Why City-States Existed? Riddles and Clues of Urbanisation and Fortifications

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Abstract

Why city-states existed in a pre-industrial society, where some 80 to 90 percent of the population, at least, were necessarily engaged in food production, is a mystery, which scholars have seldom addressed or even recognised. City-states neither had low rates of urbanism, nor, as a rule, relied heavily on imported food, as some scholars have assumed. Most of the city-states' population consisted of peasants who lived in the city and walked to work their land outside it, in the city's near vicinity. Rather than massive industrial and commercial concentration, which existed in only a few, high-profile, historical cases, it was defensive coalescence that mostly accounts for the fact that citystates generally appeared in clusters of tens and hundreds. City-states emerged where large-scale territorial unification did not take place early in political evolution, and the peasant population of petty-polities coalesced to seek protection against raids from neighbouring such polities. Hence the problems that scholars have regularly encountered with the concepts of "city" and even "urbanism" as applied to these often miniscule "town"-polities, which should be more adequately described as densely and centrally nucleated petty-polities. A central refuge/cultic/ chiefly enclosure, sometimes supplemented by more extensive ditches and earth and timber works at strategically and topographically exposed directions, as well as the sheer size of the nucleated settlement provided defence against raiding hosts. It took centuries of early urban evolution until continuous circuit brick and stone walls replaced more limited fortifications.

How Urban was the City-State? Pre-Industrial Society, Urbanism, and Defence

The city-state phenomenon raises some truly fundamental questions which, while surfacing here and there in the scholarly literature with reference to particular cases, have rarely been posed systematically, let alone answered. Although most of the evidence - and some of the more general insights presented in this article are not new, they have not been put together into a broad theoretical framework. For example, how urban was the city-state? Comparative studies of city-state systems barely address this question (Griffeth and Thomas [1981]; Burke [1986]). In recent studies, non-urban petty-polities have been conflated with city-states as a matter of course, as such a distinction seems to have been barely recognised by the authors (Nichols and Charlton [1997]; also Feinman and Marcus [1998]; but see Wilson [1997] and Gat (forthcoming). In this they have been following a growing sceptical trend in the study of some city-states systems - particularly the ancient Greek poleis – which, suggesting that the city-state is a misnomer, questions whether it was either urban or, indeed, a state. This trend has recently been stemmed by Hansen's exemplary work, culminating in his comparative study of 30 city-state cultures (2000). The present article agrees with Hansen that the city-state was indeed highly urban (as well as being a state), in the sense that an unusually large part of its population lived in a central nucleated settlement. On the other hand, other attributes usually associated with the concepts of "city" and "urbanism", such as population in the many thousands and economic complexity, were often missing in what was mostly town-size polities. It is this special type of urbanism that this article sets out to explain.

As mentioned, one obvious measure of urbanism is the percentage of the city-state's population that actually lived in the city, rather than in its surrounding countryside. Curiously, this highly significant variable is very rarely addressed in earnest, the most prominent case being early Mesopotamia (Hansen [2000] 614 and n. 107 for some other cases). Based on their archaeological surveys of lower Mesopotamia (Adams and Nissen [1972] 18-22, 86-87; also Adams [1972]; [1981] 130; Nissen [1988] 131) have esti-

mated that by the Early Dynastic period (ca. 2900-2350 B.C.) some 80-90 per cent of the Mesopotamian city-states' population lived in the cities, mostly in the city-state's capital city but also in a few satellite towns; indeed, it was their movement there from the countryside in the late 4th and early 3rd millennium B.C. (Late Uruk and Jemdet Nasr periods) that had made these cities into what they were. To be sure, these estimates are not free from ambiguities: rural settlement and population are notoriously elusive archaeologically; and urban population estimates are tenuously based on settlement area and analogies from pre-modern population densities in the region (e.g. Postgate [1994b] for the problems). All the same, even if the Mesopotamian level of urbanism was actually somewhat lower than that suggested by Adams and Nissen, it was still extraordinary, for the economy of pre-industrial societies was exactly the reverse of Adams' and Nissen's figures, that is, at least 80-90 per cent of the population consisted of food-producing peasants (Aerts and Klengel [1990]; Yoffee [1995]; Liverani [1996]; Driel [1998]; de Maaijer [1998] - for the Mesopotamian agricultural land). Yet scholarly opinion has not fully digested the general significance of the Mesopotamian data and their possible implications for other city-state societies.

Indeed, in relation to other city-state systems the question of the rates of urbanism has barely attracted the attention it deserves, and not always because of the paucity and inherent vagueness of the evidence; a focused formulation of the question itself is often absent. The most glaring lacuna existed with respect to the most intensively studied city-state system, that of the Greek poleis. It is increasingly clear that urbanisation and, indeed, the formation of the Greek polis itself during the Archaic period, ca. 750-500 B.C., was a protracted and gradual process (e.g. Starr [1977] 97-99; Snodgrass [1991]; Morris [1991]; Hansen [1993]). But what rates of urbanism were reached by the Greek poleis by the Classical period remains a much confused subject. In some recent specialised works on this subject the question does not even occur (e.g. the otherwise excellent Rich and Wallace-Hadrill [1991]). Some scholars who have referred to the question have assumed – either explicitly or implicitly – that the obvious dominance of food production and peasants in pre-industrial societies was directly expressed in very low rates of urbanism. Chester Starr ([1986] 6-7, 13; though more cautiously in [1977] 41, 98-9, 104-5), for example, has drawn on 18th century census figures from the North American colonies and

early United States, which show – as in other preindustrial countries – that some 80 to 90 per cent of the population were farmers and lived in the countryside. He has assumed that the same applied to the Greek *poleis*. Victor Hanson ([1995] 7, 446 n.3, and *passim*; [1998] 42-49, 214-17) has made the same tacit, and sometimes explicit, assumption in his plea for a rediscovery of the rural Greeks.

As already mentioned, this assumption has accorded well with the often-expressed doubt whether the Classical *polis* was a "city-state" at all in terms of its urbanism. Historians have tended to prefer the concept of "citizen-state", which of course it also was – indeed in close connection with its urbanism. Only in recent years has Hansen ([1997]; also [1993]; [1996]; [1998]; [2000]) deployed a formidable scholarly counter-argument, demonstrating – convincingly, in the present author's opinion – that the Classical *polis* was indeed highly urban. As the Mesopotamian city-states' estimated rates of urbanism suggest, the pre-industrial economic rationale may have been different from the one cited above, with implications also for the case of the Greek *poleis*.

