

KIN	Description
<b>KELADI SITES (n=11)</b>	
100	Two circular platforms flanking the Sagar-Keladi road, adjacent to a tank (complex shape)
107	Platform
215/F1	3 Platforms at Reservoir, 1 Carved Stone Naga
217	Platform
218	Platform
220	Platform, 2 Carved Stone Nagas
230	2 Platforms, 2 Carved Stone Nagas
236	Platform
238	Platform at Temple complex
241	Platform
244	Platform with 71 Naga Stones, 1 Other (eroded figure); located adjacent to temple complex
<b>IKKERI SITES (n=23)</b>	
10/F1	Platform with 4 Carved Stone Nagas, adjacent to a reservoir (KIN 10)
15	Platform
37	Platform with 3 Carved Stone Nagas
43	Platform with 2 Carved Stone Nagas
49	Platform with 8 Carved Stone Nagas
56	Platform
58	Platform with 3 Carved Stone Nagas
62	Platform with 1 Carved Stone Naga
88/F1	2 Platforms with one Carved Stone Naga adjacent to a reservoir (KIN 88)
90	Platform with 1 Carved Stone Naga
93	Platform with 2 Carved Stone Nagas
97	Platform with 3 Carved Stone Nagas and 1 Icon (eroded)
98/F1	Platform adjacent to reservoir (KIN 98)
144/F1	Platform at center of reservoir bund (KIN 144), Naga and architectural element???
145/F1	Platform adjacent to reservoir at NE corner (KIN 144)
161	Platform
167	3 Platforms adjacent to modern temple; one contains elements of old carved laterite: 14 round column segments and 1 column base, plus 7 Carved Stone Nagas

KIN	Description
173/F1	Platform adjacent to reservoir, 3 Carved Stone Nagas
176	Platform adjacent to structure mound
181	Platform with 4 Carved Stone Nagas
186	Platform
193/F1	Platform with 6 Carved Stone Nagas, and 1 Carved Stone with a pair of feet in relief
207	Platform

Figure 5.62: Platform, center of Bale Kere reservoir bund, Ikkeri (KIN 145/F1)



Figure 5.63: Rectangular Platform, Ikkeri (KIN 97)



Site types documented as carved laterite include very large rectangular blocks which I call monoliths, round laterite column segments and bases, large laterite blocks, and other shapes; carved laterite appears as a part of other sites, such as tanks and temples, and where significant is discussed separately. Round laterite column segments and bases (which are square with a round relief platform) (Figure 5.64) were documented both in association with temples, though as discarded old building material, and also as isolated elements on survey, suggesting that this form was used in past construction of temples. Column motifs in laterite are also seen carved as relief columns on the interior of some tanks at Keladi and Ikkeri (see water management below). No intact round laterite columns were observed in the survey area, suggesting that this is a past practice no longer used and often dismantled in remodeling. Large blocks of a size not observed in modern contexts were also documented (KIN 194). Other carved laterite types included one sculpture base (KIN 238) discarded in a modern temple complex at Keladi, and one drainage segment of a size that suggests it was an architectural element once incorporated into a building (KIN 19/ Ikkeri). Much like for carved stones, the distribution of carved laterite elements

identified away from known temple contexts might serve as a proxy for locating additional past locations on the landscape.

While other types of carved laterite are understood in terms of function, use, or context, laterite monoliths are an exception. Laterite monoliths are large rectangular blocks which seem to be meant for embedding upright (Figures 5.65, 5.66, 5.67). They are found in small numbers at Keladi (two locations) and Ikkeri (four locations) in modern contexts, and are sometimes worshipped (Table 5.7). At Keladi, both monolith sites were associated with the village of Keladipura, a settlement divided from Keladi proper by the large Hire Kere reservoir, and in both instances the monoliths are in active worship as part of the local traditional religious landscape. At Ikkeri, the sites are distributed more widely, with three located at the margins of Ikkeri village and one more distant in the eastern outer tier of survey blocks (KIN 5). This more distant monolith and one of the two at KIN 194 (LM B; Figure 5.67) were documented as horizontal rather than upright. Only one monolith at Ikkeri (KIN 194, LM A; Figure 5.67) was in active worship. With the exception of two monoliths, one at Keladi (KIN 126, LM A) (Figure 5.65) and one at Ikkeri (KIN 138) (Figure 5.66), the blocks had no irregular shaping; these two monoliths had notches or indentations into which cross beams could have fit. This is the only indication of possible functional usage. Laterite monoliths do not fit into any known historic or prehistoric tradition, and their original purpose and use remains to be determined.

Figure 5.64: Round Column Segments, Carved Laterite, after temple remodel (KIN 238)



Table 5.7: Carved Laterite Monoliths Recorded by KINZS

KIN	Site Type	Block Size (cm)	Worship	Context
KELADI SITES (n=2)				
226	Laterite Monoliths (2)	A) 102 x 36 x 38 B) 83 x 30 x 20	Active	Associated with three small shrines of modern construction, using mixed materials which include reused older laterite. LM A is freestanding, while B is built into Shrine 1. LM A has two deep indentations in one side. Located in a large open area at the rear of houses lining the main road, and bordered by an areca plantation.
228	Laterite Monolith	84 x 44 x 33	Active	Surrounded by six metal tridents, with evidence of modern pottery around (from deepas). Located 20 m from an old platform (KIN 241) near the main village road.
IKKERI SITES (n=4)				
5	Laterite Monolith	200 x 80 x -- (estimated)	No	In a drainage ditch in at the edge of agricultural land, located distant from any modern village context. Embedded in sediment, so full measurements not possible.
48	Laterite Monolith	144 x 157 x 31	No	Located in a shallow drainage ditch to the east of a modern dirt road, along a fence line in Ikkeri village. Adjacent to amorphous mounding, light fragmented ceramic scatter.
138	Laterite Monolith	184 x 88 x 67	No	Located at the side of the paved Sagar-Ikkeri road, near a fence line. Four rectangular indentations along the SE corner of the monolith.

KIN	Site Type	Block Size (cm)	Worship	Context
194	Laterite Monoliths (2) and Large Laterite Blocks (2)	A) 207 x 84 x 75 B) 130 x 70 x --	Active (A)	Located at the side of the road from Ikkeri to Lakmane village (about 40m from KIN 193 reservoir). LM A is upright and is named Kallagane Bota and is worshipped as a deity. It is garlanded with leaves and has an iron trident on its S side. Two large laterite blocks lie on the surface nearby. LM B is on its side 13m SSW of A.

Figure 5.65: Laterite Monolith (A), with view of shrines and LM B, Keladi (KIN 126)



Figure 5.66: Laterite Monolith, Ikkeri (KIN 138)



Figure 5.67: Laterite Monolith (A) and Large Blocks, Ikkeri (KIN 194)



## Water Management

Water management includes culturally created and/or modified features that are designed to channel, drain, and/or retain water; these features need not have a primarily agricultural function, but the majority of documented features do, or at the very least, are largely used for agricultural purposes in conjunction with other uses, such as domestic (e.g., washing clothes, as a source of drinking and cooking water), religious (e.g. water for temple ceremonies), and pleasure (e.g. palace tank). Water management components were documented at 13 Keladi (Figure 5.68) and 34 Ikkeri (Figure 5.69) locations. Subtypes of water management sites documented include reservoirs (and associated sluice gates) (Table 5.8), tanks (Table 5.9), wells, and water channels (Figure 5.70). The Keladi and Ikkeri landscapes are dominated by agricultural lands interspersed with small village settlements. Due to both the intensity of agricultural land use and also the need to actively manage heavy monsoon run off to maintain roads and buildings, there is extensive contemporary water management infrastructure in both areas. This made survey identification of archaeologically relevant features somewhat problematic, exacerbated by chronological issues, and this is discussed for each type below. All reservoirs were recorded to some degree, with more detailed documentation on those known to have nayaka period elements, and unless tanks were definitively identified as modern by owners or users, they were recorded.

Reservoirs are constructed by dams (or bunds) which create areas of water collection unbounded on three sides. At Keladi, the agricultural landscape is dominated by one large reservoir (KIN 4), with associated modern and Nayaka Period sluice gates (Figures 5.71, 5.72, 5.73, 5.74), and a few smaller (and either modern or highly silted) ones, while at Ikkeri, the agricultural landscape is dominated by many smaller reservoirs, three of which are associated with three Nayaka Period sluice gates : KIN 144 (Figure 5.76), KIN 145, KIN 168, and a number of modern sluice gates that are associated with colonial period marker stones (KIN 11, KIN 88, KIN 98, KIN 173, KIN 193, KIN 206).



Figure 5.68: Keladi Reservoirs and Tanks Recorded by KINZS

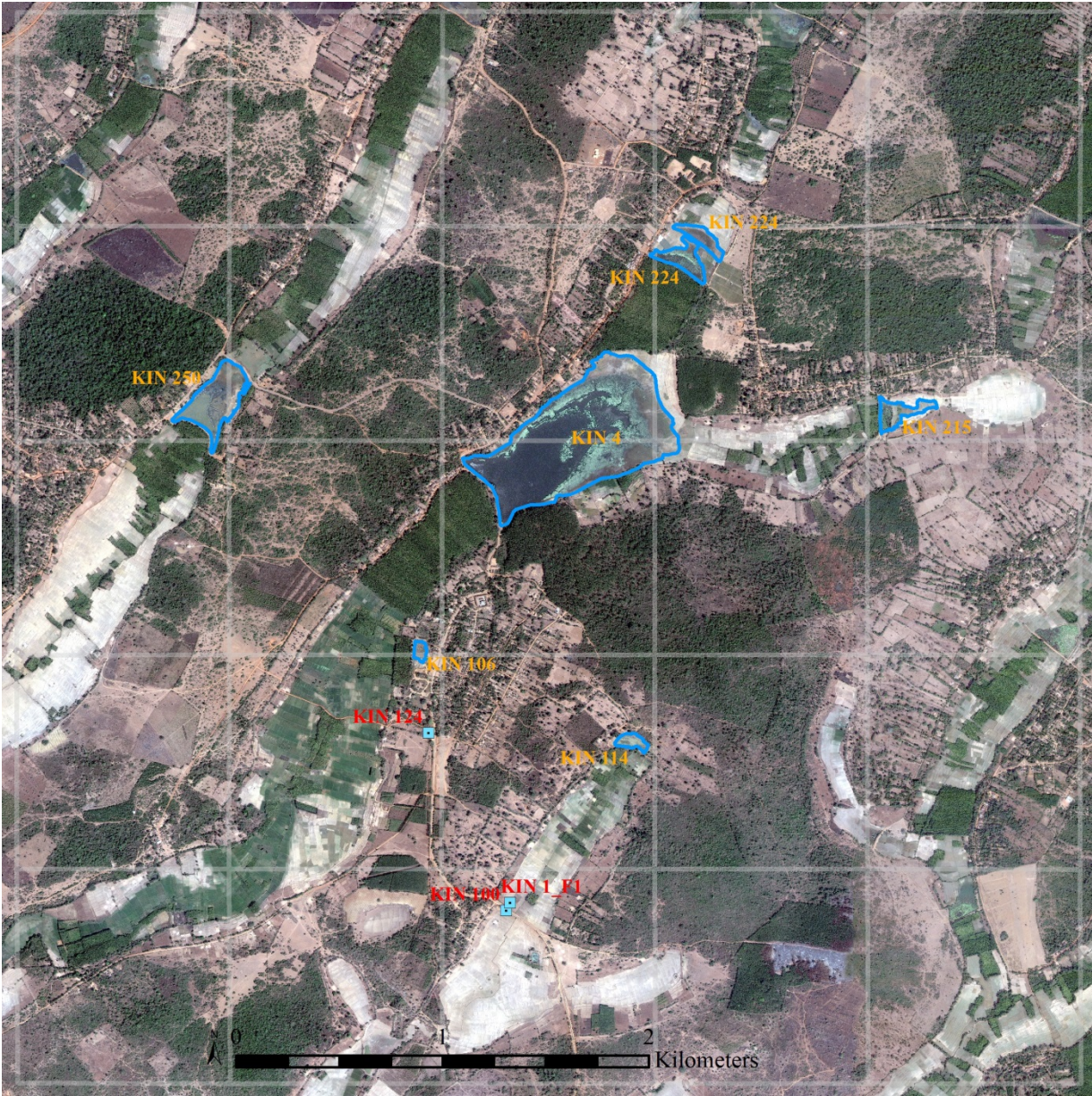


Figure 5.69: Ikkeri Reservoirs and Tanks Recorded by KINZS

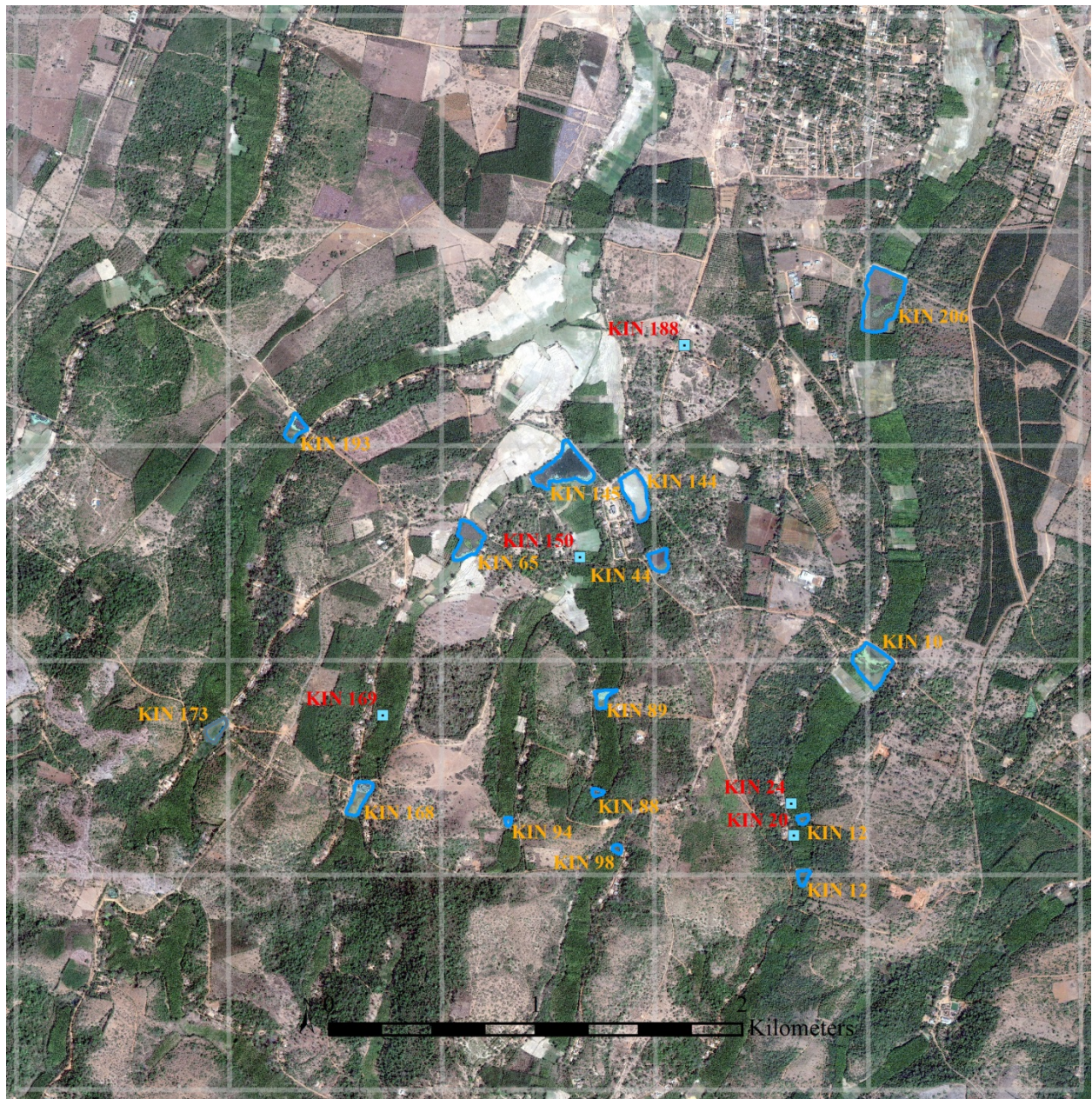


Table 5.8: Reservoirs Recorded by KINZS

KIN-F	Reservoir Name	Calculated Area (sq m)
<b>KELADI SITES (n=5)</b>		
4	Hire Kere	389,409
114	Hote Kere	7,873
215	Chaudi Kere	19,099
224	Bandagadde Kere	35,444
250	Adarante Kere	59,067
<b>IKKERI SITES (n=15)</b>		
10	Chipli Kere	23,315
11	Yogeshvara Kere (or Devasthanana Kere)	1,835
12	Bangaramma Kere	2,967
44	Sule Kere	7,295
65	Uppara Kere	16,397
88	Melinamane Kere	1,446
89	Golikoppa Kere	4,709
94	Sulamane Kere (formerly Sulaminamane Kere)	938
98	Hosuru Devasthanana Kere	1,408
144	Gange Kere	18,865
145	Bale Kere (or Gauri Kere)	29,865
168	Majige Kere	10,439
173	Hulimane Chaudeshwari Kere	6,483
193	Lakmane Mattikoppa Kere	6,996
206	Donnekenchina Kere (or Government Tank)	42,463

Table 5.9 Tanks Recorded by KINZS

KIN-F	Name	Dimensions (m)	Shape(s)	Construction	Association
KELADI TANKS (n=3)					
100	(Bavi)	12 x 6.5 (NW/SE x SW/NE)	Composite (keyhole)	Stepped Laterite Walls w/ relief columns	2 circular platforms (part of site)
106	Sampattina Kere	130 x 80 (N/S x E/W)	[Rectangular] (eroded to irregular)	Stepped Laterite Walls (three sides) w/ forward blocks	Small Temple (KIN 108)
124	Tottilu Bavi	24 x 10 (E/W x N/S)	Composite (keyhole)	Stepped Laterite Walls w/ relief columns	Temple (KIN 130)
IKKERI TANKS (n=6)					
1/F1	Palace Complex Tank	25 x 14 (N/S x E/W)	Composite (offset stairs)	Stone Straight Laterite	Palace Complex
20	[Bavi]	2.5 x 2.5 (N/S x E/W)	Square	Stepped Laterite	[in areca grove]
24	[Bavi]	A) 2.5 x 2.5 (N/S x E/W)  B) 3.5 x 2.5 (NE/SW x NW/SE)  [3 tanks: one is modern]	A) Square  B) Composite (keyhole)	A) Stepped Laterite, and one modern stone slab  B) Stepped Laterite	-- [in areca grove]
150	[Bavi]	3.5 x 1.5 (N/S x E/W)	Rectangular	Stepped Laterite	Temple (KIN 142) [in areca grove]
169	[Bavi]	2.5 x 2.5 (N/S x E/W)	Square	Stepped Laterite	-- [in areca grove]

KIN-F	Name	Dimensions (m)	Shape(s)	Construction	Association
188	[Bavi]	22 x 13 (E/W x N/S)	Composite (keyhole)	Stepped Laterite Walls w/ relief columns w/ arched niches (modern courses of laterite block near surface)	Masjid and Memorial (modern)

The water management landscape of Keladi is dominated by the Hire Kere. A study evaluating the quality of water in this tank cited its catchment area as 1.38 square kilometers and the water spread area to be 22.1 hectares; the water is collected naturally from plentiful rainfall in the region (Purushothama, et al. 2005:541). Preliminary ground examination indicates that this source, still the main source of drinking water, irrigation and aquaculture in the area, is likely to be what archaeologists define as a reservoir (not captured on all sides by man-made devices, which usually makes use of advantageous landscape position) rather than a tank (a receptacle bounded by man-made control). The stone sluice gate observed at the southwestern corner is consistent with those observed at Vijayanagara; this style is built from two stone uprights with two or three cross-piece which are perforated to allow the raising and lowering of a wooden plug that controls water flow. These gates are sometimes embellished with sculpted figures and/or stylistic features that may create a deliberate formal link with Hindu temples (Morrison 1995:27-8).

Sluice gates are (or were originally) functional gates that controlled water flow from reservoirs into irrigation channels on the other side of the bund. An additional dismantled nayaka period sluice gate was found near a reservoir with colonial period markers (KIN 206). Architectural elements from the dismantled gate were reused in constructing a non-functional, “ceremonial” sluice gate that was integrated into an extensive laterite retaining wall running along a water channel.

Water channels as a broad category would technically include irrigation canals, though these were not recorded on survey; their ubiquity in the modern agricultural landscape as well as their likely use and reuse over time, and the difficulty in chronological placement precluded

documenting common, non-temporally diagnostic water channels like irrigation canals. Early agricultural maps have not been found for this region. Only two water channels were recorded: one with a laterite parent material leading out of a reservoir with nayaka period sluice gate (KIN 137) (Figure 5.70) and the other in association with laterite construction and the remains of a nayaka period sluice gate (KIN 234, discussed below).

Figure 5.70: Doni Bagilu Water Channel, Ikkeri (KIN 137)



Figure 5.71: Hire Kere Bund, southern portion looking south to sluice gate (F1), Keladi (KIN 4)



Figure 5.72: South Sluice Gate, Hire Kere, Keladi (KIN4/F1)



Figure 5.73: Central Sluice Gate, Hire Kere, Keladi (KIN 4/F2)



Figure 5.74: North Sluice Gate, Hire Kere, Keladi (KIN 4/F3)





Reservoir bunds, the walled construction that retains water, and tanks were constructed of laterite in the Nayaka Period, but stone was occasionally used for decorative elements, or in the case of the tank of the Palace Area in the Ikkeri Fort, perhaps for its superior weight-bearing properties. The most elaborately decorated reservoir bunds are from Ikkeri, and are standard stepped laterite construction with arched carved stones embedded at patterned intervals. These two examples are associated with Nayaka Period temples, the Gange Kere (KIN 144: Figures 5.75, 5.76) with the Aghoreshvara Temple (KIN 3), and the Hosuru Devasthanana Kere (KIN 98; Figures 5.77, 5.78) with the Hosuru Vinayaka (Ganesha) Temple (KIN 99). These are used primarily for irrigation of agricultural lands associated with the temples. Unfortunately, after KIN 98 was documented, the bund was rebuilt and the Nayaka Period laterite and stone construction was destroyed.

Figure 5.75: Bund, Gange Kere Reservoir (KIN 144)



5.76 Sluice Gate, Gange Kere Reservoir, Ikkeri (KIN 144/F1)



Figure 5.77: Reservoir Bund, Hosuru, Ikkeri (KIN 98)



Figure 5.78: Close Up, Reservoir Bund Stone, Hosuru, Ikkeri (KIN 98)



Tanks (Table 5.9) are defined as bounded on all sides by construction, which in this area means quarried laterite blocks, sometimes with carved embellishments only typical of the Nayaka Period. Tanks documented range from large, elaborately shaped constructions, to small and simple square constructions with agricultural and/or household functions. The Kannada word most commonly used for a reservoir is *kere*, while the word *bavi* is used for both tank and well (similar in function, if not in scale). The largest tank recorded is the Sampattina Kere (KIN 106; Figure 5.79), which is of an eroded rectangular shape and has no evidence of a sluice gate. It is large like a reservoir, and classed with them linguistically in that it is called a *kere*; its walls are stepped laterite with a pattern of protruding blocks. The most interesting tanks documented at Keladi and Ikkeri are a series of three composite (roughly keyhole) shaped tanks that are rich in early tradition laterite construction embellishment: KIN 100 just south of Keladi proper (Figures 5.80, 5.81), the Tottilu Bavi in Keladi ('Cradle Well'; KIN 124; Figures 5.82, 5.83, 5.84), and KIN 188 at Ikkeri (Figure 5.85). KIN 100 is associated with the only two round laterite platforms of the survey. KIN 124 is associated with the remodeled Gopalakrishna Temple. KIN 188 is associated with an Islamic area that includes a Mosque, a Memorial Shrine, and many graves (some marked with laterite; this area was not recorded because it is likely post-Nayaka).

Figure 5.79: Sampattina Kere Tank, west wall, view from southeast, Keladi (KIN 106)



Figure 5.80: Tank, Complex Shape, Keladi (KIN 100)



Figure 5.81: Tank Interior, Relief Columns, Keladi (KIN 100)



Figure 5.82: Tottilu Bavi Tank, exterior from east, Keladi (KIN 124)



Figure 5.83: Tottilu Bavi Tank, stairs from west exterior, Keladi (KIN 124)



Figure 5.84: Tottilu Bavi Tank, close up of eroded relief column (KIN 124)



Figure 5.85: Tank, Complex Shape with arched niches, Ikkeri (KIN 188)



I argue, on the basis of location, style, scale, and associated sites, that these three composite shape tanks are a chronological series: KIN 100, KIN 124, and KIN 188. I believe they echo many of the motifs associated with the courtly style of architecture and this is discussed further in the following chapter. KIN 188 is also the only construction associated with a find of porcelain, a consummate elite good. A few fragments of blue on white were found in the vicinity, disturbed when recent conservation of the upper portion of the tank was carried out (Figures D.6, D.7)

The remaining tanks documented were all of a smaller scale and simpler construction, and are located in areca groves. With the exception of KIN 150 (Figure 5.86), which is used by the nearby Kalikamba Temple (KIN 142), these smaller tanks (KIN 20) seem to have a primarily agricultural function.

