

## CHAPTER 4

# The Capital in Context

## The Vijayanagara Metropolitan Region

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For a city that would come to be the capital of a great empire and the locus of one of the largest population concentrations in South Asia prior to the seventeenth century, there has been surprisingly little scholarship on the regional setting of the city of Vijayanagara. Located in an irrigable pocket along the perennial Tungabhadra River in what is otherwise a challenging landscape for agriculture, urban residents were supplied with food and other critical goods through a complex and rapidly developed apparatus of agricultural production, animal husbandry, and trade. A major consumer of luxury goods from around the world, more prosaic bulk commodities such as metal, ceramics, building stone, mortar, and, of course, food and drink used by city residents were, for the most part, generated within the urban hinterland itself. While the location of the capital city has often been considered in terms of its defensive qualities, its siting also partook of an apparently self-conscious attempt to build on existing local associations

of divine power and political legitimacy, while also simultaneously advertising the creation of something entirely new.<sup>1</sup> Both symbolic and practical considerations lay behind the phenomenal success of this large city and the empire it both generated and was, in turn, sustained by.

Both the regional resource limits of the semi-arid peninsular interior and political ambition linked with military savvy almost certainly contributed to the rapid expansion of the Vijayanagara state beyond regional borders, but what is less often appreciated are the ways in which these imperial adventures rebounded locally to affect the lives of those living in and around this great city. Responding to local environmental and political imperatives as well as the consequences of great-power politics and even international trade, farmers, craftspeople, labourers, and others adjusted their places of residence, strategies of production, and even religious practices to accommodate changing realities during the Vijayanagara centuries.

In the space of 400 years, the area around the city of Vijayanagara saw episodes of both massive increases in population density as well as precipitous decline. In this short time, large-scale irrigation works and less dramatic dry farming significantly changed natural water flows and even landforms; quarrying, burning, the cutting of woody vegetation, and animal grazing, all had a major impact on the environment. So, too, were cultural landscapes transformed, with the construction of thousands of small shrines and large temples, the cutting of inscriptions, and the carving of sculptures, many of which continue to be venerated to this day.<sup>2</sup> Roads, canals, walls, and bridges built during the occupation of the city continue, in many cases, to structure routes of movement across the region. While these regional-scale changes were neither mechanical consequences of subcontinental or global forces, neither were they purely local. On the contrary, even those actors typically invisible in conventional historical research—farmers, herders, hunters, pastoralists, and others—played a role in the successes, failures, and ambitions of the Vijayanagara state. Their labour constituted the backbone of the polity and yet their choices seem always to have been constrained by external forces.<sup>3</sup> In some cases, these forces were geographically distant; in others, socially and ritually far away.

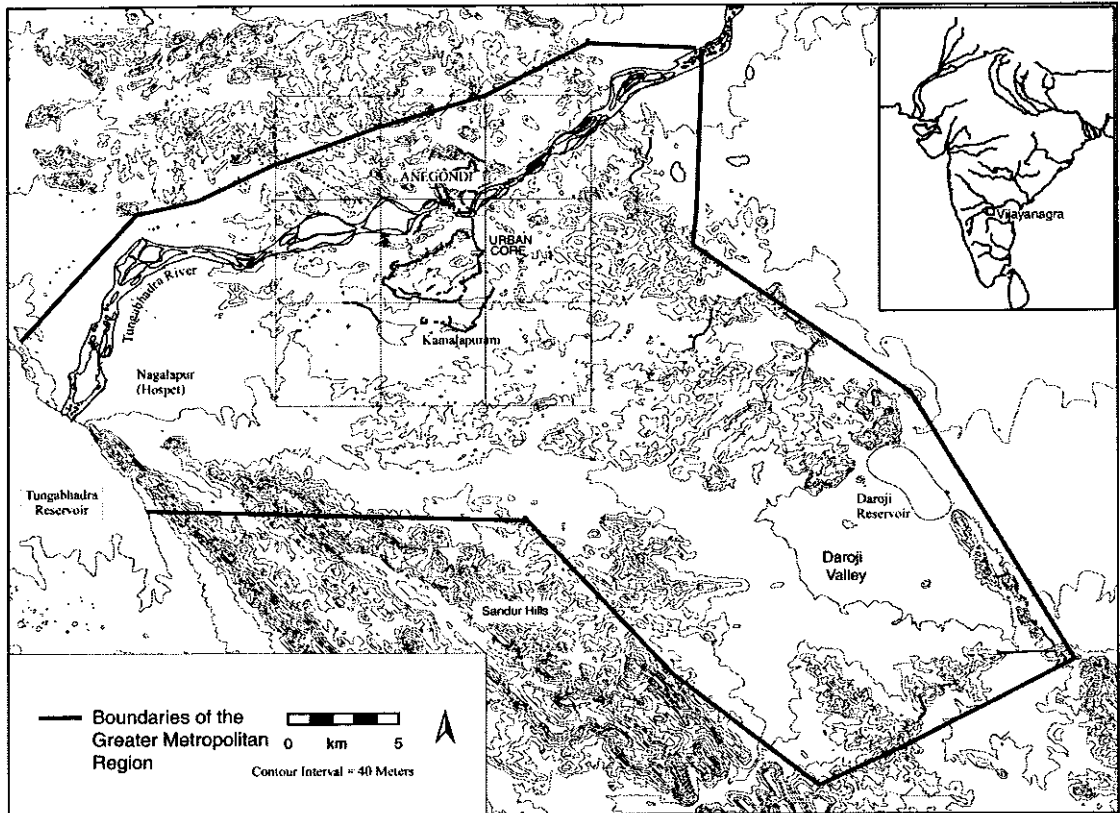
This shortage of middle-scale analyses—somewhere between detailed architectural studies of urban monuments and text-based macro-histories—led us to establish the Vijayanagara Metropolitan Survey (VMS) project in 1987.<sup>4</sup> Over the following decade and with the generous assistance of colleagues at the Karnataka Directorate of Archaeology and Museums (KDAM) as well as numerous universities, we undertook a two-phase regional survey of the

