

CHAPTER 21

Historical and Medieval Period Archaeology

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INTRODUCTION

The first era of urbanization in South Asia was manifested in the Indus (Harappan) culture in the mid-third millennium BCE, which was marked by the growth of cities, the manufacture and distribution of distinctive styles of pottery and figurines, and evidence for trade routes that moved both ordinary goods such as dried fish and textiles and exotic items such as long-barrel carnelian beads around the northwestern subcontinent and even across the Indian Ocean to Mesopotamia and the Arabian Peninsula (Kenoyer, 1998; Wright, 2010; see also Shinde, Chapter 9 in this volume). After the eclipse of Indus culture, the subcontinent's social and political configurations reverted to simpler, village-level agricultural societies from c. 1500–700 BCE (Shirvalkar and Prasad, Chapter 15 in this volume). A number of significant cultural achievements are evident from this period, including the invention of iron metallurgy and the development of new ritual traditions of priestly hierarchy preserved in the Rg Veda and other Sanskrit texts. This chapter examines the resurgence of cities and unifying religious traditions during the subsequent Early Historic and medieval periods.

THE EARLY HISTORIC PERIOD

By the middle of the first millennium BCE, the people of the Indian subcontinent were engaged in thriving networks of cities, towns, and trade ports configured into regional political dynasties (see Map 6). Historical documents identify 16 city-states known as *mahajanapadas* located in the Ganges Plain and the northwestern subcontinent. In the sixth century BCE, the

historical founders of Buddhism and Jainism were born in the Gangetic heartland, and set in motion practices of self-actualizing religious traditions that grew to have a global impact. By the beginning of the Early Historic period (third century BCE to fourth century CE), contemporaneous with the first written texts preserved in the form of inscriptions on stone and potsherds, there was a simultaneous growth of urbanism, Buddhist and Jain ritual practices, and trade which began to link together the populations of the subcontinent and to extend those contacts to the Arabian Peninsula, Central Asia, and Southeast Asia.

There were sites of all sizes and configurations in the Early Historic period, but the majority of research on this period has focused on cities and religious institutions. Religious institutions included Buddhist and Jain sites with their distinctive architecture, which included monasteries for nuns and monks, stupas (reliquaries at a variety of scales from tens of meters high to small, portable votive offerings), and *chaityas* (assembly halls). Researchers have long noted the mutually supportive relationship of urban centers and religious sites (Ghosh, 1973), a conclusion that has been bolstered by detailed fieldwork at sites such as Bharhut (Hawkes, 2009), Kanheri (Ray, 1994), Mawasa (Shaw, 2011), Sanchi (Shaw, 2007), Satdhara (Agrawal, 1997), Thotlakonda and Bavikonda (Fogelin, 2006), and Udayagiri II (Trivedi, 2011).

Cities up to several hundred hectares in size developed simultaneously in a number of regions, with distinct configurations of art and architecture amid a subcontinental scale of shared material culture and trade goods. In the northwestern subcontinent (today located in northern Pakistan and Afghanistan), the Gandharan Grave Culture was located on trade routes that connected the Iranian Plateau with Central Asia and the Indian subcontinent, and was marked by a number of large and distinct urban areas as well as major and minor Buddhist installations (Neelis, 2014). Some of the first major Early Historic excavations were conducted at Taxila (today located in northern Pakistan), where extensive horizontal excavations revealed distinct settlements that served as sequential population nuclei (Coningham and Edwards, 1997–1998; Marshall, 1960). Other important sites in the northwestern subcontinent included the port city of Banbhore (Di Crocco, 1990); the fortified site of Charsadda (Coningham and Ali, 2007); and the cosmopolitan city of Ai Khanum, with its Greek-inspired architectural elements (e.g., Bernard, 1973; Lecuyot, 2013).