Figure 5.86: Tank, rectangular with stairs, Ikkeri (KIN 150)



Figure 5.87: Square Tank, Ikkeri (KIN 20)





## Structure Mounds

In both the Keladi and Ikkeri survey areas, there are diverse types of structure mounds. I use this term to designate mounds that are cultural in origin, due to their shape, usually rectilinear, and/or the presence of laterite blocks and/or alignments, and/or the presence of artifacts. Not all mounds observed on survey were recorded, due to the prohibitive nature of the scale of such a task, especially in the Ikkeri area, though I attempted to estimate the overall extent of mounding. There are relatively limited contexts of structure mounding at Keladi, and most of these were incorporated into sites which were recorded. There are extensive contexts of structure mounding in the Ikkeri survey area. Some of these, which could be identified as discrete sites with no recent oral history tradition, were recorded as separate sites, focusing on those with additional components such as visible laterite construction, wells, and/or carved stones. Additionally, one large zone was designated to encompass what was determined to be a relatively continuous area of occupation in central Ikkeri. The degree of mounding at Ikkeri is high and more visible in comparison with the minimal amount observed at Keladi. One significant structure mound site is an area at Ikkeri which has rectilinear shaping, some exposed laterite alignments (minimal), and associated carved stones (architectural elements and a broken icon) that suggest the mound is the location of a former temple or temple complex (KIN 200; Figures 5.88, 5.89). All sites with structure mound components are listed in Appendix C.

Figure 5.88: Icon, broken, located near structure mounds, Ikkeri (KIN 200)



Figure 5.89: Structure Mounds, with stone architectural elements, Ikkeri (KIN 200)



### Other Site Types

Finally, in addition to the major categories of site types already discussed, three additional unique site types were recorded in survey at Ikkeri (Figure 5.90). The first, and of greatest significance, is a large-scale production area at Ikkeri. The last two other type sites are a natural cave opening found in conjunction with a laterite wall and small temple at the very western boundary of the central survey area (KIN 182), and a subterranean entrance found in conjunction with structure mounds located inside a fortification (KIN 40). A local resident who helped to identify this feature related that up until 25 years ago it was accessible to children who used to play in a ‘tunnel’ there. The original extent and function of this component is unclear. Subterranean features were not explored due to safety concerns.

Unique among sites recorded at Keladi and Ikkeri is a site I have termed as a ‘large-scale production area,’ located adjacent to Ikkeri village in what is now dry paddy and fallow agricultural land. More extensive evidence of smaller-scale production was documented in both the Keladi and Ikkeri survey areas through the location of pestles, mortars, and smaller grinding stones; though it was not feasible to collect all ground stone observed, a sample was collected and is briefly discussed in Appendix D, with photos. The Large-Scale Production Area (Figures 5.91, 5.92) consists of four large grinding stones, two with smaller capstones, one with a fragmentary capstone, one with no capstone, and a separate fragmentary capstone. These are spaced out at some distance from each other, but occur in a discrete area and in a roughly L-shaped arrangement. The components are unique for their large size among grinding stones observed and collected on survey. They are much larger than any contemporary household grinding stones, and their individual size as well as placement in a group together indicate a supra household function. It is not known for sure what was being processed, though the heavily agricultural nature of modern land use suggests some centralized type of crop processing as the most likely function of the processing area. The smooth surface of the large stones, together with the nature of the smaller capstones, suggests that they might have been used for a crushing rather than grinding function; my working hypothesis is that this was a site for large-scale processing of sugar cane into a refined product such as sugar or jaggery, a coarse brown sugar sometimes made of cane juice (though often made from palm sap). This is discussed further in the following chapter.

Figure 5.90: Ikkeri Other Site Types Recorded by KINZS

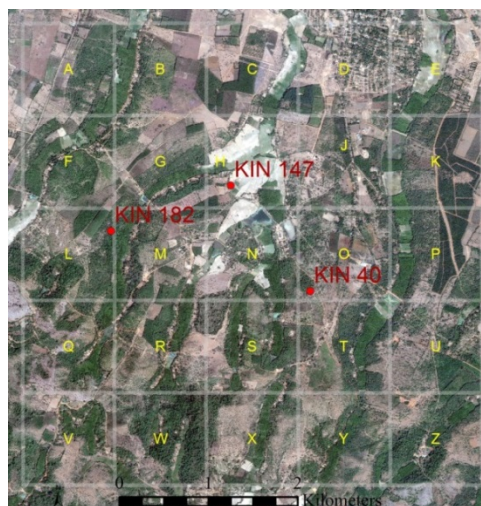


Figure 5.91: Large Scale Production Area, Ikkeri, view from northwest (KIN 147)



Figure 5.92: Large-Scale Production Area, Ikkeri, Stones 3a, 3b, 3c, view from northeast (KIN 147)



## **Artifacts and Chronological Considerations**

Artifact collections were made at 93 locations during survey. Artifact collections which were made at sites or features with at least one other site type component are designated as a component and were made at 75 locations. Artifact collections which represent the sole component of a site are designated separate. Artifact collections which were made at sites with at least one other site type component are designated as component. Artifact collections that are components tend to contain a lower proportion of diagnostic artifacts and less diverse assemblages than do those made as separate collections because the latter were locations of identified dense artifact scatters.

Where surface artifacts comprised the sole component of a site, these were designated separately and number 18 sites. Sites solely comprised of artifact collections were designated when the survey encountered areas where activities such as agricultural tilling or planting, drainage excavation (not in the archaeological sense), or construction disturbed sediment and revealed artifacts (Figures 5.93, 5.94). Artifact collections that were not made as sole site components, that is, from relatively undisturbed areas around a location identified as culturally significant regardless of artifacts, tend to contain a lower proportion of diagnostic artifacts and less diverse assemblages than do those made as separate collections. A full inventory of artifacts collected is provided in Appendix B. Photos, drawings, and detailed analyses of artifacts are presented in Appendix D. The majority of artifacts collected are fragments of earthenware vessels and architectural ceramics (primarily earthenware roof tiles) and whole or fragmentary ground stone. Additional types of artifacts collected include coins, East Asian porcelain fragments, East Asian glazeware fragments, and miscellaneous metal objects. Specific artifacts which relate to the analysis of Keladi-Ikkeri Nayaka regional governance are discussed in the following chapter.

The most numerous and largest proportion of the ceramic sample collection by weight are architectural ceramics, which are mostly roof tiles. Roof tiles fragments were identified from 70 locations, 13 in the Keladi area and 57 in the Ikkeri area. Earthenware roof tiles seriate in the region (Hegde 2000-01; Suvrathan 2013), changing from a flat profile with stylized end shapes of varying types to a larger, semi-flattened half-cylinder profile, self-nesting curved type, and finally to the latest type collected which is a higher-fired modern tile. Flat tiles can be

provisionally separated into two phases based on morphology and style, an early one corresponding to materials found at the Hoysala period site of Hosagunda, and a later period (Appendix D; Analysis of Roof Tiles). Though it is known that flat and curved roof tiles roughly seriate in time, with the transition being at some point in the nayaka period, exactly when these changes occur at what time has not been systematically investigated. Complicating the question of how tiles changed over time is the fact that flat tiles were found in situ used as recycled building materials in the palace area of Ikkeri Fort (KIN 1/F1). The broken flat portions (minus hanging end angles) were used as materials for fabricating the fine arched niches of the courtyard, indicating recycling of and possibility the surpassed utility of that style of tile.

Foreign ceramics were recovered from five locations in the Ikkeri survey area, supporting the idea that the Nayaka polity participated in trade of luxury goods from inland from ports on the west coast of the subcontinent. East Asian blue-on-white porcelain fragments were recovered from three locales (KIN 68, KIN 86, KIN 188). A diagnostic bowl base fragment has been identified as Chinese Zhangzhou trade ware (Li, personal communications), manufactured from 1600 to 1620 C.E. specifically for export in the maritime network that stretched from East Asia across South Asia, around Africa and on to Europe (KIN 68) (Figure 5.95). A small rim fragment has been identified as Chinese Wanli ware, manufactured from 1573 to the 1620s (KIN 86) (Li Min, personal communication). Additional fragments of East Asian glaze wares were also recovered from two locations in Ikkeri (KIN 76, KIN 159), possibly originating from Thailand and also participating in this same global trade network. As establishing chronology remains a problematic issue for this project, identification of datable porcelain fragments with tight chronology provides valuable confirmation that the correct deposits are being associated with the historically known nayaka period occupation of Ikkeri.

Figure 5.93: Artifact Collection, eroded profile, Ikkeri (KIN 51)



Figure 5.94: Ceramics Discarded by Farmers, Ikkeri (KIN 204)



Figure 5.95: Chinese Porcelain, Zhangzhou Ware, ca. 1600-1620 C.E., Ikkeri (KIN 68)



## Conclusion

The KINZS survey documented extraordinarily rich archaeological landscapes at Keladi and Ikkeri, generating a vast body. The KINZS project was initially conceived to investigate how Keladi-Ikkeri Nayaka regional political authority was constituted, how it changed over time, and to what degree it was influenced by imperial interaction; these questions were developed with minimal prior knowledge of the actual sites of Keladi and Ikkeri, and with relatively limited (and geographically distant) comparative archaeological data from the Nayaka Periods. As with all comprehensive archaeological survey projects, not all of the data collected and presented here bears directly on research questions as they originated and evolved. Somewhat surprisingly, we documented no evidence of very early sites in the survey area, as would have been indicated by such well-known wares as micaceous Neolithic or polished and high-fired red and black Early Historic ceramics. Some of the sites documented might immediately pre- or post-date the Nayaka Period. Making progress establishing local chronology is a key future goal.

What we do know from sites reviewed in this chapter is that the Keladi-Ikkeri Nayaka landscape is that there was an active military presence at Ikkeri, that courtly culture is materialized in the Ikkeri Fort Palace (and its iconography echoed in bunds and tanks), that there



was a diverse religious landscape (both in terms of sects represented and in scale of grandeur), that there was a very active agricultural economy with an extensive irrigation infrastructure, and that the local tradition of laterite construction was much more complex than suspected from iuts being largely dismissed as inferior to stone. The next chapter utilizes and expands upon the material record presented above, examining the Keladi-Ikkeri Nayaka political process of regional governance through the themes of territorial sovereignty and military control, courtly culture, religious institutions and elite patronage, the economy from local production to long-distance that can be addressed with archaeological evidence, from local production to distance trade, and autonomy in local custom.

**CHAPTER 6:  
KELADI-IKKERI SOVEREIGNTY  
AND THE POLITICAL PROCESS OF REGIONAL GOVERNMENT**

Keladi-Ikkeri Nayaka sovereignty was constituted through a political process which consolidated authority at the regional level, selectively managed vertical integration with higher order political contemporaries and their subject population, and advantageously cultivated horizontal integration with individuals and corporate groups. Maintaining sovereignty at the regional level was an ongoing challenge of balancing between enacting independent authority while under imperial oversight, and later while in competition with peer polities and colonial entities, requiring the establishment of authority without alienation. Over time, the dynasty secured and expanded territorial and military control, cultivated ties with diverse religious institutions, asserted increased economic autonomy domestically and abroad, and fostered ideological autonomy through contemporary action and past associations. The Keladi-Ikkeri political process is best viewed through the combined analysis of the historical and archaeological records, as presented in this chapter. Archaeological data as presented in the previous chapter is discussed in historical and theoretical contexts, ultimately addressing the questions: how did Keladi-Ikkeri Nayakas establish and maintain regional governance? What does the material record add to the historical perspective?

Regional governance, as discussed in chapter two, is the effective operation of sovereignty at an intermediate level of government; that is, the creation of a relationship of authority over and subjection of a regional territory and its population. Political process is understood as historically contextualized relations between actors and institutions and subject populations as concerned with the organization and administration of a state, its foreign relations, and the aspects of life which are defined or contested in the public sphere. In this chapter, I discuss how the political process of regional government developed under the Keladi-Ikkeri Nayakas, focusing on five major themes. First, I begin with the critical issue of territorial sovereignty and military control, focusing on archaeological evidence of fortification. Second, I move to the role of courtly culture in establishing and legitimating regional governance. Here, I

consider archaeological evidence of a palace area at Ikkeri and also discuss documented material culture and iconography of the court, such as styles of dress and elite goods like Chinese porcelain. Third, I address the theme of religious institutions and elite patronage, which I connect with archaeological evidence of temple architecture and Keladi-Ikkeri donor inscriptions. Fourth, I discuss aspects of the Keladi-Ikkeri economy that can be addressed with archaeological evidence, from local production (e.g., goods such as earthenware ceramics, agricultural products, and processing areas) to participation in long distance trade (e.g. Chinese porcelain, East Asian glazed wares). Fifth, I explore issues of autonomy in local custom that illuminate relations of subjection versus freedom, including archaeological evidence of religious pluralism, including such evidence as the large body of naga stones documented. Finally, these five themes addressed, I conclude with brief outline of Keladi-Ikkeri history after shift to a third and final capital at Bidnur, a coda to the establishment and evolution of nayaka political process of regional government at the first and second capitals.

### **Territorial Sovereignty and Military Control**

Keladi-Ikkeri rose to prominence through their relationship with the Vijayanagara Empire. This was first negotiated as a nayaka contract of territorial control, with a debated degree of autonomy, in exchange for military service and tribute payments. It is unclear from historical sources exactly who the first nayakas were, and how they came to the attention of the empire. It is evident, however, from the historical record that by the time the empire began to decline in the latter half of the sixteenth century, the Keladi-Ikkeri Nayakas had established regional governance to a degree which allowed them to weather their transition to an independent regional state. Their charter is said to have originated in a time of imperial dynastic turmoil in the early fifteenth century and though the Western Ghats had been considered part of the empire at this time, it is likely that the area, naturally heavily forested and hilly, was difficult to effectively control on a micro scale. How then were the first Keladi-Ikkeri rulers chosen as local imperial rulers or surrogates for the central imperial power? Once nayaka status had been granted, how was their territorial sovereignty exercised? And how did changes in the imperial political structure affect Keladi-Ikkeri, following Vijayanagara's major military defeat in 1565?

As rulers with historically proven power and longevity, the Keladi-Ikkeri Nayakas had to have had a military basis for their authority. In the beginning of their tenure as nayakas they were subordinates to Vijayanagara and had to fulfill obligations of providing troops and participating in the imperial military; whether or not the Keladi-Ikkeri lineage had exercised local military power before its imperial charter is not really known and remains a question perhaps for excavation based investigation in the future. In turn, their authority became associated with the military power of the larger empire. To establish sustainable sovereignty, their authority had to have been materially underwritten and practically enacted by regional means of offense and defense. There are multiple ways in which state force can be materialized and enacted, but the relevant ones that endure in the archaeological record for this discussion are the fortifications. This section addresses the constitution of Keladi-Ikkeri political authority by evaluating archaeological evidence of military infrastructure, or lack thereof, at the first two capitals, against historical evidence and claims.

As discussed in chapter 4, archaeological survey of the first capital of Keladi revealed no evidence that would challenge early nayaka history and origin stories. The historical record and oral tradition agree that the founder, Chaudappa, was local to the area, and there are no obvious signs, such as differing language or religion, that would mark him as having been an outsider installed by the empire into a desired territory or to quell a troublesome area. And while the historical record suggests that Chaudappa's wealth and local power brought him to attention of the empire, archaeological survey discovered no evidence of fortification at Keladi—at least, none that was constructed in a manner durable enough to survive until today. Instead, only temples, tanks, reservoirs, and smaller remains from the pre-colonial period survive at Keladi, and these are discussed below. The absence of evidence of fortification doesn't mean the settlement was undefended, only that its ephemeral nature was significant, though before that discussion, I address historical and contemporary claims of fortification at Keladi.

Historians have long contended that there was a fort at Keladi. Most recently, G. V. Kallapur (2010:325), a scholar of Sanskrit, has published an article on the archaeological remains of Keladi Village in which he included a hand-drawn map of the village and its defenses. The map, which is not to scale, includes an encircling “water trench” described as being 15 meters wide, with a mound on the interior that is 15 meters high and 20 meters wide. The map

indicates there are two entrances into the fortified area, which coincide with the modern highway through Keladi village. Kallapur described the fort as having been built by Chaudappa Nayaka (regnant 1499- ) and “measuring about 8000 metres,” and stated that “at present we could not see the full fort because almost all the fort is demolished and trenches are closed for agriculture” (321). Kallapur’s map is not based on well-documented, methodologically rigorous field investigation; this does not mean that Keladi was unfortified, rather, it means that these defenses were likely of a more ephemeral nature from an archaeological perspective. The Keladi Museum and Research Bureau (founded by the Jois family and now a part of Kuvempu University) is an institution is invested in maintaining the historical importance of the Keladi-Ikkeri Nayakas (Jois 2011; Jois 2008). I firmly believe, however, that regardless of what is revealed by the actual material record of these nayakas, they will always remain an important historical case—even if disparities between the historical and material records reveal contradiction.

Kallapur cited both the *Sivatattvaratnakara* and *Keladinrupavijayam* (2010:323) as enumerating nine types of forts. Indeed, these idealized fort types can be confirmed in a published summary of the former source. The *Sivatattvaratnakara*, the encyclopedic-style Sanskrit literary behemoth of ca. 1700 CE and attributed to Basavappa Nayaka, does outline nine types of idealized types of forts (Radhakrishna 1995:30), but the work offers nothing regarding actual fortifications at either Keladi or Ikkeri, and as a source which post-dated the capital being moved from Ikkeri to Bidnur by sixty years, this is not unexpected. Radhakrishna noted that the typology of forts is taken verbatim from the *Abhilasitartha Cintamani* (30), which is a Sanskrit work, also known as the *Manasollasa*, attributed to the early 12<sup>th</sup> century Western Chalukya king Someshvara III. While this might be the most proximal source, such catalogs of fortifications likely trace a path back to the *Arthashastra* of the fourth century BCE [Tom?]. What it does reveal is evidence of a continuing participation in a tradition of elite literature, which is discussed further in the following section on courtly culture, and a tradition of using appropriating the political capital of past polities for present purposes.

The archaeological record of fortifications at Ikkeri sharply contrasts with that of Keladi. At Ikkeri, four fortified enclosures and two watchtowers were documented, providing a picture which overlaps with the description given by the foreign visitor Pietro Della Valle in 1623, well into the independent nayaka period and still several decades before the shift to Bidnur. In

contrast to the later nayaka literary sources, Della Valle's description of Ikkeri's defenses is quite useful (Grey 1982):

The City is seated in a goodly Plain, and as we enter'd we pass'd through three Gates, with small Forts and Ditches, and consequently three Inclosures; the two first of which were not Walls, but made of very high Indian Canes [bamboo], very thick and close planted, instead of a Wall, and are strong against Foot and Horse in any case, hard to cut and not in danger of fire; besides that the Herbs which creep upon them, together with their own leaves, make a fair and great verdure and much shadow. The other Inclosure is a Wall, but weak and inconsiderable (244-45)...In this manner we rode to the Palace, which stands in a Fort, or Citadel, of good largeness, incompass'd with a great Ditch and certain ill built bastions. At the entrance we found two very long, but narrow, Bulwarks. Within the Citadel are many Houses, and I believe there are also shops in several streets; for we passed through two Gates, at both of which there stood Guards, and all the distance between them was an inhabited street. We went through these two gates on Horse-back...A third Gate we also enter'd, but on Foot, and came into a kind of Court (250-51).

Though this description has been used as evidence for multiple concentric defenses at Ikkeri, it is not surprising after close examination that survey found no evidence of outer walls at Ikkeri. The "walls" of cane, though termed such, were actually plantings that Della Valle encountered. The first part of the description describes entering the city of Ikkeri, and Della Valle stated was an enclosure wall, albeit a weak one. Interestingly, despite a lack of remains of a city wall, our survey of central Ikkeri did document a water channel which is called the "Doni Bagilu," Kannada for "small boat gate" (KIN 137).

The second half of Della Valle's description of the Ikkeri Fort (KIN 1; Figure 5.5), and its "ill built bastions" judgment is understandable when the small features (KIN 1/F7) are compared to other fortified sites the traveler must have seen. Della Valle's entrance to Ikkeri Fort, through two narrow bulwarks, between two walls, and through two gates, corresponds in description to the north entrance recorded on survey, with two gates making sense given the defensive layout of that entrance. Internal divisions of the fort such as a third gate, and any residential or commercial buildings Della Valle observed, were not recorded but may be extant given the degree of interior mounding inside Ikkeri Fort; dense ground cover of mature trees and thorny scrub made surface conditions unsurveyable, and thus prevented further documentation of the interior. This is addressed further in the discussion of the palace area in the section on courtly culture below.

Della Valle did not note the presence of watchtowers either immediately outside the fort or on surrounding hilltops. Barry Lewis, however, in his study of Karnataka Maidan village defenses of 1600-1800 CE, contrasts the area of his focus with those of villages of the Malnad, which he noted are "archaeologically as little-known as their *maidan* contemporaries." Based on 18<sup>th</sup> and early 19<sup>th</sup> century accounts, he observed that Malnad villages "often depended on their relative isolation and the rugged terrain on which they lived for their security. Community defense often took place away from the village, not around it. Taking advantage of the *Malnad's* natural defensive strengths, most villages elected not to defend the village proper, but the lines of communication that led to it...Consequently, the passes, roads, and trails of the *malnad* were defended in depth by trenches, earthworks, barriers, and breastworks...while the communities to which these lines led might essentially be undefended" (104). I'm not sure I would define this system as undefended, but it does speak to the suggested line of communication from the Ikkeri Fort, to the two watchtowers outside, and from the hilltop location, to lands beyond. It also suggests an alternative interpretation to the defense of Keladi village, one which need not have included a fort in the traditional sense, in order to have been actively protected.

In comparison with military fortifications at the imperial capital of Vijayanagara, what Della Valle observed at Ikkeri and what was recorded on archaeological survey represent significant differences of scale, construction, and function. Ikkeri's fortifications are significantly smaller in size and extent, are constructed of laterite and earth rather than stone, and appear functionally different in the degree of defense provided relative to the overall settlement. Robert Brubaker's thorough documentation and analysis of military defenses and infrastructure at Vijayanagara (2004) presented a comprehensive picture of the remains of defenses at the imperial capital. Defenses there were largely constructed of (plentiful) local stone, and were quite extensive and materially more substantial in terms of volume of material incorporated, the workmanship which would have been invested to quarry, shape, place, and sometimes chink stones. They also would have been substantially more defensive in function than those of what was recorded at Ikkeri against traditional military forces, as well the new means of warfare that were introduced from the early 15<sup>th</sup> century onward. Brubaker observed that "some of the highest extant walls at the capital (i.e., those of the numerous large enclosures located within the Royal Center walls) were almost certainly intended to demarcate elite social spaces rather than serving the purposes of serious defense. Lacking the projecting bastions, complex gateways, interior

parapet walkways and generally heavy earth-backed construction that characterizes the walls of the Royal Center, Urban Core and Anegondi, the higher walls of the enclosures within the Royal Center would have provided few, if any, defensive advantages to those sequestered within” (Brubaker 2004: 11-12). Brubaker documented horse stones in his survey of the imperial capital (2004:107-115), barriers of stone placed to block mounted riders (as well as others) from approaching unimpeded. These were not found at Keladi or Ikkeri, though ditches or cane might have served the same function, without requiring costly purchase of imported stone.

Horses are also mentioned in Della Valle’s account. Throughout the imperial period and period of Keladi-Ikkeri’s independence, horses, were a key military commodity in south India, one which by virtue of biology had to be imported from the Arabian Peninsula because they could not be successfully bred domestically. Historian Nilakanta Sastri asserted that a 1547 treaty between Rama Raya and the Portuguese gave Vijayanagara a monopoly on the purchase of imported horses, though for a guarantee that payment would be made even for those that died on the journey (1955:290-91). Anila Verghese (2000) observed, in an article on foreigners and their role in bringing horses to Vijayanagara, that imagery in sculpture at the capital substantiated accounts of that trade made in written sources. Interestingly, her study included examples of sculpture from contexts in both the Royal and Sacred Centers of the capital, including in temple contexts (296-98).