Indeed, other scholars, aware that the Greek poleis' rates of urbanism - and those of other city-states systems – were significantly higher than those implied by analogies with other pre-industrial societies, have made different assumptions. They have assumed that the city-state had an uncharacteristically specialised economy, with a large non-agricultural craft and trading sector. The city-state's food deficit was supposedly covered by imports. Furthermore, relying on Max Weber's distinction between "consumer" and "producer" cities (Weber [1958] 68-70; Finley ([1973]; [1981]) has argued that the Greek polis was a net consumer, living on the labour of its close and more remote hinterland. However, rather than with the clusters of small and independent city-states, Weber's category of the "consumer city" accords best with the few metropolitan centres of large states and empires, from which large-scale tribute could be extracted. With respect to the Greeks, this applied only to Imperial Athens, which in the 5th century B.C. (but not earlier) drew much of its grain from imports (Garnsey [1985] 62-75; [1988] 89-164). All the same, although Attica was more densely populated than other parts of Greece, Athens/Attica was in fact, as we shall see, probably less urbanised in some significant respects than other poleis which did not rely on imported food as Athens did. Athens was also exceptionally commercial in Greek terms, but as Finley has rightly emphasised, only very few (though historically high profile), heavily commercialised and particularly maritime city-states in pre-industrial times developed a truly specialised economy. To assume that this applied, for example, to the estimated 1,200-1,500 Greek *poleis*, the hundreds of city-states in mediaeval northern Italy, the thirty-odd Mesopotamian city-states (despite their much discussed long-distance trade: e.g. Algaze [1993]; Van De Mieroop [1997]) or the 40 to 50 city-states in the pre-contact Valley of Mexico goes against the evidence and is belied by the simple realities of pre-industrial food production and transportation.

The problem that both the above-mentioned – largely conflicting - conceptions of city-state urbanism have in effect tried to overcome is precisely how such clusters of urbanism prevailed in a preindustrial world, where at least 80 to 90 per cent of the population were necessarily food producers if society was to be able to feed itself. Both conceptions presupposed that the rural/urban residential split overlapped the agricultural/manufacturing cum non-productive occupational split (also e.g. Sharma [1991] 9, with respect to early historic India). However, as scholars of different city-state systems have long known, this was not the case. Peasants could and did reside within the city. Robin Osborne (1987), as well as Alison Burford ([1993] 10, 56-64) and Hansen ([2000] 159), while also offering no estimated breakdowns into city versus country dwellers in Classical Greece, point out the familiar but all too often forgotten fact that the former were themselves mostly peasants (Garnsey [1999] 25 and 29 is unclear, though he mainly has the Roman imperial period in mind). As in early Mesopotamia, and most other city-state systems, these peasants, together with their animals, walked daily to work in their fields and farms, up to 5-10 km away (excellently in Morgan and Coulton [1997] 125-26).

If so, another question arises: why did the peasants give up dispersed rural residence and coalesce in urban settlements, through mixed processes of migration and conurbation (depending on the historical case)? All the city glitter could not compensate for the crowded living conditions, bad hygiene, high prevalence of epidemic disease, and hours' walk to the fields, which were the inseparable aspects of urban life. As I shall argue here, the principal motive was defence, as has been recognised to various degrees by scholars of several city-state civilisations, particularly early Mesopotamia. Following Adams and Nissen, scholars have widely attributed the rapid transformation of the Mesopotamian countryside and the coalescence of its inhabitants into the cities to the simulta-

neous development of more systematised, inter-state warfare (though see the lingering puzzlement in Redman [1978] 214-16, 220-43). Pre-colonial Africa is perhaps the most instructive laboratory in terms of the recent historicity of the evidence on the early citystate. Although they incorporated a substantial industrial sector, "African cities and towns were basically agrarian. At least 70 percent of their male residents commuted regularly to outlying farms" (Hull [1976] xiv). While the Yoruba of western Nigeria were "undoubtedly the most urban of all African peoples" in the pre-colonial period, their large cities were "based upon farming rather than industrialisation" (Bascon [1955] 446). Historians of Africa have generally assumed that Africa was special in this regard, but in fact it was not. The reason for the paradox of peasants' urbanism was defensive coalescence. Historical records of the Yoruba, which become fuller in the 19th century, with the more permanent arrival of Europeans, tell of heavy raids by the mounted Fulani herdsmen from the north, as well as of endemic intercity warfare. Similar, "proto-historic" records and archaeological evidence in the form of extensive city fortifications stretch further back for centuries (Krapf-Askari [1969] esp. 3-7, 154-55; Smith [1969] 120-29; Hull [1976] 19-20; Connah [1987] 130-34; Peel [2000] 507, 515).

Let us return to the Classical Greeks. As always, the best documented case is Athens. According to Thucydides (2.14 and 2.16), most of the population of Attica had lived in the countryside before they were evacuated into Athens at the beginning of the Peloponnesian War (431 B.C.). Archaeological estimates support this (Finley [1975] 70-71; Morris [1987] 100; in his important analysis of the archaeological evidence Osborne (1985) barely addresses the question directly). However, while Athens is the best documented Greek polis, it is also (together with the second best documented polis: Sparta) the most unusual one, a widely recognised fact that nonetheless regularly distorts our perspective on the ancient Greeks. As Thucydides specifically writes (2.15), life in the countryside was characteristic of the Athenians more than of any other Greeks. This would seem to defy conventional logic, because Athens is rightly considered to have been more commercialised and industrial than the typical polis and, therefore, should have supposedly been more urban. However, one crucial aspect of Athens' uniqueness was that it possessed a vast territory in Classical Greek terms, encompassing as it did the whole region of Attica. This large size of the territory meant that it was in any case not possible for its

peasant population to live mostly in the city of Athens itself, even had the peasants so desired (which they probably did not), because this would have meant living an impossible distance from their fields. Most of them resided in the countryside (*chora*) and many in villages (*demoi*), some of which were walled. On the other hand, since Attica was a peninsular pocket whose only exposed land side, the north, was largely blocked by the city of Athens itself, Attica was virtually immune to threat, except for the large-scale Persian and Spartan invasions of the 5th century. The same circumstances did not apply to most other Greek *poleis*, whose territory was small and exposed, admittedly with marked regional variations.