On the Ganges Plain there are at least two dozen large Early Historic urban settlements, many of which have been excavated including Ahichchhatra (IAR, 1964–1965: 39–42), Atranjikhhera (R.C. Gaur, 1983), Rajagriha (see Chakrabarti, 1976), Sravasti (Aboshi et al., 1999), Sringaverapura (Lal, 1991), and Vaishali (Deva and Mishra, 1961). Research at the urban site of Kausambi has included a combined approach: horizontal exposures of the uppermost deposits and deeper excavations to reveal changes and continuities over time (Sharma, 1969). This site-specific investigation was complemented by an extensive program of hinterland survey, which identified the location and importance of smaller towns and villages that would have constituted the lattice of economic support for the ancient city (Erdosy, 1988). The understanding of rural settlement patterns has been bolstered by examinations of smaller population centers elsewhere in the Ganges Valley as well, through investigations at sites such as Indor Khera (Menon et al., 2008) and Anai (Tripathi and Upadhyay, 2013).

Well-known Early Historic settlements in the eastern Indian subcontinent include Chandraketugarh, Mahasthangarh (Alam and Salles, 2001), Sisupalgarh (Lal, 1949; Mohanty and Smith, 2008), and Tamluk. Long-term archaeological research projects at sites such as Sisupalgarh included a comprehensive suite of investigative techniques including remote sensing, deep soundings, and broad horizontal exposures. These investigations prompted regional studies and excavations at smaller, town-sized settlements with evidence

for continuities in artifact typologies and settlement organization that mirror their neighboring urban centers (Mohanty et al., 2014; Thakuria et al., 2013).

There were relatively few urban centers in the central Indian subcontinent compared to other regions; one important exception is the site of Adam, a walled settlement located near the modern city of Nagpur (Nath, 1992). The smaller villages and towns of the Early Historic period in central India engaged in regional trade and maintained a more distended network (Smith, 2001), interspersed with a megalithic tradition that resulted in many distinctive mortuary monuments (e.g., Mohanty and Walimbe, 1993; Joshi, Chapter 18 in this volume).

In the western subcontinent, research on Early Historic cities has often focused on the way in which these sites served as market centers and how they were integrated with coastal settlements. Some of the most significant urban settlements (e.g., Bhokardan, Paithan, and Ter) were investigated several decades ago; new research projects at these sites to address comprehensive urban configurations in addition to long-distance trade would be greatly welcomed. Research on the coast has already provided complementary data for a more robust treatment of long-distance exchange from the perspective of small port sites such as Chaul, which would have supplied inland urban centers (Gogte, 2006–2007).

In the far southern subcontinent, the presence of urban centers is known primarily through the study of the Sangam literature, which depicts the lively character of urban life (see translations in Chelliah, 1985; Rajan, Chapter 19 in this volume). The most extensive archaeological research in the region has focused primarily on smaller-scale settlements in the hinterlands that show evidence for robust trade activity and early writing (such as Kodumanal; see Rajan, 2008), and along the coast (such as Pattinam, generally identified with the ancient port of Muziris; see Cherian et al., 2009).

In Sri Lanka, there were numerous urban and religious settlements in the Early Historic period. Although the island is relatively modest in size, the presence of wet and dry zones provided distinct environmental parameters for human settlers. Two of the best-known sites are the port site of Mantai on the northwestern coast and the interior city of Anuradhapura, occupied from c. 400 BCE through the end of the first millennium CE. Investigation of Anuradhapura combined a large deep sounding within the city with extensive regional survey to provide an analysis of urban growth and hinterland integration (Coningham, 1999; Coningham and Gunawardhana, 2013a; Gilliland et al., 2013). The site of Mantai, which served as the marine port for Anuradhapura, is a microcosm of the dynamism of the Indian Ocean world in the first millennium CE, with evidence from the Early Historic to the medieval era (Carswell et al., 2013).

The study of subcontinental mortuary traditions and human skeletal material has informed the archaeology of earlier cultural periods; however, the advent of Buddhism in the Early Historic period resulted in a shift toward cremation as the primary mode of mortuary treatment and this limits analysis of the human remains themselves. Unlike the Indus Localization Era or the megalith-building era, when cremated remains were buried, ashes in this period appear to have been released into the environment. For the Early Historic period, we are therefore missing an important dataset for the study of migrations, demography, health, nutrition, and gendered patterns of labor. In the absence of human bodies, archaeologists have relied more heavily on written sources to provide indications of workforce and workload (see, e.g., Singh, 2008: 419–425).

