

The pre-modern city in Sri Lanka: the 'first' and 'second' urbanization

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Introduction

The study of ancient urbanization in Sri Lanka, as elsewhere in Asia, takes its place within the framework of at least two major research themes: (1) a general group of questions regarding urban genesis and urban function – i.e. questions regarding the origin, evolution, character and function of that unit of human settlement whose definition and study has been a primary concern of archaeology since its inception in the nineteenth century; (2) the more specific problem of why the technologically advanced, substantially urbanized and mercantilist societies of Asia, with their extensive urban systems and commercial networks, failed in the period between the eleventh and fifteenth centuries to generate the dynamics and momentum that produced the modern transformation which originated in Europe from about the fifteenth and sixteenth centuries onwards – a transformation whose most distinctive product (and vehicle) was the late mediaeval and modern European city and its derivatives elsewhere in countries occupied or affected by the European expansion and diaspora. The first set of these questions relate to familiar and basic problems of the most general kind, but very little studied in the south Asian region outside the Harappan context; the second leads us into one of the major, unstudied problem areas of Asian historiography.

Archaeology and the paucity of data

In the Asian context, at least, as elsewhere, the discussion of these problems is greatly hampered by three interconnected factors – the paucity of data, the inadequacy of research interest and input, and the difficulties of data retrieval. Although Sri Lanka is better endowed in its early written records than mainland south Asia, even here it is largely (or only) through the increasingly expensive and extremely slow-moving process of archaeological fieldwork that we can begin to recover the kind of diagnostic data that will enable us to study the pre-modern city in terms of the research themes indicated above.

Objectives

The principal objective of this chapter is to present a largely empirical overview of the archaeological data relating to pre-modern urbanization in Sri Lanka, as an indication of research potential, research limitations and as a basis for comparative study. At the same time I propose a model of the morphology and spatial organization of the historical city and introduce the concept

of a 'first' and 'second' urbanization in the Sri Lankan context, outlining some of the important research problems that arise in archaeological approaches to the study of urban form.

Global cycles of development

Looking at the phenomenon of pre-modern urbanization from a long range perspective, it is possible to propose at least three major global cycles of historical evolution. The first of these is associated with the great chalcolithic-bronze age transformation that took place through the third and second millennia BC in Africa (in the upper and lower Nile valley), in several key nuclear zones in Asia and in the Mediterranean borderlands of Europe.

The second cycle begins with the generalized diffusion of iron technology in the Old World through the first millennium BC, culminating in the emergence of a number of historical civilizations. The beginnings of urbanization in Sri Lanka, best represented by the key site of Anuradhapura, is located within this second cycle.

The third cycle overlaps the second. It has its roots in the seventh century, with the end of the classical era in Europe and west Asia, the rise and expansion of Islam, the development of the civilizations of post-Gupta south Asia and T'ang China and the emergence into the full light of history of southeast Asia, Korea and Japan. This third cycle has its culmination in the developments of the eleventh to thirteenth centuries, that critical watershed in the dynamic rise of Europe. As we shall see, this also has its implications in the context of a second phase of urbanization in Sri Lanka.

Urbanization in Sri Lanka

Urbanization first appears in the Sri Lankan archaeological record in the same broad chronological horizon as urbanization in the Ganges valley. It displays a level of development apparently more advanced than in peninsular India but on a much less grand scale than that of the contemporary urban conglomerations of the Indo-Gangetic region (Erdosy 1985; Allchin 1989).

The Sri Lankan phenomenon is the southernmost extension in south Asia of the great expansion and 'generalization' of civilization in the Old World that took place through the first millennium BC. The relative geographical 'isolation' of the Sri Lankan development, in a small island at the southernmost extremity of south Asia, and the quantum of available archaeological and historical data, make this a valuable field for investigation.

Recent archaeological and historical research in Sri Lanka has witnessed a new dimension of interest in the study of pre-modern urbanization, and in the related spheres of settlement, social organization, state formation, technology, craft-industrial production, and trade and navigation (e.g., in connection with urbanization, Pathmanathan 1982; Silva 1984; Somaratna 1984;

Bandaranayake 1986; Bandaranayake 1987; Manatunga 1987; Bandaranayake 1989; Gunawardana 1989; Manatunga 1989; Duncan 1990). Earlier work on the subject was limited to pioneering observations on city-planning such as those of Hocart (1928, pp. 150–6; 1930, pp. 86–7) and Roland Silva (1972).

A rich, if fragmentary, multi-period record of urban forms and urban development is found in Sri Lanka, extending from the deeply buried mid-first millennium BC levels at Anuradhapura, to the surviving urban remains of seventeenth- to nineteenth-century Kandy. The known urban sites are summarized in Table 1.

A few of these urban complexes have been excavated and studied by archaeologists for nearly one hundred years. Many have only been noticed and surveyed in a preliminary way, while others have only been conjecturally located on the basis of literary references.

‘Proto-urban’ centres

In this latter category, references to urban centres in donatory inscriptions are found at several early Buddhist rock-shelter sites. These constitute the earliest evidence so far of urban or proto-urban development in the country (Ellawala 1969, pp. 120–1; Manatunga 1987; Fig. 1). Dating from the earliest phase of the Early Historical Period (third–first centuries BC), these records may well refer to phenomena that predate the beginnings of written history in the third century BC (Bandaranayake 1992). However, these early ‘urban’ sites have not been located on the ground and it seems unlikely – though not impossible – that any substantial archaeological data relating to such sites could ever be retrieved. Systematic settlement surveys have only recently been initiated, and deep, sub-surface probes would be necessary to locate sites of such antiquity. Their real importance may lie in their being pointers to future settlement surveys, and other archaeological investigations of a fairly widely scattered process of urbanization or proto-urbanization during the first millennium BC.

Urban sites of the Early and Middle Historical Period

Sites from a similar chronological horizon which do have significant data for investigation include three major inland urban centres, Anuradhapura, Tissamaharama (ancient Magama), and Kantarodai, and two port sites, Mantai (Mahatittha, Mantota) and Camputurai (Jambukola). These have their origins in Early Historical Period-1 and, at least in the case of Anuradhapura, in the protohistoric–early historic transition, i.e. *c.* 500 BC onwards.