Military technology, in both the architecture of fortifications and the technological means of waging war, was hardly static over the imperial and independent nayaka periods. P. S. Harish and Rekha Pande eschew the outdated and biased view that innovation and change came in a unidirectional manner from Colonial forces into India, however emphasize that foreign influences played an important role in the transformation of warfare. They stated, “if we look at the technology of military and warfare during Vijayanagara Period in Deccan, we can clearly see that many of the arguments about technology lacking any mechanical sophistication do not hold good. We find that the indigenous technology was very much influenced by foreign technology (2009:1221). Indeed, Vijayanagara and the nayakas adopted foreign technologies and practices where they were desired and feasible, and colonial powers did the same. The Portuguese, from the establishment of Goa in 1510, built their own fortifications as well as made use of conquered or ceded pre-Portuguese fortifications; illustrations of pre-colonial forts versus Portuguese forts



show a sharp contrast between organic, rounded plan layout and later sharp geometry favored by the foreign power (Joshi 2009). I suggested previously that the Northern Fort at Ikkeri (KIN 205) might be a product of a later occupation by Hydar Ali, but it could just as easily have been another power from this period. In the absence of absolute dating or a reliable historical account, for now, it can only be observed that its sharp geometry is in contrast to the other organic shapes of fortifications at Ikkeri. In the imperial metropolitan region, Vijayanagara period bastions are square, while post-Vijayanagara bastions are round (Brubaker). It is my belief that it may be associated with an occupation subsequent to the 1640 shift away from Ikkeri as a capital, yet prior to British domination by the early 1800s influenced by fortifications styles common to the time when Indian, Portuguese, French, and British interests were all vying for territorial supremacy.

The changing military relationships of 17<sup>th</sup> century south India likely necessitated a literal change of military landscape for the Keladi-Ikkeri kings. In the 1640s, the capital was shifted south to Bidnur, which is discussed in the conclusion to this chapter. There is an interesting parallel in the observation by Brubaker that an unwillingness or an inability to adapt to changes in both portable military technology and the fortifications necessary to protect against them might have contributed toward the imperial willingness to move out of the Vijayanagara capital and reestablish the empire in what is today Andhra Pradesh (2004:471-73). The second and third imperial capitals at Penukonda and Chandragiri, in many ways reflect more closely the material world of Ikkeri. They were smaller, yet still fortified, and continued to participate in the tradition of courtly architecture first observed at Vijayanagara.

Evidence of military fortifications supports the argument that the Keladi-Ikkeri Nayakas underwent a transformation from a local polity which lacked power of force to underwrite independent sovereignty to one that did with increasing effectiveness. Military fortifications at Ikkeri represent an intersection between traditional local defense as represented by earthworks and simple platform watchtowers, and evidence of participation in a larger sphere of sophisticated military technology as demonstrated by the formal Ikkeri Fort, and to some degree by the more complex Eastern Fort, which is a hybrid of these two types. Though the sites cannot be directly dated through presently available material, the progression of capitals argues for a

diachronic change in scale of investment which demonstrates sequential stages of military development.

In the first stage, the Keladi-Ikkeri Nayakas were a local power with an Imperial Vijayanagara relationship that formalized into a Nayaka charter. They occupied a settlement at Keladi which was protected by traditional earthen and perishable-material constructed defenses. Based on survey evidence, we still do not understand the degree of local power which Chaudappa held prior to his relationship with Vijayanagara. However, the lack of more sophisticated infrastructure at Keladi suggests that the subsequent military transformation was made possible through sustained imperial interaction. Thus, I consider Keladi to reflect a pre-imperial condition of local rule in terms of military development, regardless of the actual timing of the shift to Ikkeri, which would not have been an instant act. Building a new capital would have been costly and time-consuming. It is entirely possible that conflicting reports of when and who shifted the Nayakas to Ikkeri might be a result of this process taking place over many years. Given the developed nature of the Vijayanagara military itself, in terms of training and equipment, it is likely that the imperial relationship and its commitment to military service of the empire would have influenced the way that Keladi-Ikkeri conducted warfare, both in terms of defense and offense, as well as views on necessary infrastructure. Regardless, it was not until Ikkeri was built and occupied that we find anything close to the means to maintain a military power base that could have underwritten regional scale political authority or sovereignty.

The second stage of military development is associated with the capital at Ikkeri and the Imperial Nayaka Period. There is a clear demarcation of military space in multiple fortified areas around Ikkeri. The formal fort at Ikkeri may lack characteristics such as stone architecture or large enclosure walls, but there is no doubt that its design and construction was influenced by a very different tradition than local defenses. I argue that this stage represents the nascence of regional political authority of the Keladi-Ikkeri Nayakas, in the sense that there is clearly some degree of infrastructure of might which underwrites the sovereign ability to govern. I do not believe, however, that degree to which this is evidenced by military fortification at Ikkeri was of a degree that would have threatened or challenged the Vijayanagara Empire. Taken together with the inscriptional record in which it is clear that efforts were made to cite appropriate affiliations in an abundance of stone inscriptions before and after 1565, and I believe that

sovereignty which vested with Keladi-Ikkeri during this period was inextricably connected to that of the Empire. I develop this point in conjunction with other discussions below.

That there is a third stage of military development, albeit one beyond the scope of the field research undertaken here, is without doubt. At Bidnur, I argue that the exponentially more elaborate and effective fortifications, which I have informally witnessed but not documented, are evidence of sovereignty fully realized in the Independent Nayaka Period. This full independence, however, is not indicated by the evidence of military infrastructure at Keladi or Ikkeri.

This sequence of development tells us more than can the historical record alone. Sources which discuss palaces and forts at each Nayaka settlement have not been disproven by this work, but have been clarified in terms of important distinctions between how these might have existed at either site—and the difference between documented remains at Ikkeri and Keladi tells us, importantly, that there were significant differences between these two periods of occupation. The nature of military fortifications at Ikkeri illustrates evidence of the force necessary to underwrite some degree of regional sovereignty, but suggests that the Nayakas were reliant in that period on imperial associations, if not the Empire itself, to underwrite regional sovereignty. Differences between the overall layout of Vijayanagara's Royal Center, and Inner and Outer Cores, and the hybrid nature of Ikkeri's defences, a combination of formal fortification and local tradition, support this conclusion.

### **Courtly Culture and the Ideology of Regional Governance**

The political process of Keladi-Ikkeri Nayaka regional governance also included developing and maintaining authority through participation in what I have defined 'courtly culture,' (1992; see chapter two). Through their association with the Vijayanagara Empire, the Nayakas gained access to an elite sphere of interaction in which a shared discourse of power spanned international boundaries and was marked by courtly customs and material accoutrements. This type of peer polity spanning phenomenon is hardly unique to the Early Modern period or to the Indian subcontinent, but the specifics of this case are one key aspect of Keladi-Ikkeri political process and regional governance. Courtly culture emerged in the Vijayanagara period as an elite sphere in which the emperors, court, and elites participated, not

only with central figures at the capital, but also with elites from outlying areas of the empire, and with their international neighbors, chiefly the various Sultanates of the Deccan. It is clear that there was direct interaction between elites of these dominant and regional polities, conducted through diplomacy, military interaction, and social relationships and evidenced by shared characteristics across elite material culture. Courtly culture pervaded the Independent Nayaka Period as well, continued to evolve from its Imperial form.

Appropriately to the architectural inspiration for the concept of courtly culture, the main archaeological evidence that we have at Ikkeri is that of a palace complex (KIN 1/F1) inside Ikkeri Fort. Della Valle's visit to Ikkeri of 1623 includes a detailed description of his audience with Venkatappa Nayaka at a palace inside Ikkeri Fort. This excerpt continues the narrative from where it left off above (Grey 1892):

A third Gate we also enter'd, but on Foot, and came into a kind of Court, about which were sitting in Porches many prime Courtiers and persons of quality. Then we came to a fourth Gate, guarded with Soldiers, into which onely we *Franchi*, or Christians, and some few others of the Country, were suffer'd to enter; and we presently found the King [Venkatappa Nayaka], who was seated in a kind of Porch on the opposite side of a small Court, upon a Pavement somewhat raised from the Earth, cover'd with a Canopy like a square Tent, but made of boards, and gilded (251).

Della Valle's description of his visit with "the King" was in one in which the theater of royalty was in full performance mode, and his passage through four gates suggests that the audience for this display was a restricted one. While some aspects of courtly culture would have been on display for the general population to interpret, I assert that the intended audience of other instances of courtly signaling was an elite one. Survey of the palace area did not record a specific gate feature, but did document a laterite foundation to an enclosing rectangular wall. It is likely that this demarcated a restricted social space such as the one described by Della Valle. As already noted above, Brubaker (2004) observed an intersection between apparent military fortification and the demarcation of elite social space at Vijayanagara, in that the highest extant walls of the capital were those of numerous enclosures within the Royal Center walls, he also noted that though a lack of military features of these walls did not mean they provided much defensive advantage (11-12). Della Valle's text also described pillars in the hall, which suggests that there could have been a wooden superstructure associated with the laterite construction. Della Valle does not mention any type of tank or water feature, but it is possible that this was not a space in which diplomatic emissaries would have been received, and his companion held that

official office on behalf of the Portuguese, as is discussed further below in the section on economy. His description of the use of canopies accords with the presence of ring stones embedded around the palace tank possibly being used to support a canopy.

In discussing the attribution of function of courtly style architecture, Michell (1992:59) observed that the “disagreement on the fundamental character of royal life during the period inevitably affects the interpretation of the appropriate historical context for the monuments,” and yet also suggests that architectural analysis might help resolve debates between those who favored feudal versus ceremonial interpretations of the role of the imperial king. Among the building functions that Michell discussed at Vijayanagara are: security (e.g. watchtowers, gateways), elephants and martial sports (e.g. elephant stables, wrestling arena, gymnasium), reception and entertainment (e.g., pavilions, mahals), water and pleasure (e.g. “the queens’ bath,” octagonal bath), storage (e.g. wells, storehouses), royal performance and royal residence (e.g., “king’s platform,” “noblemen’s quarter”/zone of royal residence)(59-64). The Ikkeri Fort Palace Complex is today dominated by remains which suggest a function of pleasure and retreat to a water dominated structure. Della Valle’s account in combination with the fact that the details of the Ikkeri Palace have not been documented architecturally, leave open the interpretation that they were also used for royal performance, such as that witnessed by the traveler, or residence, as well as pleasure. It is worth noting that the arched niches at Ikkeri and the plasterwork which is now almost gone, echo the forms and motifs seen at Vijayanagara, especially in structures like the Lotus Mahal (Figures 6.1, 6.2) and the Queen’s Bath (Figure 6.3); also the nickname some local residents have given to the Ikkeri Palace Area). Courtly structures are found also at Penukonda (Figure 6.4) and Chandragiri (Figure 6.5). In terms of the lost portions of the structures that would have been present in the Ikkeri Palace Area, they were likely constructed from perishable materials and thus share more in common with the Noblemen’s Quarter at Vijayanagara (Figure 6.6), where only foundations are now visible—and constructed in stone, the locally available building material at the imperial capital, rather than laterite, as available at Keladi and Ikkeri.

Figure 6.1: Lotus Mahal, Vijayanagara



Figure 6.2: Detail of Plaster Work, Lotus Mahal, Vijayanagara



Figure 6.3: Queen's Bath, Vijayanagara



Figure 6.4: Gagan Mahal, Penukonda



Figure 6.5: Raja Mahal, Chandragiri



Figure 6.6: Noblemen's Quarter, elite residence foundations, Vijayanagara





Published evidence for continuation of the architecture of the courtly tradition includes two additional Keladi-Ikkeri Nayaka palaces, previously mentioned in passing, both likely of the later Independent Nayaka Period. The first palace was documented by A. Sundara. It is a Nayaka Period palace in Shimoga (the city) which has since been established as the Shivappa Nayaka Palace, a Karnataka Department of Archaeology and Museums (KDAM) protected site (1987) (Figure 6.1). It is unclear exactly to whom the construction of this palace should be attributed, but Sundara noted a copper plate inscription of the period of Somashekara (1664-1677) which provides a land grant for the performance of duties of the palace fort, in this case to a boat man who ferried people across the river on which the palace is located (1987:6, Appendix 1; EC VII No. 3). The palace and site have been extensively conserved, and while no excavation reports have been published, the monograph devoted to it has some photos which reveal brick foundations underneath a superstructure mostly of wood with a tiled roof.

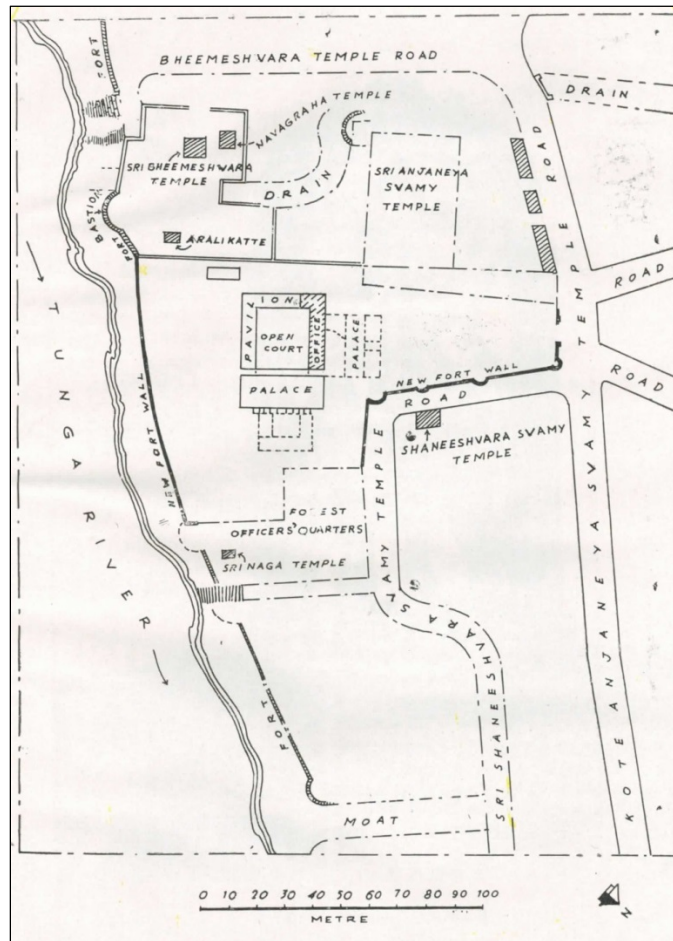
The second palace is the Devaganga area at Bidnur. The Sivappa Nayaka Palace resembles the Ikkeri Palace Complex in that it is a large fortified enclosure with enough spaces for possible audience halls or residences, and probably served those royal functions, but Devaganga falls squarely in the pleasure and water category. About five km north of Bidnur, where there are virtually no remnants of courtly structures inside the central citadel of the fort, is a garden usually referred to as the Devaganga Pleasure Ponds, an ASI monument. Michell described them as a typical example of a residence, though noted that no palace structures remain. “The resort is laid out in hilly terrain so as to take advantage of a natural stream. Water is diverted into a long channel that runs along the middle of a rectangular terrace bounded by retaining walls. The channel feeds a large square tank with a pavilion in the middle, as well as fountains with star-shaped, cusped, and petalled sides. A small shrine dedicated to Shiva overlooks the garden” (Michell 1991:153-54). This whole area is sunken and faced with laterite construction.

Jennifer Howes (2003) stated of the Madurai Nayaka palace tradition that, “the most prominent shared feature of south Indian palaces does not relate to a consistent style of buildings; it relates to how they were a visible statement of the king’s authority. Ceremonies and festivals connected with the palace were designed to extend its grandeur outside the compound’s walls and into the surrounding streets. (5)” Perhaps more extensions of royal authority than of

the grandeur or its constructions, other symbols, material and immaterial, even ephemeral, both public and private were used to convey elite membership—whether courtly or generic. The case of clothing is discussed in association with religious patronage in the following section, and the consumption of porcelain and other luxury goods is discussed in the section on economy.

As something qualitatively new in the Imperial Vijayanagara period, participation in courtly culture emerged by default in the association between the Keladi-Ikkeri Nayakas and the Empire; anthropologically, it may be considered a particular brand of elite culture, specific to this South Asian context. The south Indian phenomenon obviously built on traditions of the past, in that there were strong shared elite traditions prior to the period, such as more ephemeral palaces and more localized traditions of dress. What changed with the emergence of courtly culture is was the scale of shared interaction and monumental display. In the Imperial Nayaka Period, associations with the Vijayanagara Empire would have been reinforced by the use and display of material culture in the courtly tradition. However, considering the intended audience for such messages, it is not surprising that the Nayaka landscape contains relatively few visible examples. Courtly culture was an elite shared experience, and as such, the restricted spaces of the Ikkeri Fort (especially the private Palace Area), and even the semi-restricted Rameshvara and Aghoreshvara Temple Complexes, would have conveyed minimal messages to a daily audience likely to be consumed with matters more pressing than elite imperial politics. Thus, there seems to be a great deal of local tradition maintained, especially in building tradition, and this is discussed further below. In the Independent Nayaka Period, I would argue that an elaboration of courtly culture and a more public presentation of it would be intelligent strategies for constructing images of authority that could no longer refer so directly to that of the Vijayanagara Empire.

Figure 6.7: Shivappa Nayaka Palace Site Plan (Sundara 1987:xi)



### Religious Institutions and the Politics of Elite Patronage

Throughout this dissertation I have asserted the connection between royal authority and religious institutions and practices. Here, that theme is explored in more detail as it relates to the religious architecture and images of patronage recorded in our survey at Keladi and Ikkeri. For much of its history, the rulers and state policy of Vijayanagara were not only tolerant of non-Hindu religions, such as Jainism, Islam, and Christianity, but were also patrons of multiple sects of Hinduism (Stoker 2011:1). The early imperial rulers were Shaivite, but by the nayaka period the emperors were Vaishnavite, and much less tolerant after Achyutadevaraya. The Keladi-Ikkeri rulers were Virashivite, as discussed in chapter 4, but made an effort to patronize religious institutions of diverse traditions, including the Shaivite matha at Sringeri which was long

associated with kingship, and especially that of the Vijayanagara emperors. Structures recorded at Keladi and Ikkeri represent multiple sects of Hinduism—Shaivite, Vaishnavite, and Virashaivite, as well as Jainism. Though a mosque, Islamic cemetery, and an associated shrine were observed at Ikkeri, their founding date is uncertain and construction appeared modern, except perhaps for some older laterite grave markers. However, a 1627 inscription, attributed to Venkatappa Nayaka, granted land to a mosque in the coastal fort of Bhuvanagiridurga (Swaminathan 1957:200; EC 8 Soraba 55).

There is no record of the construction and patronage which made possible the founding any of the religious architecture documented at Keladi and Ikkeri. Amita Kanekar, whose recent architectural studies of the Keladi and Ikkeri temple complexes (Kanekar 2009) greatly illuminates the understanding of their attributes and historical context, stated that, “for all its grand size, the Aghoreshvara is in some ways more similar to the many tiny and plain temples patronised by small coffers throughout south India than the ones closer to its own size. The forms and choices of secondary elements are also unusual, for, like the Rameshvara again but even more so, it borrows liberally from different traditions of architecture of the region, both living and dead, including—and uniquely for the time—that of the Islamic sultanates” (167). Kanekar (2009, 2010) also discusses the “timber tradition” and also the use of local materials, though does not provide detail regarding laterite constructions.

The earliest record of religious patronage can be found in only the second known Keladi-Ikkeri inscription, a copper plate from 1509 (EJB 2; ECN 15 no. 80), a grant from Sivappa Nayaka to Narasappa, a follower of “pure Vaidikadvaita-siddhanta,” guaranteeing rights of collecting specified amounts from particular houses and lands to exercise priestly and honorary functions in rituals. The copper plate is owned by the Jois family of Keladi, so it is almost certainly local, and though previous publication questions its authenticity due to an error in reconciling lack of a solar eclipse on its granting date (MAR 1928:67), it has been reaccepted into the inscriptional canon by more recent sources (ECN 15:583). It is an important commentary on the means through which the Keladi-Ikkeri Nayakas felt they could exercise authority, that until the sixth ruler, Venkatappa, the majority of inscriptions attributed to the Keladi Ikkeri nayakas have to do with religious patronage through land grants). By the turn of the 17<sup>th</sup> century,

when economic concerns enter the inscriptional record, the Nayakas were politically independent; this phase is discussed further below.

We know that religious patronage was marked in perpetuity by the public nature of lithic inscriptions and also by the more private possession of copper plates attributed to the Keladi-Ikkeri nayakas. In the Tamil nayaka case, Crispin Branfoot (2011:249) noted the “increasingly widespread use of royal or elite figures in the sculptural repertoire of the south Indian temple from the mid-fifteenth to the early eighteenth centuries”. His analysis of imperial and post-imperial temples showed three major trends: 1) a changing of elite depictions from small, low reliefs to life-size images, sculpted in three dimensions; 2) a greater degree of detail, allowing for the depiction of individual people, possibly recognizable even without an identifying inscription; and 3) a shift from depictions that are viewed rather viewing, meaning royal and elites who are gazing forward from their context and engaging an audience of real people rather than other sculptural elements (249-50).

Branfoot noted that in Nayaka Period Tamil Nadu especially, the proliferation of royal images in temple contexts was extreme, and their depiction as life-size figures prominently engaging an audience of human beholders paralleled the increasing connection between the king and the gods. In fact, the “inflation of the Nayaka king to divine status in the period’s literature is a recurring theme. Nayaka kings are still subservient to the deity in the traditional manner, but the deity is now far more dependent on the king. The temple and court are merged to a much greater degree than before, with the king elevated to a kind of divinity. Deities hold court like a Nayaka king, and kings assume the identity and the ritualized routine of the god in the shrine” (260-61). The connection is, presumably, an economic one of patronage as well as of devotion. This phenomenon is not noted in the Keladi-Ikkeri temples, which makes this aspect of difference in articulation between royal authority and religion even more significant. Though there are images of prostrate donors incised into the floor of the Aghoreshvara Temple, the only person named by inscription there is purported to be the architect (Figure 6.8). Thus, the public marking of donative events on temples themselves are neither by inscription nor by individual portrayal.

Donor and devotee iconography is also found in the Keladi area, in a carved stone mounted at the front of the modern Gopalakrishna Temple (KIN 130). This temple was

documented because it may or may not be a remodeled older temple, and because of the presence of the donor image (Figure 6.9). It is unclear to what period this devotee might belong, but the headwear is similar to that seen in the courtly culture dress tradition at Vijayanagara. Various scholars have discussed the elite dress of Vijayanagara and its peer polities (Dallapiccola 1998; Verghese 1991; Wagoner 1996). Verghese (1991), through an study of images on monuments at Vijayanagara, noted that styles changed over time, distinguishing between fifteenth and sixteenth century styles. By the sixteenth century the *kulayi*, a tall conical hat “has become a standard item of attire” (55), and is clearly depicted in Keladi and Ikkeri donor images (Figures 6.8, 6.9). In the case of the Keladi image (Figure 6.9) the minimal clothing of a *dhoti*, or long wrapped cloth around the lower body and a naked upper body matches well with the imperial trends, as does the sacred thread (or *yajnopavita*, able to be worn by higher castes) which is seen cross-wise over the upper body (though this is not always depicted).