greater metropolitan region around the city of Vijayanagara.

The goals of this project were directed toward understanding the city of Vijayanagara within its regional context, particularly the landscapes of production that surrounded the city within what we termed the greater metropolitan region. While our goals initially centred on developing a sense of the forms and organization of craft goods and agriculture surrounding the city, we eventually also learned a great deal about the longer-term historical development of the regional landscape from about 2000 BCE to the present.<sup>5</sup> In particular, we have been interested in learning about the lives and work of non-elite as well as elite residents of the region and in creating a more nuanced sense of the overall social, economic, and ecological context of the city. Our work has been helpful in addressing rural–urban relationships, including issues of political control, religious life, and the provisioning of urban residents with food, craft goods, and labour. In this chapter, I outline the basic approach of the VMS and present a brief outline of some of the patterns of change we documented in the capital's urban hinterland.

#### **THE VIJAYANAGARA METROPOLITAN SURVEY: METHODS AND GOALS**

Focusing on an area around 450 sq. km that surrounds the city of Vijayanagara (Map 4.1), the VMS was a two-phase programme combining intensive, systematic survey with more extensive regional reconnaissance. For the larger, extensive portion of the survey area (phase two), we located features such as reservoirs (tanks), temples, and villages on both older and newer Survey of India topographic maps, and then documented them in detail using site plans, photographs, and written descriptions. In the course of doing this, we