Even more extensive data is available from sites of a somewhat later period, aspects of whose urban form have been preserved and are relatively easily accessible. These include: the

unique urban, palace and garden complex at Sigiriya, from the fifth century AD; a series of relatively uninvestigated and undated sites, all probably dating from Middle Historical Period-1 and Middle Historical Period-2, such as Alahara, Galebadda (Udundora?), Kaduruvala ('Vijitapura' ?), Kurantankulam, Padaviya, Paranagampitiya (Batalagoda, Badalathala) and Vahalkada; the well preserved remains at Panduvasnuvara and Polonnaruva from the twelfth century; the fortified capital cities of Late Historical Period-1, Yapahuva, Dambadeniya, Kurunagala, Yapahuva and Kotte; the living city of Kandy from Late Historical Period-2 and the fortified colonial towns such as Galle, Matara, Jaffna and – vestigially – Colombo.

We may add to this a number of urban and port centres of the Early and Middle Historic Period, whose histories and locations are generally well established on the basis of literary, archaeological and epigraphical sources and historical geography, but whose urban forms or settlement remains have long since disappeared or remain uninvestigated and unknown (modern name in brackets): Bhimatittha (Bentota), Dighavapi, Gokannatittha (Trincomalee), Gimhatittha (Gintota), Gothapabbata (Godavaya), Kalatittha (Kalutara), Pallavavanka, Mahanagakula, Mahavalukagama (Valigama), Magana, Mannarapattana (Mannar), Nilvalatittha (Matara), Salavatota (Halavata, Chilaw), Tendiratota (Devinuvara), Uratota (Kayts), Uruvela. The map (Fig. 2) of the known urban and port centres of the Early and Middle Historical Period gives us a fairly good index of the level of urbanization throughout the country by the twelfth and thirteenth centuries and the hypothetical territories relating to a period such as Middle Historical Period-2 or Middle Historical Period-3 when most or all these urban centres seem to have been active.

Scarcely any of these sites has been adequately surveyed, and several have never been investigated on the ground. The available data from surveys is presented in a series of accompanying plans. We may select Anuradhapura, Sigiriya and the port city of Mantai as indicators of the kind of data that is available from archaeological investigations.

Anuradhapura

The most obvious starting point for the study of pre-modern urbanization in Sri Lanka is the ancient city of Anuradhapura (Fig. 3). One of the largest archaeological sites in the country, extending over an area of about 40 km² (c. 16 square miles). The founding of Anuradhapura as a major urban complex and a central place of the first order of importance is traditionally ascribed to the semi-historical figure of the pre-Buddhist period, King Pandukabhaya, in the fourth century BC. Recent excavations indicate the existence of early writing, settlement, and imported ceramics from a fifth-century BC horizon or earlier, indicating the possibility of urbanization from about the middle of the first millennium BC (Deraniyagala 1990). The recorded history of Anuradhapura extends from its traditional founding in the fourth century BC and its subsequent laying-out by Devanampiya Tissa (250–210 BC) to its abandonment by the last of the Anuradhapura kings at the

end of the tenth century AD, its brief reoccupation in the eleventh century and the restoration of some of its major monuments, in the third quarter of the twelfth century. Anuradhapura was the country's principal political and religious centre for nearly 1500 years, until the closing decades of the tenth century AD. It continued to be an important urban centre for nearly 300 years even after it was replaced as the island's principal city by the new capital at Polonnaruva. Later, from the sixteenth to the early nineteenth centuries, it was one of the furthest outposts of the kingdom of Kandy.

A literary description of the urban plan

The chronicle account of the setting out of the city by Pandukabhaya gives us a image of its urban layout in the fourth century BC (Mahavamsa 10.73–102; c.f. Geiger 1990). How much of this was derived from earlier oral traditions and written records and how much is a projection backwards in time of urban conditions and planning concepts of the early sixth century AD, when the Mahavamsa was compiled, is difficult to judge today. What is important is that we have here a realistic rather than an idealized historical description of Sri Lanka's major metropolitan centre. The plan includes the following features: a royal precinct, city-gates to east, west and south, streets, sewers, four suburbs, three reservoirs, two cemeteries (one for the *candalas*, i.e. street-sweepers, sewer-cleaners and cemetery workers), an execution ground, an area set apart of for foreigners (*yonas*), and shrines for various deities near the city-gates, by the reservoirs or in the royal precinct itself. Just outside the city were a *candala*-village, a street with huts set apart for huntsman, hermitages, monasteries, residences and shrines for ascetics and monks of varied persuasions, areas for 'ascetics of various heretical sects' and 'families of heretical beliefs' and a maternity home and a hall of convalescence.

Chronicle and commentarial literature throughout the Anuradhapura period contains many brief and scattered references to elements of urban form and character which help considerably in the interpretation of the archaeological data, although none are as extensive or explicitly secular as this early account. The main foci of interest in most other descriptions are the monastic complexes.

The central urban area

The 'Citadel' or central urban area of Anuradhapura (Fig. 4) was probably in continuous occupation from about the sixth century BC to the fourteenth or fifteenth century AD.

The present remains of the city consist of a massive city wall, wholly or partly constructed of brick – enclosing an elongated asymmetrical quadrilateral area, about 1500 metres from north to south and 900 metres from east to west. The wall, appearing today as an earthen embankment, is nearly 30 metres wide at its base, of varying height and about 4 kilometres long. It was originally surrounded by a moat, now barely discernible, and had at least four gateways set in the four cardinal directions. Connecting the gateways and traversing the city are traces of ancient

roads in a rough grid layout. The city walls and gateways are mentioned in the earliest references, although its circumvallation is thought to date from the building of the city wall and moat by Kutakanna Tissa (41–19 BC) and Vasabha (AD 65–109) (Gunawardana 1989, p. 157).

Marked today by a paucity of visible structural remains, the site has a heavy accumulation of occupational debris, several deeply buried structural levels and a complex stratigraphy, going down in places to between 10 and 15 metres, indicating long and repeated occupation dating back to protohistoric and prehistoric times. Excavations have indicated extensive but much disturbed architectural remains, in mud, brick and stone, belonging to various phases of the Anuradhapura period. The only substantial monumental remains discovered on the surface or in the immediate sub-surface levels, are a royal alms hall, two successive Tooth-Relic temples, and what may be the skeletal remains of the palace of the Anuradhapura kings (see Bandaranayake 1974, pp. 380–5).