Figure 6.8: Donor Images on the Entryway Floor of the Aghoreshvara Temple, Ikkeri (KIN 3)

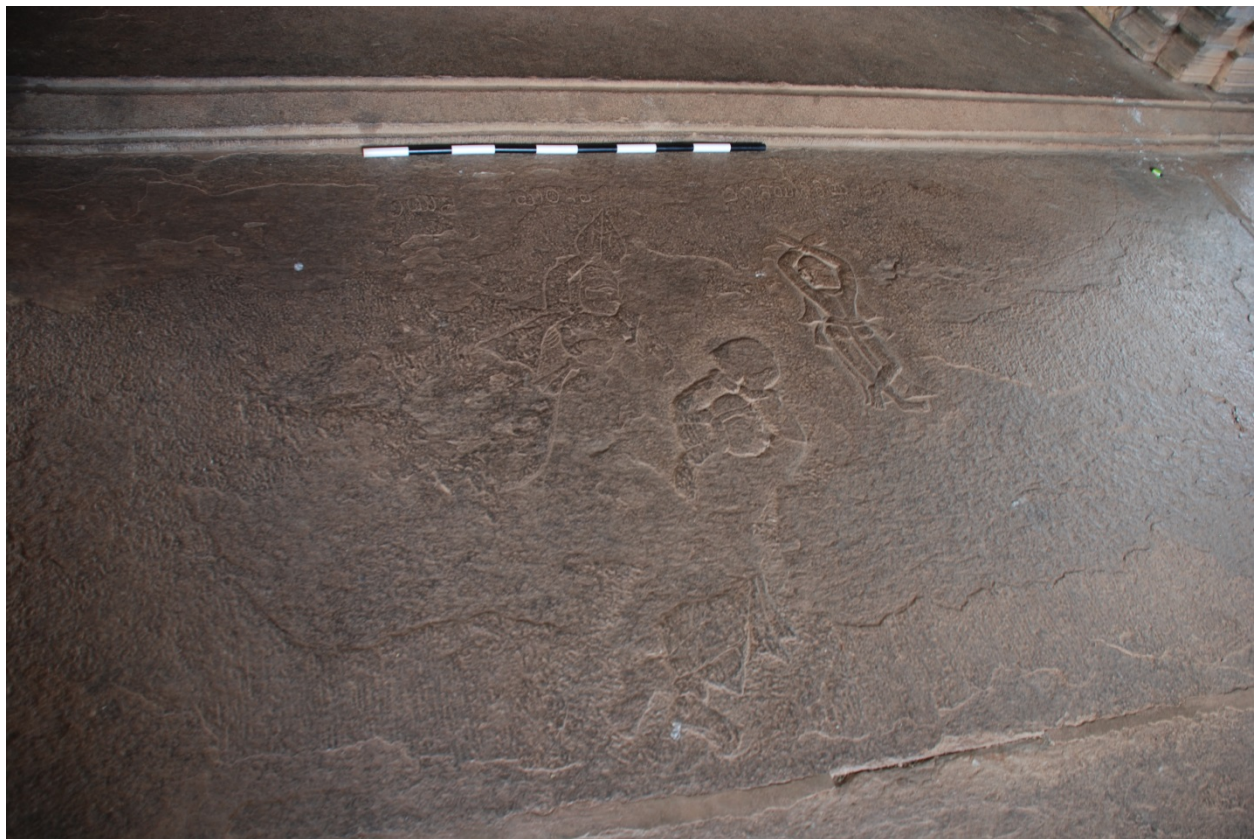


Figure 6.9: Carved Stone Devotee, Gopalakrishna Temple porch, Keladi (KIN 130)



The Keladi-Ikkeri Nayakas and elites associated with them actively participated in the long-standing tradition of royal patronage of religious institutions, which intersected with the proper display of courtly culture behavior and dress. Temples in the Imperial and Nayaka Periods were powerful institutions, both in the sacred sense of legitimizing kingship and in the practical sense that they were strong economic units, holding valuable and productive agricultural lands, possessing regular means of income through crops and also donations, and providing key opportunities for royals and elites to display their authority in conjunction with that of the gods in public festivals and ceremonies.

## **The Regional Economy: From Local Production to Long-Distance Trade**

Even limiting the economy to a regional scope leaves a vast body of potential topics to cover, so this section focuses primarily on economic aspects of the Nayaka Period which relate directly to its material record. Here, I adopt a perspective that moves from local to long-distance and I define the processes of economic action, as conceived in the most basic way, to include production/processing, circulation/distribution, and consumption/ reuse/discard. These economic processes do not assume a one way path from origin to consumer, rather, they allow for complex life histories of commodities and goods. But how does the economy relate to the political process of regional government or the sovereignty which underwrites it? I argue that the political elite do not have to tightly regulate a formal economy in order to establish a basis for political authority, rather power may also be drawn from an economy which is diverse and vigorous. We have little data at present that can quantify the intensity of the Nayaka economy at present but much evidence for local production and for participation in much larger networks of trade.

Instead of viewing the Vijayanagara “imperial economy” as unitary across time and space , it is now accepted that there was a high degree of variability in the degree of regulation and in specific strategies deployed to control desired aspects of the imperial economy, and that these varied over time and between different regions. As Sinopoli and Morrison state, “in general, economic integration was predominantly local in character and Vijayanagara emperors participated only indirectly in production and often received little or no material gain from it...Instead, there existed a diversity of economic systems and strategies, which varied with the nature of what was being produced and its context of production: its political and military value; ecological and labor requirements; and role in regional and long-distance exchange networks” (1992:335).

In exploring this diversity in one small region of the Vijayanagara Empire, I argue for considering both formal and informal aspects of the economy. I adopt a broadly conceived definition of informal economy as comprising economic activity outside regulation and protected employment relationships, while the formal economy is defined as comprising regulated economic units and protected workers. The formal economy is established by the formal regulatory environment, meaning government policies, laws and regulation (Bridges 2013); in general, only the upper levels of political elite would establish formal policy, but in practice such castes and village councils also had great socio-political power to set economic agendas and



customs, and to enforce them. Formal and informal economies have been viewed as either separate with few linkages or as separate but intrinsically linked, with varying emphases on how relationships between informal units and workers, formal units and workers, and the formal regulatory environment operate (Chen 2007:1-12). Consideration of both formal and informal aspects of economy supports a holistic view in which the full spectrum of social classes contain economic actors accorded agency. That said, much of what is addressed here would be considered part of the formal economy, as defined and exercised under state authority by the nayaka rulers.

Chitnis (1974:96) enumerates sixteen categories of public income (revenue) under Keladi-Ikkeri: land revenue, customs duties, tax on industries, profession tax, social tax, community tax, customary contributions, military contributions, property tax, sales tax, reversion of property to the state, fees for services, judicial fines, forest produce, revenue from religious institutions and public amenities, and miscellaneous items of income—this list is vague and broad in its categories, and offers little insight into change over time in the Nayaka economy. What we do have which can shed some insight into change over time is a study of goods which were taxed over the different reigns of the seventeenth Keladi-Ikkeri Nayakas (Table 6.1). Chitnis (1974: 97) generated this table from a study of inscriptions, which generally related to remission from taxes rather than stating rules regulating such revenue systems; those would have been recorded by other means than stone or copper plate inscription. Agricultural goods dominate the list of articles subject to taxation across the time period. As the seventeenth century progressed, textiles were added as a category, followed by services, and then by expensive commodities such as spices and tobacco, and also the forest product of sandalwood.

We know from the presence of Chinese porcelain and East Asian glaze ware fragments at Ikkeri that Keladi-Ikkeri was participating in an increasingly globalized network of trade; the inclusion of textiles and spices in the list of taxable goods indicates an outflow of items commonly traded to Europe in the Colonial Period, and tobacco is an item that would have come into India from the Americas. Keladi-Ikkeri is traditionally viewed as having benefitted economically from their location between western coast ports and the interior imperial capital. Given the presence of overseas trade goods well into the Independent Nayaka period, it would seem that this location continued to contribute to the prosperity of its rulers regardless of the shifting of imperial capitals.

Figure 6.1: Articles Taxed by Rulers According to Inscriptions (adapted from Chitnis 1974:97)

Item / Nayaka*	Venkatappa (1582-1629)	Virabhadra (1629-1645)	Somashekhara (1661-1677)	Chennammaji (1661-1697)	Basavappa I (1697-1714)
Chaff	X	X			
Pulses	X	X		X	X
Areca Nut (Betel Nut)	X	X	X	X	X
Pepper	X	X	X	X	X
Bamboo Baskets	X	X	X	X	X
Coconut Kernels	X	X	X	X	X
Wood	X	X	X	X	X
Jaggery	X	X	X	X	X
Ghee	X	X	X	X	X
Oil	X	X	X	X	X
Salt	X	X	X	X	X
Rice	X	X	X	X	X
Ragi	X	X	X	X	X
Paddy	X	X	X	X	X
Grain	X	X	X	X	X
Tassels		X	X	X	X
Silk		X	X	X	X
Fruit		X	X	X	X
Dry Coconut			X	X	X
Fringed Silk Cloth			X		
Husked Rice			X		
Boatman's Fee			X		
Passengers			X		
Goods			X		
Grass			X		
Tamarind			X	X	X
Cashew			X	X	X
Cloths			X		X
Tobacco			X		X
Rattan				X	X
Dates				X	X
Lace				X	
Sandal[wood]					X
Cardamom					X
Black Pepper					X
Cumin					X
Asafoetida					X
Iron					X
Mustard					X
Fenugreek					X
Onion					X
Garlic					X

\*Items have been ordered chronologically. Colors at the left indicate broader categories of goods: green for agricultural, blue for non-agricultural commodities (salt and iron), purple for textiles, red for services, brown for forest products (sandalwood), and yellow for imports (tobacco). Tax remissions seem to appear in the inscriptional record starting with Venkatappa Nayaka, the sixth ruler. For unstated reasons, Chitnis does not include Shivappa Nayaka in his table.

In terms of the local side of the economy, we know that elites had access to Chinese porcelain and glaze wares from East Asia, at least at Ikkeri, though none was found at Keladi, and that the former was documented at the site of the most elaborate tank found. This suggests an elite association with that tank, either courtly or religious—the record is unclear which at this point, but either political or religious elites could have been in the position of elite consumers.

There is also extensive evidence for local production (and consumption) of goods, including earthenware ceramics, ground stone, and agricultural products. It is clear from the predominance of agriculture on the Keladi-Ikkeri landscape today and the documentation of Nayaka period reservoirs, that it is an area with a historically strong economic agricultural basis. This is also confirmed by Table 6.1, which lists specific agriculture products, and also includes sandalwood. Shimoga District is, even now, home to extensive forest preserves and is known for its traditional sandalwood carvers. Though there is no direct archaeological evidence of the importance of forest products in the Nayaka period, they would have been exploitable commodities of the time (Morrison 2007)

The documentation of reservoirs with Nayaka Period bund features confirms that these were used in the past, as one would logically expect and which display a degree of elaboration in bund construction and sluice gates that appears to be modeled on that of the Vijayanagara tradition (see Morrison 1995:104). Morrison's study (1995) of the agricultural landscape at Vijayanagara suggested multiple ways in which the intensity of production increased at the imperial capital as it grew. I argue that the Keladi-Ikkeri Nayakas also engaged in agricultural intensification. I base this on the presence of a large central reservoir at Ikkeri, which seems to have supplanted an older landscape of smaller reservoirs which today are in disuse or possess minimal catchments in comparison. The Hire Kere also displays multiple construction episodes in its bund and three different types of stone sluice gates, suggesting that the reservoir was enlarged over time to facilitate increased irrigated area. I also base this argument on the extensive presence of reservoirs at Ikkeri, where each natural drainage has a series of multiple catchments. And this is in an area where the abundant rainfall makes wet agriculture a dependable practice, so that adding irrigation on top of that allows, in some cases, for multiple crops in a yearly cycle. More detailed information on agricultural production could be derived from excavation and archaeobotanical research or coring reservoirs to access the past pollen

record is possible. In addition to the agricultural features recorded, which in themselves tell us very little about the actual crops being planted or animals being husbanded, archaeological survey revealed evidence for the production of goods and the processing some type of agricultural commodity at the large scale processing site at Ikkeri

Also locally produced were earthenware ceramics. One donation (DON 7) was made by a family in central Ikkeri which had recently planted a large number of trees and saved most of the artifacts they found, including a large sherd pile (5.94). Artifacts donated include small stone bead blank (pre-drilled and abandoned) (Figure D.44), a mano (Figure D.13) and other ground stone tools which look like those used in earthenware ceramic production (Carla Sinopoli, personal communication), as well as a ceramic Ganesha icon (Figure D.1), and a few whole ceramic vessels (Figure D.3). Evidence of ground stone plate production and consumption was also documented. A stone plate waster fragment was recovered from the surface of fill used to construct the watchtower KIN 14 (Figure 14)—potentially an interesting intersection between that production and presumable state sponsored construction of the military feature. Stone plates would have been an elite good, used in lieu of disposable banana leaves, and were also found at Vijayanagara. Some of the fragments of those recovered at Keladi-Ikkeri share the archect motif common to courtly culture (Figure D.35). Appendix D has a complete catalogue of ground stone artifacts, which are extremely diverse and offer many examples which would have been used in household contexts as well.

There is also evidence for at least one other supra-household production area in large-scale processing site (KIN 147) at Ikkeri (Figures 5.91, 5.92). The four large grinding stones found here, with capstones but little other evidence of any kind of artifacts or past context, were likely used to process some kind of agricultural commodity. The presence of jaggery in Table 6.1, and the well-known role of sugar as a global commodity in the Early Modern Period, suggests that a possible crop processed there could be sugar cane.

Establishing and maintaining political authority requires a means of revenue, but also requires that the economy itself flourish. The material evidence we do have from Keladi and Ikkeri, and the differences between them, suggests that the Nayaka Period saw an increase over time in diversity and intensity of both the local production and long-distance trade aspects of its economy, which supports the idea that Nayaka political authority, as supported by economic factors, increased with its economic fortunes.

### **Freedom and Subjection in Local Tradition**

While theoretical perspective and research questions of this study emphasize the political process of elites involved in governance, non-elites were also obviously significant, and for the specific thesis of this work they are particularly relevant as they are the balance of the subjection and authority equation of sovereignty; that is to say, the ruling and the ruled over are inextricably intertwined. While I have used the shorthand of ‘subjects’ to characterize the non-elite side of this relationship until now, here I make the deliberate switch to populace. I do this to avoid the stickiness of debating enfranchisement under the alternative choice of citizenry, instead denoting all residents of the region. Unfortunately, for those of us interested in investigating the Keladi-Ikkeri Nayakas, both the historical and archaeological records regarding the populace of Keladi and Ikkeri are sparse in comparison with those which illuminate the elite. This does not mean they are unworthy of discussion, only at this stage it is somewhat more difficult; future archaeological field work could ameliorate that situation and this is discussed at some length below in the following concluding chapter.

A fair amount of the archaeological record documented on survey falls outside the analytical framework so far employed to discuss the political process of regional governance, which is necessarily focused on dynamics of an elite group of people. I am interested in this section in looking at what falls outside, or on the flip side, of the dominant view of the political process of regional governance discussed in the previous sections. Certainly, the military, courtly culture, elite religious patronage, and formal economy aspects of regional governance as discussed above would have directly affected the daily lives of the majority of the populace. And yet, as has also been discussed, Keladi-Ikkeri under the empire was not a highly integrated

authoritarian state when considered against other examples through time and space, and there is no historical evidence that this changed considerably in the independent period. So what of the daily lives of the populace? Accounts of daily life beyond the realm of elite political and cultural processes, and formal religious and economic institutions, are largely absent from inscriptions and the historical record, or are only obliquely suggested.

While aspects of the archaeological record documented on survey that don't neatly fit into the discussion above could simply be noted and left, I think the interpretation is, in the end, more robust for admitting what we do not understand or what we lack to achieve a greater understanding. If sovereignty is the basis for governance and authority and subjection are in a dialectical relationship in the governing process, then the populace and the daily lives of the people among it should be a vital part of its interpretation. Unfortunately, the historical record is, as in many periods and places, dominated by elite concerns. And the archaeological survey which I conducted, while it documented all recognizable Nayaka Period remains, was by necessity of design focused on the more monumental aspects of the landscape. Regardless, the most numerous site type documented was that of carved stone nagas, and these, as well as laterite monoliths, platforms, and areas of mounding, could be aspects of the nayaka landscape which were controlled by decision-making outside the realm of regional political process.

As already mentioned, shrines fall into what I define as vernacular religion, which I define as practices which are not mediated by religious specialist practitioners, such as those found in temple and monastery contexts. Extensive evidence of modern shrines was observed in both survey areas, though no archaeological sites of this type were documented except where older stone elements were incorporated into modern contexts. A majority of the carved stones recorded on survey, the nagas, were likely found in vernacular contexts in the past as they are at present: in such places as tree shrines on or separate from platforms. Contemporary naga stone shrines are found in household and civic contexts (especially those associated with platforms), as well as in some temples.

A greater understanding of the Nayaka landscape in general would contribute toward understanding the experience of the larger population of the Nayaka Period, and provide a contrasting view of the degree of autonomy exercised under their regional governance during and after imperial association. Of particular interest would be further investigation into the structure mounds at Ikkeri, both those more isolated and the area of continuous occupation in the

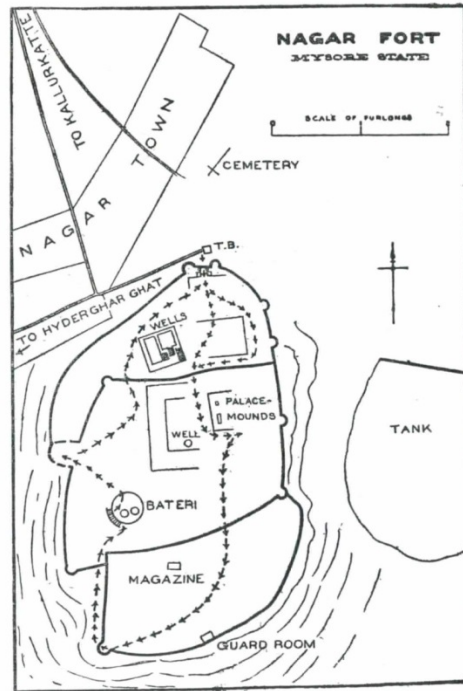
central portion of the survey zone, and this is discussed further in the concluding chapter. We know already that at least on mounded area (KIN 200), which is located in proximity to both the Northern Fort at Ikkeri and the complex shaped tank (KIN 188), and its associated finds of porcelain, and this shows that a temple built in the local laterite tradition was more proximal to these elite and restricted spaces than was the Aghoreshvara Temple Complex. Additionally, the production indicated by DON 7 was also proximal to these sites, suggesting that in at least this locale the interaction between low caste goods producers and elite military and courtly figures would have been inevitable and daily.

It does not follow that a study of empire or state necessitates finding higher order political factors connecting to every aspect of daily life; one cannot, literally or figuratively, excavate empire in all contexts. Many fruitful lines of inquiry regarding the Keladi-Ikkeri Nayaka State, would relate only indirectly to the political, and could offer potential future directions for research, as is discussed below.

### **Conclusion: Reinventing Sovereignty in the Global Age**

When I first chose Keladi and Ikkeri as sites for archaeological investigation, it seemed fortuitous that the nayakas had chosen to relocate their capitals—hopefully creating sequential yet overlapping archaeological records which would help identify chronological progression in the window where absolute dating methods are sorely lacking. As it turned out, there are key differences between survey results at Keladi and Ikkeri, some of which result from historical changes in material culture, and some of which resulted in changing strategies of regional governance. I have also come to believe along the way that the choice to move capitals twice was a vital political adaptation to changing conditions over the history of the nayaka line. Reestablishing themselves at new capitals not only allowed innovation in military defenses, which increased over time, but also facilitated optimal placement in the economic landscape. And finally, it allowed for the nayakas to reinvent their own legacy through tracing back their history on the landscape. This ideological aspect became more critical as distance from imperial predecessors faded and as their world system continued to expand.

Figure 6.9: Bidnur Fort Plan (Chitnis 1974:169)



Shivappa (1645-1660 CE) is credited, and in this instance probably rightly so, with the final movement of the Keladi-Ikkeri capital to Bidnur early in his reign. Bidnur is an ASI monument and there has been work conducted there, although it has not been published as part of an archaeological report. It is unknown from where the plan given by Chitnis comes (1974:169) (Figure 6.6). The plan of Bidnur reveals a continued adherence to an organic rather than formally geometric layout, and the central citadel depicted is even today ringed by fragments of extensive concentric walls which take advantage of the naturally sharp topography of the site. Unlike the military improvements provided by Bidnur, the temples there and Kavaledurga, another late Nayaka fort of key importance, were not as grand as Ikkeri's, which was the pinnacle of temple architecture under the Nayakas (Michell 2001). The economic location near a vital route across the western ghats was an economic advantage to resituating the capital again.

In the popular mythology of Keladi-Ikkeri, Shivappa is to the nayaka line what Krishnadevaraya is to Vijayanagara—the apical ruler whose association with the cultural pinnacle of the polity as a whole has become so legendary that the man himself is simultaneously elevated and yet reduced by his symbolic status. Like Krishnadevaraya, Shivappa Nayaka is often credited with



anything positively associated with the Nayaka Period, as though he were solely responsible for it. Keladi-Ikkeri Nayaka sovereignty was developed over time through the political process of regional government, which in the Independent Nayaka Period integrated leadership in the realm of politics with the military force necessary to enforce authority. As a result of their relationship with Imperial Vijayanagara elites, the Nayakas gained access to the world of the courtly elite, which allowed them in turn to legitimize ties to religious institutions through patronage and also to benefit from participation in an increasingly global economy, yet while still allowing local traditions to flourish and grow.

## **CHAPTER 7: CONCLUSION**

Over the course of their history, the Keladi-Ikkeri Nayakas consolidated regional political authority through a socially-embedded process that expanded their territorial and military presence on the ground, increased their economic strength through local production and international trade networks, and crafted an ideology of power based on their contemporary conditions as well as current and former associations with Vijayanagara imperial dynasties. The synergy of archaeological and historical data has made possible a more critical examination of the Keladi-Ikkeri Nayaka record, advancing understandings of the location of sovereignty in its evolution from imperial province to independent state. This chapter is less a review of the arguments developed in chapter, and more a discussion of the larger contributions made by it to Archaeology, Anthropology, and South Asian Studies. I also offer future directions for research, addressing logical extensions of research questions and also promising methodological strategies.

### **Contributions and Connections**

At the broadest level, this work contributes to our understandings of the operation imperial political formations, in this case, one that straddled the pre-modern to modern divide. Fundamentally, however, the greatest strength of this work is that it moves the locus of study away from empire itself and turns to the political process of regional government. This work contributes to understanding the dynamics of political power and integration at the regional, and how these might be viewed archaeologically. In this concluding chapter, I expand upon these themes of methodological and theoretical significance. I begin with a discussion of the present and future intellectual contributions and connections made possible by this research. I then outline specific ways that further archaeological work will contribute toward critical research questions. Since this research is one of what is still a small number of systematic archaeological

regional surveys in India, I discuss possible modifications in field methodology appropriate to densely vegetated regions such as the Malnad area where my work focused. I close with a consideration of future directions of research and of the applied significance of this work.

In contrast to empires which are known through much more extensive fieldwork and as textual sources, our picture of the Vijayanagara Empire continues to be one of relatively loose integration and consolidation, one where solutions were often highly localized rather than imperially broad; that this is truly a picture based on how the empire operated, and not on our incomplete picture of its archaeology, is an issue that can only be resolved by developing a more robust picture of the imperial material record throughout its former territory. Locally at Keladi and Ikkeri, further work should explore the conditions of political power during the early years of Vijayanagara, especially in relation to the earlier Hoysala feudatory landscape. In relation to collapse, the Keladi-Ikkeri case supports a growing consensus that collapse is a less common phenomenon than once thought, and that should in most cases be replaced by different models of political decline. Here, evidence points toward a great deal of regional and local continuity, even politically, between empire and post-imperial rulers. Continued work would assist in understanding the economic, social, religious, and ideological factors that facilitated political strength through high-level transition.

Another significant contribution of this work is that it illustrates the utility of archaeology conducted in a historical period. For too long, the supremacy of the historical record has been unchallenged. It is clear from the Keladi-Ikkeri Nayaka example, that archaeology and history together are greater than the sum of their sole interpretive potentials.

### **Methodology, Chronology, and the Archaeological Record**

The research presented here has two very logical directions for extension: synchronic and diachronic. There is obviously a need for greater understanding of basics such as relative chronology (e.g. through ceramic seriation), as well as settlement layout (e.g. detailed mapping and/or subsurface imaging), and studies of past environmental conditions (e.g. coring of reservoirs). Diachronically, this work would benefit from extending knowledge temporally on either end of the Keladi and Ikkeri sequence. The archaeological field methodology used for the

Keladi-Ikkeri Nayaka Zone Survey (2007-9) was designed to be compatible with previous work (i.e., the Vijayanagara Metropolitan Survey) and to be acceptable for research permitting at the state and national levels. As the project took place in a region new to systematic archaeological survey using North American methods, it is natural that the methodology should be critically examined against recent results. Based on variability in both ecological conditions and the local nature of the archaeological record, I suggest that that future work should consider incorporating methods which will lead to a greater understanding of the subsurface archaeological record as well as on continuing to establishing basic chronology through absolute and relative dating techniques.

One of the major differences between the arid Deccan interior and the Malnad is its cultural ecology. In the area around Hampi, much of the surface archaeological materials were recovered from deflated matrix due to removal of sediment by cultural or natural processes, (though not all archaeological materials in that area exist in such contexts, as in the case of extensive alluvial sedimentation in the Tungabhabra River valley and those of its tributaries). At Keladi and Ikkeri, a much higher proportion of land is experiencing accretion of sediment (e.g., forested areas). As a result it is likely that a historical record of less intensive use in the area, as well as a shorter historical interval, has preserved intact deposits underground. Cultural materials of the Nayaka period were observed exposed at range of depths, some well over a meter underground. As a result, archaeological materials were recovered largely from areas disturbed by human activity, whether in the present or past (e.g., deep planting of trees, farming of food crops, cutting of drainage ditches, erosion near habitation, expansion of agricultural land).