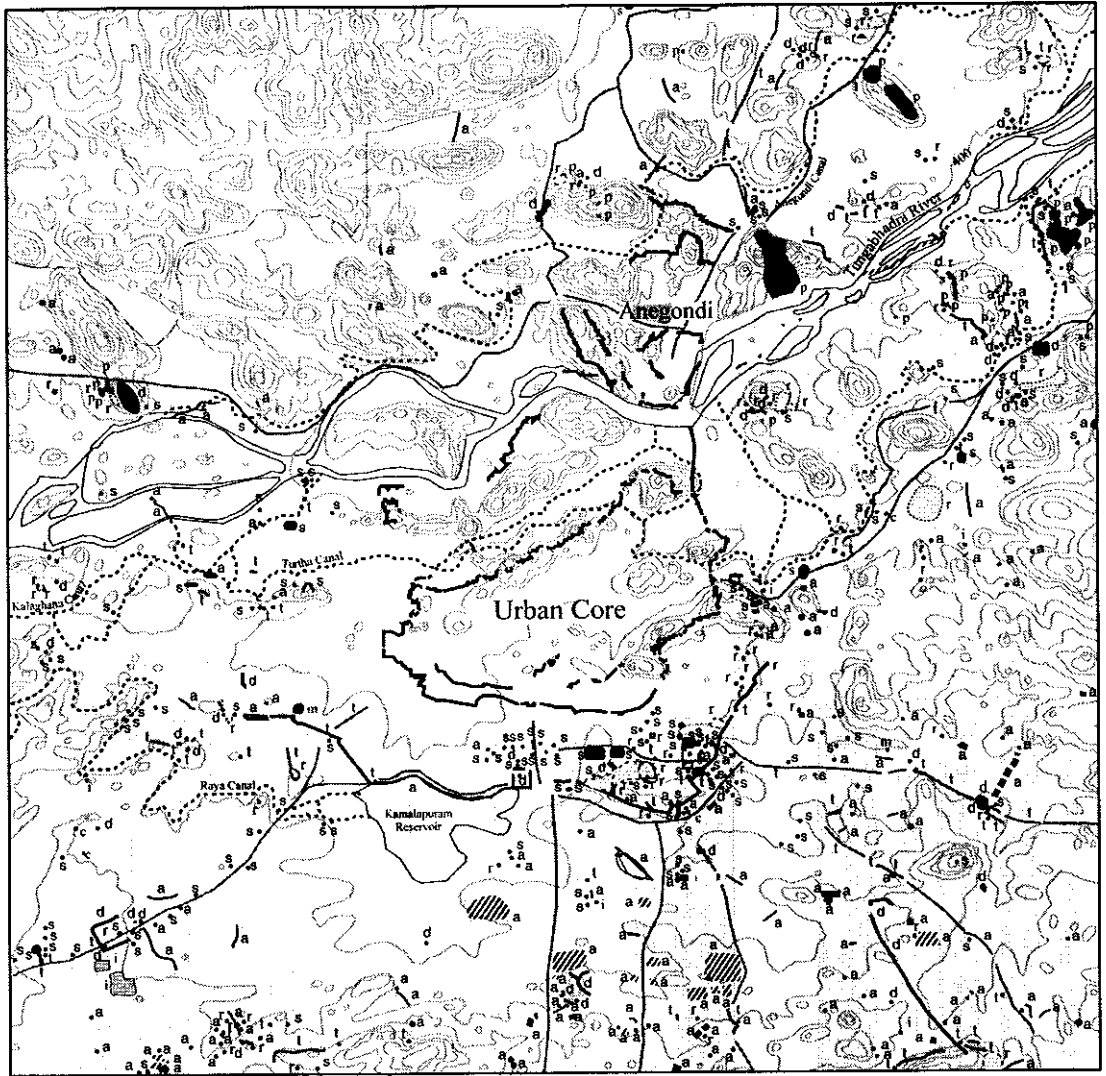


**Map 4.1** Map of the Vijayanagara Metropolitan Region showing both the extensive and intensive survey areas. *Courtesy Kathleen D. Morrison*

also located a large number of other features, such as walls, bastions, roads, wells, shrines, inscriptions, hero stones, ash-mounds, megalith artefact scatters, and abandoned settlements, among others. Although this kind of coverage tends to be biased towards larger features and structures, we were able to greatly expand our regional overview. Analyses that came from this broader region include my study of the Daroji Valley,<sup>6</sup> just south of the city, and Brubaker's<sup>7</sup> work on defensive architecture of the greater metropolitan region.

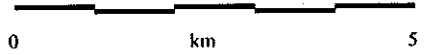
More detailed analyses were conducted in the intensive survey area (phase one) immediately surrounding the city. Using Fritz, Michell, and Nagaraja Rao's<sup>8</sup> system of large

blocks of land, 22.5 km on a side, we selected the eight blocks immediately surrounding the Urban Core of the city, an area somewhat approximately delineated within Block N in Fritz *et al.*'s system. Each block was divided into 250-m-wide north-south transects, and a 50 per cent random sample of transects from each block was selected for survey (see Map 4.2, grey areas). In each survey transect, teams of archaeologists, spaced 20 m apart, walked systematically back and forth across fields, over hills, through villages, or whatever terrain presented itself. Although achieving this kind of coverage entailed many physical challenges, it also allowed us to know, with some certainty, both where cultural remains



**SITE TYPES**

- |   |                  |       |   |                            |
|---|------------------|-------|---|----------------------------|
| s | sacred           | ///   | a | agricultural               |
| r | residential      | t     | t | transport                  |
| p | pre-Vijayanagara | —     | — | projected transport route  |
| c | civic/ceremonial | ~     | d | fortification/defensive    |
| m | mortuary         | ..... |   | Vijayanagara period canals |
| i | industrial       |       |   |                            |



areas systematically surveyed

Contour interval 20 m

Lowest contour 400 masl

**Map 4.2** VMS intensive survey showing site locations (by type) and transects surveyed.  
 Courtesy Kathleen D. Morrison

were and were not located. Further, because of our close crew spacing, we routinely documented many very small sites that would have been otherwise overlooked. This kind of approach is particularly important when local residents are unaware of the significance of an artefact or feature type—one is unlikely to miss many temples, no matter how a survey is structured, but artefact scatters, old road courses, and many other features are not necessarily recognized as either old or significant by local informants. In practice, we covered much more than half of the intensive survey area since we documented every site we encountered, even those outside the sample. It is the fact of sampling itself, however, which allows us to generalize from our results to areas not fully explored.