Significantly, this complex of contiguous buildings is located near the axial centre of the city, i.e. near the point at which the north–south and east–west axes connecting the main city gateways intersect. Not far away, in the central southwest sector of the city is a palace of the eleventh century, when Polonnaruva was the capital. Unlike later sites, Anuradhapura displays a univallate form, with no apparent signs today of a specific royal precinct (*rajangana*: Geiger 1960, p. 54, or *antopura*: Hocart 1928, p. 150), a separate, inner city (*atnakara*: Paranavitana 1938, p. 1) and an outer city (*bahinagara*, *bahipura*: Ellawala 1969, p. 123).

The total urban complex

The city is closely bounded on the north and south by the great monasteries of the Abhayagiri, Jetavana and the Mahavihara, but the areas to the east and west, immediately below the dams of the city reservoirs, are relatively free of monastic complexes. Explorations and chance finds, as well as vestiges of the ancient road system, ruined stone bridges, and scattered monastic remains, seem to suggest substantial suburban settlement outside the city walls, to the east, southeast and west (Fig. 5).

Its present form and outline represent the cumulative effects of more than 1600 years of pre-modern urban settlement. The study of Anuradhapura makes it possible for us to examine the sequential development of urbanization in Sri Lanka at a single site from protohistoric times to the end of the Early and Middle Historical Period. Further excavation and investigation of the site and of its suburbs and hinterland would undoubtedly make a major contribution to the history of urbanization in south Asia. The potential for such investigation is indicated in Figures 5 and 6.

Anuradhapura essentially consists of five elements:

- (1) the urban core, whose present walled periphery may well go back to Early Historical times;
- (2) the as yet undefined royal precinct;

- (3) the man-made lake-system, with three ancient lakes to the west and the massive Nuvaravava to the east;
- (4) the concentric rings of monasteries around the urban core, including four major monasteries and several outlying suburban monasteries, the furthest of which lies about 8 km to the north of the city centre;
- (5) the still uninvestigated and undefined suburbs and outer urban settlements, to the east, southeast and west of the city.

These elements contribute to the formulation of a model of urban morphology and spatial organization which seems to have endured through the greater part of the city's history, and which is substantially developed in later urban sites.

Sigiriya

While the city of Anuradhapura, with its urban core and outlying suburbs, remains an extremely complex and still relatively little investigated multi-period site, Sigiriya provides one of the best preserved and most magnificent examples of urban planning and palace architecture in south Asia, from a single phase of construction in the mid-first millennium AD (Fig. 7). The archaeology of the Sigiriya site and region goes back to pre- and proto-historic times. The present urban and royal complex – consisting of a royal citadel and an elaborately laid-out city, with ramparts, moats, gateways, gardens and suburbs – dates essentially from one major period of construction during the eighteen-year reign of Kasyapa I (AD 477–495), although the urban area seems to have continued to be in occupation for several centuries after the fifth century. The entire complex is centred on the massive Sigiriya rock, rising about 200 m (600 ft) above the surrounding plain, with the royal palace located on the 1.5 ha plateau on its summit. The present plan of Sigiriya consists of two walled and moated precincts surrounding the rock, and extending to the east and west.

The western precinct, 90 ha in extent, is defined by three successive earthen ramparts and two moats, with gateways to north, south and west. This area forms an elaborate royal pleasure garden. The central area of the garden and the inner moat, rampart and gateways of the western sector have been extensively excavated and conserved. The boulder-strewn hill slopes and the base of the rock have been landscaped and terraced and are bounded on the west and, at least partially on the east, by an internal brick and rubble rampart, forming an inner royal enclosure or citadel. The estimated area of this citadel is 28 ha.

The unexcavated and still heavily forested eastern precinct, covering 40 ha is surrounded by a single rampart and moat, with at least three gateways, and a moat. Recent research excavations and surveys have shown occupation from prehistoric times. It is now thought to have functioned in the fifth century AD as a ceremonial precinct, the equivalent of an 'inner city' zone but possibly not in permanent occupation. Recent explorations have also revealed the existence of

an apparently incomplete outer rampart around the eastern precinct forming an ‘outer city’, as well as suburban settlements beyond the outer perimeter.

These preliminary surveys indicate that the plan of the city, probably left unfinished with the abrupt termination of Kasyapa’s reign in AD 495, may have taken the form of a rectangle measuring more than 2750 m from east to west and 925 m from north to south. The eastern and western precincts were laid out on a precise square module around north–south and east–west axes which meet at the centre of the palace area on the summit of rock. The elaborate planning mathematics demonstrated in the overall Sigiriya layout show a brilliant combination of geometrical and symmetrical concepts and organic natural features.

The Sigiriya complex extends beyond this urban and palace area. To the southeast lies the city’s main reservoir, the Sigiri-vava. In its original form the dam of this man-made lake extended for a distance of more than 7 km, with an associated canal system extending beyond this. Immediately to the south of the city lies the fortified Mapagala complex, with its outer ‘cyclopean’ wall constructed of massive roughly dressed blocks of gneissic-granite. Recent investigations have shown the Mapagala fortifications to be older than the dam of the Sigiri-vava, and the site itself to have been occupied from a period well before the fifth century AD. As at Anuradhapura, at least one monastery – the royal monastery at Pidurangala – and, perhaps, the extensive Ramakale (Mahanaga Pabbata Vihara) complex, lay to the north and south of the city.

The importance of Sigiriya lies not only in the fact that it provides us with what is – in an archaeological sense – a ‘perfectly preserved’ urban layout (Fig. 8) dating from the last quarter of the fifth century AD, but also in that it has a well preserved palace plan and elaborate garden forms that are the oldest surviving landscaped gardens in Asia.

Mantai (Mantota, Mahatittha)

Our third example is the much smaller but more ancient port city of Mantai (Fig. 9). Mantai was situated at or near the mouth of the Malvatu Oya or Aruvi Aru, the river in whose upper catchment is located the city of Anuradhapura. From the point of view of Indian Ocean maritime trade routes, Mantai occupied a commanding position over the Indo-Sri Lanka straits, with the Gulf of Mannar, the Bay of Bengal and the southeastern Indian ports to its north, and the Arabian Sea and the southwestern Indian ports to its west. The importance of Mantai as a nodal centre of trade and communications during the Anuradhapura period and later, is well reflected in its historical and archaeological record.