TRENDS IN EARLY HISTORIC RESEARCH

The Early Historic period is the first era in the Indian subcontinent that provides readable texts. These include ritual texts, politico-religious treatises such as the Ashokan inscriptions, medical texts and grammars, and courtly poetry from the far south known as the Sangam

literature. Textual traditions enliven archaeological studies and provide a broad-scale historical framework for interpretation. By contrast, archaeological research tends to focus on point-specific data such as cities, ports, religious institutions, and inscriptions. Each of these specific places, however, can be utilized to consider the ways in which ancient political consolidations were built on networks that had already been established and sustained through trade and through religious interaction. In recent treatments of the Ashokan edicts, for example, H.P. Ray (2012) advocates looking at regional contexts and localized conditions of placement. Regional differences are notable: the Brahmagiri region of the southern subcontinent has megaliths but no cities; Girnar has trade but no structures; and Orissa has edicts associated with cities, including one inscription in the central portion of the walled site of Jaugadh.

Another important focus is the recognition of the dynamic configurations of human–environmental relationships. The study of landscapes has been utilized elsewhere in the world to address the ways in which cultures and their environments are mutually constituted, a mode of inquiry that enables researchers to acknowledge the existence of shared social, economic, and ritual links across a region even if political links are weak, fragmentary, or contested (Anscheutz et al., 2001). For both urban and religious sites in South Asia, the focus of inquiry is now growing to include landscape-scale perspectives that encompass environmental dynamics and food production (Shaw, 2007; Shaw and Sutcliffe, 2003: 82; Singh, 2008; see also Morrison, 2013, and Smith, 2006, for analyses of different scales of resource extraction).

In South Asia, two aspects related to water are particularly marked: the monsoon and rivers. Questions related to agriculture and water also touch on a growth area of contemporary interest throughout the archaeological sciences in the form of questions about sustainability. Sustainability is not just a series of technological decisions about landscapes or landscape use; these decisions take place within a social context that involves decision-making powers, funding and financing concerns, and the capacity of various interested parties to interact. Shaw and Sutcliffe (2003) discuss the way in which Buddhist establishments' investments in productive agricultural infrastructure provided the necessary food support base for nearby urban centers, while Gilliland and colleagues (2013: 1026) indicate the way in which local trajectories of agricultural investment were likely to have attracted Buddhist and urban settlement simultaneously.

The nature of political organization in the Early Historic period can be viewed through complementary textual and archaeological approaches. This combinatorial approach facilitates an interpretation of early states as works in progress that relied on underlying social, linguistic, ritual, and economic networks. Texts from this era show that the interstices of political territories were shifting and permeable, and that territorial interactions were varied, from outright warfare and conquest (e.g., the Kalinga War in which the Gangetic ruler Ashoka conquered the eastern Indian kingdom of Kalinga) to diplomatic missions (as seen in the Heliodorus pillar at Vidisha in central India) and alliances symbolized through marriage between ruling families.

Future research could productively focus on additional fieldwork, as well as return to known entities for detailed comparative work. Historical collections could benefit from fresh approaches that integrate specific sites into larger comparative trends (e.g., Ray, 2010). Paleographic studies could be directed toward known inscriptions and texts in new ways, for example addressing the sequencing of inscriptions relative to their locations and contexts in order to understand more about the concept of writing in the Early Historic period as a technology that was adopted piecemeal: the Ashokan inscriptions constitute a large corpus of repetitive exemplars compared to later political inscriptions which were issued as unique and singular statements.

After the Ashokan period, political rulers used inscriptions to record specific donations to specific religious institutions, rather than as general proclamations on rulership and devotion. The powerful technology of writing became increasingly common, passed through ordinary people's hands in the form of coins and, after the fourth century CE, in the form of copper plates that served to record contracts and land tenure (Singh, 2008: 494–495). Research on coinage also contains the potential for understanding connections between different places; for example, computerized distributional analysis of coinage types might yield an understanding of economic networks that functioned independently of political networks (important foundational work on numismatics is ongoing through the Indian Institute for Research in Numismatic Studies, Nasik).