Within both areas, we documented more than 750 archaeological sites; each was located on regional maps, using, in later seasons, a global positioning system (GPS). All sites were mapped in detail and samples of ceramics and other artefacts were collected and analysed. Extensive descriptions on field forms, as well as drawings and photo documentation, were combined with spatial information into a geographic information system (GIS) that integrates all the data collected and allows for additional analysis. Small-scale excavations were conducted in two locations, VMS-133, an agricultural terrace and reservoir system, and VMS-110, a Neolithic settlement later re-occupied as an early historic iron-smelting workshop whose vast piles of slag were subsequently shaped into a Vijayanagara-period reservoir embankment.

#### **SURVEY RESULTS: LAND USE AND SETTLEMENT HISTORIES**

Although we recorded archaeological remains from an approximately 5,000 year period

between about 3000 BCE and the end of the twentieth century, my primary focus in this chapter will be on the centuries when human modification of the regional landscape was the most dramatic—the three centuries this area constituted the hinterland of the city of Vijayanagara (1300–1600 CE). Although this region has a long and complex pre-Vijayanagara history, much of its present shape—the deforested rocky hills, heavily colluviated valleys, intricate networks of canals and reservoirs, and its sacred landscape of temples and shrines—is a consequence of the dramatic transformations of those years. Vijayanagara-period use of the landscape was not uniform. Some areas saw continuous occupation throughout while others were not intensively exploited until the early sixteenth century. Here I highlight some of the changes we have been able to document in regional vegetation, soils and landforms, and hydrology, linking these with changes in settlement, political organization, and religious practice.

Although large, nucleated towns were a fact of life in this region from around 800 BCE or a little before, few Vijayanagara-period settlements were built atop older towns. It is well known that the city of Vijayanagara was first settled in the early thirteenth century atop a much older sacred place, the *Pampa-tirtha*, and that it grew very rapidly in these early years.<sup>9</sup> Despite the clearly quite deliberate siting of the early settlement near the present-day village of Hampi, location of the *Pampa-tirtha*, the new city was also situated in a sparsely-settled interstice *between* two major settlement clusters and seats of political power, one to the east and one to the west.<sup>10</sup> Significantly, both of these pre-Vijayanagara settlement clusters were on broad, level plains with heavier black and mixed black and red soils, while the new city was initially located along the narrow

alluvial floodplain of the Tungabhadra River, reflecting its reliance on canal-fed irrigation of rice and other crops (see Fig. 4.1). This intensive agricultural regime allowed a very dense concentration of settlement in a relatively small area, while also producing the foodstuffs demanded by both elites and gods.<sup>11</sup> In contrast to the riparian focus of the young city, the two earlier clusters of towns and villages relied on water from smaller seasonal streams and a modest number of run-off-fed reservoirs or tanks. It should be noted that most of the older settlements on the plains east and west of Vijayanagara continued to be occupied, though their growth never matched that of the metropolis, and, politically, they were quickly eclipsed by the expanding influence of the Sangama polity.

As the city expanded, quickly in the fourteenth century, slowly in the fifteenth, and

explosively in the sixteenth, agricultural strategies also shifted, with dry farming and irrigation by seasonal run-off-fed reservoirs becoming increasingly important complements to wet agriculture, the latter only possible within reach of the river-fed canal system. While fourteenth-century settlement was closely focused along the river, and the relative stasis of the fifteenth century resulted in only modest growth along the major roadways in and out of the city, the rapid and significant growth in the urban population during the early sixteenth century required a concomitant expansion of settlement away from the canal zones along the river. The urban sprawl of the early sixteenth century resulted in several outlying villages becoming suburbs within what can justly be termed a megalopolis. Large numbers of new villages were also established in outlying areas, such as



Fig. 4.1 Irrigated valley within the city of Vijayanagara. *Courtesy Kathleen D. Morrison*

*Note:* The Turthu Canal, shown, has been in use for more than 500 years and irrigates water-intensive crops such as bananas, sugarcane, and, at one time, rice.

the Daroji and Dhanayakankere valleys, south and south-west of the city, respectively. Along with villages, these regions saw the construction of new roads, fortification walls, temples, and other features.