Like Anuradhapura and Sigiriya, Mantai has special archaeological significance. It is one of the rare, surviving and clearly identified urban and port centres of the Anuradhapura period with a stratified deposit of 10 m or more, containing sequences from prehistoric times to the end of the Anuradhapura period and beyond. Exploration and excavations have been carried out at Mantai

for more than a hundred years (Prickett 1982; Carswell & Prickett 1984, pp. 23–37; Prickett 1984). Yet, as at Anuradhapura, the investigations at Mantai are of an exploratory and preliminary nature. Excavations have revealed the existence of buildings of brick, stone and coral stone, as well as wooden post-holes, tiled roofs and brick-paved roadways with coral stone kerbs. They give us an idea of successive phases of occupation and construction at the site, the varied nature of its building materials and rich artefact record, but provide little indication of the plan of its internal spatial organization.

The outline morphology of this port city, however, is very clear even today. It consists of a raised mound with a horseshoe-shaped or ‘truncated ellipse’ plan, demarcated by earthen ramparts and a double moat. The site as it now appears covers an area of about 50 ha. The area inside the moats is about 30 ha and constitutes the main settlement, although there is evidence of habitation and roads outside this area.

An urban model

Anuradhapura, Sigiriya and Mantai are the only sites at which programs of archaeological research have been started in recent years to investigate questions of urban form, function and chronology. There are, however, as we saw above, a large number of sites in Sri Lanka which contribute substantially to our understanding of the broad outlines of urban morphology and spatial organization (Figs 3–14, 17–21). They enable us to formulate an urban model, drawn largely from Anuradhapura, Sigiriya, and, Polonnaruva (Fig. 14), the largest of the surviving cities of the Early and Middle Historical Period.

In its most basic form this model consists of a series of enclosed precincts, one contained within or adjoining and overlapping the other. The component units of this layout are: (1) royal palace, (2) royal precinct (royal centre; citadel), (3) ritual centre, (4) inner city (ceremonial precinct), (5) outer city, (6) royal pleasure gardens (7) monasteries (usually outside urban area), (8) lake(s), (9) moat(s), (10) suburbs. The existence of these elements are, on basis on our present state of investigation, summarized in Table 2.

The royal palace is invariably in the actual or notional centre, situated within the royal precinct. Closely associated with this royal centre, sometimes overlapping it and at other times adjoining it, is a central ritual area associated with the Tooth-Relic temple, the Tooth-Relic being the paladin of Sri Lankan royalty. Surrounding or adjoining this is the inner city and then the outer city. The major monasteries and the suburbs are placed outside the city, while the location of the man-made lakes varies according to topography. The existing pleasure gardens at Sigiriya, Polonnaruva and – in an incipient form – at Kandy closely adjoin or are incorporated in the royal precinct.

Considerations of space at Anuradhapura required that they be located some distance away to the south of the city. Walls and moats are the most clearly visible features of the ancient urban remains and, with the exceptions of Anuradhapura, Kurunagala, Kotte and Kandy, most of the surviving cities that have been investigated indicate multi-vallate rather than uni-vallate forms.

The dominance of geometrical planning is a clear feature of the urban forms of the Early and Middle Historical Period (Figs 4, 7–13). They are usually rectangular in shape, though variations exist, probably due to historical and topographical reasons, and each city has its individual form. In contrast, the sites from the Late Historical Period have a largely organic or non-geometrical configuration (Figs 17–21). However, they too appear to contain the same basic elements and, where details of internal planning are available, as in the case of Kandy, they display some geometrical features.

The social organization of space

What is most significant about the layout of these urban centres is that they provide a model or diagram of the social and conceptual organization of urban space, whose basic morphology is clear and which can be traced through a historical trajectory of about 2000 years.

There are many aspects of this model that we can understand or interpret: (1) the concentric hierarchy of royal centre-ritual centre – inner city – outer city – satellite monasteries – suburbs; (2) the centrality of the palace and the royal precinct, usually laid out in a creative combination of natural and geometrical elements; (3) the closely allied ‘ritual centre’, enhancing but not replacing the primacy of the royal apex; the surrounding urban precincts in its sequence of inner city, outer city and suburbs; the ring of satellite monasteries, often autonomous or semi-autonomous foci of religious authority and socio-political and economic power, appropriately distant from and yet intimately linked to the centre; and (4) the urban irrigation system and the royal pleasure gardens, the one an essentially utilitarian element and the other a supernumerary adornment expressing the uniqueness of the royal position.

From a consideration of these aspects of the model we are able to confirm the function of the city as a centre of ceremonial, political and military power, very similar in principle to other historical cities in south, southeast and east Asia. Such a city was presided over by a king (or a ‘sub-king’) and his court and incorporated the temples or monasteries of one or more religions, whose ritual, spiritual and intellectual authority interacts with the secular and ritualized authority of the court, in a mutually supportive system.

The spatial organization and monumental architecture – e.g. palace, citadel, temple, monastery, royal pleasure garden – are the components and demonstrative elements of this conception. The compartmentalization of space, well demonstrated in a complex such as Sigiriya or Polonnaruva, was clearly a form of social zoning and social control. The essentially horizontal

nature of social and spatial zoning is often accompanied by a vertical gradation, which is architectural or, as at Sigiriya, both architectural and topographical. In actual and in ritual and semiological terms this organization of space is an expression of the prevailing pattern of social relationships – especially (but not only) the supremacy and dominance over the urban community of those who occupied or were allowed entry into the apex and central zones of the urban centre.

However, it is also clear that there are significant elements in this model which make it much more complex than the ‘classic’ concept of the historical city as a centre of ceremonial, political and military power. The most obvious of these ‘other’ elements visible in the model is the spatial and functional role of the monasteries. These were often as large or larger in extent than the walled urban area itself, and their religious authority, independent control over economic resources and (sometimes) autonomous or semi-autonomous political power, made them effective centres of countervailing authority.

There are also a number of other aspects of urban function and character that are implicit in the model but which do have the same degree of visibility as the royal and monastic elements. These include the social complexity and diverse socio-economic character of the urban population; the role of the city as a nodal centre of communication, of inland and overseas trade and of craft manufacture, and the relationship between the city and its rural hinterland. Historical evidence has given us useful pointers to the complexities of urban function in the Sri Lankan context (e.g. Pathmanathan 1982; Gunawardana 1989).