Unfortunately, our knowledge about poleis other than Athens is much poorer. The relevant literary evidence has been scrutinised by scholars (Hansen [1997] is the best). One scrap of evidence relates to Plataea in Boeotia. Lying only 70 stadia (13.5 km) away from its arch-rival, Thebes, it was attacked by surprise by the latter at the beginning of the Peloponnesian War. Consequently, according to Thucydides (2.5), some Plataeans and some property (kataskeue) were caught out in the fields (agroi). However, it seems clear from the account that the majority of the peasant population of this typical-size polis (which comprised about 1,000 adult male citizens) lived within the city, from which they walked to tend their fields, only a few kilometres away. Contrary to Victor Hanson's interpretation ([1998] 46), both the text and context suggest a relatively small number of people staying out in the fields rather than permanently living in farmsteads. For, as Hansen ([1997] 27-28) has calculated, if the majority of Plataea's tiny, mostly peasant, population did not live in the "city", what city was there that can fit Thucydides's description of Plataea as a walled urban residential place and the excavated walled site of some 10 ha?

In attempting to demonstrate the centrality of the *polis*' rural population, Hanson also cites Brasidas' surprise attack, during the Peloponnesian War, on the rural population residing outside Amphipolis on the Thracian coast (Thucydides 4.102-4). However, not only did Amphipolis lie on the margins of mainland Greece; the city's environs constituted a naturally protected "island", "as the Strymon [River] flows round it on both sides". Only Brasidas' capture of the bridge made his incursion possible. Indeed, from the fact that Thucydides finds it necessary to mention specifically that some of the people of Amphipolis lived dispersed in the countryside, one can actually infer that this was not the norm in other *poleis*.

Another piece of evidence on the subject (Xenophon, *Hellenica*, 5.2.6-7) relates to Mantinea, after the city fell before Sparta and its allies in 385 B.C. According to the peace terms imposed by Sparta, "the wall was torn down and Mantinea was divided into four separate villages, just as the people had dwelt in ancient times". Xenophon writes that after the initial shock the landholders in fact found this arrangement convenient, for they could now reside close to their farms. All the same, once Mantinea regained its independence in 371 B.C., urban coalescence, the *sine quo non* of self-defence by an independent *polis*, was resumed (6.5.3-5).

Despite problems of definition, sampling and interpretation (e.g. Osborne [1996]; Morgan and Coulton [1997]), the archaeological settlement surveys conducted in various parts of Greece are the principal means for generating new and highly significant information on the question of the rates of urbanisation. The Melos survey seems to offer no population breakdown into rural versus urban residents (Cherry and Wagstaff [1982]). The Kea survey (Cherry, Davis and Manzourani [1991] 279-81, 337-38) has suggested that at least 75 per cent of the population, if not more, lived in the urban settlement. According to the southern Argolid survey (Jameson, Runnels and van Andel [1994] 548-53, 561-63), close to 60 per cent of the population in the mid-4th century B.C. lived in "urban" settlements, while an estimated 36 per cent lived in villages and some 5 per cent lived in farmsteads. The estimated figures for the Archaic period are similar. The ongoing archaeological settlement survey of Boeotia barely addresses the question directly. But the authors cursorily estimate that about one third of the population of Boeotia lived in "cities", and the percentage of the urban population rises to about 40 if the satellite "towns" are added. The other 60 per cent consisted of "rural population" (Bintliff and Snodgrass [1985] 143; Snodgrass [1990]; also Bintliff [1997]). As we have already seen with respect to Attica, the seemingly paradoxical conclusion of all this is that the smaller the poleis, the more urban they tended to be (cf. Morgan and Coulton [1997] 125-26).

The formula for the Greek *polis*' urbanism – which generally applies to other city-state systems as well – would thus appear to be as follows: as a rule, at least 40 per cent, often the majority, and in small *poleis* the large majority, of the Classical *polis*' population lived in nucleated urban centres; and most of these urban dwellers were peasants. Indeed, I agree with Hansen that, contrary to a frequently expressed opinion in the scholarly literature, city-states were exactly what their

name implied, that is, highly urban. And as this article argues, they were so decisively and unusually urban because of the security threat posed by the presence of *other* city-states only a few kilometres away.

To be sure, archaeologists have long associated the nucleation of settlement with defence. Still, with the exception of early Mesopotamia, the full implications of this relationship for the evolution of city-states do not seem to have sunk in. It is this relationship which accounts, for example, for the highly conspicuous but hardly noted fact that city-states nearly always appeared in a cluster. It was in interaction and co-evolution within an inter-polity system, rather than in isolation - in what Hansen ([2000] 17) has called "citystate culture" - that city-states emerged, including those of the proverbially "pristine", earliest civilisation: Mesopotamia. (Renfrew [1975] 32 amply stresses warfare as a central aspect of system interaction in the "early state module", but in my view he still underestimates its central role in the formation of citystates.) Relatively small size was the key to their peculiar configuration: space was divided among small antagonistic political units, which meant both a high threat level from close-by neighbours and the ability of peasants to find refuge by living in the city while working outside it, only a few kilometers away. It is not surprising that scholars have regularly encountered problems with the concepts of "city" and even "urbanism" as applied to these often miniscule "town"-polities, which could be more adequately described as densely and centrally nucleated pettypolities – as opposed to rural-society petty-polities Gat (forthcoming). Hansen too ([2000] 25) runs into the usual impasse when attempting to distinguish between city and town in this context.

Where some super city-states emerged by winning control over whole regions – absorbing neighbouring communities in the process, including formerly independent city-states - the defensive imperative was somewhat relaxed, though much of the population continued to live in defended towns within the much expanded territory of the new regional polity. This was the process which took place, for example, in Athens/Attica, and to some degree probably in Thebesdominated Boeotia. It also seems to have applied to the larger mediaeval Italian communes, such as Florence and Milan, as these city-states expanded into regional territorial states during the 13th to 15th centuries, each incorporating several formerly independent city-states in Tuscany and Lombardy, respectively. Finally, where the defensive motive barely existed at all, as in the kingdom of Egypt, which had been unified on a grand scale very early in the development of civilisation in the Nile valley and which was largely sheltered by geography, the peasants continued to live in the countryside and around unwalled market towns, whereas cities were few and functioned as "consumptive" metropolitan administrative and religious centres. It is probably no coincidence that Egyptologists such as Trigger ([1972]; [1985]; also [1993] 10-11) and Hassan (1993) come closest to the ideas developed in this article (see also O'Connor [1972]; [1993]). It is mainly in the factor of defence rather than in the size of the industrial and trading sector that the differences between the rates of urbanisation of Egypt and Mesopotamia lay. As Hansen ([2000] 610) has suggested, city-state systems emerged where urbanisation preceded large-scale political unification. But, indeed, otherwise inexplicable massive urban nucleation occurred only because no large-scale political unification had taken place.