Future, archaeological work in in the Keladi-Ikkeri Nayaka Zone should proceed with modified survey methods (including subsurface testing), mapping, and excavation, with an emphasis on understanding site structure and material chronology, and probably include at the start analysis of satellite imaging and remote sensing data. The methods employed by KINZS during survey in 2007-2009 were chosen as a primary means of locating and evaluating unknown sites with minimal labor and budgetary resources. Major characteristics of Keladi and Ikkeri have been evaluated through documentation of the extent and character of surface remains and collection and characterization of surface artifacts. The next phase of fieldwork must address

subsurface archaeology and its relationship to the surficial record and the chronology of Keladi and Ikkeri material culture. Since these sites are outside the time frame suitable for methods of absolute dating (e.g., radio carbon testing), relative chronology must be established through seriation of artifacts styles in stratigraphic context.

Large areas of both the Keladi and Ikkeri survey zones were identified as containing nayaka period remains; the 5 x5 survey blocks should ideally be completed to determine the full outer extent and settlement pattern of the first two Nayaka Period capitals, work which would be more accurate with modified field methods and an established material chronology. Within these areas small test excavations should be conducted, removing cultural deposits down to sterile sediment or bedrock to produce a complete and stratified sample of archaeological materials. This would produce a provenienced assemblage of artifacts which would allow for creating a seriation through time; though dominated by ceramics, artifacts are also likely to include ground stone, animal bone, and it is possible that samples might be taken for analysis micro-and macro-botanical remains. The recovery of roof tiles alone, if units were located in locales where these are known to occur, should provide an ordered picture of change over time in terms of style, size, and stylistic elements; a rough chronology for these has already been outlined, and there is great potential for refining this sequence. Earthenware ceramics, are also appropriate artifacts for seriation; understanding the nature of site contexts from which stratified ceramic samples are excavated will be significant to building a culturally significant typology.

As discussed above, however, little is known of the exact subsurface nature of the vast majority of both of my survey areas. Before wider excavations are pursued, it would be fruitful to test whether geophysical methods might provide a picture of subsurface structural remains and features. In order to provide close control over geospatial data, mapping using optical survey equipment and/or recently cheaper centimeter accuracy GPS equipment, focusing on areas such as extensive structure mounds and fortified features at Ikkeri should be used to create a detailed topographic representation of the site surface. A master map would coherently tie together foot survey and surface collection, test excavations, geophysical evaluations, and further results of subsurface testing.

Due to the extensive nature of the sites as former urban occupations and the depth of deposits, which were observed extended well over a meter deep, I would suggest continuing

survey through both surface methods and through experimental subsurface testing. For those areas at Keladi and Ikkeri which are in active agricultural use for annual crops and in multi-year rotation of tree plantings, opportunistic survey and collection during planting and/or harvest seasons will allow for collection with minimal invasive effort. For areas not in such use, i.e., forested or grazing land, experimental subsurface survey methods should be tried. Especially in the Keladi survey area, where there is extensive forest land quite near to the Rameshvara Temple complex and to the village of Hallibailu, using systematic coring and/or shovel testing could reveal subsurface deposits in locations where vegetation and trees would preclude geophysical survey and where limited human activity would not otherwise reveal any archaeological deposits.

Beyond future work within the Keladi and Ikkeri survey areas, an increased understanding of the general archaeological record of the region, focusing on Shimoga District has the potential to link relative dating sequences into an overall framework which includes absolute dating opportunities. Recent work at Banavasi by Uthara Suvrathan (2012) in combination with this work, suggests that tying together material culture from less than half a dozen sites in the region would provide a clear archaeological sequence spanning two millennia of the historical period of in the Malnad. In addition, it would begin to clarify spatial versus temporal variability within assemblages, both within and between sites. It is also likely that excavation at sites with long historical occupational sequences might, if pursued to sterile deposits, link the historical record with prehistoric occupation—poorly understood for this area, and difficult to further through survey due to conditions already discussed.

Finally, further work on inscriptions and documents of the nayaka period will contribute to a greater understanding of political dynamics, both daily and long term, as well as the social and economic conditions of the period. Of great interest are the many untranslated *kaditas*, or village *shanhog* records, which may be available for some localities in relevant time periods (ref Keladi and article on Kaditas). For the non-specialist, this is becoming increasingly possible with the advent of new series of published translations and inscriptions such as the Indian Council of Historical Research series for Vijayanagara (cite first four vols), and Mysore University's slow but inexorable continuation of the new series of *Epigraphia Karnataka*, begun in 1972 and still releasing volumes (citations).

In conclusion, I turn to the contemporary and very real applied consequences of this research. On my first day of fieldwork, in early 2007, my presence in the Ikkeri survey area caused a minor but literal mob scene. As the story emerged, after hard-won hours of stilted multi-lingual communication and the fellowship of drinking tea, local residents and leaders has suspected that I was in the area representing global mining interests who were prospecting for gold in the foothills of the Western Ghats. They feared that eminent domain would leave many people landless and others in a landscape of development which would destroy the natural beauty and agricultural productivity of the area. Well-acquainted with the ecological and social destruction that intensive mining can cause, and safely out of danger from combustible mob anger, I was sympathetic to those concerns and to others which emerged as I continued to talk with people in the area. Most people are well aware of the potential that Indian heritage has to bring tourism to towns and villages; the accompanying monetary advantages and investment in infrastructures such as roads, reliable power grids, potable water sources, and communications are attractive to those for whom they have come slowly over time. Some people are in favor of developing Keladi-Ikkeri sites, such as the fort or the small museum at Keladi, as destinations for domestic tourists and international travelers alike. Others fear their own livelihoods threatened by such proposals, certain that agricultural land would be subsumed under state or national heritage management, and fearing loss of their own more personal heritage. Aware that there is no answer to these debates which will please everyone, I remain conscious that the history and archaeology discussed herein belongs to a much wider audience than I ever anticipated at the start.

## APPENDIX A: INDEX OF KELADI-IKKERI INSCRIPTIONS

This appendix contains a reference table index of commonly attributed Keladi-Ikkeri Nayaka inscriptions. The index covers 116 inscriptions from Chaudappa to Virabhadra and includes those inscriptions for which at least an English summary has been published (if not a full translation); this time period covers the occupation of the Keladi and Ikkeri, which are the focus of this work. There is no comprehensive collection of Keladi-Ikkeri inscriptions published in English. Keladi Venkatesh Jois (2011) has published an edited volume of collected Keladi-Ikkeri inscriptions in Kannada, and this was used as a starting point for collecting relevant inscriptions. Most of the inscriptions Jois collected had been published previously, or have been published subsequently, in English in summary or translation. Some of the inscriptions Jois published could not be located due to the rarity of publications or misattribution of references, and several were published without translation, summary, or reference; these are not included in this study. There is some debate over the attribution of inscriptions by Sadashiva versus by Immadi Sadashiva; here, they are all attributed to one ruler, under the rationale that if there was a succession to a different ruler it was brief and under a name chosen to evoke the predecessor. I have also attributed inscriptions to Shankanna, rather than Dodda (big) and Chikka (little) Shankanna; each of these men ruled for a relatively brief time, and they are not distinguished in inscriptions.

Working with these inscriptions is challenging on a number of levels, due to the availability of material as well as its nature. Kathleen Morrison and Mark Lycett (1994; 1997) have worked extensively with Vijayanagara inscriptions, a much larger collection, but one that shares many properties with Keladi-Ikkeri inscriptions. My own work with inscriptions was inspired by their perspective, methodology, and analysis, though it has been tailored to suit the material and purpose at hand.

The inscriptions included here are taken from stone stela and copper plates, with few exceptions as noted. In their original forms, they were objects in cultural context: they had a physical form and were phenomenologically experienced by people. Today, these inscriptions



exist as dislocated texts. This process of transforming contextualized objects into subjected texts began in the colonial era, when most of these inscriptions were first documented. In the real world when they were first ‘discovered’, stone stela and copper plates had material characteristics and were located in dynamic settings. When reduced to modern Kannada typeset and transliterated Latin text, with English language summaries or translations, accompanied by very little information about the characteristics or context, they lost a lot of the richness they had originally carried.

This index of Keladi-Ikkeri inscriptions (Table A.1) and the figures (4.1 and 4.2) which were produced from the data cited therein are a start to what I hope will be a longer term endeavor of working with the inscriptions in conjunction with archaeological data, both from the KINZS survey, and also future field work. For ease of reference, I have used my own numbering system. I have referenced publications of each inscription, using an abbreviation and semi-colon followed by the designation of that inscription within each source; please refer to the guide to references below (Figure A.1) for proper bibliographic citations, and to the Abbreviations (xv) page in the front matter for full titles when abbreviated. In the “Trans/Sum” field, T stands for full translation published, and S stands for published in summary form, which can vary from a single phrase description to a longer paragraph or more. In the “Stone/CP” field, Stone means a stone inscription and CP means a copper plate inscription. The remaining fields are self-explanatory. All dates are C.E.

Figure A.1: Guide to References in Table A.1

ARSIE:	Archaeological Survey of India 1887-[2015]
EC:	Rice et alia 1886-1958
ECN:	Kuvempu Institute of Kannada Studies 1972-[2015]
EI:	Archaeological Survey of India 1888-[2015]
ICHR IVR II:	Ritti and Gopal 2008
ICHR IVR III:	Ritti and Gopal 2009
Jois:	Jois 2011
MAR:	Mysore Archaeological Department 1900-56
SII:	Archaeological Survey of India 1890-[2015]

Table A.1: Index of Keladi-Ikkeri Inscriptions (Chaudappa to Virabhadra)

EJB #	Year	Ruler(s)	Stone / CP	Location	References
1	1506	Chaudappa	S	Nadakalsi, Sagara	ECN 15: Sagara 130 Jois: 1
2	1509	Chaudappa and Sadashiva	CP	Keladi, Sagara	ECN 15: Sagara 80 MAR 1928: 65 Jois: 2
3	1544?	Sadashiva	S	Togarase (Togarshe, Togarashi), Shikarpur	EC 7: Shikarpur 255 Jois: 3
4	1545? [Jois 2011: 1545]	Ramaraja (and Sadshiva?)	S	Araga, Tirthahalli	EC 8: Tirthahalli 15 ECN 13: Tirthahalli 022 Jois: 4
5	16th c. [Jois 2011: 1545]	Sadashiva (also mentions Sadashivaraya of Vijayanagara)	S	Nagara, Hosanagara	ECN 15: Hosanagara 22 MAR 1943: 30 Jois: 5
6	1550	Sadashiva (under Sadashivaraya- maharaya, the Vijayanagar king)	S	Nagara, Hosanagara	EC 8: Nagara 77 ECN 15: Hosanagara 20 ICHR IVR II: 701 Jois: 6
7	1552	Sadashiva (under Sadashivaraya- maharaya, the Vijayanagar king)	S	Sampagekote, Hosanagara	EC 8: Nagara 5 ECN 15: Hosanagara 68 ICHR IVR II: 733 Jois: 7
8	1556	Sadashiva	S	Tagarti-agrahara, Shikarpur	EC 7: Shikarpur 55 Jois: 8
9	1557	Sadashiva	S	Kuruvadagadde, Honnali	EC 7: Honnali 9 ICHR IVR II: 798 Jois: 9
10	1556	Sadashiva (also lists Ramarajayya ruling as lieutenant for Sadashivaraya at Vijayanagara—the founder of the Aravidu dynasty)	CP	Kap, Udupi	ARSIE 1921-22: 8 (App A) EI Vol XX:89-97 (no. 8) Jois: 10
11	1560	Sadashiva (and Ramaraja ruling for Sadashiva at Vijayanagara)	S	Balagodu	EC 8: Tirthahalli 103 ECN 13: Tirthahalli 180 ICHR IVR II: 822 Jois: 11

EJB #	Year	Ruler(s)	Stone / CP	Location	References
12	1562	Sadashiva (and Ramaraja "ruling from the jeweled throne" at Vijayanagara, for Sadashiva)	S	Arigudi	ARSIE 1930-31: 348 SII Vol. XXVII: 202 Jois: 12
13	1563	Sadashiva	S	Shankaranarayana (Udupi Dt, Kundapur Tk)	ARSIE 1928: 397 SII Vol. IX (2): 674 ICHR IVR II: 846 Jois: 13
14	1562	Sadashiva (under Sadashiva of Vijayanagara, and Venkatadri the administrator)	S	Manigarakeri	SII vol VII 366 (also 367, reverse of slab) ICHR IVR II: 841 Jois: 14
15	1524? [date listed as question-able in EC 8 ]	Sadashiva	CP	Hireshakuna	EC 8: Soraba 35 Jois: 15
16	1560	Sadashiva	S	Alahalli	ECN 13: Shimoga 5 MAR 1923: 120 Jois: 16
17	16th c	Sadashiva	S*	Ikkeri	ARSIE 1953-54: 415 (App B) Jois: 17
18	1533	Shankanna (Achuytaraya of Vijayanagara)	S	Basrur	ARSIE 1927-28: 422 Jois: 18
19	1553	Sadashiva	S	Hosala (Udupi Dt)	ICHR IVR II: 751 NO JOIS REF
20	1550	Sadashiva	S	Ulavari (North Kanara Dt)	ICHR IVR II: 707 NO JOIS REF
21	1562	Sadashiva (under Sadashiva, but also Ramaraja and Venkatadiraja as well)	S	Kumbhakasi	SII vol IX(2) 675 Jois: 21
22	1566	Sadashiva (under Sadashiva)	S	Sampagekote	EC 8: Nagara 1 ECN 15: Hosanagara 64 Jois: 22
23	1566	Sadashiva (under Sadashiva)	S	Sampagekote	EC 8: Nagara 2 ECN 15: Hosanagara 65 Jois: 23

EJB #	Year	Ruler(s)	Stone / CP	Location	References
24	1566	Sadashiva (under Sadashiva)	S	Sampagekote	EC 8: Nagara 3 ECN 15: Hosanagara 66 Jois: 24
25	1566	Sadashiva (under Sadashiva)	S	Sampagekote	EC 8: Nagara 4 ECN 15: Hosanagara 67 Jois: 25
26	1570	Shankanna (under Sadashiva)	S	Hosakeri	ICHR IVR II:880 SII vol IX 2 AND 289? Jois: 26
27	1555	Sadashiva (under Sadashiva)	S	Basrur	ICHR IVR II: 209 NO JOIS REF
28	1577	Sankanna and Ramaraja (under Sadashiva)	S	Hosala	ARSIE 1930-31: 267 SII vol. XXVII: 201 Jois: 28
29	1581	Shankanna (under Shrirangaraya of Penukonda)	S*	Satenahalli	ICHR IVR III:25 Jois 29
30	1580	Shankanna (under Shrirangaraya of Penukonda)	S	Manigarakeri	SII vol VII: 275 Jois: 30
31	1579	Shankanna	S	Siddahalli	EC 8: Soraba 301 Jois 31
32	1557	Sadashiva (under Sadashiva)	S	Vaddarse, Udupi	ICHR IVR II:797 NO JOIS REF
33	1571	Ramaraja	S	Hennageri	EC 8: Sagara 21 ECN 15: Sagara 223 Jois: 33
34	1571	Ramaraja	S	Kantanahalli	EC 8: Soraba 55 ICHR IVR III: 3 Jois: 34
35	1573	Ramaraja	S	Agalabagalu	EC 8: Tirthahalli 19 ECN 13: Tirthahalli 5 Jois: 35
36	1573	Ramaraja	S	Nadakalasi	EC 8: Sagara 108 ECN 15: Hosanagara 123 Jois:36

EJB #	Year	Ruler(s)	Stone / CP	Location	References
37	1573	Ramaraja	CP	Tirthahalli	EC 8: Tirthahalli 5 ECN 13: Tirthahalli 158 Jois: 37
38	16th c?	Ramaraja	CP	Tirthahalli	EC 8: Tirthahalli 204 ECN 13: Tirthahalli 154 Jois: 38
39	1577	Ramaraja	S	Hechche	EC 8: Soraba 475 Jois: 39
40	1582	Ramaraja	S	Puttanahalli	EC 8: Soraba 232 Jois: 40
41	1585	Ramaraja	S	Mudakeri	SII vol VII: 321 ICHR IVR II: 895 Jois: 41
42	1630	Venkatappa	CP	Kavaledurga (relating to Bhadrapura mathas)	EC 8: Tirthahalli 51 ECN 13: Tirthahalli 62 Jois: 42
43	1592	Venkatappa (under Venkatapatideva, maharaya of Vijayanagar, ruling from Penukonda)	CP	Edahalli (relating to Khayira village)	ECN 15: Sagara 38 Jois 43
44	1606	Venkatappa	CP	Yadehalli	EC 8: Sagara 123 ECN 15: Sagara 189 Jois: 44
45	1610	Venkatappa	S	Melige	EC 8: Tirthahalli 166 ECN 13: Tirthahalli 215 Jois: 45
46	1614	Venkatappa	S	Udupi	ICHR IVE II: 73 SII vol VII: 297 Jois: 46
47	1615	Venkatappa	CP	Kavaledurga (relating to Kallakoppa village in Mantalesime and Matha at Bhattada-pethe of Ikkeri)	EC 8: Tirthahalli 97 ECN 13: Tirthahalli 108 Jois: 47
48	1616	Venkatappa	CP	Kavaledurga (relating to Kadenandihalli village and Mahattina Matha of Sagara)	EC 8: Tirthahalli 56 ECN 13: Tirthahalli 67 Jois: 48
49	1616	Venkatappa	CP	Nagara (relating to Ikkeri)	EC 6: Sringeri 5 ECN 11: Sringeri 5 Jois: 49

EJB #	Year	Ruler(s)	Stone / CP	Location	References
50	1621	Venkatappa	S	Sringeri	Jois: 50
51	1629?	Venkatappa	CP	Kuppaturu	EC 8: Soraba 266 Jois: 51
52	1619	Venkatappa	S*	Elagalale	ECN 15: Sagara 45 MAR 1928: 86 Jois: 52
53	1623	Venkatappa	--*	Kollur	MAR 1944: 42 Jois: 53
54	1623	Venkatappa	CP	Kavaledurga (relating to Masige village and the Mahattina Matha at Barkur)	EC 8: Tirthahalli 83 ECN 13: Tirthahalli 94 Jois: 54
55	1624	Venkatappa	CP	Kavaledurga (relating to Hunusuru village and a matha at Pattanageri)	EC 8: Tirthahalli 82 ECN 13: Tirthahalli 93 Jois: 55
56	1624	Venkatappa	CP	Kavaledurga (relating to Punuje village purchased for the Mahattina matha near Sangamesvara tank)	Kavaledurga 1625- need translation??? Jois: 56
57	1627	Venkatappa	CP	Kavaledurga (relating to Halasinahalli and Kavaledurge Mosque)	EC 8: Tirthahalli 38 ECN 13: Tirthahalli 40 Jois: 57
58	1627	Venkatappa	CP	Kavaledurga (relating to Chandavalli and Kavaledurge Mosque)	EC 8: Tirthahalli 39 ECN 13: Tirthahalli 41 Jois: 58
59	1628	Venkatappa	CP	Kollur	ARSIE 1954-55: 5 (A) Jois: 59
60	1627	Venkatappa	CP	Mangalore (relating to Kullur Mukambika Temple)	ARSIE 1954-55: 7 (A) Jois: 60 (and 61—same )
61	1562	Sadashiva (under Sadashiva of Vijayanagara)	S	Koteshvara, Udupi Dt	ARSIE 1954-55: 7 (A) Jois: 61
62	1627	Venkatappa	CP	Saluru, Koppa Tk (relating to Kedege Salur village and Mormani Matha)	EC 6: Koppa 061 Jois: 62
63	1629?	Venkatappa	CP	Kuppaturu	EC 8: Soraba 267 Jois: 63
64	1628	Venkatappa	CP	Elagalale	ECN 15: Sagara 28 MAR 1923: 98 Jois: 64

EJB #	Year	Ruler(s)	Stone / CP	Location	References
65	1565	Sadashiva (under Sadashiva)	S	Yedatadi	ICHR IVR II: 859 NO JOIS REF
66	1644	Virabhadra	CP	Kollur	1927-28 044????? Jois: 66
67	1629	Virabhadra	CP	Sringeri	ECN 11: Sringeri 36 MAR 1933: 28 Jois: 67
68	1630	Virabhadra	S	Bankasana, Soraba	EC 8: Soraba 451 Jois: 68
69	1631	Virabhadra	CP	Shirur	ARSIE 1963-64: 40 Jois: 69
70	1630	Virabhadra	CP	Kavaledurga (relating to Hotlasaruhu and Sogamani villages, Bhattadapethe)	EC 8: Tirthahalli 58 ECN 13: Tirthahalli 69 Jois: 70
71	1630	Virabhadra	CP	Ratnapura	EC 8: Sagara 157 ECN 15: Sagara 191 Jois: 71
72	1631	Virabhadra	CP	Anandapura (relating to Elagalale village, Kallur)	ECN 15: Sagara 10 MAR 1923: 85 Jois: 72
73	1631	Virabhadra	CP	Sagar (relating to Ikkeri)	ECN 15: Sagara 195 MAR 1923: 71 Jois: 73
74	1563	Sadashiva (under Sadashiva)	S	Surala, Udupi Tk	ICHR IVR II: 851 NO JOIS REF
75	1631	Virabhadra	CP	Edahalli (rel to Vishwanathapura)	ECN 15: Sagara 26 Jois: 74
76	1632	Virabhadra	CP	Shimoga (rel to Mayigondanakoppa village and Virabhadrapura)	ECN 13: Shimoga 92 MAR 1923: 110 Jois: 76
77	1631	Virabhadra	CP	Sagara (rel to Bhimanare village and Nagara?)	ECN 15: Hosanagara 26 MAR 1943: 32 Jois: 77
78	1631	Virabhadra	CP	Anandapura (rel to Edehalli and to a mosque by Tavaregere-pond)	ECN 15: Sagara 9 Jois: 78
79	1632	Virabhadra	CP	Kavaledurga (rel to Malare village and Ikkeri Matha at Hosapethe)	EC 8: Tirthahalli 94 ECN 13: Tirthahalli 105 Jois: 79

EJB #	Year	Ruler(s)	Stone / CP	Location	References
80	1631	Virabhadra	CP	Keladi	EC 8: Sagara 41 ECN 15: Sagara 81 Jois: 80
81	1631	Virabhadra	CP	Hejje (rel to Heddase village and Annigere)	MAR 1929: 89
82	1632	Virabhadra	CP	Vaderahatturu (rel to Ikkeri and Yalagalale)	EC 7: Honnali 83 Jois 82
83	1636	Virabhadra	S	Channikatte (on the matha)	EC 7: Honnali 82 Jois: 83
84	1633	Virabhadra	CP	Tuduru (rel to Modasuru matha, Harogapa village)	EC 8: Tirthahalli 181 ECN 13: Tirthahalli 161 Jois: 84
85	1635	Virabhadra	CP	Kavaledurga (rel to Andige mahattina matha, Devatekota hamlet of Hire Avali village)	EC 8: Tirthahalli 62 ECN 13: Tirthahalli 73 Jois: 85
86	1635	Virabhadra	CP	Kavaledurga (rel to Ramagondannakoppa and Magaidodderi villages, Kerekoppa mahattina matha)	EC 8: Tirthahalli 84 ECN 13: Tirthahalli 95 Jois: 86
87	1640	Virabhadra	CP	Shirur (rel to Karumbali village in Barkur, for Udupi Krishnadeva god)	ARSIE 1963-64: 41 Jois: 87
88	1565	Sadashiva (under Sadashiva)	S	Kavadi, Udupi Dt.	ICHR IVR II:860 NO JOIS REF
89	1640	Virabhadra	CP	Tirthahalli (rel to 4 villages)	EC 8: Tirthahalli 4 ECN 13: Tirthahalli 157 Jois: 89
90	1640	Virabhadra	CP	Nagara	ECN 15: Hosanagara 25 MAR 1943: 31 Jois: 90
91	1640	Virabhadra	CP	Kerekeri	EC 8: Tirthahalli 165 ECN 13: Tirthahalli 125 Jois: 91
92	1640	Virabhadra	CP	Kavaledurga	EC 8: Tirthahalli 63 ECN 13: Tirthahalli 74 Jois: 92
93	1641	Virabhadra	CP	Kavaledurga (local but also mentions Kashi)	EC 8: Tirthahalli 43 ECN 13: Tirthahalli 54 Jois: 93