MEDIEVAL ARCHAEOLOGY

The urban centers of the Early Historic era are generally understood to have undergone a period of decline after about the fourth century CE, when populations once again dispersed to smaller settlements. Also at this time, Buddhist practices became absorbed into resurgent Vedic religious activities and there was a re-strengthening of the hierarchical priestly tradition. Even the Buddha himself was transformed into an incarnation of Vishnu, and thus integrated into the new religious canon. Priestly traditions were framed through the spectacular architecture of temples, which, along with their associated precincts, became important economic and social centers often associated with pilgrimage, rural agricultural production, and dispersed patterns of temple land ownership that are maintained even today. Religious changes also included the *bhakti* movement, with its emphasis on the personal relationship to the divine, the development of tantric practices, and the introduction of Islam.

Starting in the fourth century CE, religious changes occurred in conjunction with the growth of more powerful regional states such as the Guptas in the Ganges Plain and the Vakatakas and Rashtrakutas in the Deccan region of central India. In the ninth century, southern India was the stage for the Chola consolidation of authority. In the thirteenth century, the establishment of the foreign-led Delhi sultanate in the north was followed by the emergence of powerful regional kingdoms centered at cities such as Bidar, Bijapur, Golconda, Gulbarga, Gwalior, and Vijayanagara (Sherwani, 1977; Simpkins, 2010).

Over time, local rulers controlled their territory more strongly by using taxation systems, increasingly frequent warfare, and investment in military apparatus. Much has been gained from the architectural studies of fortifications, which became increasingly prevalent after 1000 CE. One of the first major studies of this type was undertaken at Daulatabad (Mate, 1983). This and subsequent studies at numerous medieval fortifications revealed a political landscape of strong central places surrounded by “unstable frontier zones” (Eaton and Wagoner, 2014: 49; see also Deloche, 2007; 2009). In addition to fortifications, there was striking and durable architecture consecrated to religious purposes, including the soaring temples of the Saivite and Vaishnavite traditions (Hardy, 2007), and the mosques and tombs of the Islamic tradition (Asher, 1992).

The medieval era provides some of the most distinct and globally recognized architectural tropes of both spiritual and secular content. Styles of sculpture and engineering are widely reproduced throughout the religious structures of the subcontinent, as most famously seen in the temples of Khajuraho in central India, Konark on the eastern coast of India, Paharpur in Bangladesh, and Thanjavur in southern India. Architecture of the northern Mughal Empire was similarly distinctive, as seen in the Red Forts of Delhi and

Agra, the Taj Mahal, and Lahore Fort. Regional architectural expressions elsewhere indicate patronage by political and social elites in the states of Bijapur, Golconda, and Vijayanagara. The political architecture of the medieval period, characterized by graceful scalloped arches and contrasting red and white stone facades, subsequently became the basis for the imitative Indo-Saracenic styles adopted throughout the Indian Ocean realm. The colonial encounter with South Asian archaeological remains, particularly from the medieval period, served as a transitional hinge to the contemporary world and as a pointed backdrop for the consideration of modernity, heritage, and national identity (e.g., Sen, 2013).

As with the Early Historic period, the study of archaeology has grown from the study of specific sites to an understanding of urban–hinterland dynamics through both textual and archaeological studies. R. Champakalakshmi's (1996) study of the integrated political and religious components of landscape management in the early medieval period, as documented by the copious texts available for this time period, illustrates how political entities and local landowners focused on temples as community investment engines. In some cases, political leaders provided only endorsements and permissions, while the funding came from private sources. The notion of private–public partnerships as a means to develop rural infrastructure could thus be viewed as an age-old strategy rather than a modern innovation. For the medieval period, recent and continuing projects on water management in the southern subcontinent (K. Kalra, personal communication) and trade and transportation (e.g., Miller, 2006; Simpkins, 2010) indicate the way in which medieval practices set the stage for subsequent social developments and economic strategies, ranging from mining and metallurgy to large-scale agricultural production.