Viewed from another angle, this is also the factor which largely accounts for the much-noted "uniqueness" of the mediaeval European communes. Unlike other city-state systems, the mediaeval communes expanded politically from the city nucleus outwards. While never lacking an agricultural sector (Weber [1958] 70-72) and constantly absorbing people from the countryside as they grew, they extended their rule over that countryside (contado) and its peasant population only as their power increased. The main cause of this "Sonderweg" was that the mediaeval communes emerged within a space already dominated by large, albeit segmented and weak, feudal state systems and territorial magnates, rather than in a non-state environment, like most of the other city-state systems described here. While the weakness of central power was a necessary condition for the growth of city-states in feudal Europe, the existence of that power nonetheless in varying degrees limited both the span of the communes' territorial control and the degree of their autonomy, particularly where power of state and magnates was relatively stronger – as, for example, in Flanders and Germany, as against Italy (cf. Epstein [2000]). This developmental history explains why the artisan guilds and boroughs played a more dominant role in the mediaeval communes. The communes' later expansion beyond their walls (roughly during the 13th century) consolidated their political and economic control over what had always served as their agricultural hinterland. Here as well, estimated splits into the agricultural versus artisan and trading populations barely exist. However, as in other city-state systems, the vast majority of the population of these expanded city and countryside communes appears to have consisted of peasants. Nevertheless, politically the peasant population was only partly incorporated, in an inferior and subservient status, and the social and political gulf between them and the artisans and merchants never closed (e.g. Nicholas [1997] 117-25, 177, 253-55). Because of this special formative history and as the peasants continued to count for less, a larger than usual proportion of the peasants went on living outside the city and the city walls, exposed to the ravages of raiding and war (largely the same thing). Thus, it would appear that after their expansion to control their rural environment, the communes were politically and occupationally more - while residentially less - urban than most other city-state systems.

To be sure, in other evolving city-state systems as well, city-coalescence gave impetus to increasing craft and trade specialisation by creating a concentrated market nucleus. That is, in emergent city-states, more than in any other form of urbanisation, defence functioned as a "prime mover" in a process that brought into play other, interrelated and mutually reinforcing factors. City-states often evolved around a defended chiefly/cultic/refuge centre, which in a selfreinforcing process became the site of the local market and attracted an ever-larger population. Our knowledge of the growth of the Greek city-states, for example, from the 8th century B.C. on, is sparse in the extreme. In many cases, however, the poleis seem to have emerged around a defended enclosure - sometimes the seat of a paramount chief - which served both as a refuge stronghold for the population and their livestock and as the location of a growing and increasingly centralised sacred site of shrines and temples, which it defended (Lawrence [1979] 112, 132-33; Snodgrass [1980] 31-33, 154-57; Fine [1983] 48-51; Donlan and Thomas [1993] 67-68; Polignac [1995] may suggest a complementary rather than contradictory process). The word itself for a city in Greek – polis – was derived from an Indo-European designation for a fortified enclosure (Sanskrit pur, Lithuanian pilis: Mallory [1989] 120), around which the city-state had grown and which in Classical times was known because of its often elevated location as acropolis or upper-City. The Hittite Hattusa (Klengel [1990] 46-47) and other Bronze Age Anatolian fortified centres, the Palatine and Capitoline hills in Rome, and the Gallic *oppida* are some instances of the same pattern of city growth around a chiefly/royal seat cum cultic centre cum refuge stronghold. Other designations for a city, such as the Slavic gorod and

the Germanic burgh, carry the same meaning of a fortified enclosure, around which the future city formed. The mediaeval city-states which were beginning to grow substantially in Italy, Germany and Flanders from about the 10th century A.D., emerged around castles or fortified monasteries/bishop's seats that served as their point of refuge, some of them relying on old Roman fortifications (castra). Their pioneering historian Henri Pirenne ([1952]; [1963]) has stressed the centrality of this element in their formation, which constituted the basis for their subsequent commercial development. As Pirenne ([1952] 57-58) sensed and students of African urbanism suggest (Hull [1976] xvii, 23-24), the Zulu kraal of herdsmen and peasants represented a similar sort of defended chiefly and religious enclosure and nascent commercial centre. Archaic references to the Sumerian city of Uruk customarily describe it as "Uruk-the-(sheep)-enclosure", which has always raised questions among translators, who have found it difficult to see how this phrase could relate to the historic city's splendour. A recent translator (Kovacs [1985] I.10 and note) is typical in writing: "I prefer to translate the notion of a sage refuge for the weak as Uruk-Haven". However, the literal meaning may very well have been the original one.

The early Mesopotamian case raises a key point. It used to be widely believed and is still occasionally maintained that some of the nascent urban centres were fundamentally religious and economic, evolving around a temple complex, with no apparent defensive function. The principal example of the nascent religious-economic centre was long considered to be the early Mesopotamian city-states, which are known from archaeology to have evolved in the late 4th and early 3rd millennium B.C. around the temple sites that had grown up during the Ubaid period. The title of the Sumerian kings in some cities, en and ensi, literally "priest who laid the foundation (of a temple)", testifies to their paramount religious role until the Early Dynastic period, which supposedly brought about intensified warfare. However, in the words of one scholar (Gadd [1971] 121): "it is probable that the inhabitants were not less pugnacious in earlier times, of which little is known" (for a "pacifist" view, see Stein [1994]). For example, the excavated villages of Tell es-Sawwan and Choga Mami from about 6000-4500 B.C. were both heavily fortified (Oates [1973] 147-81, esp. 168-69), and an excavated cylinder seal from the proto-historic Uruk period shows bound captives and smitten enemies (Postgate [1994a] 24-25; also Van de Mieroop [1997] 33-34). The damage done to the early urban centres by extensive subsequent construction over several millennia makes the archaeological markers for prehistoric warfare – in any case a notoriously difficult subject (Vencl [1984]; Keeley [1996]; Gat [2000]) – even more ambiguous with respect to early Mesopotamia.