EJB #	Year	Ruler(s)	Stone / CP	Location	References
94	1641	Virabhadra	CP	Kollur [see 100]	ARSIE 1927-28: 6 (A) Jois: 94
95	1641	Virabhadra	CP	Edahalli (rel to Sagara Mahattinamatha)	Upparageri 1632-- need translation??? Jois: 74???
96	1640	Virabhadra	CP	Tirthahalli (rel to Tirtharajapura temples)	EC 8: Tirthahalli 3 ECN 13: Tirthahalli 156 Jois: 96
97	1641	Virabhadra	CP	Haromuchchadi, Soraba Tk (rel to Kovade village and Achyuteshwara temple there)	MAR 1944: 47 Jois: 97
98	1641	Virabhadra	CP	Kavaledurga (rel to Bechahali)	EC 8: Tirthahalli 88 ECN 13: Tirthahalli 99 Jois: 98
99	1641	Virabhadra	CP	Shimoga (rel to Triyambakeshwara agrahara)	EC 7: Shimoga 2 ECN 13: Shimoga 90 Jois: 90
100	1642	Virabhadra	CP	Kollur [see 94]	ARSIE 1927-28: 6 Jois: 100
101	1641	Virabhadra	CP	Tuduru (rel to Situru matha, villages of Ragodu, Talemaki, and Hosakopa)	EC 8: Tirthahalli 182 ECN 13: Tirthahalli 162 Jois: 101
102	1641	Virabhadra	CP	Malali (rel to Payisettikoppa (Bhadrapura) bought for Malali matha, sale of lands from various villages) [see 102]	EC 8: Tirthahalli 101 ECN 13: Tirthahalli 203 Jois: 102
103	1642	Virabhadra	CP	Kavaledurga (rel to mahattina matha at Bhadrapura [Malali Matha] of Kavaledurga) [see 102]	EC 8: Tirthahalli 49 ECN 13: Tirthahalli 60 Jois: 103
104	1641	Virabhadra	CP	Kavaledurga (rel to mahattina matha at Muduba)	EC 8: Tirthahalli 44 ECN 13: Tirthahalli 55 Jois: 104
105	1641	Virabhadra	CP	Kavaledurga (rel to matha at Maleya-Kudihera, various village lands)	EC 8: Tirthahalli 45 ECN 13: Tirthahalli 56 Jois: 105
106	1642	Virabhadra	CP	Kavaledurga (rel to Araga-pethe matha)	EC 8: Tirthahalli 42 ECN 13: Tirthahalli 53 Jois: 106

<u>EJB #</u>	<u>Year</u>	<u>Ruler(s)</u>	<u>Stone / CP</u>	<u>Location</u>	<u>References</u>
107	1642	Virabhadra	CP	Kavaledurga (rel to mahattina matha near Sangameshvara Tank)	EC 8: Tirthahalli 54 ECN 13: Tirthahalli 65 Jois: 107
108	1642	Virabhadra	CP	Kavaledurga (rel to Mahattina matha at Mandali)	ECN 13: Tirthahalli 42 MAR 1943: 37 Jois: 108
109	1643	Virabhadra	CP	Kollur (Mukambika Temple)	ARSIE 1927-28: 4 Jois: 109
110	1643	Virabhadra	CP	Kollur (Mukambika Temple)	ARSIE 1927-28: 3 Jois: 110
111	1642	Virabhadra	CP	Kavaledurga (rel to a matha built at Alur?)	EC 8: Tirthahalli 41 ECN 13: Tirthahalli 52 Jois: 111
112	1643	Virabhadra	CP	Udugani (rel to Channabasavadevara Matha, Mavinahalu village)	MAR 1927: 154 Jois: 112
113	1645	Virabhadra	CP	Kavaledurga (rel to mahattina matha at Hulikallu)	EC 8: Tirthahalli 40 ECN 13: Tirthahalli 51 Jois: 113
115	1642	Virabhadra	CP	Keladi (rel to Malave)	ECN 15: Sagara 77 MAR 1928: 62 Jois: 115
132	1621	Venkatappa	S	Bharangi	EC 8: Sagara 54 ECN 15: Sagara 157 Jois: 132
292	1570	Ramaraja (under Sadashiva)	S	Ambalapadi, Udupi Dt	ICHR IVR II:888 NO JOIS REF

## **APPENDIX B: KINZS FIELD FORMS, 2007-9**

This appendix includes templates for the field forms used by the Keladi-Ikkeri Nayaka Survey (KINZS) archaeological survey project, 2007-9. These forms were used for recording data in the field as required (not all forms were used for each site). They are included for reference to the attributes documented during fieldwork. The forms are: site survey record (pp. xxx-xxx), feature form (pp. xxx-xxx), and laterite recording form (pp. xxx-xxx).

**KELADI-IKKERI NAYAKA ZONE SURVEY (KINZS)**  
**SITE SURVEY RECORD**

Site Number: KIN- \_\_\_\_\_ Site Type: \_\_\_\_\_  
KEL or IKK Map Reference: \_\_\_\_\_ Transect number: \_\_\_\_\_ Sample Transect: Y N  
Date(s) of work (list crew): \_\_\_\_\_

GPS Location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Photos: B/W roll: \_\_\_\_\_ frame: \_\_\_\_\_ descr: \_\_\_\_\_  
frame: \_\_\_\_\_ descr: \_\_\_\_\_  
frame: \_\_\_\_\_ descr: \_\_\_\_\_  
frame: \_\_\_\_\_ descr: \_\_\_\_\_

Color card: \_\_\_\_\_ no frames \_\_\_\_\_  
description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Drawing: Y N Map: Y N Features: Y N Forms attached: Y N Total pp: \_\_\_\_\_

**Natural Setting**

<u>Topography</u>	<u>Slope</u>	<u>Special Resources</u>
1. alluvium/colluvium	1. very gentle (0-5°)	1. clay
2. flat	2. gentle (5-10°)	2. CaCO <sub>3</sub>
3. slope	3. moderate (10-15°)	3. ores (specify _____)
4. hill-top	5. steep (>15°)	4. other : _____
5. bedrock		
6. outcrop		
7. other: _____		

Munsell: \_\_\_\_\_

Texture: \_\_\_\_\_

Present Land Use:

1. Cultivated \_\_\_\_\_ %, fallow \_\_\_\_\_ %, uncultivated \_\_\_\_\_ %  
2. Vegetation: thorny-scrub \_\_\_\_\_, grasses \_\_\_\_\_, trees \_\_\_\_\_, bamboo \_\_\_\_\_, 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 \_\_\_\_\_
- 9. unknown

4. Artifacts: Present or Absent

If present, circle appropriate class(es):

earthenware ceramics    architectural ceramics    porcelain    lithics    coin(s)  
groundstone    flaked stone    Other: \_\_\_\_\_

5. Artifact scatter (description): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Density:	none	sparse	moderate	heavy	very heavy
(sherds/m <sup>2</sup> )	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): \_\_\_\_\_  
\_\_\_\_\_





**Sketch Map:** Sketch a plan of the site; if you are making a map use this space as way to plan your detailed scale drawing. Illustrate artifact distribution, collection areas, features, and architecture as well as the context in which the site is situated. Include general setting and modern cultural features and landmarks. Include a north arrow and a key to any symbols used.



**KELADI-IKKERI NAYAKA ZONE SURVEY (KINZS) FEATURE FORM**

Site Number: KIN-\_\_\_\_\_ Feature: \_\_\_\_\_ Type: \_\_\_\_\_

KEL or IKK Map Reference: \_\_\_\_\_ Transect number: \_\_\_\_\_ Sample Transect: Y N

Relation of Feature to Site:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Location within site (by quarter): \_\_\_\_\_

GPS Location \_\_\_\_\_ N \_\_\_\_\_ E \_\_\_\_\_

\_\_\_\_\_ N \_\_\_\_\_ E \_\_\_\_\_

\_\_\_\_\_ N \_\_\_\_\_ E \_\_\_\_\_

\_\_\_\_\_ N \_\_\_\_\_ E \_\_\_\_\_

Dateable elements: Y N If yes, describe: \_\_\_\_\_

\_\_\_\_\_

Feature map: Y N Feature Sketch: Y N More forms about this feature? Y N

If yes, how many? \_\_\_\_\_ Are there other features? Y N \_\_\_\_\_

Photos: B/W roll \_\_\_\_\_ frames \_\_\_\_\_

Digital card \_\_\_\_\_ frames \_\_\_\_\_

\_\_\_\_\_

Describe Feature (include architecture, artifacts, setting and modification or disturbance):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Initials \_\_\_\_\_ Survey Team \_\_\_\_\_ Date \_\_\_\_\_

page 1 of \_\_\_\_\_ (add additional description pages if necessary)

**KELADI-IKKERI NAYAKA ZONE SURVEY (KINZS)  
LATERITE RECORDING FORM**

Site Number: KIN-\_\_\_\_\_ Feature Number:\_\_\_\_\_ Laterite No: LAT-\_\_\_\_\_

Date:\_\_\_\_\_ Laterite Type:\_\_\_\_\_

KEL or IKK Map Reference:\_\_\_\_\_ Transect number:\_\_\_\_\_ Sample Transect: Y N

Laterite component of site: BLOCKS COBBLES PARENT MATERIAL OTHER

Other:\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Location within site (by quarter):\_\_\_\_\_

GPS Location	_____	N	_____	E	_____
(if additional is	_____	N	_____	E	_____
necessary)	_____	N	_____	E	_____
	_____	N	_____	E	_____

Laterite map: Y N Laterite Sketch: Y N

Photos: B/W	roll_____	frame_____	descr_____
	roll_____	frame_____	descr_____
	roll_____	frame_____	descr_____
Color	no frames_____		
	description _____		

Mode #1: BLOCKS COBBLES PARENT MATERIAL OTHER  
Size/Extent:\_\_\_\_\_

Munsell(s):\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Texture/Porosity: PISOLITHIC VERMIFORM Describe:\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mode #2:      BLOCKS      COBBLES      PARENT MATERIAL      OTHER

Size/Extent: \_\_\_\_\_

Munsell(s): \_\_\_\_\_

Texture/Porosity:    PISOLITHIC    VERMIFORM    Describe: \_\_\_\_\_

Mode #3:      BLOCKS      COBBLES      PARENT MATERIAL      OTHER

Size/Extent: \_\_\_\_\_

Munsell(s): \_\_\_\_\_

Texture/Porosity:    PISOLITHIC    VERMIFORM    Describe: \_\_\_\_\_

Discuss laterite usage at the site: (include architecture, artifacts, setting and modification or disturbance):

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Initials \_\_\_\_\_      Survey Team \_\_\_\_\_      Date \_\_\_\_\_

### APPENDIX C: KINZS SITE INVENTORY

The table (C.1) below contains a record in numerical designation order of all sites recorded by KINZS, 2007-9. The KIN-F number contains primary site designation followed by any contained feature(s), if any. Area is specified as either Keladi or Ikkeri. Block and transect are the geographical location within survey block and its transect subdivisions. Site components are listed by major category with specific type in parentheses. Sites are described by formal name or colloquial description. Artifacts are listed as collected or not; for details on artifacts collection, refer to Appendix D.

Table C.1: KINZS Site Inventory, 2007-9

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
1	Ikkeri	M4, N1, R4, S1	Fortification (Fort)	Ikkeri Fort	Y
1-F1	Ikkeri	R4	Palace Complex Water Management (Tank)  Laterite Construction (Duct) Carved Stones (7)	Palace Complex (Queen's Bath Compound) Tank (large, square, laterite block & stone lined, cut into laterite parent material) Duct 7 Architectural Elements (1 zoomorphic drain spout, 6 rigging stones)	Y
1-F2	Ikkeri	N1	Fortification (Gate)	North Gate of Ikkeri Fort	N
1-F3	Ikkeri	R4	Fortification (Gate)	South Gate of Ikkeri Fort	Y
1-F5	Ikkeri	R4	Carved Stones (2)	Naga Stones (2)	N
1-F7	Ikkeri	R4	Fortification (Bastion)	Southwest Bastion	Y
1-F8	Ikkeri	N1	Fortification (Bastion) Carved Stones (13)	Northeast Bastion 1 Sculpture Base, 12 Architectural Elements (1 Doorway Cap w/ Floral & Ganesh Motifs, 1 Carved Edge Building Element, 4 Doorway Side Fragments, 6 Indeterminate)	N

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
2	Keladi	N1	Religious Architecture (Temple Complex)	Rameshvara Temple Complex	Y
3	Ikkeri	N4	Religious Architecture (Temple Complex)	Aghoreshvara Temple Complex	N
4	Keladi	N1-4, H2-4, J1, O1	Water Management (Reservoir)	Reservoir (Hire Kere)	Y
4-F1	Keladi	N2	Water Management (Sluice Gate)	Sluice Gate (South)	N
4-F2	Keladi	N1	Water Management (Sluice Gate)	Sluice Gate (Center)	N
4-F3	Keladi	N1	Water Management (Sluice Gate)	Sluice Gate (North)	N
4-F4	Keladi	N2	Carved Stone (1)	Icon (Chaudamma, in modern shrine)	N
5	Ikkeri	P4	Carved Laterite	Laterite Monolith	N
6	Ikkeri	P4	Carved Stone	Linga Stone	N
9	Ikkeri	O1	Carved Stone	Inscription Stone	Y
10	Ikkeri	O4, P1, T4, U1	Water Management (Reservoir)	Reservoir (Chipli Kere)	N
10-F1	Ikkeri	O4	Laterite Construction (Platform) Carved Stones (4)	Platform 4 Naga Stones	N
11	Ikkeri	T3	Water Management (Reservoir) Carved Stones (3)	Reservoir (Yogeshvara or Devasthanana Kere) 2 Colonial Period Markers (rectangles with angled corners, labeled "1" and "2"), 1 Water Management Stone (curved sluice gate stone, probably modern)	N
12	Ikkeri	T3, Y3	Water Management (Reservoir) Carved Stone	Reservoir (Bangaramma Kere) 1 Naga Stone	N
13	Ikkeri	T4	Structure Mounds	Structure Mounds	Y
14	Ikkeri	Y1	Fortification (Watchtower)	Watchtower (foundation on hilltop location) with circular perimeter	Y
15	Ikkeri	T1	Laterite Construction (Platform)	Platform	N
16	Ikkeri	T4	Artifact Collection	Artifact Collection	Y
17	Ikkeri	U1	Religious Architecture (Temple Complex)	Virabhadra Temple Complex (laterite)	N
18	Ikkeri	O4	Religious Architecture (Temple Complex)	Gopalakrishna Temple Complex (laterite, ca. 1653)	N
19	Ikkeri	U1	Carved Laterite	Other (architectural element, likely drain spout)	N
20	Ikkeri	T3	Water Management (Tank) Carved Stone	Tank (small, square, laterite block, stepped) Devotee Stone	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
21	Ikkeri	J1	Carved Stone	Linga Stone	Y
22	Ikkeri	T3	Religious Architecture (Temple Complex)	Lakshmi Narayana Temple Complex (laterite)	N
23	Ikkeri	J1	Carved Stone	Sculpture Base	N
24	Ikkeri	T3	Water Management (3 Tanks) Carved Stones (2)	Tanks (3 small, square, laterite block, stepped) / 2 Naga Stones	Y
25	Ikkeri	T4	Structure Mounds	Structure Mounds	N
26	Ikkeri	T3	Laterite Construction (Wall) Carved Stones (7)	Wall 7 Naga Stones	Y
27	Ikkeri	T3	Carved Stones (3)	3 Naga Stones	N
28	Ikkeri	T3	Water Management (Well)	Well	N
29	Ikkeri	[evaluate ]	Occupation Area	Continuous Area of Occupation	Y
29-F1	Ikkeri	J1	Structure Mounds	Structure Mounds	N
30	Ikkeri	N4	Carved Stone	Architectural Element (Basement Fragment with elephant relief register)	Y
31	Ikkeri	J1	Carved Stone	Naga Stone	N
32	Ikkeri	J1	Carved Stones (3)	3 Naga Stones	N
33	Ikkeri	O1	Carved Stone	Icon (Goddess, broken)	N
34	Ikkeri	J1	Carved Stone	Naga Stone	N
35	Ikkeri	O2	Structure Mounds Water Management (2 Wells)	Structure Mounds Wells	Y
36	Ikkeri	O3	Carved Stones (4)	3 Naga Stones, 1 Sati Stone	N
37	Ikkeri	O4	Laterite Construction (Platform) Carved Stones (3)	Platform 3 Naga Stones	N
38	Ikkeri	O4	Carved Stone	Naga Stone	N
39	Ikkeri	O4	Carved Stone	Naga Stone	N
40	Ikkeri	N4, O1	Fortification (Fort)	Fort (Hilltop)	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
40-F1	Ikkeri	O1	Structure Mounds Laterite Construction (Subterranean Entrance)	Structure Mounds Subterranean Entrance	N
40-F2	Ikkeri	O1	Other—Quarry	Quarry (laterite)	N
41	Ikkeri	O1	Carved Stone	Linga Stone	Y
42	Ikkeri	H4	Artifact Collection	Artifact Collection	Y
43	Ikkeri	O3	Laterite Construction (Platform) Carved Stones (2)	Platform 2 Naga Stones	N
44	Ikkeri	O1, N4	Water Management (Reservoir)	Reservoir (Sule Kere)	N
45	Ikkeri	O3	Carved Stone	Naga Stone	N
46	Ikkeri	O2	Carved Stones (10)	10 Naga Stones	N
47	Ikkeri	O3	Artifact Collection	Artifact Collection	Y
48	Ikkeri	O2	Carved Laterite	Laterite Monolith	Y
49	Ikkeri	N4	Laterite Construction (Platform) Carved Stones (8)	Platform 8 Naga Stones	Y
50	Ikkeri	N4	Artifact Collection	Artifact Collection	Y
51	Ikkeri	N4	Artifact Collection	Artifact Collection	Y
52	Ikkeri	N3	Artifact Collection	Artifact Collection	Y
53	Ikkeri	N3	Carved Stones (4)	4 Architectural Elements (reused in modern Mahaganapati Temple)	N
54	Ikkeri	N3	Artifact Collection	Artifact Collection	Y
55	Ikkeri	N4	Carved Stones (4)	2 Naga Stones, 1 Architectural Element (column base), 1 Other (production blank in process)	N
56	Ikkeri	N4	Laterite Construction (Platform)	Platform	N
57	Ikkeri	N4	Carved Stones (2)	1 Naga Stone, 1 Linga Stone	N
58	Ikkeri	N4	Laterite Construction (Platform) Carved Stones (3)	Platform 3 Naga Stones	N
59	Ikkeri	N3	Carved Stone	Architectural Element (Pillar)	Y
60	Ikkeri	N4	Carved Stone	Container (Rectangular Basin)	N

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
61	Ikkeri	N3	Carved Stones (2)	2 Architectural Elements (Basement Elements)	Y
62	Ikkeri	N3	Laterite Construction (Platform) Carved Stone	Platform Naga Stone	N
63	Ikkeri	N3	Carved Stone	Linga Stone	Y
64	Ikkeri	N2	Carved Stones (2)	2 Naga Stones	Y
65	Ikkeri	N1	Water Management (Reservoir)	Reservoir (Uppara Kere)	N
66	Ikkeri	N1	Carved Stones (3)	3 Naga Stones	N
67	Ikkeri	M4	Artifact Collection	Artifact Collection	Y
68	Ikkeri	N1	Artifact Collection	Artifact Collection	Y
69	Ikkeri	N1	Carved Stone	Linga Stone	Y
70	Ikkeri	N2	Carved Stones (2)	2 Linga Stones	N
71	Ikkeri	N1	Carved Stone	Linga Stone	Y
72	Ikkeri	N1	Carved Stone	Linga Stone	N
73	Ikkeri	N1	Carved Stone	Naga Stone (fragment)	N
74	Ikkeri	H4	Carved Stones (3)	3 Naga Stones (in modern shrine)	N
75	Ikkeri	N1	Carved Stones (2)	2 Naga Stones	Y
76	Ikkeri	N2	Artifact Collection	Artifact Collection	Y
77	Ikkeri	N2	Carved Stones (2)	2 Naga Stones	Y
78	Ikkeri	N1	Carved Stones (4)	4 Naga Stones	N
79	Ikkeri	Z2	Carved Stone	Sati Stone	Y
80	Ikkeri	K2	Carved Stone	Sati Stone	N
81	Ikkeri	U3	Carved Stone	Sati Stone	N
82	Ikkeri	U3	Carved Stone	Hero Stone	N
83	Ikkeri	Z3	Carved Stone	Sati Stone	N
84	Ikkeri	N2	Carved Stone	Other (broken stone with two figures)	Y
85	Ikkeri	N2	Carved Stone	Naga Stone	N
86	Ikkeri	N2	Artifact Collection	Artifact Collection	Y
87	Ikkeri	S3	Carved Stones (7)	5 Naga Stones, 2 Devotee Stones	N



<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
88	Ikkeri	S3-4	Water Management (Reservoir) Carved Stones (4)	Reservoir (Melinamane Kere) 4 Colonial Period Markers	N
88-F1	Ikkeri	S3	Laterite Constructions (2 Platforms) Carved Stone	2 Platforms 1 Naga Stone	N
89	Ikkeri	S3-4	Water Management (Reservoir)	Reservoir (Golikoppa Kere)	N
90	Ikkeri	S2	Laterite Construction (Platform) Carved Stone	Platform Naga Stone	N
91	Ikkeri	S2	Structure Mounds	Structure Mounds	Y
91-F1	Ikkeri	S2	Carved Stones (6)	6 Naga Stones	N
92	Ikkeri	N2	Structure Mounds	Structure Mounds	Y
93	Ikkeri	N2	Laterite Construction (Platform) Carved Stones (2)	Platform 2 Naga Stones	Y
94	Ikkeri	S2	Water Management (Reservoir)	Reservoir (Sulamane Kere, old name = Sulaminamane Kere)	N
95	Ikkeri	N2	Water Management (Duct)	Duct (Laterite Block Lined)	N
96	Ikkeri	S2	Carved Stone	Linga Stone (with inscription)	N
97	Ikkeri	S4	Laterite Construction (2 Platforms) Carved Stones (4)	2 Platforms 3 Naga Stones, 1 Icon (eroded)	Y
98	Ikkeri	S4	Water Management (Reservoir) Carved Stones (9)	Reservoir (Hosuru Devasthanana Kere) 7 Architectural Elements (carved slabs on reservoir bund), 2 Colonial Period Markers	N
98-F1	Ikkeri	S4	Laterite Construction (Platform)	Platform	Y
99	Ikkeri	S4	Religious Architecture (Temple Complex)  Water Management (Well) Laterite Constructions (3 Walls) Carved Stones (5)	Temple Complex (Mandalamane Vinayaka Devasthanana) Well 3 Walls 3 Architectural Elements (2 Bannisters, 1 Drainspout), 1 Container (medium rectangle), 1 Linga Stone	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
100	Keladi	X2	Water Management (Tank) Laterite Constructions (2 Platforms)	Tank (complex shape, laterite block lined) 2 Platforms (Circular)	Y
101	Keladi	X2	Carved Stone	Linga Stone	N
102	Keladi	M4	Religious Architecture (3 Temples) Carved Stones (3)	3 Temples 1 Architectural Element (column base), 2 Other (1 Pillar and Niche, 1 Indeterminate with figure carving)	Y
104	Keladi	X1	Carved Stone	Naga Stone	N
105	Keladi	R4	Carved Stones (2)	1 Naga Stone (1), 1 Other (eroded, with one figure)	N
106	Keladi	M4, R4	Water Management (Tank)	Tank (Sampattina Kere)	N
107	Keladi	M4	Laterite Construction (Platform)	Platform	Y
108	Keladi	R4	Religious Architecture (Temple) Carved Stones (5)	Temple 1 Icon, 1 Sculpture Base, 1 Hero Stone (fragment), 2 Other (1 carved stone face, 1 bird head fragment)	N
109	Keladi	R4	Structure Mounds Religious Architecture (Temple) Water Management (Well) Carved Laterite Carved Stone	Structure Mounds Temple (Virashaivite, Akki Pete Matha) Well Carved Laterite (Column Base) Carved Stone Icon (Basava)	Y
110	Keladi	N1	Carved Stones (4)	1 Naga Stone, 3 Sati Stones (1 with inscription, all grown into tree shrine)	N
111	Keladi	N1	Carved Stone	Sati Stone	Y
112	Keladi	N1	Carved Stone	Sati Stone (with inscription)	Y
114	Keladi	S4	Water Management (Reservoir)	Reservoir (Hote Kere)	N
114-F1	Keladi	S4	Carved Stones (3)	3 Naga Stones	N
115	Keladi	S3	Carved Stone	Naga Stone	N
120	Keladi	S3	Carved Stones (2)	1 Linga Stone, 1 Hero Stone	N
122	Keladi	M1	Artifact Collection	Artifact Collection	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
123	Keladi	N1	Religious Architecture (Temple Complex) Water Management (Well) Carved Stones (21)	Temple Complex (Jain Basti, laterite) Well 17 Naga Stones, 1 Linga Stone, 3 Other (1Tirthankara Stone, 1 Stone Finial, 1 Stone Dome)	Y
124	Keladi	R4	Water Management (Tank)	Tank (complex, laterite block lined; Tottilu Bavi, or Cradle Well)	N
125	Keladi	N1	Carved Stone	Naga Stone	N
126	Keladi	N1	Carved Stones (2)	2 Naga Stones	N
127	Keladi	N1	Carved Stone	Linga Stone	N
128	Keladi	M2	Carved Stone	Linga Stone (eroded)	N
129	Keladi	R4	Carved Stone	Hero Stone	N
130	Keladi	R4	Religious Architecture (Temple) Carved Stones (2)	Temple (modern Gopalakrishna) 1 Devotee Stone, 1 Sculpture Base (with drain spout)	N
131	Ikkeri	N3	Structure Mounds Carved Stones (5)	Structure Mounds 4 Architectural Elements, 1 Sculpture Base	Y
132	Ikkeri	N2	Carved Stone	Naga Stone	N
133	Ikkeri	N2	Carved Stone	Icon (Basava)	Y
134	Ikkeri	N2	Structure Mound Laterite Construction (Wall)	Structure Mound Wall	Y
135	Ikkeri	N2	Carved Stones (5)	4 Naga Stones, 1 Linga Stone	N
136	Ikkeri	H3	Carved Stone	Hero Stone	N
137	Ikkeri	H3	Water Management (Water Channel)	Water Channel (Doni Bagilu)	N
138	Ikkeri	J2	Carved Laterite	Laterite Monolith	Y
139	Ikkeri	N3	Religious Architecture (Temple) Carved Stone	Temple (Hanuman) Sculpture Base (with drain spout)	N
140	Ikkeri	N2	Carved Stone	Naga Stone	N
141	Ikkeri	N3	Carved Stones (12)	12 Naga Stones	N