TRENDS IN MEDIEVAL RESEARCH

Whole-site archaeology of the medieval period often is challenging because of the sheer size of medieval archaeological sites and the fact that, in many parts of the Indian subcontinent, subsequent settlements have frequently covered over the historical remains. In some cases, however, long-term studies have provided data about medieval social configurations as well as serving as a baseline for heritage management and conservation. One particularly noteworthy example is the work at the ancient royal site of Vijayanagara in south central India, where an international team has worked for over 30 years to elucidate the meanings of architecture in both the city center (Fritz et al., 1984) and hinterlands (Mack, 2004), the political economy of craft production (Sinopoli, 2003), and the city's effects on its surrounding agricultural landscape (Morrison, 2000 [1995]; Sinopoli and Morrison, 2007).

Research on the archaeology of the medieval period is being transformed by new technologies that enable more sophisticated approaches to discovery, documentation, and preservation. Techniques such as ground-penetrating radar, magnetic gradiometry, and electrical resistivity can be utilized to visualize the subsurface of ancient sites as a substitute and supplement for more expensive traditional excavation approaches. Satellite images can be used to provide a bird's-eye view that enables patterns to be elicited that may no longer be visible on the ground (e.g., Rajani and Kasturirangan, 2013; 2014). Among the more promising future technologies that have yet to be applied to South Asian urban sites is light detection and ranging (LiDAR), an aerial method that can penetrate dense vegetation cover and identify the presence of human-made structures that may otherwise be very difficult to see directly. The technique has been successfully used in tropical regions elsewhere in the world, providing an important proof of concept (see Chase et al., 2011; Evans et al., 2013).

Mapping and three-dimensional visualizations can provide a way to capture information about threatened archaeological sites, as well as providing the opportunity for remote “visitation” and serving as a benchmark for conservation (Campbell, 2011; Rajani, 2014). Digital reconstructions can also facilitate a whole-site approach when sites are currently divided between countries, as in the case with the city of Gaur, an enormous medieval capital that covers 40 sq. km and is now located on both sides of the India–Bangladesh border (Husain, 1997). For other regions of South Asia, crowdsourcing through Internet and mobile phone platforms, as an updated version of traditional village-to-village survey, may play an important role in future archaeological discovery and heritage management (cf. Smith, 2014).

Medieval archaeology in the subcontinent encompasses studies on the premodern global economy through the study of specific ports (e.g., S.P. Gupta et al., 2005), as well as synthetic treatments of specific artifact types such as Chinese pottery (e.g., Subbarayalu, 1996). Maritime archaeology is also poised for strong growth through the use of new technologies. In the past, underwater archaeology was limited because of the need for costly equipment and skilled divers. Scanning technologies developed for commercial use can be applied to more efficiently survey large areas of the nearshore and deepwater environments for shipwrecks and trade installations. Maritime archaeological discoveries are also being made through very low-tech approaches as well, such as the study of harbors and trade routes evidenced by the observation of stone anchors revealed during times of low tide (e.g., A.S. Gaur, 2010; Tripathi et al., 2014). As in the case of shoreline surveys elsewhere, the help of the public in reporting opportunistic finds of maritime heritage could yield an important form of productive contact between local populations and institutional researchers (cf. Bensley and Mastone, 2014).

The study of human–environmental dynamics in the medieval era can yield an important point of comparison with modern times given the large quantity of historical texts and diversity of climates within the subcontinent. South Asia is subject to rapid (and sometimes catastrophic) rainfalls during the monsoon season and, in other ways, is an active environmental zone whose configurations affect human settlement. Shifts in river courses can leave some sites far away from water (Dallaporta and Marcato, 1999; Husain, 1997), while delta aggradation and estuarine siltation can result in former coastal sites now being located far inland (Mehta, 1968; Salles, 2012). The process of aggradation is not uniform and, even within regions, change over time can be highly variable (e.g., A.S. Gaur 2010: 153; Rajani and Kasturirangan, 2013: 468). Region-specific calculations are required in a way that combines textual, archaeological, and geological evidence (for an excellent example, see Padmalal et al., 2014).