Analogies with other supposedly "priestly" polities can help, and no case carries a more resounding moral than that of the Maya. Before the Maya's hieroglyphic script was deciphered from the 1950s, it had been generally assumed that theirs had been a peaceful priestly society. However, once the Maya texts could be read, it has been revealed that while high priesthood was indeed one of the major roles of the Maya kings, they were also the military leaders in endemic warfare that took place among the various city-state polities. As David Webster (1976a), explicating the general theoretical significance of the Maya evidence, suggests, the kings were simultaneously secular, military and religious leaders. Cahokia on the Mississippi is another prime example, for while being the most advanced polity in temperate North America, it emerged as a nascent state only from the 11th to the 14th centuries A.D. (Emerson [1997]). Thus, since the Mississippi culture had no time to evolve further before the arrival of the Europeans, no later layers of civilisation were built on its sites, which uniquely preserve their nascent state form. The centre of the Cahokia polity, around which a city of tens of thousands grew, was a large ceremonial plaza and seat of the polity's ruler. A log palisade has been excavated around the plaza and its huge earth mounds. Enclosure walls could, of course, serve many possible purposes, but the function of parapet walks on, and tower-bastions in, the wall leaves little room for ambiguity. The bastions were erected every 20 m, gates were elaborately protected, and, last but not least, plenty of arrowheads have been found around the wall (Panketat [1994] esp. 91-92; relying on Iseminger et al. [1990]). Cahokia's seat of power was a defensive enclosure that was experiencing attacks.

Thus, defence was central to the formation of would-be city-states' nuclei, intertwined as this element was with political, religious and economic factors. Pirenne and Weber, Hansen ([1997] 55-57) for Greece, and, in effect, Nicholas (1997), and Hull and Gutkind ([1963] 9-15) with respect to Africa – all rightly stress mixed functions in city emergence. It must be realised, however, that political fragmentation and, hence, defence was the underlying force of the whole process, in the absence of which dense clusters of nucleated urbanisation such as were character-

istic of city-state systems simply did not appear in pre-industrial, largely agricultural, society.

Puzzles of Early City-State Fortifications

Pre-Columbian America brings us to the vexed question of early city-state fortifications – or their elusiveness - which has been the cause of considerable confusion. The principal reason why before the decipherment of the Maya script scholars believed in the pacific nature of these polities was the apparent absence of city walls around them and the initial inconspicuousness of other sorts of fortifications. On the whole, urban centres throughout pre-Columbian America seemed to have lacked circuit city-walls on a scale that even remotely resembled the familiar Old World pattern, although the evidence not only from the Maya but also during European contact, most prominently in the case of central Mexico, clearly shows that the local city-states were regularly at war with one another. This apparent difference between the New and Old Worlds has remained a puzzle.

In reality, however, there was little difference between the two worlds, for the pattern everywhere was that city fortifications evolved gradually, in step with urban evolution, with the familiar circuit stone walls taking shape only after centuries of evolution. Our knowledge of later developments in the Old World distorts our perception of the evolutionary course that had led to them. In the case of early Mesopotamia, for example, scholars tend to associate the pre- and proto-historical emergence of cities during the Uruk to Early Dynastic periods with the construction of circuit city walls. However, in early Mesopotamia, too, the very large circumference of the enclosed area indicates that the walls were erected only after substantial initial city evolution had taken place. Several centuries are a long time even in preand proto-history and around 3000 B.C. The renowned Uruk city walls, erected in the Early Dynastic period, are 9 km long, encompassing an area of 400 ha, with an estimated population of 40,000 at the minimum (Nissen [1972]; Postgate [1994a] 74-75, 80; Redman [1978] 255, 264-65). This had already been a highly developed city by any standard. In the Indus civilisation as well, the massive city walls familiar from the second half of the third millennium B.C. (Mature Indus Civilisation), which encompassed large, highly populated, and remarkably well-planned urban spaces, indicate a late construction, after considerable formative urban development had already taken place. In smaller sites, only the acropolis was

fortified, whereas the surrounding lower city remained unwalled, strongly suggesting the initial stages of development in all urban fortifications (Kenoyer [1997] 56-62; Allchin and Allchin [1993] 133-34, 146, 150, 157, 162, 171-76; Possehl [1998] 269-72, presenting the evidence for warfare but curiously forgetting fortifications). A thousand years after the collapse of the Indus civilisation, as urbanism gradually revived in Early Historic India from the 6th century B.C., a clear sequence of evolution can be discerned from towns and earthen, mud and timber fortifications to regularly laid out cities surrounded by walls, some made of stone (Ghosh [1973] 51, 61-67; Allchin et al. [1995] 62, 70, 106-11, 134-36, 142-46, 202, 222-26; Erdosy [1988] 109, 113-14). In western Nigeria, the excavated fortifications of the Yoruba cities reveal several concentric lines, erected in step with the cities' growth. All the same, even the Yoruban Ife's earliest circuit fortifications, which have a circumference of more than 5 km, indicate the existence of a large coalesced site by the time of their construction. In Benin City, the circuit fortifications, consisting of a massive earthen bank and ditch, have a circumference of 11.6 km. A trend from ditches and stockades to earthen ramparts and, then, more solid walls is universally discernible (Ajayi and Smith [1964] 23-28; Smith [1969] 22, 125-26; Connah [1987] 131-36; [2000]; Hull [1976] 41).

The overwhelming majority of Greek poleis appear to have had no circuit walls until the 6th century B.C. in Ionia and southern Italy, and until the 5th century in mainland Greece, after centuries of urban growth (Winter [1971] esp. 54-55, 60, 101; Lawrence [1979] 113-14; Snodgrass [1991] 6-10; also cf. Herodotus 1.141 and 163; but see Hansen [2000] 161 for some earlier cases). Athens, for example, the largest Greek polis, was evacuated without resistance by its population and burned down by the Persians in 480 because it still had only the Acropolis walls and possibly the beginnings of further fortifications encompassing a larger public area around the centre (Winter [1971] 61-64). It acquired its celebrated circuit walls only after the Persian War and despite Spartan objection to the novelty. Not until the time of the Peloponnesian War had most Greek city-states erected circuit walls, with the unwalled Sparta remaining as an exception and reminder of earlier times. As late as the second half of the 4th century B.C., Aristotle, writing that "a citadel (or acropolis) is suitable to oligarchies and monarchies; a level plain suits the character of democracy", still found it meaningful to discuss the question whether it was good or not for a polis to have a fortifi-