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
142	Ikkeri	N3	Religious Architecture (Temple Complex) Laterite Constructions (2 Squares) Carved Stones (9)	Temple Complex (Kalikamba) 2 Squares (1 solid, 1 border) 1 Linga Stone, 1 Naga Stone, 1 Icon (Kalikamba), 1 Sculpture Base, 5 Architectural Elements (2 bannisters, 1 gate fragment, 1 drain segment, 1 indeterminate)	N
143	Ikkeri	N4	Religious Architecture (Temple) Carved Stones (2)	Temple (Virashaivite Basava) 2 Icons (1 Basava, 1 Unidentified)	Y
144	Ikkeri	N4	Water Management (Reservoir, Sluice Gate) Carved Stones (68)	Reservoir (Gange Kere), Sluice Gate  67 Architectural Elements (carved slabs on bund), 1 Naga Stone	Y
144-F1	Ikkeri	N4	Laterite Construction (Platform) Carved Stones (2)	Platform (at center of reservoir bund) 2 Architectural Elements (gate fragments)	N
145	Ikkeri	N2-3, H3	Water Management (Reservoir, Sluice Gate) Carved Stone	Reservoir (Bale Kere or Gauri Kere), Sluice Gate 1 Architectural Element (indeterminate)	N
145-F1	Ikkeri	N3	Laterite Construction (Platform)	Platform (at NE Corner of Reservoir)	N
146	Ikkeri	N4	Carved Stones (20)	18 Naga Stones, 1 Architectural Element (gate fragment), 1 Linga Stone (eroded), 1 Other (eroded, possible gate fragment)	N
147	Ikkeri	H2	Other – Large-Scale Production Area	4 Large Grinding Stones, Capstones/fragments	N
148	Ikkeri	H2	Carved Stone	Naga Stone	N
149	Ikkeri	N3	Carved Stone	Icon (female, fragment)	N
150	Ikkeri	N3	Water Management (Tank)	Tank (small, rectangular, laterite block lined, stepped)	Y
151	Ikkeri	N3	Structure Mounds Laterite Constructions (Walls) Carved Stones (6)	Structure Mounds Walls 2 Architectural Elements, 4 Naga Stones	Y
152	Ikkeri	N3	Artifact Collection	Artifact Collection	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
153	Ikkeri	N4	Artifact Collection	Artifact Collection	Y
154	Ikkeri	M4	Carved Stone	Linga Stone	N
155	Ikkeri	M4	Carved Stone	Linga Stone	N
156	Ikkeri	N1	Carved Stones (4)	3 Linga Stones, 1 Naga Stone	N
157	Ikkeri	N1	Carved Stones (4)	3 Linga Stones, 1 Naga Stone (fragment)	Y
158	Ikkeri	N1	Religious Architecture (Temple) Structure Mound Carved Stones (2)	Basava Temple Structure Mound 1 Icon (Basava), 1 Sculpture Base	N
159	Ikkeri	N1	Carved Stone	Linga Stone	Y
160	Ikkeri	N1	Carved Stone	Linga Stone	Y
161	Ikkeri	N1	Laterite Construction (Platform)	Platform	N
162	Ikkeri	N1	Carved Stone	Linga Stone	N
163	Ikkeri	N3	Artifact Collection	Artifact Collection (diagnostic sweep)	Y
164	Ikkeri	N4	Artifact Collection	Artifact Collection (diagnostic sweep)	Y
165	Ikkeri	R4	Fortification (Watchtower)	Watchtower (platform, hilltop location) with perimeter line to the south	N
166	Ikkeri	R3	Carved Stones (2)	2 Naga Stones	N
167	Ikkeri	R3	Laterite Constructions (3 Platforms, 3 Walls) Carved Stones (7) Carved Laterite	3 Platforms , 3 Walls  7 Naga Stones 14 Round Column Segments, 1 Column Base	Y
168	Ikkeri	R3	Water Management (Reservoir, Sluice Gate)	Reservoir (Madjige Kere), Sluice Gate	N
169	Ikkeri	R3	Water Management (Tank)	Tank (small, square, laterite block lined, stepped)	N
170	Ikkeri	R3	Carved Stone	Naga Stone	N
171	Ikkeri	R3	Carved Stones (2)	2 Naga Stones	N
172	Ikkeri	M4	Carved Stones (2)	2 Architectural Elements (slabs with several finished sides)	Y

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
173	Ikkeri	Q4	Water Management (Reservoir) Carved Stone	Reservoir (Hulimane Chaudeshwari Kere) Colonial Period Marker (water level indicator)	N
173-F1	Ikkeri	Q4	Laterite Construction (Platform) Carved Stones (3)	Platform (compound shape) 3 Naga Stones	Y
174	Ikkeri	R3	Carved Stones (2)	2 Naga Stones (in modern shrine)	N
175	Ikkeri	R3	Structure Mounds Water Management (2 Wells) Carved Stones (3)	4 Structure Mounds 2 Wells 3 Naga Stones	Y
176	Ikkeri	R2	Structure Mound Laterite Construction (Platform)	Structure Mound Platform	N
177	Ikkeri	S2	Carved Stones (9)	8 Naga Stones, 1 Other (eroded)	N
178	Ikkeri	M1	Carved Stone	Architectural Element (eroded pillar)	Y
179	Ikkeri	M1	Carved Stone	Other (1 indeterminate figure)	N
180	Ikkeri	M2	Carved Stone	Naga Stone (modern)	N
181	Ikkeri	M4	Laterite Construction (Platform) Carved Stones (4)	Platform 4 Naga Stones	N
182	Ikkeri	M1	Religious Architecture (Temple) Laterite Construction (Wall) Other (Cave)	Temple Wall Cave	N
183	Ikkeri	M1	Carved Stones (3)	3 Naga Stones	N
184	Ikkeri	M1	Carved Stones (2)	1 Naga Stone, 1 Eroded Stone	N
185	Ikkeri	M1	Carved Stones (5)	4 Architectural Elements, 1 Icon (relief Hanuman), 1 Container (Small Planter)—verify	N
186	Ikkeri	M1	Laterite Construction (Platform)	Platform	Y
187	Ikkeri	N3	Carved Stone	Architectural Element (slab with 4 holes)	N
188	Ikkeri	J1	Water Management (Tank)	Tank (composite shape, laterite block and parent material lined, with arched niche carvings)	Y
189	Ikkeri	M3	Fortification	Fortification	Y
190	Ikkeri	N1	Carved Stone	Naga Stone	N

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
191	Ikkeri	M4	Artifact Collection	Artifact Collection	Y
192	Ikkeri	M1-2	Structure Mounds / Water Management (2 Wells)	Structure Mounds (4 house compounds) / 2 Wells	N
193	Ikkeri	G2	Water Management (Reservoir) / Carved Stones (3)	Reservoir (Lakmane Mattikoppa Kere) / 3 Colonial Period Markers	N
193-F1	Ikkeri	G2	Laterite Construction (Platform) Carved Stones (7)	Platform Naga Stones, 1 Other (pair of feet in relief)	N
194	Ikkeri	G2	Carved Laterite (4)	2 Laterite Monoliths, 2 Large Blocks	N
195	Ikkeri	H4	Carved Stone	Linga Stone	Y
196	Ikkeri	H4	Carved Stones (2)	2 Naga Stones	N
197	Ikkeri	H4	Carved Stone	Naga Stone	N
198	Ikkeri	J1	Carved Stones (10)	1 Sculpture Base, 3 Nagas, 6 Architectural Elements (1 Zoomorphic Drain Spout, 1 Central Ceiling Panel, 2 Elements with drainage channels, 1 Element with broken circular motif, 1 Element with relief carving)	N
199	Ikkeri	J1	Carved Stones (2)	2 Naga Stones	Y
200	Ikkeri	J1	Structure Mounds Carved Stones (36)	Structure Mounds 32 Naga Stones, 1 Icon (Goddess, broken), 1 Sculpture Base, 2 Architectural Elements (1 drainage spout, 1 unknown carved fragment)	N
201	Ikkeri	H1	Carved Stone	Linga Stone	Y
202	Ikkeri	H1	Carved Stone	Linga Stone	Y
203	Ikkeri	J1	Carved Stone	Linga Stone	Y
204	Ikkeri	J1	Artifact Collection	Artifact Collection	Y
205	Ikkeri	J1-2	Fortification	Fortification	N
206	Ikkeri	J4, K1	Water Management (Reservoir) Carved Stones (7)	Reservoir (Donnekenchina Kere or Government Tank) 6 Colonial Period Markers, 1 Icon (fertility goddess, broken)	N
207	Ikkeri	J4	Laterite Construction (Platform)	Platform	N

<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
208	Ikkeri	E1	Carved Stone	Naga Stone	N
209	Ikkeri	J4	Carved Stone	Hero Stone	N
210	Ikkeri	J1	Carved Stone	Naga Stone	N
211	Keladi	M2	Carved Stones (2)	2 Naga Stones	Y
212	Keladi	G2	Carved Stone	Linga Stone	N
213	Keladi	G1	Carved Stones (2)	2 Naga Stones	N
214	Keladi	O2	Structure Mounds	Structure Mounds	Y
215	Keladi	K1	Water Management (Reservoir)	Reservoir (Chaudi Kere)	Y
215-F1	Keladi	K1	Laterite Construction (3 Platforms) Carved Stone	3 Platforms (@ NE corner of Chaudi Kere Reservoir) Naga Stone	Y
216	Keladi	J1	Carved Stone	Naga Stone	Y
217	Keladi	J2	Laterite Construction (Platform)	Platform	N
218	Keladi	J3	Laterite Construction (Platform)	Platform	N
219	Keladi	J3	Carved Stone	Naga Stone	N
220	Keladi	J4	Laterite Construction (Platform) Carved Stones (2)	Platform 2 Naga Stones	N
221	Keladi	J2	Carved Stone	Naga Stone	N
222	Keladi	J3	Carved Stones (4)	4 Naga Stones	N
223	Keladi	O4	Carved Stone	Linga Stone (eroded)	N
224	Keladi	H1, J4	Water Management (Reservoir)	Reservoir (Bandagadde Kere)	N
225	Keladi	J3	Carved Stone	Naga Stone	N
226	Keladi	J2	Carved Laterite (2 Monoliths)	2 Laterite Monoliths	N
227	Keladi	J3	Carved Stones (3)	3 Sculpture Bases (2 in modern shrines)	N
228	Keladi	D1	Carved Laterite	Laterite Monolith	N
229	Keladi	D1	Carved Stone	Naga Stone	N
230	Keladi	J1	Laterite Construction (2 Platforms) Carved Stones (2)	2 Platforms 2 Naga Stones	N
231	Keladi	H4	Carved Stones (2)	1 Naga Stone, 1 Linga Stone	N
232	Keladi	H4	Carved Stones (6)	6 Naga Stones	N



<u>KIN-F</u>	<u>Area</u>	<u>Block/ Transect</u>	<u>Site Components</u>	<u>Site Description</u>	<u>Artifacts Collected</u>
233	Keladi	H4	Water Management (Well) Carved Stones (2)	Well 2 Architectural Elements (used as a stone well cap, 2 pcs)	N
234	Ikkeri	K1	Water Management (Water Channel) Laterite Construction (Wall) Carved Stones (3)	Water Management (Water Channel) Wall 1 Sluice Gate Capstone, 2 Sluice Gate Cross Pieces	N
235	Keladi	H1	Carved Stone	Naga Stone	N
236	Keladi	J1	Laterite Construction (Platform)	Platform	Y
237	Keladi	J1	Laterite Construction (3 Walls)	3 Walls	N
238	Keladi	M4	Religious Architecture (Temple Complex) Laterite Constructions (Platform, Wall) Carved Stones (12) Carved Laterite (16)	Temple Complex Platform, Wall 11 Naga Stones, 1 Eroded Stone 15 Round Column Segments, 1 Other-- probably sculpture base	Y
239	Keladi	M4	Carved Stone	Container (Large Rectangular Stone Basin)	N
241	Keladi	D1	Laterite Construction (Platform)	Platform (edge of silted in laterite platform, likely square)	N
242	Ikkeri	N4	Carved Stone	Container (small square)	N
243	Ikkeri	N4	Carved Stone	Architectural Element (indeterminate fragment)	N
244	Keladi	M4	Laterite Construction (Platform) Carved Stones (72)	Platform 71 Naga Stones, 1 Other (eroded with figure)	N

## **APPENDIX D: KINZS ARTIFACTS**

The Keladi-Ikkeri Nayaka landscape is a dynamic one in which activities of the present intersect daily with material culture of the past. In most cases, the archaeological record of the Nayaka Period is subservient to the exigencies of modern life. With the exception of ASI protected sites, both fixed and portable evidence of the past are affected by agricultural activities (such as cultivation and irrigation, terracing, ditch digging, deep plantings), road building and maintenance, construction and remodeling of buildings and compound walls, maintenance and renovation of tanks and reservoirs, removal of sediment for construction purposes, and other activities of daily life. Though many of these activities may be viewed as destroying the archaeological record, in some cases, they have also produced the only evidence of the Nayaka Period which is available to study. Due to local environmental conditions, Nayaka Period deposits, where stratigraphy could be observed, were documented up to two meters below surface level. In such cases, and without approved means of systematic subsurface testing, daily activities exposed artifacts from those contexts and made them available for collection. For this reason, the systematic principles of archaeological collection, which were built into the project methodology from its inception, were modified to suit conditions encountered in practice.

This appendix presents an inventory and analysis of artifacts collected during the Keladi-Ikkeri Nayaka Zone Survey (KINZS), 2007-2009. Artifacts were obtained through three means: collection, isolated find, and donation. Collected artifacts come from KIN site proveniences, which are either sites with multiple components or sites designated solely due to the presence of an artifact concentration (see chapter five for more on methodology). Once sites were designated according to project guidelines, artifacts were documented in situ and collected for further analysis. Isolated find artifacts are those which were located on survey and unassociated with an identifiable site context or association with other artifacts. Donations were also accepted from local residents who offered items they had collected, usually encountered during agricultural, construction, or drainage management activities on their own properties. Only items which were

of unusual or especially significant types were accepted and the original context of discovery was noted.

Broad classes of artifacts collected include earthenware ceramics, architectural ceramics, porcelain and glaze ware ceramics, ground stone artifacts. Beyond these major categories, other items were also recovered in smaller quantities and include coins, other metal artifacts, glass fragments, and one bone fragment; discussion of these items is not included in this analysis, either because analysis is ongoing (in the case of the coins) or because such items have not been deemed of past cultural relevance.

The remainder of this appendix is devoted to an inventory of collected artifacts by provenience, a note on ceramic artifacts, analysis of roof tiles, and an overview of ground stone artifacts.

## Artifact Inventory

The following table (D.1) catalogs all artifacts collected from recorded KIN sites and individual find locations, as well as items which were donated to the project by residents in the Keladi and Ikkeri survey areas. Types of artifacts include ceramic (C), ground stone (GS), and (O). Subtypes of ceramic artifacts include earthen ware (EW), roof tile (RT), brick (BR), porcelain (P), and glaze ware (GW); earthen ware includes all unglazed low fired fragments and wholes which cannot be definitively identified as roof tiles, and thus includes vessels (fine to very coarse), architectural ceramics, and other miscellaneous objects.

Table D.1: KINZS Artifact Catalog, 2007-9

Provenience	Type	Subtype(s)	Artifact	Bag
1/F1	C	RT	Roof Tiles (6)	84
	C	RT	Roof Tile	88
	C	BR	Brick	89
	C	RT	Roof Tiles	90
	C	EW	Large Rim Sherd	69
	GS	--	Ground Stone Ring	74
1/F2	C		1 bag ceramics: one large rim found on the footpath of the W side of the main gate, in interior of the fort	5
1/F3	C	RT	tiles from rear fort gate, all lg recent rts	85
1/F4	C		1 bag ceramics: roof tile frags, plus one brick, one plaster chunk. Suspect very late tiles, b/c flat curve and very rough production value.	4
	C		1 bag ceramics, 2 roof tile frags from rear gate to fort, 2 pcs rt	73
1/F7	C		1 bag ceramics, 2 rt frags	87
	C		ceramics from inside SW tower, 2 diags, rt mix	83
2	C		1 bag ceramics	78
	GS		Indeterminate Ground Stone	218
4	C		1 bag, 3 pcs possible iron ore (though one might be slag) from the SW edge of the Hirekere	34
	C		1 bag, ceramics, from SE edge of Hirekere, incl. roof tiles	35
9	C		ceramics	93

Provenience	Type	Subtype(s)	Artifact	Bag
	C		ceramics from N ditch	96
13	C		ceramics from profile	102
	C		ceramics from mound	103
	GS		Ground Stone Plate Fragment, rim	104
14	GS		Ground Stone Plate Fragment, rim	98
16	C		ceramics	100
	GS		Indeterminate Ground Stone	99
20	C		ceramics (modern?)	106
	C		modern coin, 5 rs, 1996, found while washing ceramics	119
21	C		ceramics from 1.4 x 1.4 collection, no diags	110
24	C		Ground Stone Vessel Fragment, rim	101
26	C		ceramics, 4 diags	105
29	GS		Indeterminate Ground Stone	108
	C		ceramics from profile -- 1 DIAG	109
30	C		ceramics from collection area	111
	C		coin	112
	C		1 bone fragment, found while washing ceramics	120
	GS		Indeterminate Ground Stone (pcs?)	121
	C		ceramics from sides of mound 1 -- NO DIAGS	115
35	C		ceramics from 2 x 2 on NE corner of mound-- NO DIAGS	116
40	C		ceramics from mounds 1, 2, 3-- 1 diag	117
41	C		ceramics from ditch, 3 x 1 m-- NO DIAGS	118
42	C		ceramics from 2x2 unit	186
	C		ceramics from diag sweep 1 of 2	187
	C		ceramics from diag sweep 2 of 2	188
	C		small vessel from diag sweep	189
	C		worked sherd from diag sweep	190
	GS		Indeterminate Ground Stone	191
	C		half deepa from diag sweep (friable, broken and delicate)	192
	GS		Indeterminate Ground Stone	195
47	C		ceramics from collection 1	124
	C		ceramics from collection 2	125
48	C		ceramics from shallow ditch N of mound, 1.2 x 1.2 m	126

Provenience	Type	Subtype(s)	Artifact	Bag
49	C		ceramics from under platform: W profile and western half of N profile, 12 roof tile frags	127
50	C		ceramics from N profile, 6 diags	128
	C		ceramics from E profile--1 DIAG	129
	C		ceramics from S profile, 5 diags	130
	C		ceramics from W profile -- 4 DIAGS	131
	C		glass from bag 131	220
51	GS		Indeterminate Ground Stone	132
	C		ceramics 1 of 2	133
	C		ceramics 2 of 2	134
52	C		ceramics	135
54	C		ceramics from profile collection -- 3 or 4 DIAGS	136
	C		diagnostic sweep	137
	GS		Ground Stone Plate Fragment, rim	143
59	C		ceramics from collection area, 1 diag	139
61	C		ceramics from 1.5 x 1.5, no diags	140
63	C		ceramics from 1.5 x. 1.5 around stone, 2 pcs: 1 ew, 1 rt	141
64	C		ceramics from 1 x 1, 1 diag	142
67	C		ceramics from collection area 1 of 2, 3 diags	144
	C		ceramics from collection area 2 of 2	145
	C		coin/sherd from ditch	146
	GS		Ground Stone Plate Fragment, body	221
68	C		ceramics from diag sweep	147
	C		ceramics from collection area	148
	C		porcelain from diag sweep	149
	GS		Ground Stone Pestle	150
	GS		Large Round Grinding Stone Fragment	151
	C		poss iron ore from diag sweep	152
	GS		Ground Stone Vessel Fragment, base	154
69	C		ceramics from profile, 1 diuag	156
71	C		ceramics from collection area, no diags	157
75	C		ceramics from 1x1 @ stone #1	158
	C		ceramics from 1x1 @ stone #2, 1 diag	159
76	C		ceramics from profile collection 8x1 m	160

Provenience	Type	Subtype(s)	Artifact	Bag
	C		ceramics from diag sweep	161
	C		glazeware from collection unit (2 pcs)	162
	C		copper tube from collection unit	163
	C		lithic flake from diag sweep (nice material)	164
	GS		Ground Stone Stylus Fragment	219
77	C		ceramics from 1x1 m collection unit @ naga stones, no diags	165
79	C		ceramics from collection area, 1 of 2	166
	C		ceramics from collection area, 2 of 2	167
	C		ceramic disc from collection area	168
84	C		ceramics from 1.2x1.2 m @ stone, 1 diag	169
86	C		ceramics from collection area, 1 of 2	170
	C		ceramics from collection area, 2 of 2	171
	C		porcelain rim from coll area	172
91	C		ceramics from mound 1	197
	C		ceramics from mound 2 (sw quad)	198
	C		diag ceramics from N face C1/C2 wall	199
	C		ceramics from cut in N face C1/C2 wall	200
92	C		slag from collection area, sample	173
	C		ceramics from ditch N of coll area, diag sweep	174
	C		ceramics from collection area, 3 diags mixed old and modern rts	175
	C		ceramics from NW compound mound, all ew no diags	176
	C		slag from NW compound mound, sample	177
93	C		3 sherds from platform/nagas, 1 diag	178
97	C		ceramics from collection	179
98/F1	C		ceramics from platform top collection area, mixed old/modern	180
	C		yellow glazeware frag from bag 180, probably modern	183
	C		modern glazeware tile frag from bag 180	217
99	C		arch ceramics/rims from diag sweep SW temple exterior, 1 rim and mixed rts	181
100	C		1 bag ceramics, from edge of tank	6
102	C		1 of 3 bags ceramics, general, central site	13
	C		2 of 3 bags ceramics, general, central site, 1 diag., mix modern and flat roof tiles	14
	C		3 of 3 bags ceramics, general, central site, 6 diags	15