The anticipated rise in shorelines associated with global warming means that shoreline surveys are increasingly necessary because of the danger that coastal sites will be damaged, eroded, or obscured through both incremental and catastrophic events. Catastrophic natural events such as storm cycles and tsunamis do occasionally provide some benefits for archaeological research, however, as was seen in the 2004 tsunami which exposed previously unknown structures at Mahabalipuram near Chennai on the southeastern coast of India (see Rajani and Kasturirangan, 2013). Understandably, scientific research is not often prioritized at times of natural disaster, but there are opportunities both for the acquisition of scholarly information and for local employment in teams coordinated for rapid-response documentation and recording.

One serious concern in the study of medieval archaeology concerns diminishing resources for libraries and archives devoted to curating the physical historical record. Documents are at risk of damage from insects, damp, mold, fire, earthquake, and other environmental

threats; in some cases, humans have been the source of destruction when there are attacks on archives for political reasons (e.g., Sathaye, 2006). Considerable heritage preservation can be accomplished at low cost through digital photography; archives, museums, and private collectors should sincerely seek out the means to make a comprehensive digital record of their collections in order to preserve them for future generations. Another challenge, which is more difficult to resolve, is the need for a trained cadre of epigraphers to transcribe and translate the many South Asian languages represented in medieval inscriptions and manuscripts, many of which remain untranslated at present.

THE MEANING OF THE HISTORIC PAST

Scholars of South Asia have emphasized that the study of archaeology in the subcontinent is strongly conditioned by the historical circumstances of colonialism and the subsequent intellectual growth trajectories of modernism and nationalism (e.g., Chakrabarti, 2008; N. Gupta, 2015; Ray, 2014; Selvakumar, 2010). Popular media in the Indian subcontinent focuses on archaeology as a matter of political, social, and educational interest with a special focus on the historic periods with their accessible texts and vivid sculptural and architectural traditions that provide a “readable” past. Public discourse on the meaning of heritage can be heated, given that sites and monuments may be utilized by competing entities (e.g., Bernbeck and Pollock, 1996; Coningham and Gunawardhana, 2013b). The existence of significant and continued discussion of the past, however, ensures that material remains will enter into the public consciousness in ways that provide collateral benefits through funding, museum exhibits, and attention to less controversial sites and research areas. Archaeological heritage in India is of interest not only to national but also to international audiences, who are also focused on historic periods and especially on Buddhist sites, through which heritage tourism explicitly aims to incorporate capacity building, employment, and development.

Although some types of archaeological research in South Asia are on the increase as a result of technological availability and a general societal interest in the past, there are real-world considerations that will affect future data recovery. Concerns for preservation and heritage management are likely to play an increasing role in the design of research projects, but not all archaeological sites can realistically be protected from the effects of population growth and the associated needs for construction material, agricultural land, and places of residence. The most media-intense campaigns about heritage have focused on extreme cases of site destruction at places such as Ayodhya, Bamiyan, and Mes Aynak, but the archaeological remains of the entire subcontinent are in a process of constant negotiation whereby different social and political groups influence the identification of what constitutes “heritage.” As in the rest of the world, the most realistic approach to the subcontinent’s bountiful archaeological record may be considered a process of managing change rather than of preventing change (cf. Holtorf and Fairclough, 2013).

In the Indian subcontinent today, there are more people living in cities than ever before: at present 18–38% of the population of the South Asian countries live in urban areas (World Bank, 2015). These numbers are projected to increase in the future as rural dwellers continue to come to cities seeking employment, education, and social opportunities. Archaeologists can and must be able to show how urbanism and its corollary, globalism, are interlinked with rural areas that produce the necessary water, food, fuel, and labor for urban environments. A research focus on human–environmental dynamics, water provisioning, and landscape management not only has implications for understanding the ancient past, but also serves as an essential baseline for current and future actions. By making use of all

of the techniques available, from survey and excavation to high-tech approaches, archaeological research in the subcontinent is strongly poised to make contributions to global comparative analyses as well as to local programs of cultural heritage and management.

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