As the hungry city grew beyond the reach of permanent irrigation, farmers and herders began increasingly to exploit the rocky hills and colluvial valleys of the region. The hilly terrain of the capital city not only enhanced its defence, but also allowed for large-scale expansion in the use of run-off-harvesting techniques (see Fig. 4.2). Farming supported by seasonal rains, even when supplemented by innovative (and labour-intensive) technologies such as check-dams, gravel-mulched fields, terraces, and reservoirs, was inherently risky in this semi-arid environment, however, and this expansion toward the dry zones resulted in increasingly precarious economic and even social positions for some residents. Not only was the risk of crop failure much greater away from the canal zones, but dry-farmed fields were not able to support rice or other

'wet' crops, producing primarily hardy millets and pulses, the mainstay of the diet for most people. This meant that dry farmers were excluded from politically and ritually important networks of circulation for rice and other valued foodstuffs. By the sixteenth century, structures of taxation (taxes in kind on rice and in cash for other crops) ensured that dry farmers had little choice other than to participate in urban markets, a situation well-represented by the numerous radial roadways leading from agricultural areas into the heart of the city.<sup>12</sup>

The sixteenth-century 'explosion' of settlement and production out of the restricted riparian zone of the early city was not an unmitigated success over the long term. With the abandonment of the city of Vijayanagara after 1565, a great many of the small agricultural villages in the region continued to be occupied, shifting from production of crops and craft goods for urban markets to more subsistence-based, local production. It is interesting to note that the intricate canal system,

**Fig. 4.2** Sluice gate and masonry-faced embankment of a small run-off-fed reservoir in the Daroji Valley, south of the city. *Courtesy Kathleen D. Morrison*  
*Note:* The Daroji Valley saw large-scale expansion of seasonal irrigation in the sixteenth century.



itself the product of elite patronage, continued to be maintained and used (and its associated settlements occupied) long after the departure of those elites. A great many of the run-off-fed reservoirs, however, that multiplied across the region during the early sixteenth century were quickly abandoned, having suffered continuously from problems of evaporation, siltation, and dam breaching. Along with the abandonment of many facilities associated with dry farming and run-off harvesting went the abandonment of many nearby rural villages, some of which had existed for less than a hundred years.

#### LAND USE AND SETTLEMENT IN CONTEXT: RITUAL AND POLITICAL ECONOMIES

Agricultural histories, patterns of settlement, and forms of production, are, of course, intimately related to larger issues of politics, ritual, and social life. While this is not the venue to explore all of these links in detail, here I simply note some of the potential contributions of archaeological research to our existing understandings of these connections.<sup>13</sup> Most clearly, detailed archaeological information can provide information about which the textual record is either silent or deliberately obscure. For example, the material record reveals quite clearly not only the perduring importance of dry farming, grazing, and run-off-harvesting, but also the significance of their major expansion in the sixteenth century. Texts, while not completely ignoring dry crops and dry lands, focus primarily on their wet counterparts, an emphasis quite at odds with the actual importance of each to the overall economy, though not, of course, to the lives of the elites who both produced and consumed those texts. Archaeological data also underscore the close links between production and devotion in the

creation of sacralized landscapes, emphasizing the difficulty, if not the futility, of work that attempts to separate the economic from the ritual or political dimension of regional landscape histories. I take up this last point by way of conclusion, outlining some results from the VMS which illustrate the blurred boundaries between the sacred and the profane, between aspects of production and of power.

It is clear, first of all, that there are very specific patterns in the location, size, and dedication of shrines and temples within the survey area. A great many shrines are associated with roads (often violating normative east-facing orientations to look directly onto a thoroughfare), settlements, and hilltops. The pattern of association between large, triumphal Hanuman sculptures and major gateways and crossroads is well-documented within the city and holds true for the metropolitan region as well (see Fig. 4.3). Although the majority of scholarly attention has been focused on the large and impressive temple complexes of the Vijayanagara period,<sup>14</sup> these are vastly outnumbered by the thousands of small shrines, images, and other sacred locations across the landscape.

Concomitant with this variation in size, form, and elaboration are differences in patronage and sponsorship. The very large 'officially' sponsored temple complexes are located primarily within the city or in places where the sixteenth-century megalopolis overran existing settlement, as in the Kamalapuram area where suburbs, such as Varadadevi-ammana-pattana grew over earlier villages. For the most part, too, these large complexes lie within irrigated zones near the river. Significantly, one of the few large complexes away from the city (setting aside the densely-settled and irrigated corridor along the road between Hospet and the





**Fig. 4.3** Vijayanagara-period Hanuman sculpture, still worshipped. *Courtesy Kathleen D. Morrison*  
*Note:* These large images are typically located near gateways

Urban Core) is the sixteenth-century temple at Papinayakanahalli, dedicated to the Goddess Arugondala Ankamma.<sup>15</sup> This temple complex, still in worship today, has a primary dedication to the Goddess, but also contains a number of Vaishnavite images. What is remarkable about this temple is not so much its construction or its decoration, but rather its location. Papinayakanahalli is located within the dry Daroji Valley, albeit at the foot of a pass and on a road leading north toward the city. Long conceived as one of the major 'gateways' into the city, only a small Vijayanagara-era fort

otherwise marked this critical location until the construction of an elaborate gateway in the 1990s.