Provenience	Type	Subtype(s)	Artifact	Bag
	C		1 bag ceramics, S ditch	17
	C		1 bag ceramics, N ditch	18
	C		1 bag ceramics, E disturbance.	19
	C		porcelain from bag 18, ceramics from N ditch, poss modern?	153
103	C		1 bag square metal buckle	9
	C		1 bag w/ black tubular artifact, collected inside field enclosure	10
	C		1 bag ceramics, collected inside field enclosure, 2 diags, modern rts and cement	11
	C		1 bag ceramics, mounds at edge of tank, 5 rims)	12
107	C		1 of 3 bags, N. profile/ditch	20
	C		2 of 3 bags, profile/ditch	21
	C		3 of 3 bags, profile/ditch, 2 rims	22
	C		1 bag ceramics, center of road, lots modern and cement	23
	C		1 bag ceramics from S profile/ditch	24
109	C		1 bag ceramics, W ditch	48
	C		1 bag ceramics, NW ditch	49
	GS		Indeterminate Ground Stone	50
111	C		1 bag ceramics, 3 rims	38
112	C		1 bag ceramics, from E profile of ditch, 1 diag all ew	39
	C		1 bag ceramics, from behind stone, 4 diags	40
	C		1 bag ceramics, from W profile of ditch	41
	GS		Ground Stone Lamp	42
	C		worked sherd from bag 41	222
118	C		1 bag ceramics, from edge of well, no diags, modern rts	32
122	C		1 bag ceramics, diagnostic sweep	51
	C		1 bag ceramics, T1/3, 3 diags	52
	C		1 bag ceramics, T2/3, 2 diags all ew	53
	C		1 bag ceramics, T2/5, 5 diags all ew	54
	C		1 bag ceramics, T3/3, 2 diags, all ew	55
	C		1 bag ceramics, T3/4, no diags, all ew	56
	C		1 bag ceramics, T4/2, 1 diag all ew	57
	C		1 bag ceramics, T4/3, 3 diags all ew	58
	C		1 bag ceramics, T4/4, 1 diag	59
	C		1 bag ceramics, T5/2, no diags all ew	60



Provenience	Type	Subtype(s)	Artifact	Bag
123	C		1 bag ceramics, SE entry wall/lg structure, 25 diags	43
	C		1 bag ceramics, NE wall fragment	44
	C		1 bag ceramics, NE entry wall	45
	GS		Ground Stone Stylus Fragment	46
	C		1 glass bangle fragment, from NE wall mound collection area	47
131	C		ceramics, 1 diag	82
133	C		1 bag ceramics, one roof tile frag, no diags	62
134	C		brick sample from s top str mound	182
	C		1 bag ceramics, 1 of 2, several lg rims	79
	C		ceramics, 2 of 2, no diags	80
138	C		ceramics (all rts)	16
143	GS		Ground Stone Lamp	71
144	C		ceramics from collection area along NE side of reservoir, bag 1 of 2	94
	C		ceramics from collection area along NE side of reservoir, bag 2 of 2	95
	GS		Indeterminate Ground Stone	97
150	C		1 bag ceramics	67
	C		glazeware from ceramics bag 67, 2007	155
151	C		ceramics from 2 x 2 collection area	205
	C		ceramics from profile #1	206
	C		ceramics from profile #2	207
152	C		1 bag ceramics	68
153	C		1 bag ceramics	72
157	GS		Large Round Grinding Stone Fragment	75
	C		1 bag ceramics, 10 x 10 m collection area	76
159	C		ceramics, no diags	81
160	C		1 bag ceramics, 2x2 collection area, 3 diags mostly roof tiles	77
163	C		diagnostic sweep ceramics from Ikkeri road expansion	31
	C		Copper coin from diag sweep (very large)	70
164	C		diagnostic ceramics from road expansion	27
	C		diagnostic ceramics from borrow pit	28
	C		porcelain from diag sweep of road expansion	29
	C		water pipe from borrow pit diag sweep	30
167	C		ceramics from platform 2	193
	C		ceramics from platform 3	194

Provenience	Type	Subtype(s)	Artifact	Bag
172	C		ceramics from around stone 2	184
	C		mica sample from near stone 1	185
173/F1	C		porcelain base frag from SE corner platform	196
175	GS		Ground Stone Stylus	63
	GS		Indeterminate Ground Stone	64
	GS		Ground Stone Finial	65
	C		ceramics from mound 4	66
178	C		Ceramics	260
186	C		ceramics from platform top	211
	C		ceramics from 1m buffer around platform	212
188	C		porcelain from shallow channel inside tank	225
	C		porcelain from outside tank, NW corner	226
	C		ceramics from tank interior 1 of 3	227
	C		ceramics from tank interior 2 of 3	228
	C		ceramics from tank interior 3 of 3	229
	C		ceramics from outside tank 1 of 3	243
	C		ceramics from outside tank 2 of 3	244
	C		ceramics from outside tank 3 of 3	245
189	C		ceramics from fort interior (S portion)	208
	C		ceramics from lookout 2	209
191	C		ceramics from 5 x 5 collection area	210
	C		worked sherd from bag 210	216
195	C		ceramics from diag sweep 20 x 6 m	213
199	C		ceramics from 2 x 2 around stone	223
201	C		ceramics from 2 x 2 m around stone	259
202	C		ceramics from 2 x 2 m around stone	258
203	C		ceramics from 2 x 2 around stone	224
204	C		diag ceramics collected from nilgiris	246
	C		diag ceramics from pile 1 of 5	247
	C		diag ceramics from pile 2 of 5	248
	C		diag ceramics from pile 3 of 5	248
	C		diag ceramics from pile 4 of 5	250
	C		diag ceramics from pile 5 of 5	251
	GS		Ground Stone Plate Fragment, rim with point	252

Provenience	Type	Subtype(s)	Artifact	Bag
	GS		Ground Stone Vessel Fragments, body (3)	261
	GS		Ground Stone Plate Fragment, rim	281
	GS		Ground Stone Plate Fragment, rim	282
	GS		Ground Stone Vessel Fragment, rim	283
211	C		ceramics from 2 x 2 m around stone	268
214	C		ceramics from inside str mound	270
215	C		ceramics from tank catchment	279
216	C		rim from around stone	272
236	C		ceramics from platform	280
238	D		flat rt from plaza between temples	256
	C		flat rts from between shrines 3 and 4	274
	C		diag ceramics from W edge site	275
	C		diag ceramics from S temple complex	276
	C		coin, quarter anna, 1885? From shrine 4	277
240	C		Ground Stone Pestle	278
251/F1	C		ceramics from 2m buffer around platforms	271
DON 1	D		1 bag ceramics-- a complete spout rim. Donated by Kolluraiah (984453620), Ikkeri, road to fort, fork right, take first right, last house on right. Pipes found while digging a ditch outside of his house, plate and rim found in the woods nearby. No additional information available.	1
	D		1 bag water pipes-- 2 partial. Donated by Kolluraiah (984453620), Ikkeri, road to fort, fork right, take first right, last house on right. Pipes found while digging a ditch outside of his house, plate and rim found in the woods nearby. No additional information available.	2
	GS		Ground Stone Plate Fragment, rim with point	3
DON 2	D		1 bag of two coins. Donated by Raghavendra, Keladi. To get to his house from main road, turn left at Museum Annex, last house on right before the curve.	25
	GS		Ground Stone Plate Fragment, rim	26
DON 3	D		1 bag of 10 coins. Donated by Raghavendra, Keladi. To get to his house from main road, turn left at Museum Annex, last house on right before the curve.	37

Provenience	Type	Subtype(s)	Artifact	Bag
DON 5	D		coins from Kuriakutty and Marikose, Sagar Rd, Ikkeri, near church. 6 large and 23 small coins, incl. some square	113
DON 6	GS		Large Round Grinding Stone	138
DON 7	D		Ganesh idol ceramic fragment GPS	230
	D		lg unrestricted vessel frag	231
	D		sm restricted vessel	232
	GS		Large Round Grinding Stone with Turning Eyelet	233
	GS		Ground Stone Pestle	234
	GS		Ground Stone Pestle	235
	GS		Ground Stone Pestle	236
	GS		Ground Stone Pestle	237
	GS		Large Round Grinding Stone	238
	GS		Modified Cobble (Pivot)	239
	C		partial ceramic spout from property	240
	GS		Ground Stone Vessel Spout	253
	GS		Ground Stone Mano	254
	GS		Ground Stone Bead Blank	255
	GS		Indeterminate Ground Stone (3)	257
DON 8	C		lg rt sample from W side function hall	262
	GS		Ground Stone Finial	263
	C		ceramics (2 diags)	264
	C		diag ceramics from well backdirt	265
	O		iron knife LOAN	266
	GS		Decorative Medallion Fragment	273
IF 2	IF		3 sherds, don't know why I collected them! N 14 deg 12' 34.2", E 75 deg 01' 08.1", very eroded, one roof tile frag, one bad rim, one body sherd. from a field near Kanagala Kere, Hallibylu	7
IF 3	IF		one black on red body sherd, high fired clinky, black on outside, red on inside. Again, not sure why collected, but did. N 14 deg 12' 34.9", E 75 deg 01' 06.6" from a cane field near Kanagala Kere, Hallibylu	8
IF 4	IF		1 bag ceramics, including several small deepas, 3 diags; Keladi, from mounds in garbage area on W side of road, S edge of village	33
IF 5	IF		one coin; Keladi Road, between 107 and 110	36
IF 6	GS		Indeterminate	61

<b>Provenience</b>	<b>Type</b>	<b>Subtype(s)</b>	<b>Artifact</b>	<b>Bag</b>
IF 7	GS		Idly Plate Fragment, rim	91
IF 8	IF		coin from road in Ikkeri N4/O1 GPS	92
IF 9	IF		metal pulley, Lingadahalli, GPS 719	107
IF 10	IF		coin from road N of school in south O3	114
IF 11	GS		Large Round Grinding Stone Fragment	122
IF 12	GS		Large Round Grinding Stone Fragment with Turning Eyelet	123
IF 13	IF		roof tiles from pile in Ikkeri H4, GPS 9	86
IF 14	GS		Ground Stone Plate Fragment, rim	201
IF 15	IF		rim (lg restricted, unusual) IKK N3 GPS 99	202
IF 16	IF		rim (quarter of a lid) IKK N3 GPS 94	203
IF 17	IF		diag flat rt from KIN 102 GPS 93	204
IF 18	IF		porcelain frag IKK H4 GPS 186	214
IF 19	GS		Ground Stone Stylus Fragment	215
IF 20	GS		Ground Stone Adze	267
IF 21	IF		metal artifact from paddy	269
IF 22	IF		ceramic disc GPS 206	241
IF 23	GS		Large Round Grinding Stone with Turning Eyelet	242

## Ceramic Artifacts

The overwhelming majority of artifacts collected are earthenware vessel fragments and earthenware architectural fragments, and in many cases the body portions of these two categories are not readily distinguishable from each other. Ceramics were collected, washed, sorted into broad categories, counted, and weighed. Some diagnostic rims and large pieces have been drawn and analyzed in more detail; this analysis is ongoing and will be included in subsequent publication. A very small number of Chinese porcelain and East Asian glaze ware fragments were recovered. A few photos of ceramic artifacts are included below.

Figure D.1: Ceramic Ganesha Icon (DON 7; Bag 230)



Figure D.2: Ceramic Disc (IF 22; Bag 241)



Figure D.3: Earthenware Ceramic Vessel (DON 7)



Figure D.4: Porcelain Vessel Base, Interior (KIN 68; Bag 149)



Figure D.5: Porcelain Vessel Base, Exterior (KIN 68; Bag 149)





Figure D.6: Porcelain, from tank interior (KIN 188; Bag 225)



Figure D.7: Porcelain, from NW corner of tank exterior (KIN 188; Bag 226)



## Analysis of Roof Tiles

There are four types of roof tiles which were recovered in archaeological survey at Keladi and Ikkeri: two styles of flat, curved, and modern. Rajaram Hegde wrote, in the only published article on roof tile analysis in Karnataka (2000-01), that the types found at Keladi and Ikkeri were preceded by an even earlier type, “found in the archaeological sites of Karnataka are rectangular in shape with grooves marked by fingers in the outer face with two holes at the bottom, most probably to fasten them to rafters” and which ceased to be used by the third century C. E. (123); for purposes of clarity going forward, this style will be called Early Flat. The styles of flat roof tiles included in this analysis are in a tradition which follows Early Flat, and will be referred to as Flat I and Flat II. Flat I and II are of a tradition which goes from the Early Historic to Late Medieval Period, according to Hegde, “they are flat and one of the edges (obviously the bottom one) is bent a right or oblique angle. The other edge is treated variedly into a curve, triangle, and two or three petal like designs. The size varies from 5 cm to 17 cm in width and 1 to 1.7 cm in thickness. The length of most of the tiles is not available, since a very few are recovered fully. The available specimens show a range of 16-18 cm in their length. (123)” The ceramic “fabric,” presumably paste and temper, is characterized as coarse to medium. Some tiles have a very wide bend at the top, which I refer to as the hanging bracket, and these wide surfaces are stamped with rosette designs (123); none of these stamped tiles were recovered at Keladi or Ikkeri.

The earliest examples of these roof tiles are documented at Banavasi (Hegde 2000-01: 124). Uthara Suvrathan (2013) confirmed this in the Banavasi-Gudnapura Regional Survey (190-197). The latest examples cited by Hegde are Ikkeri, Bilgi, and Sonda, “which emerged as capitals of the Late Medieval local powers where tiles are found with temple or residential remains” (2000-01:124). Hedge does note that in addition, flat tiles are found in the palace enclosure at Ikkeri, likely a result of informal reconnaissance there. This is, in fact, confirmed by KINZS work, though the only tiles observed in situ at the Ikkeri Palace were those used as recycled material in construction of the arches of the sunken courtyard, or in its immediate environs. Earlier than this, Hegde only discusses flat roof tiles as being in temple contexts. Given the wide variety and number of locations at Keladi and Ikkeri where flat roof tiles were recovered it is likely that they were employed as roofing material for buildings other than solely

religious and royal purposes, such as residential or commercial structures, but the supporting data for this assertion does not exist at present. At any rate, the fact that roof tiles are not universally associated with structure mounding suggests that ceramic tiles were limited in their usage at Keladi and Ikkeri, perhaps for ideological reasons (such as limitation to temples), but likely for the simple economics of perishable materials being less costly.

Flat roof tiles are followed by curved roof tiles, which are produced by wheel throwing a long narrow cylinder and cutting it in half, or by a more crude press molding; both types seem to be present at Ikkeri. Hedge (2000-01) and Suvrathan (2013) also note curved roof tiles; like them, I also note colors ranging from brown to red to grey in the curved roof tiles, but I am not convinced this is a result of production or of seriation thereof. I believe similar results could be produced by burning in cultural contexts; this needs to be systematically investigated with material from controlled provenience, as do the flat roof tiles.

Table D.2: Roof Tile Styles Represented in Collected Artifacts

KELADI SURVEY AREA (13 locations)					
KIN/F	Site Components	Flat I	Flat II	Curved	Modern
123	Religious Architecture (Temple Complex) Water Management (Well) Carved Stones (21)	X	X	X	X
2	Religious Architecture (Temple Complex)		X		
112	Carved Stone		X		
122	Artifact Collection (Separate)		X		
109	Structure Mounds Religious Architecture (Temple) Water Management (Well) Carved Laterite Carved Stone		X	X	
238	Religious Architecture (Temple Complex) Laterite Constructions (Platform, Wall) Carved Stones (12) Carved Laterite (16)		X	X	
102	Religious Architecture (3 Temples) Carved Stones (3)		X	X	X
4	Water Management (Reservoir)			X	
107	Laterite Construction (Platform)			X	
100	Water Management (Tank) Laterite Constructions (2 Platforms)				X
215	Water Management (Reservoir)				X

215/F1	Laterite Constructions (3 Platforms) Carved Stone				X
236	Laterite Construction (Platform)				
Total Keladi Locations:		1	7	6	6
IKKERI SURVEY AREA (57 locations)					
KIN/F	Site Components	Flat I	Flat II	Curved	Modern
79	Carved Stone	X		X	
54	Artifact Collection (Separate)		X		
133	Carved Stone		X		
30	Carved Stone		X	X	
51	Artifact Collection (Separate)		X	X	
52	Artifact Collection (Separate)		X	X	
86	Artifact Collection (Separate)		X	X	
97	Laterite Constructions (2 Platforms) Carved Stones (4)		X	X	
134	Structure Mound Laterite Construction (Wall)		X	X	
150	Water Management (Tank)		X	X	
160	Carved Stone		X	X	
191	Artifact Collection (Separate)		X	X	
204	Artifact Collection (Separate)		X	X	
20	Water Management (Tank) Carved Stone		X		X
47	Artifact Collection (Separate)		X	X	X
98/F1	Laterite Construction (Platform)		X	X	X
99	Religious Architecture (Temple Complex) Water Management (Well) Laterite Constructions (3 Walls) Carved Stones (5)		X	X	X
144	Water Management (Reservoir, Sluice Gate) Carved Stones (68)		X	X	X
151	Structure Mounds Laterite Constructions (Walls) Carved Stones (6)		X	X	X
167	Laterite Constructions (3 Platforms, 3 Walls) Carved Laterite Carved Stones (7)		X	X	X
1/F3	Fortification (Gate)			X	
1/F7	Fortification (Watchtower)			X	
9	Carved Stone			X	
29/F1	Structure Mounds			X	
35	Structure Mounds Water Management (2 Wells)			X	
40/F1	Structure Mounds Laterite Construction (subterranean entrance)			X	
41	Carved Stone			X	
42	Artifact Collection (Separate)			X	
48	Carved Laterite			X	

49	Laterite Construction (Platform) Carved Stones (8)			X	
50	Artifact Collection (Separate)			X	
61	Carved Stones (2)			X	
64	Carved Stones (2)			X	
67	Artifact Collection (Separate)			X	
68	Artifact Collection (Separate)			X	
69	Carved Stone			X	
71	Carved Stone			X	
75	Carved Stones (2)			X	
76	Artifact Collection (Separate)			X	
77	Carved Stones (2)			X	
84	Carved Stone			X	
138	Carved Laterite			X	
152	Artifact Collection (Separate)			X	
153	Artifact Collection (Separate)			X	
157	Carved Stones (4)			X	
164	Artifact Collection (Separate)			X	
178	Carved Stone			X	
200	Structure Mounds Carved Stones (36)			X	
59	Carved Stone			X	X
188	Water Management (Tank)			X	X
195	Carved Stone			X	X
13	Structure Mounds			X	X
26	Carved Stones (7)			X	X
92	Structure Mounds				X
131	Structure Mounds Carved Stones (5)				X
175	Structure Mounds Water Management (2 Wells) Carved Stones (3)				X
186	Laterite Construction (Platform)				X
Total Ikkeri Locations:		1	19	50	16

## Ground Stone Artifacts

The KINZS survey collected xx ground stone artifacts from 34 proveniences: 23 sites, 5 donations, and 8 individual find spots. Ground stone artifacts collected and identified include: lamps, stylus fragments, pestles and manos, round grinding stones, fragments of stone vessels and plates, and decorative elements. Some ground stone artifacts were too fragmented to be identified or were of indeterminate form and/or use. Ground stone artifacts belong to two larger groupings: finished products (such as lamps, styluses, stone vessels and plates, decorative elements; I would also group unfinished products such as blanks here), and tools (pestles and manos, round grinding stones, and likely some of the indeterminate pieces; unfinished tools which were stopped in mid-production would straddle these two categories). Significant ground stone tool finds are discussed further in chapter six. A table of collected ground stone is included below, followed by photographs of individual artifacts.

Table D.3: KINZS Ground Stone Artifacts

Provenience	Artifact Type (quantity)	Bag
KIN 1/F1	Ring	74
KIN 2	*Indeterminate	218
KIN 13	Plate Fragment, rim	104
KIN 14	Plate Fragment, rim	98
KIN 16	*Indeterminate	99
KIN 24	Vessel Fragment, rim	101
KIN 29	*Indeterminate	108
KIN 30	*Indeterminate	121
KIN 42	*Indeterminate	191
	Indeterminate	195
KIN 51	*Indeterminate	132
KIN 54	Plate Fragment, rim	143
KIN 67	Plate Fragment, body	221
KIN 68	Pestle	150

	Large Round Grinding Stone Fragment	151
	Vessel Fragment, base	154
KIN 76	*Stylus Fragment	219
KIN 109	Indeterminate	50
KIN 112	Lamp	42
KIN 123	Stylus Fragment	46
KIN 143	Lamp	71
KIN 144	*Indeterminate (2)	97
KIN 157	Large Round Grinding Stone Fragment	75
KIN 175	*Stylus Fragment	63
	Indeterminate	64
	Finial	65
KIN 204	Plate Fragment, rim with point	252
	Vessel Fragments, body (3)	261
	Plate Fragment, rim	281
	Plate Fragment, rim	282
	Vessel Fragment, rim	283
KIN 240	Pestle	278
DON 1	Plate Fragment, rim with point	3
DON 2	*Plate Fragment, rim	26
DON 6	Large Round Grinding Stone	138
DON 7	Large Round Grinding Stone with Turning Eyelet	233
	Pestle	234
	Pestle	235
	Pestle	236
	Pestle	237
	Large Round Grinding Stone	238
	*Modified Cobble (Pivot)	239
	*Vessel Spout	253
	Mano	254
	Bead Blank	255
	*Indeterminate (3)	257
	DON 8	Finial
Decorative Medallion Fragment		273
IF 6	Indeterminate	61
IF 7	Idly Plate Fragment, rim	91
IF 11	Large Round Grinding Stone Fragment	122
IF 12	Large Round Grinding Stone Fragment with Turning Eyelet	123
IF 14	Plate Fragment, rim	201

IF 19	*Stylus Fragment	215
IF 20	*Adze	267
IF 23	*Large Round Grinding Stone with Turning Eyelet	242

Figure D.8: Ground Stone Ring (KIN1/F1; Bag 74)



Figure D.9: Stone Plate Fragment (top) (KIN13; Bag 104)





Figure D.10: Stone Plate Fragment (Bottom) (KIN 13; Bag 104)



Figure D.11: Stone Plate Fragment, Production Waster (KIN 14; Bag 98)



Figure D.12: Stone Vessel Fragment, Interior (KIN 24; Bag 101)



Figure D.13: Stone Vessel Fragment, Exterior (KIN 24; Bag 101)



Figure D.14: Large Round Grinding Stone Fragment (KIN 29; Bag 108)



Figure D.15: Indeterminate Ground Stone (KIN42; Bag 195)



Figure D.16: Indeterminate Ground Stone Fragment (KIN 51; Bag 132)



Figure D.17: Stone Plate Fragment (profile view of edge) (KIN 54; Bag 143)



Figure D.18: Ground Stone Plate Fragment (KIN 67; Bag 221)



Figure D.19: Pestle (KIN 68; Bag 150)



Figure D.20: Large Round Grinding Stone Fragment (KIN 68; Bag 151)



Figure D.21: Ground Stone Vessel Base Fragment (KIN 68; Bag 154)



Figure D.22: Indeterminate Ground Stone Fragment (KIN 109; Bag 50)



Figure D.23: Ground Stone Lamp (KIN 112; Bag 42)



Figure D.24: Stylus Fragment (KIN 123; Bag 46)



Figure D.25: Ground Stone Lamp (KIN 143; Bag 71)





Figure D.26: Large Round Grinding Stone Fragment (KIN 157; Bag 75)



Figure D.27: Indeterminate Ground Stone Fragment (KIN 175; Bag 64)



Figure D.28: Ground Stone Finial (KIN 175; Bag 65)



Figure D.29: Ground Stone Finial, view of base (KIN 175; Bag 65)



Figure D.30: Stone Vessel Rim, Top View (KIN 204; Bag 283)



Figure D.31: Stone Vessel Rim, Side View (KIN 204; Bag 283)



Figure D.32: Three Stone Vessel Fragments (KIN 204; Bag 261)



Figure D.33: Three Stone Plate Fragments (KIN 204; Bags 252, 281, 282)



Figure D.34: Ground Stone Pestle (KIN 240; Bag 278)



Figure D.35: Ground Stone Plate Fragment, Interior (DON 1; Bag 3)



Figure D.36: Large Round Grinding Stone (DON 6; Bag 138)



Figure D.37: Ground Stone Pestle (DON 7; Bag 234)



Figure D.38: Ground Stone Pestle (DON 7; Bag 235)



Figure D.39: Ground Stone Pestle (DON 7; Bag 236)



Figure D.40: Ground Stone Pestle Blank (DON 7; Bag 237)



Figure D.41: Mano (DON 7; Bag 254)





Figure D.42: Large Round Grinding Stone with Turning Eyelet (DON 7; Bag 233)



Figure D.43: Bead Blank, side view (DON 7; Bag 255)



Figure D.44: Bead Blank, end view (DON 7; Bag 255)



Figure D.45: Large Round Grinding Stone with Turning Well (unfinished) (DON 7; Bag 238)



Figure D.46: Decorative Medallion Fragment (DON 8; Bag 273)



Figure D.47: Ground Stone Finial (DON 8; Bag 263)



Figure D.48: Indeterminate Ground Stone Fragment (IF 6; Bag 61)



Figure D.49: Idly Plate Fragments (2 refitted) (IF 7; Bag 91)



Figure D.50: Large Round Ground Stone Fragment (reused after fragmentation) (IF 11; Bag 122)



Figure D.51: Large Round Ground Stone Fragment with Turning Eyelet (IF 12; Bag 123)



Figure D.52: Ground Stone Plate Fragment, rim (IF 14; Bag 201)



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