cation wall (*Politics* 7.11.5-12 1330b-1331a). The emergent Latin city-states of the same period followed a similar pattern (Holloway [1994] 91-102; Cornell [1995] 198-202, 320, 331; [2000] 217-19; Smith, [1996] 152-54). For instance, excavations show that Rome's circuit stone wall was only built after the sacking of the city in 390-387 by the Gauls, whose armed band would not have been able to take the city if it had been fully fortified. Only particularly exposed stretches of the city's perimeter appear to have been protected by discontinuous ditches and earth works (ager). And the Roman population took refuge on the Capitoline Hill, where some sort of fortifications probably augmented the natural stronghold. Similarly, in the mediaeval city-states a larger civic centre encompassing the market and main public buildings was fortified beyond the original stronghold in many nascent cities only in the 11th century. The residential suburb (faubourg, suburbium, portus) which continued to grow as an adjunct to the fortified core was only defended, if at all, by elementary timber and earthen fortifications (Pirenne [1952] 141-43). Full circuit stone walls only began to be built around the mediaeval city-states toward the end of that century and mostly in the 12th, after some two centuries of city evolution (Pirenne [1952] 177-78; [1963] esp. 4, 37; Verhulst [1999] 70-117; Nicholas [1997] 92-95, 184; Hyde [1973] 74 and plates 1a and b; Griffiths [1981] 87-88; Sznura [1991] 403-18; Benevolo [1993] 34-36, 44-46, 50).

Finally, returning to pre-Columbian America, there, too, fortifications evolved in step with urban evolution, including the gradual emergence over the centuries of circuit walls. Further excavations of the Maya sites have brought to light a sequence that eluded earlier researchers. The most ancient finds, first regarded as drainage systems, have been firmly identified as formidable earth fortifications. In Los Naranjos an earthwork system composed of ditch and embankments, approximately 1,300 m long, stretching from a swamp to a lake, defended the approaches to the main site as early as 800-400 B.C.. A second system, more than twice as long, was apparently erected around A.D. 400-550, during the Classic. In the Pre-classic site of Mirador a 600 m long wall has been discovered. At Tikal, an earth and rubble system, composed of a ditch, parapet and gates, defended the approaches to the site from the north, stretching from swamp to swamp for 9.5 km. It was built 4.5 km away from Tikal's Great Plaza and four hours' walk from its nearest large neighbour Uaxactum. The system is believed to have evolved from the Early Classic and reached its zenith in the Middle Classic. The Edzna "citadel" was surrounded by a water-filled moat even before the Classic. Becan is the first large-scale site presently known to have been completely surrounded by a ditch and parapet from as early as the Pre- or Early Classic (A.D. 100-450). The ditch was 1.9 km in circumference with an average width of 16 m and depth of 5.3 m. The parapet behind it was 5 m high. Other fortified sites from various phases of the Classic period have been identified, though many have not yet been excavated. By the Late and Post-Classic, circuit walls evolved around many sites, particularly in the northern lowlands. While some of these fortified sites were no more than central ceremonial/civic/refuge enclosures, others encompassed a much larger urban centre. Mayapan was the latest and largest, with a 9 km long outer wall, encompassing 4.2 km², and an inner (earlier?) wall around its ceremonial civic centre. In Tulum and Ichpaatun the walls were squarely laid out and made of stone. In some sites stone walls were topped by timber stockades. Fortifications everywhere relied extensively on the natural defences of heights, swamps and sea. In the Post-Classic Maya highland, steep slopes provided the basis for formidable discontinuous defences at the approaches to urban sites (Webster [1976b]; [1977]; [1978]; Puleston and Callender [1967]; Adams [1991] 161-62).

In central Mexico, the giant city of Teotihuacan dominated the entire region during the Classic period. As the city reached its apogee, it had massive but not circuit walls, some of which were 5 m high and 3.5 m wide at the base. According to Millon ([1973] 39-40), the stretches of the city's circumference that were not defended by walls were protected by a maze of canals, flooded areas and cactus vegetation, while the sheer size of the building compounds within the city would have functioned as "natural fortresses". In any case, during its heyday Teotihuacan apparently had few serious rivals. Only after the city's destruction ca. A.D. 650 was the system becoming far more competitive, as a multiplicity of antagonistic city-states was emerging in Late- and Post-Classic central Mexico. Some of the leading urban centres in this system had a fortified acropolis, while others, such as Xochicalco and Cacaxtla, were evolving circuit defensive systems, which usually relied on strong natural defences. In Xochicalco, for example, the central hilltop religious-civic enclosure was surrounded by a wall, whereas the larger perimeter of the hill was defended by a discontinuous system of ramparts and ditches that closed the gaps between steep slopes. Some cities possessed circuit walls at the time the Spanish arrived, while in others – like the Aztec capital Tenochtitlan, lying in the middle of a lake – a strong natural location was reinforced by man-made constructions. In the Valley of Oaxaca from the late Pre-Classic and during the Classic (Periods I-III; roughly the first half of the first millennium A.D.), Monte Albán was defended by kilometres-long, discontinuous fortification walls that augmented the site's strong hilltop position (Amillas [1951] 77-86; Hirth [1989]; Diehl and Berlo [1989]; Blanton [1978] 52-54, 75-76; Hassig [1992] 35-36, 41, 68, 100-9, 150; Lind [2000] 572). To conclude our discussion so far, it would appear that only the misleading perspective of absolute chronology – where that of relative cultural evolution would be far more appropriate – creates the optical illusion that pre-Columbian America was fundamentally different from the Old World.

All this, however, merely makes the puzzle more general: if, as argued earlier, the main motive for the coalescence of the countryside population and nucleation of settlement that characterised the growth of city-states was defence – in the Old World as well as in America – why were they not fully surrounded by continuous circuit walls from the start? Indeed, what defensive use was there in settlement aggregation in the absence of such walls? Underlying this puzzle are the generally unfamiliar patterns of pre- and protostate warfare which stand at variance to our historically shaped concepts of war. For pre- and proto-state warfare mainly consisted of raids, carried out by war parties (Turney-High [1948]; Otterbein [1970]; Keeley [1996]; Gat [1999]). Lives and property in scattered countryside settlements were mostly at risk. With increasing sedentism ever since the Mesolithic, nucleated village communities often fortified their settlements with palisades and ditches (Rowlands [1972]; also Keeley [1996]; Gat [2000]). Stone towers in the countryside were also widespread as a defensive measure in the Mediterranean, including the Greek world (Lawrence [1979] 187-97; Osborne [1987] 63-67; Cherry, Davis and Mantzourani [1991] 285-98). However, by coalescing around a central stronghold, people could not only find refuge in time of emergency for life and some valuable movable possessions - chiefly livestock; they also ceased to present small, isolated and highly vulnerable targets for raiders. As with herd animals, schools of fish and flocks of birds, there was increased safety in numbers. On top of all defensive works, cities and towns were protected by size. Substantial settlements could not be quickly eliminated in a surprise night raid. Their

inhabitants would have made up a considerable force and would have had time to wake up and resist. Indeed, taking on a city meant direct fighting of the most severe, sustained and dangerous sort: from house to house, with every building top potentially serving as a minor stronghold. This was precisely the sort of fighting that "voluntary" pre- and proto-state warriors tended to avoid.