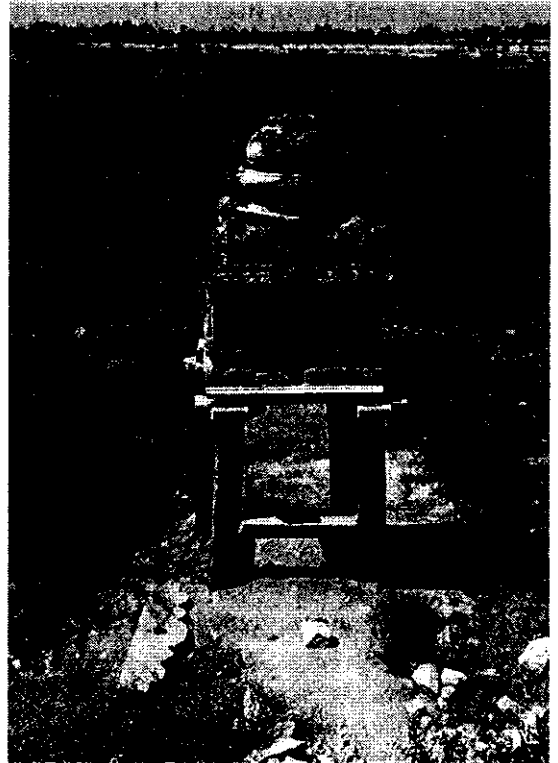
As is well known, most of the large sixteenth-century temple complexes in and around the city of Vijayanagara are dedicated to forms of Vishnu, reflecting the interests and devotion of Vijayanagara kings and upper elites. The Virupaksha Temple in Hampi, with its long history of construction from well before the establishment of the Vijayanagara Empire, reflects the Shaivite affiliation of the earlier Sangama dynasty and is certainly the largest and most elaborate shrine dedicated to Shiva within the metropolitan area.<sup>16</sup> Given the close association between royal and upper elite patronage of Vaishnava temples in the fifteenth and especially sixteenth centuries, it may be reasonable to view them as, in some sense, 'official' structures, reflecting the interests of the state. If we examine the thousands of shrines and other religious features documented in the survey, Vaishnavite dedications are by no means rare, but these tend to be outnumbered by Shaivite, Goddess, or other dedications, the latter including what we have imprecisely classified as 'folk' images, such as *naga* stones.<sup>17</sup> Within the Daroji Valley, for example, the only shrine with an evidently Vaishnavite dedication (aside from the few Vaishnavite elements on the Papinayakanahalli Ankamma Temple) is a small structure, located next to the gateway in a major fortification wall spanning the valley, a wall recently shown to extend all the way up into the Sandur Hills, a distance of more than 7 km.<sup>18</sup> This is, arguably, a shrine associated with a state project, and is a structure that stands out amid the hundreds of other shrines in the Daroji Valley. There is, thus, an apparent tension between the religious forms favoured by elite patrons and those made and used

by less well-identified others, presumably non-elites.

This tension is played out in an unexpectedly clear fashion by the archaeological evidence. If we examine patterns of abandonment of shrines, temples, and other religious features as well as patterns of rededication,<sup>19</sup> we see some striking transformations in the religious landscape that follow on the fall of the city and the migration of the court to the south. Within the city, all of the major temple complexes except the Virupaksha Temples are now counted as archaeological monuments; only the latter remains as a living temple.<sup>20</sup> Among the many smaller shrines and images, this pattern is also played out, over and over, with Vaishnavite shrines disproportionately being abandoned or rededicated. In the Daroji Valley, the lone Vaishnavite shrine lies empty, while hundreds of other shrines, images, and devotional features, made during the Vijayanagara centuries, remain a vital part of the rural landscape.

Much has been written about the association between political power and the patronage of irrigation facilities in the Vijayanagara era, and it is reasonably well-known that notions of just rule were closely connected with certain kinds of generosity, including the building of reservoirs and other kinds of water control features.<sup>21</sup> Breckenridge's work with the Tirupati inscriptional corpus showed a pattern in which many small donations were pooled by the temple in order to invest in reservoirs and other agricultural facilities, investments which could result in a material as well as spiritual benefit for both donors and temples. This pattern does *not*, in fact, hold for the metropolitan region, where *nayakas* and other medium-scale political leaders were the most common patrons behind the construction of

large and medium-sized reservoirs. I have suggested that, given the association of such largesse with appropriate political authority, reservoirs and other smaller irrigation features represented viable donation targets for aspiring leaders, leading to the proliferation of such features even where their productive utility was somewhat suspect.<sup>22</sup> This connection between what might be thought of, somewhat simplistically, as the 'political' dimension of agrarian patronage, and the actual outcomes of productive work on the landscape, clearly has a 'religious' dimension as well. Reservoirs