However, in the absence of the type of records we have in mediaeval Europe or China, it is, ultimately, only archaeological investigation that is capable, even in a fragmentary way, of giving us access to the complexities of urban function and character by its potential for retrieving and studying the material residues of urban life and the detailed morphology of the urban plan. Even now a sense of the range of archaeological data that is generated by fieldwork at these urban sites, creates a much more concrete and complex picture than we have from historical material alone.

The urban landscape

The hazards and limitations of such archaeological research are equally important considerations. Any attempt to understand the nature of the social composition of these urban centres beyond what we already know from the historical sources must rest on an understanding of the internal urban landscape of these cities. We would hope to find in the residual details of this landscape some expression of the nature and structure of urban society, both the social elite, i.e. the secular counterpart of the monastic order – nobles, officials, landowners, merchants and traders and higher craftsmen – and the larger urban and suburban population, which we know from other sources to have existed.

It is precisely this information that is still lacking. The material expression of the non-royal, secular aspect of the urban social complex is poorly represented in the archaeological record so far, with the exception of course of the ubiquitous ceramic and bead remains. Unlike in western and central Asia, or even the Indus valley, almost nothing has survived of the residential quarters of these cities. This is almost certainly due to the extensive use of organic and perishable building materials such as timber and clay.

Factors of preservation and retrieval also play an important part. So far no occupation levels in the residential quarters at any urban site in Sri Lanka have been excavated horizontally in a way that would reveal settlement patterns, even if the actual buildings themselves have been substantially destroyed.

Deep soundings and trenches at Tissamaharama (Parker 1884), within the walled city at Anuradhapura (Hocart 1924, pp. 48–53; Paranavitana 1938; Deraniyagala 1986) and at Mantai (Carswell & Prickett 1984), and preliminary investigations in the eastern precinct and the outer city at Sigiriya (Bandaranayake 1990) have shown ample evidence of urban settlement. However, they have not given us any indication of the internal spatial organization of the residential areas. The only confirmatory evidence of an early street architecture that resembles – at least in principle – the traditional terraced housing of the eighteenth and nineteenth centuries, and which can be broadly related to urban descriptions in literature, is the poorly built foundations of a row of houses unearthed in early excavations in the citadel at Anuradhapura, probably dating from an impoverished period of post-Anuradhapura or post-Polonaruva period occupation (Hocart 1924, pp. 48–53).

The literary image

It is literature rather than archaeology that gives us rare images of this urban landscape. The Chinese monk-pilgrim Fa Xian's fifth-century AD description of houses and streets in Anuradhapura, where he lived for two years, is brief but graphic:

In this city are many Buddhist laymen, elders and merchants of all grades. The houses are beautiful, the roads level and trim. (Fa Xian 1957, p. 81)

We have already referred to the Mahavamsa description of the city of Pandukhabaya whose internal landscape can be inferred from the references to street-sweepers, sewer-cleaners and 'street with huts set apart for a huntsmen'. The *Sahassavatthupparakana* (Buddhadatta 1959), dating from between the fifth and the ninth centuries AD, and the more elaborate fourteenth-century poem, the *Rasavahini* (Saranatissa 1901), which reproduces material from this earlier work, speak of the 'wide and clean streets' of Mantai with their 'storied residences of wealthy merchants' (Ellawala 1969, pp. 117–18; Hettiaratchchi 1988, p. 177).

Ariyapala has an extended account of urban and rural housing, principally derived from thirteenth-century sources, from which I may reproduce a brief extract (Ariyapala 1956, pp. 312–13; Geiger 1960, pp. 97–8):

The literature speaks of large houses of several storeys, with various apartments, and also of small huts. Thus we can see that the well-to-do had reasonably large houses with the necessary apartments and rooms, while the poor had to be content with just a hut of one or two rooms ... the rich had their houses built of stone, mortar and lime, and their roofs tiled. They were complete in all respects, with the necessary doors, windows, and also fanlights ... Most of the houses of the rich seem to have had balconies, for we constantly hear of ladies playing on them ... the walls of the houses were whitewashed. The houses also had compounds or courtyards. The houses of the poor people were built of clay ...

A description of the city of Kalaniya, near modern Colombo, in the *Nikayasangraha*, a fourteenth-century prose work by Jayabahu Devaraksita, when stripped of its ornate similes reads in the following way:

... with attractive bazaars and porticoes, the city ... is surrounded by a rampart ... and contains rows of palatial buildings, white in their mortar ... of one storey, two storeys, three storeys, five storeys ... beautiful with walls, pillars, and flights of stairs ... which city furthermore contains a network of broad streets, and in the two arteries fed by these, throngs of men of various climes ... which city is full of wealth of all sorts (Devaraksita 1908, p. 22).

These references are sufficiently diverse in time, place and authorship for us to contend that they are not merely literary conceits reproducing a conventional image of an urban landscape drawn from literature itself. They must certainly have some relationship to architectural reality. However, they are couched in very general terms, and lack any of the specific and comparative details of form or structure that would be of use in the study of the architecture itself, of the organization of urban space, or of the urban social complex. Any attempt at present to conjecturally reconstruct the urban landscape has to depend on analogies with material from much later periods of Sri Lankan history, such as the eighteenth and nineteenth centuries, and from comparative material in neighbouring countries. However, the important function served by the literary images is to establish the validity of applying such comparisons to urban complexes such as Anuradhapura, Sigiriya and Mantai.

Urban morphology and social function

Our interest in the existence and the character of this urban architecture is not merely a matter of historical reconstruction. It plays an important role in determining the complex social functions of the urban centres whose outline morphology is now available to us in substantial detail. Some of the major questions in the study of urbanization in Sri Lanka are:

- 1 Do the complex social functions associated with urban centres elsewhere exist in the historical cities of Sri Lanka, and if so, what specific form do they take?
- 2 What was the nature of urban social organization and the character and inter-relationship of the various urban social groups (Fig. 16) (such as the royal court and kinsmen, and court and state officials; monks, priests and other religious functionaries; secular nobles and aristocratic landowners of various ranks; other elite and non-elite groups comprising merchants, traders, craftsmen, farmers; and, finally, servants, slaves and the urban poor)?
- 3 What detailed evidence is there in the historical and archaeological record that helps us to test and interpret our present reading of urban morphology and spatial organization?
- 4 Allowing that the discourse on the nature of pre-modern Asian society is one that has a long history, and that the question of theoretical and structural models of social organization, and of concrete empirical investigations of social formations is still in a relatively early or indeterminate stage (e.g. Bandaranayake 1984; Geiger 1908), can we usefully juxtapose a model of social organization with the model of urban form (Figs 15, 16) that we have proposed in the archaeological interpretation of the urban centres described here?