This is not mere speculation; the evidence from both Archaic Greece and late pre-contact Mexico (as well as from pre-colonial Africa and mediaeval Europe) supports it. It has long been recognised that warfare for the Archaic Greek city-states meant ravaging the countryside or, if the enemy came out to defend his fields and orchards, a fierce but short faceto-face encounter. The encounter ended either in the attackers' withdrawal, as seems to have happened in most cases, or, if it was the defenders who withdrew, in a resumption of ravaging. Tellingly, the cities themselves appear rarely to have been attacked. Experts on Greek warfare have recognised that occupying another city-state by force was simply beyond the capability of a 7th or 6th century B.C. polis. Generally, however, this fact has been ascribed to rudimentary siege-craft before the late 5th century B.C. and to the short staying power of the citizen militia, both factors being valid for most of the 5th century; curiously, the fact that the poleis of the Archaic period still had no circuit walls has somehow not sunk in. Victor Hanson, for example, seems to be entirely unaware of this paradox in his otherwise admirable interpretation of hoplite warfare, which deals mainly with the early Classical period ([1989]; [1995] esp. 145, 251-52; [1998] 8). Hanson does, however, stress the prominence of the raid in the Classical period ([1995] 143-44), and it was undoubtedly even more central during the Archaic period (cf. Osborne [1987] 138-41, 145), as it continued to be in the non-polis parts of Greece. Josiah Ober ([1991] esp. 186) comes closer but still fails to factor in the absence of circuit city-walls during the Archaic period.

But, indeed, if such walls were absent, why were Archaic *poleis* not regularly conquered? Again, with the actual elements of this puzzle remaining imperfectly recognised, the question itself simply did not present itself in all its starkness. The phalanx hoplite warriors are justly celebrated for their unique bravery in accepting and withstanding face-to-face encounters. However, they regularly did so on a level plain and equal terms, while avoiding attack on enemy forces which held superior positions, for example on higher ground. Evidently, they all the more recoiled

from unequal out-and-out urban street fighting. It will be noted that even after the crushing Theban victory of Leuctra in 371 B.C., during a period in which sieges had already become more common, the Thebans and their allies, having invaded the Peloponnese and Laconia, recoiled on two different occasions from an attack on the still unwalled Sparta for precisely these reasons (Xenophon, Hellenica, 6.5.27-31, 7.5.11-14). Rather than the routinely evoked notions of "ritualised" warfare and customary restraint, it was an aversion to the dangers that such an attack involved - in conjunction with the weakness of coercive central command and of organisational stamina in the early city-state - that accounted for the inherent indecisiveness of Greek warfare; there was very little restraint and much viciousness and cruelty in early Greek (or Mesoamerican) inter-city-state warfare (e.g. Pritchett [1991] 203 ff).

Among the Maya, raids led by aristocrats (and aristocratic single combats) were the principal form of warfare, making it inherently indecisive and protracted for most of Maya history. Cities were rarely occupied until very late in the evolution of the Maya polities (Webster [1977] 357-59; also [1998] and [2000]; Hassig [1992] 74-75; Schele and Freidel [1990]; Schele and Mathews [1991] 245-48; Freidel [1986] 93-108). And despite the reputed viciousness of Aztec warfare, large-scale ravaging raids, rather than the indecisive battles of the "flowery wars", served as the principal means for achieving enemy compliance. Weaker victims gave in to the pressure, and, as the Aztec hegemonic empire and armies grew, their enemies' cities and central cultic-civic strongholds became more vulnerable to storming or to the threat of it. All the same, only recently have scholars begun to come to terms with the highly conspicuous fact that despite some 70 years of rivalry the Aztecs never managed actually to conquer the city of their implacable arch-rival, Tlaxcalla, and its allies in the Valley of Puebla, which were protected by natural defences, supplemented by border fortifications and refuge strongholds, yet possessed no circuit city walls (Barry [1983]; Hassig [1988] 105-9, 129-30, 254-56; [1999] 378-80). Nor, for that matter, did Sparta ever manage to conquer its own main enemy since the Archaic period, Argos. Among the Yoruba as well, of western Nigeria, inter-city warfare mostly consisted of raids and skirmishes (Smith [1969] 126-27), as it also did among the communes of mediaeval Europe.

In the exceptional case of the worse coming to the worst and the enemy forcing its way into the early city, the city's population would withdraw to the cen-

tral ceremonial-civic stronghold. If this was a hilltop enclosure (or a small peninsula), its natural defences would be augmented by the simplest forms of fortifications, such as ditches, and earth, timber, and (often uncut and free-standing) stone ramparts, which everywhere served as the most readily available and most easily handled materials. Regularly laid brick and stone construction became more widespread only later, or in environments where stone or clay mud were plentiful while wood and even earth were scarce. Even in those regions, such as Mesopotamia and, to a lesser degree, the Maya lowland, where a flatter topography dictated that the ceremonial-civic centres would not possess the natural protection of commanding height, they still served as refuge strongholds, as the Mesoamerican evidence at any rate extensively shows. The monumental buildings themselves constituted the last line of defence, and they were further surrounded and connected by permanent or hastily improvised ditches and ramparts. In the prehistoric Andean civilisations of South America as well, the widespread prevalence of hilltop refuge strongholds and citadels in the mountain polities and of fortified urban ceremonial-civic centres in the coastal plain tell the same story (Haas, Pozorski and Pozorski [1987] esp. Chs. 5-7; also, Parsons and Hastings [1988] 152, 204-17). Indeed, it was the capture and destruction by fire of the city-state's refuge-cultic stronghold that everywhere – in both the Old and New Worlds (e.g. Millon [1988] 149 for Teotihuacan) – signified supreme victory, not only symbolically, as some scholars have assumed, but also practically, for it was the main and last point of resistance for the city's elite and population. All in all, a sequence in the evolution of city fortifications is discernible more or less world-wide (Japan is another instructive example): there was evolution from earth, rubble and timber construction, through "intermediate forms" such as the murus gallicus of the oppida which added stone facing, to brick and stone, and finally to pure stone; in parallel, there was evolution from defended central enclosures, often through somewhat larger fortified civic centres, to full circuit walls (Weber [1958] 75-80, is insightful on this as well).