**Fig. 4.4** Sluice gate of the Kurugodu Reservoir, built in the fifteenth or sixteenth century. *Courtesy Kathleen D. Morrison*  
*Note:* The superstructure precisely matches that of a small contemporaneous temple located immediately below the reservoir

are particularly noteworthy here, in that the physical forms and adornments of fourteenth through sixteenth century reservoirs in the survey area closely mirror the forms and adornments of temple architecture in the same region. Sluice gates, which mimic the forms of temple doorways, often contain the same deities as those doorways, sometimes even sporting the same kinds of superstructures as temples (see Fig. 4.4). While the occurrence of watery motifs such as lotuses, nagas, elephants, and *makaras* comes as little surprise, it is also possible to argue that these deliberately reference not only temples, but also temple tanks and the encircling eternal ocean itself.<sup>23</sup> The sense in which reservoirs (and their sluice gates) not only reference but actually *are* shrines is borne out in the post-Vijayanagara history of many of these features, which have found new lives as red-and-white striped rural shrines.

#### SITUATING THE CITY: VIJAYANAGARA IN CONTEXT

The addition of systematic archaeological research, including the documentation of small-scale and rural sites of all kinds, has the potential to greatly enhance our understanding of regional dynamics around the city of Vijayanagara. Fully complementary to textual and art-historical research, the material record often reveals hidden dimensions of past life not celebrated by contemporary authors and artists. We have documented a complex and changing set of agricultural and productive strategies that maintained this vast city in a relatively hostile environment. These strategies reflected not only conscious planning, but also necessary responses to the demands of the dry and rocky landscape as well as of hungry elites, gods, and commoners. In particular, the practices and preferences of farmers, herders, and other non-elite actors are manifest primarily through the archaeological

evidence. Although it may seem that the study of land use and settlement is quite distinct from political or religious history, in practice these concerns are deeply entwined. The elite desire for rice and other irrigated produce, for example, clearly drove the general trend of early settlement along the river as much as did the simultaneous appropriation of an existing sacred place in the form of the Pampa-tirtha and the selection of a site well away from existing political and economic centres. The ecological and economic impact of the relatively brief history of Vijayanagara on the countryside of northern Karnataka has been profound; no less important were the spiritual and cultural consequences of those centuries, consequences in no way separate from presumably more mundane issues such as deforestation, erosion, changes in vegetation composition. All of these dimensions of the past inhere in landscape histories and we must use all of the analytical resources at our disposal to investigate these.

#### NOTES

1. For a more complete discussion, see Kathleen D. Morrison, *The Daroji Valley: Landscape History, Place, and the Making of a Dryland Reservoir System* (New Delhi: Manohar Publications and the American Institute of Indian Studies, Vijayanagar Research Project Monograph Series, 2008).
2. Kathleen D. Morrison, *Fields of Victory: Vijayanagara and the Course of Intensification*, (Berkeley: University of California Press, 1995; reprinted by Munshiram Manoharlal, New Delhi, 2000); Morrison, *The Daroji Valley*; Carla M. Sinopoli and Kathleen D. Morrison, *The Vijayanagara Metropolitan Survey: Volume 1* (Michigan: Anthropological Papers of the Museum of Anthropology, University of Michigan, 2007).
3. Kathleen D. Morrison, 'Coercion, Resistance, and Hierarchy: Local Processes and Imperial Strategies in the Vijayanagara Empire', in S. Alcock, T. D'Altroy, Kathleen D. Morrison, and Carla M.

Sinopoli (eds), *Empires: Perspectives from Archaeology and History* (Cambridge: Cambridge University Press, 2001), pp. 253–78.

4. Kathleen D. Morrison and Carla M. Sinopoli, 'Economic Diversity and Integration in a Pre-Colonial Indian Empire', *World Archaeology*, 23 (3), 1992, pp. 335–52; and Carla M. Sinopoli and Morrison, *The Vijayanagara Metropolitan Survey, Vol. I*.

5. Morrison, *Fields of Victory*; Carla M. Sinopoli, *The Political Economy of Craft Production: Crafting Empire in South India, c. 1350–1650* (Cambridge and New York: Cambridge University Press, 2003); Morrison, *The Daroji Valley*.