These remain problems informing research and working hypotheses only partially supported by the existing evidence.

The urban hinterland

Although lying beyond the scope of the present paper, no consideration of these problems can be complete without some reference to the relationship of the city with its rural hinterland and its wider spatial and social context. This would include its relationship with its immediate rural hinterland of agriculture and craft production forming the primary economic base of the city; the political (and ritual) function as a centre of power and authority exercised over its immediate (inner) and its peripheral (outer) constituencies; and its the function as a nodal centre of communications and internal and overseas trade.

Although considerations of space and format preclude the examination of these questions here, it is important to record that recent archaeological surveys and other investigations of the areas around cities such as Anuradhapura (Fig. 6) and Sigiriya, and the study of port centres such as Mantai and of trade goods from excavations at these urban sites (c.f. e.g. Prickett 1990), are beginning to give us a complex picture of the wider context in which we may locate these urban centres.

The power centres of a centripetal state

What is relevant to our present concerns, however, is the impact of the city-hinterland nexus on the basic morphology of urban form. The cities of Sri Lanka's 'first' urbanization in the Early and Middle Historical Period were at first glance the great power centres of a 'dominantly centripetal' state. They are characterized by the geometry of their form and the monumentality of their structures. We may interpret these phenomena as a reflection of the nature of their relationship with the other constituent elements of the society at whose centre they stood.

At one level, these urban forms appear to be essentially a product of political (and religious) centralization. Thus, the city can be understood as the focus of a unified political system, marked by dominant patterns of the concentration and centralization of authority. At another level, we recognize the complexity of urban spatial organization and – despite the paucity of material residues – we are able to bring into focus their multiple levels of morphology and social composition. The question that we may legitimately pose is whether the ambiguities that we are beginning to perceive in the archaeological record, relating to the distribution and division of the social organization of urban space (Fig. 15), and also in the territorial division of control over the hinterland, is in any related to 'the oscillation between centripetal and centrifugal forces' that has been noticed as a distinctive aspect of the polity as a whole (Bandaranayake 1984).

The 'second' urbanization

The morphology of the urban centres of the Early and Middle Historical Period is in marked contrast to that of the Late Historical Period, where changes in polity, economy, distribution of population, and in the morphology and character of urban form, permit us to speak of a 'second' urbanization. The second urbanization is a developmental stage with its origins in processes that begin perhaps as early as the seventh century, and which become a dominant phenomenon in the thirteenth century. The Late Historical Period sees a fracturing and dispersing of the systematic concentration of power that dominated the Early and Middle Historical Period. It is marked by the decentralization of polity and the emergence of multiple kingdoms and mini- and micro-polities,

many associated with a variety of urban and port centres. These are probably all manifestations of a new historical dynamism in which commerce, mercantilism and cosmopolitanism played a significant if as yet incalculable role. Late Historical Period-1 was a period of commercial expansion, considerable ethnic, religious and cultural diversity, intellectual vitality, and important developments in literature. It is now possible to see this period as marking a major socio-economic transition. Some of the most significant elements of this were a shift in the main demographic concentrations from the northern, eastern and southern plains of the Dry Zone to the wetter southwestern maritime region and central mountains, and the northern peninsula, and the rise to prominence of a number of new urban and port centres that we are just beginning to investigate.

The urban centres of Late Historical Period-1 and Late Historical Period-2

Unlike the urban centres of the Early and Middle Historical Period, which were abandoned during the Dry to Wet Zone transition (probably at some time in the thirteenth and fourteenth centuries), and have consequently survived for archaeological investigation, the urban and port centres of the Late Historical Period remained in continuous occupation through the period of colonial intervention to modern times. As a result, very little has in fact survived of the urban forms and settlement remains of this period, with the exception of four Late Historical Period-1 centres, Dambadeniya and Yapahuva and, more vestigially, Kurunagala and Kotte (Figs 17–19). The only Late Historical Period-2 centre that has come down to us with any significant pre-modern remains is Kandy (Figs 20, 21), the capital of the last Sri Lankan kingdom to survive the colonial invasions. Vestigial remains elsewhere include fragments of architectural form at sites such as Nallur in the extreme north, and Devinuvara (ancient Devanagara and its port, Tendiratota, of the Early and Middle Historical Period and Late Historical Period-1) in the extreme south; the vernacular street architecture of nineteenth-century high streets in townships such as Ambalangoda and Mavanalla; the relatively well preserved streets and urban housing (in what we might call a vernacular-colonial style), both inside and outside fortified colonial settlements, such as Galle, Jaffna, Matara and Colombo.

The most significant aspects of the urban remains of the Late Historical Period for the study of urban morphology are: (1) the abandonment of geometrical planning in the surviving capital cities; (2) the selection of defensive locations; and (3) the ethno-archaeological value of vernacular housing.

The four capitals – Dambadeniya, Yapahuva, Kotte and Kandy – retain the basic features of the urban centres of the Early and Middle Historical Period such as ramparts, moats, gateways, royal precincts and street grid, and we see the continuity of the urban model, but are distinguished by an asymmetrical or organic form. How do we interpret this basic morphological change? The explanation cannot lie simply in a concept of ‘decline’, a diminution of resources, or the lack of

the intellectual rigour of urban planning. The walled area of these cities is as large as those of the Early and Middle Historical Period, and they retain elements of the grandeur and elegance of the earlier period. Could we see in this abandonment of the symmetrical planning a reflection of the dominantly centrifugal or decentralized polity of the Late Historical Period? Does it express an important change in the relationship between the urban centre and its wider social and political context? Until we have more data on urbanization and a better understanding of the Early and Middle Historical Period–Late Historical Period transition, there is very little that we can say in answer to these questions.

What we do know, however, is that the urban model of the earlier period continued through to the nineteenth century and it can still be observed in the survivals that we see in the contemporary city of Kandy (Figs 11–13). Kandy has in many ways the best preserved source materials for the study of urban form in Sri Lanka as is indicated in a geographer's recent semiological study of the city, *The City as Text* (Duncan 1990). To the archaeologist, Kandy affords the most elaborate possibility for the interpretation of the fragmentary remains of those historical cities from which it is descended.