What then were the factors that fuelled this evolutionary sequence and brought the familiar brick and stone city circuit walls into being? Again a broad interrelated process was at work, tied up with the consolidation of mass urban society/polity. The larger and more organised and resource-rich the city-states had grown to be and the more capable they had become of long-term, sustained military effort in enemy

territory (which in Greece, for example, only happened in the 5th century B.C.), the more were they capable of undertaking attacks on cities, and indeed of holding them after they had been occupied. At the same time, however, the very same factors that had enhanced offensive capability and threat had also increased defensive capability. Capability and necessity grew together. For example, money payment to recruits for protracted campaigning away from home - a crucial offensive upgrade - was introduced in Greece, Rome and the mediaeval Italian city-states alike at roughly the same time that circuit city walls were erected. Taxes to pay for both were more or less simultaneously imposed: during the Peloponnesian War in Greece (Pritchett [1974] Ch. I), in 406 B.C. in Rome (Cornell [1995] 187-88), and from the 12th and mostly during the 13th century A.D. in mediaeval Europe (Hyde [1973] 182-84; Jones [1997] 385-86; Waley [1968] 94-96; Nicholas [1997] 255-58; Contamine [1984] 91). Kilometres-long circuit brick and stone city walls now made their appearance where only ditches and earth and timber palisades, or stone citadels at most, had existed. This was a massive construction, necessitating both investment and political coordination. A growth in state power, integrating earlier, loose, agricultural cum nascent urban kintribal society, was reciprocally both a cause and result of all these interrelated processes.

In the Mesopotamian epic tradition, the erection of Uruk's circuit city walls was associated with the reign of a more powerful king, Gilgamesh (sometime between 2700 and 2500 B.C.), whose authority rested on broader popular support and whose power grew as a result of his resistance to the hegemonic rule of another powerful city-state king, Agga of Kish (Kovacs [1985] I: 10 and 17-22; George [1999] 143-48; Pritchard [1969] 44-47). The growth in offensive, defensive and political power was intertwined and self-reinforcing. In western Africa "the first set of walls in Kano were begun by Sarki (king) Gijinmasu (ca. 1095-1134) and completed by his son. In about 1440 Eware the Great, ruler of the Benin kingdom, constructed high walls and deep protective trenches around Benin city" (Hull [1976] 40).

Among the Maya as well, more elaborate defences, including stone circuit walls, evolved during the Late and Post-Classic together with the growth of larger city-state polities, mercenary service, more systematic state warfare, and wars of conquest (Webster [1977]; Schele and Freidel [1990]; Freidel [1986]). In both Ionia and Magna Graecia, the advanced peripheries of the Greek world, city fortifications came in the 6th

century with the new autocratic power of the tyrants (again resting on popular support) and the threat of great powers' professional armies: the Lydian and Persian in the east and the Carthaginian in the west (e.g. Herodotus 1.141 and 163). The rise in state power did not, however, always and necessarily take autocratic form. By the time Athens acquired its circuit walls, the work of a popular tyrant, Peisistratus, had been followed by a democratic reformer, Cleisthenes, who substituted a territorial political organisation for the earlier kin-based structure of the Athenian polity. Similarly, although archaeology does not support Roman traditions that the city's walls were erected by King Servius Tullius in the mid-6th century B.C., it is interesting to note that it was to the same king that the reorganisation of the Roman state from kin to territorial basis, as well as the institution of the legionary army, were ascribed. Probably, as scholars tend to believe (Cornell [1995] 173-96), a series of political and military reforms over two centuries of Roman state formation during the monarchy and early Republic were compressed by later Roman traditions and ascribed to the proto-historical king, who may have launched the initial steps. In the mediaeval communes, the expulsion of the local archbishop/prince and the establishment of the commune as an organised self-governing civic community coincided with the erection of circuit walls in the 12th century.

Conclusion

The thrust of this article is theoretical, aiming as it does to synthesise often familiar materials and observations into a comprehensive explanation of a major enigma. Why city-states existed in a pre-industrial society, where some 80 to 90 per cent of the population, at least, were necessarily engaged in food production, is a mystery, which scholars have seldom addressed or even recognised. City-states neither had low rates of urbanism, nor, as a rule, relied heavily on imported food, as some scholars have assumed. An unusually large part, often the majority, and sometimes the large majority, of the city-state's population lived in nucleated urban settlements: mostly in the "city" itself and partly in its dependent "towns". And even if in some city-states, particularly those with a developed maritime economy, urbanism did result in a more specialised craft and trade sector, this alone – in view of the realities of food production and transportation - cannot account for their high rates of urbanism, nor for the high rates of the scores and

hundreds of "ordinary" city-states. Most of the citystates' population consisted of peasants who lived in the city and walked to work their land outside it, in the city's near vicinity. Indeed, rather than massive industrial and commercial concentration which only existed in a few, high-profile, historical cases, it was defensive coalescence that mostly accounts for the fact that city-states generally appeared in clusters of tens and hundreds and that, as if paradoxically, smaller citystate's size correlated better with higher rates of urbanism. It is therefore not surprising that students of city-states have regularly encountered problems in applying the concepts of "city" and even "urbanism" - usually associated with very large size and with economic complexity - to these often miniscule "town"-polities. The view that the concept of citystate is a misnomer has gained popularity for this reason. Yet, although the concept may indeed be somewhat misleading in this respect, it remains a perfectly valid shorthand if what is meant by urbanism in this context is properly understood. Citystates should be more adequately described as densely and centrally nucleated petty-polities. They emerged where large-scale territorial unification did not take place early in political evolution, and the peasant population of petty-polities coalesced to seek protection against raids from neighbouring such polities. A central refuge/cultic/chiefly enclosure, sometimes supplemented by more extensive ditches and earth and timber works at strategically and topographically exposed directions, as well as the sheer size of the nucleated settlement provided defence against raiding hosts. Over time, both offensive and defensive capability developed in step with organisational and coercive state power. It took centuries of early urban evolution until continuous circuit walls replaced more limited fortifications, while earth and timber gave way to brick and stone.

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