6. Morrison, *The Daroji Valley*.

7. Robert Brubaker, 'Cornerstones of Control: The Infrastructure of Imperial Security at Vijayanagara, South India', unpublished doctoral dissertation, Department of Anthropology, University of Michigan, Ann Arbor, 2003.

8. John M. Fritz, G. Michell, and M.S. Nagaraja Rao, *Where Kings and Gods Meet: The Royal Centre at Vijayanagara* (Tucson: University of Arizona Press, 1984).

9. P.B. Wagoner, 'Architecture and Mythic Space at Hemakuta Hill: A Preliminary Report', in D.V. Devaraj and C.S. Patil (eds), *Vijayanagara: Progress of Research 1984–1987* (Mysore: Directorate of Archaeology and Museums, 1991), pp. 142–48; G. Michell, *Vijayanagara: Architectural Inventory of the Urban Core*, 2 Vols (Mysore: Directorate of Archaeology and Museums, 1990).

10. Morrison, *The Daroji Valley*.

11. *Ibid.*

12. Noboru Karashima, *Towards a New Formation: South Indian Society under Vijayanagar Rule* (New Delhi: Oxford and India Book House, 1992); Morrison, *Fields of Victory*; Sinopoli and Morrison, *The Vijayanagara Metropolitan Survey, Vol. I*.

13. See for example, Arjun Appadurai and Carol A. Breckenridge, 'The South Indian Temple: Authority, Honor, and Redistribution', *Contributions to Indian Sociology*, 10 (2), 1976, pp. 187–211; Burton Stein, *Peasant State and Society in Medieval South India* (New Delhi: Oxford University Press, 1980); Burton Stein, *The New Cambridge History of India 1.2: Vijayanagara* (Cambridge and New York: Cambridge University Press, 1994); Carla M. Sinopoli and Kathleen D. Morrison, *The Vijayanagara Metropolitan Survey, Vol. I*.

14. But see, for example, George Michell, *Architectural Inventory*, for a more comprehensive approach.

15. This temple is VMS-1008 in our recording system; its inscriptional corpus is collected in C.S. Patil and V.C. Patil, *Inscriptions of Bellary District*, Government of Karnataka, Inscriptions of Karnataka, Vol. II (Mysore: Directorate of Archaeology and Museums, 1997), no. 446. A detailed description is published in Morrison, *The Daroji Valley*.

16. Anila Verghese, *Religious Traditions at Vijayanagara: As Revealed through its Monuments* (New Delhi: Manohar Publications and the American Institute of Indian Studies, Vijayanagara Research Project Monograph Series, 1995); John M. Fritz, George Michell, and M.S. Nagaraja Rao, *Where Kings and Gods Meet*; Anna L. Dallapiccola, John M. Fritz, George Michell, and S. Rajasekhara, *The Ramachandra Temple at Vijayanagara* (New Delhi: Manohar Publications and the American Institute of Indian Studies, Vijayanagara Research Project Monograph Series, 1991).

17. See Morrison, *The Daroji Valley*, for more detail.

18. Robert Brubaker, personal communication, 13 November 2008.

19. There are many ways in which such changes are evident. For example, a shrine with Vaishnavite door guardians, images sculpted on the structure and hence difficult to remove or change without defacing the shrine, might be filled with Shaivite images representing later additions.

20. An interesting partial exception to this is the large Malyavanta Raghunatha Temple complex on the eastern edge of the Urban Core. Here, local devotion to figures associated with the Ramayana, despite their Vaishnavite association, continues in spite of official prohibition against worship in the temple. A similar pattern is also seen in the continued maintenance of the large Anjaneya Hanuman images scattered around the region, sculptures whose fresh paint tends to contrast with the dilapidated state of the gates and walls that surround them. This pattern probably has much to do with the perceived local provenance of these gods and heroes.

21. Appadurai and Breckenridge, 'The South Indian Temple'; Carol A. Breckenridge, 'Social

Storage and the Extension of Agriculture in South India 1350 to 1750', in Anna L. Dallapiccola (ed.), *Vijayanagara: City and Empire* (Stuttgart: Franz Steiner Verlag Wiesbaden, 1985), vol. 1, pp. 41-72; Kathleen D. Morrison, 'Supplying the City: The Role of Reservoirs in an Indian Urban Landscape', *Asian Perspectives*, 32 (2), 1993, pp. 133-51; Kathleen D.

Morrison, K.D. Lycett, and M.T. Lycett, 'Inscriptions as Artifacts: Precolonial South India and the Analysis of Texts', *Journal of Archaeological Method and Theory*, 3 (3-4), 1997, pp. 215-37.

22. Morrison, *The Daroji Valley*.

23. Morrison, 'Supplying the City'; Morrison, *The Daroji Valley*.