For our present purposes, perhaps the most relevant articulation of the urban form and social organization of space in Kandy and other Kandyan urban and port centres, is a series of early seventeenth-century Dutch pictographic maps illustrating Joris van Spilberghen's account of his embassy to Kandy in 1601. The most elaborate of these maps is that of Kandy itself (Fig. 22). We see here the same sequence of concentric rectangles that we have observed elsewhere and some of the principal items of the urban model, such as the royal palace and royal precinct, the ritual centre, the inner city, the street grid, urban housing and the rural hinterland – all of which we may confirm as accurate from other eighteenth- and nineteenth-century maps of the city and from the surviving contemporary data. One of the most important details, is its documentation of an elaborate street architecture of houses and mansions, very similar in essence to the descriptions of street architecture in Anuradhapura, Mantai and Kelaniya discussed earlier.

Another important dimension in the map is an explicit social classification noting five distinct social levels. First, the palace and the court and, then, the ritual centre, both only represented architecturally, in the form of named buildings and enclosures. Second, the streets and mansions of the city itself, together with a set of figures, appropriately dressed and presented in a clear social hierarchy, described as 'a courtier or captain, a gentleman and his wife, and a slave' (later revisions have: 'seigneur de la cour, bourgeois et sa femme, paysan'). Finally, across the river are the farming villages, the roads, and the forests. We have here not only a clear reading of an urban form that is both actual and conceptual but also one that recalls Fa Xian's description of urban Anuradhapura in the fifth century, with its 'level and trim' roads, its 'beautiful houses' and his classification of 'Buddhist laymen, elders and merchants of all grades'.

We may conclude with a similar comparison between two ‘urban’ plans of the seventeenth and eighteenth centuries – van Spilberghen’s image of the religious city and river port of Mahiyangana (Bintanna), with its central stupa and radiatory plan of street houses (Fig. 23), and a rare eighteenth-century Kandyan map of a temple-village, with the shrine in the centre surrounded by allotments and houses (Fig. 24).

Concluding remarks

What has been presented here is a survey of the kind of archaeological data that is available for the investigation of urbanization in Sri Lanka through a period of more than 2000 years with specific patterns of continuity and variation. Other sources such as literature, vernacular architecture, living historical environments (i.e. urban survivals) and historical cartography, help us to interpret and supplement that data. The spatial model that we have proposed on the basis of our present understanding of urban morphology may provide a useful basis for further investigation and comparative studies in the Asian context.

References

- Allchin, F. R. 1989. City and state formation in early historic south Asia. *South Asian Studies* 5, 1–16.
- Ariyapala, M. B. 1956. *Society in Mediaeval Ceylon*. Colombo: Department of Cultural Affairs.
- Bandaranayake, S. 1974. *Sinhalese Monastic Architecture*. Leiden: Brill.
- Bandaranayake, S. 1984. Problems in the classification of historical societies of the Indian Ocean Region: a review of the Sri Lankan situation. In *Cultural and Educational Issues in Multicultural Societies (Proceedings of ICIOS II)*, 1–22. Perth: International Centre for Indian Ocean Studies.
- Bandaranayake, S. 1986. Urbanization and the royal city. Paper presented at first SAREC Archaeological Congress, New Delhi, January 1986.
- Bandaranayake, S. 1987. The ‘first’ and ‘second’ urbanization in Sri Lanka: a review. Paper presented at the second SAREC Archaeological Congress, Kandy, December 1986.

- Bandaranayake, S. 1990. Approaches to the settlement archaeology of the Sigiriya-Dambulla region. In *The Settlement Archaeology of the Sigiriya-Dambulla Region*, Bandaranayake, S., M. Mogren & S. Epitawatte (eds), 14–38. Colombo: Postgraduate Institute of Archaeology.
- Bandaranayake, S. 1992. The settlement patterns of the protohistoric to early historic interface in Sri Lanka. In *South Asian Archaeology 1989*, Jarrige, C. (ed.), 15–23. Madison: Prehistory Press.
- Buddhadatta, Ven A. P. (ed.) 1959. *Sahassavattuppakarana*. Ambalangoda: Ananda Book Co.
- Chattopadhyaya, B. D. 1986. Urban centres in early mediaeval India. In *Situating Indian History*, Bhattacharya, S. & R. Thapar (eds), 8–34. New Delhi: Oxford University Press.
- Carswell, J. & M. Prickett. 1984. Mantai 1980: a preliminary investigation. *Ancient Ceylon* 5, 3–80.
- Javabahu Devaraksita 1908. *Nikayasangraha*, trans. C. M. Fernando, de Wickremesinghe, Z. (ed.). Colombo: Government Printer.
- Deraniyagala, S. 1986. Excavations in the citadel of Anuradhapura: Gedige 1984: a preliminary report. *Ancient Ceylon* 6, 39–47.
- Deraniyagala, S. 1990. Radio carbon dating of early Brahmi script in Sri Lanka. *Ancient Ceylon* 11, 149–68.
- Duncan, J. S. 1990. *The City as Text: the politics of landscape, interpretation in the Kandyan kingdom*. Cambridge & New York: Cambridge University Press.
- Erdosy, G. 1985. Early historic cities of northern India. *South Asian Studies* 3, 1–23.
- Ellawala, H. 1969. *Social History of Early Ceylon*. Colombo: Department of Cultural Affairs.
- Fa Xian 1957. *A Record of the Buddhist Countries*, trans. Li Yung-hsi. Peking: Chinese Buddhist Association.
- Geiger, W. 1960. *Culture of Ceylon in Mediaeval Times*, Bechert, H. (ed.). Wiesbaden: Oth Harrasowitz.

- Geiger, W. (ed.) 1990. *Mahavamsa or the Great Chronicle of Ceylon*, trans. W. Geiger. Colombo: Ceylon Government Information Department.
- Gunawardana, R. A. L. H. 1989. Anuradhapura: ritual, power and resistance in a precolonial south Asian city. In *Domination and Resistance*, Miller, D., M. Rowlands & C. Tilley (eds), 154–78. London: Unwin Hyman.
- Hettiaratchchi, S. B. 1988. *Social and Cultural History of Ancient Sri Lanka*. Delhi: Sri Satguru Publications.
- Hocart, A. M. 1924. *Memoirs of the Archaeological Survey of Ceylon I*. Colombo: Government Printer.
- Hocart, A. M. 1928. Archaeological summary. *Ceylon Journal of Science* 4, 143–64.
- Hocart, A. M. 1930. Archaeological summary. *Ceylon Journal of Science* 2, 73–97.
- Manatunga, A. 1987. Sri lankave mul aitihasika yugaye ‘purva-nagarasthana’ kihipayak. (Some ‘proto-urban’ sites of the Early Historic Period in Sri Lanka.) Paper presented at the Second National Archaeological Congress, Colombo, November 1987.
- Manatunga, A. 1989. Early urbanization in Sri Lanka: an investigation into some possible ‘proto-urban’ settlements. Paper presented at Indian Prehistory Society Conference in Madras.
- Parker, H. 1884. Report on archaeological discoveries at Tissamaharama. *The Journal of the Ceylon Branch of the Royal Asiatic Society* 27, 95–189.
- Paranavitana, S. 1938. *The Excavations in the Citadel of Anuradhapura*. Colombo: Ceylon Government Press.
- Pathmanathan, S. 1982. The cities of medieval Sri Lanka (AD 1000–1250): centres of dynastic power, religious authority, and commercial activity. *Sri Lanka Journal of Social Sciences* 1, 11–35.
- Prickett, M. 1982. Informal report on the second season of excavation at Mantai, Sri Lanka. Administrative Report of the Archaeological Commissioner for the Year 1982. Colombo Archaeological Department.

Prickett, M. 1984. Mantai 1984: preliminary report of the third season of excavation. Administrative Report of the Archaeological Commissioner for the Year 1984. Colombo Archaeological Department.

Prickett, M. 1990. Durable goods; the archaeological evidence of Sri Lanka's role in the Indian Ocean trade. In *Sri Lanka and the Silk Road of the Sea*, Bandaranayake, S., L. Dewaraja, K. D. Wimalaratne & R. Silva (eds). Colombo: The Sri Lanka National Commission for UNESCO and the Central Cultural Fund.

*Saranatissa, Ven T. (ed.) 1901. *Rasavahini*. Colombo:

Silva, R. 1972. Lessons of town planning from ancient Ceylon. *The Ceylon Institute of Architects Journal* 1, 8–13, 29.

Silva, R. 1984. Ancient cities; a perennial fountain of engineering research. Paper presented at The Institute of Engineers, Colombo, July 1984.

Somaratna, G. V. P. 1984. Jayawardhanapura; the capital of the kingdom of Sri Lanka. *The Sri Lanka Archives* 2, 1–6.

Table 1. Urbanization in Sri Lanka: archaeological sites

PROTO- URBANIZATION		
-500	Aba nagara	Naka nagara
	Aca nagara	Nilaya nagara
	Anuradhapura	Pubaga nagara
-250	Bama nagara	Siva nagara
	Batasa nagara	Tavikiriya nagara
	Cita nagara	Uti nagara
	Kalaha nagara	etc.
FIRST UBANIZATION		
	Alahara	Padaviya

+500	Anuradhapura Camputurai Galebadda Kaduruvala Kuruntankulam Mantai	Panduvassnuvara Paranagampitiya Polonnaruva Sigiriya Tissamaharama Vahalkada
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SECOND
URBANIZATION

+1250	Dambadeniya (Devinuvara) (Gampola) Kandy Kotte Kurunagala	(Mahiyangana) (Rayigama) (Sitavaka) Yapahuva
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THIRD
URBANIZATION

+1600	the development of the colonial city
+1800	modern transition: development of contemporary urban centres
+1900	

Table 2

Site 1 2 3 4 5 6 7 8 9 10

Early

Historical

Period &

Middle

Historical

Period 1-

2

Anuradha X X X X X X X X X X X

pura

Sigiriya X X - X X X X X X X X

Mantai - X X X X - - X X X

[not

royal] -

Tissamah - - - - - - X X - X

arama -

Middle

Historical

Period 2

Alahara - - - X X - - X X -

Kaduruval - - - X X - - X (X) -

a

Paranaga X X - X X - - X - -

mpitiya

Kuruntan - (X) - X X - - X - -

kulam

Middle

Historical

Period 3

Panduvas X X (?) X X - X - X -

nuvara

Polonnaru X X X X X X X X X -

va

Late										
Historical										
Period 1										
Dambade	-	(X)	-	(X)	-	-	X	-	(X)	-
niya										
Kotte	-	X	(X)	X	X	-	-	X	X	(X)
Kurunagal	(X)	-	-	X	X	-	X	X	-	-
a										
Yapahuva	(X)	X	X	X	X	-	-	-	X	-
Late										
Historical										
Period 2										
Kandy	X	X	X	X	-	(X)	X	X	X	X

Table 2 (1) royal palace, (2) royal precinct (royal centre; citadel), (3) ritual centre, (4) inner city (ceremonial precinct), (5) outer city, (6) royal pleasure gardens (7) monasteries (usually outside urban area), (8) lake(s), (9) moat(s), (10) suburbs.

Captions for illustrations

Fig. 1 Proto-urban and early Brahmi inscription sites (after Manatunga 1987).

Fig. 2. Urbanization in the Early and Middle Historical period.

Fig. 3. Anduradhapura.

Fig. 4. Anuradhapura inner citadel.

Fig. 5. Anuradhapura and its suburbs.

Fig. 6. Anuradhapura hinterland and irrigation systems.

Fig. 7. Sigiriya.

Fig. 8. Schematic plan of the urban complex at Sigiriya.

Fig. 9. Mantai.

Fig. 10. Kaduruvela ('Vijitapura').

Fig. 11. Paranagampitiya.

Fig. 12. Kuruntankulam.

- Fig. 13. Panduvasnuvara.
- Fig. 14. Polonnaruva.
- Fig. 15. Urban model.
- Fig. 16. Schematic model of pre-modern social structure.
- Fig. 17. Yapahuva.
- Fig. 18. Kurunagala.
- Fig. 19. Kotte.
- Fig. 20. Kandy: urban grid.
- Fig. 21. Kandy.
- Fig. 22. Pictorial map of Kandy in the early seventeenth century (from Spilbergen 1605).
- Fig. 23. Pictorial map of Mahiyangana in the early seventeenth century.
- Fig. 24. Traditional map of a temple village in the eighteenth century.