ORIGINS AND DEVELOPMENT OF URBANISM:
Archaeological Perspectives

George L. Cowgill

*Department of Anthropology, Arizona State University, Tempe, Arizona 85287-2402;
email: cowgill@asu.edu*

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■ **Abstract**   I survey recent literature about early cities in the regional traditions of Southwest Asia, Egypt, South Asia, China, Mesoamerica, Andean South America, Sub-Saharan Africa, Greece, and Rome. Major themes include the importance of theorizing individuals and their practices, interests, and emotions; the extent to which the first cities were deliberately created rather than merely emerging as by-products of increasing sociopolitical complexity; internal structure of cities and the interplay of top-down planning and bottom-up self-organization; social, economic, and political relations between cities and their hinterlands; interactions of cities with their physical environments; and the difficult "city-state" concept. Some axes or dimensions for describing settlements are proposed as better than typological concepts.

INTRODUCTION

I address this chapter to the broad community of archaeologists, anthropologists, historians, sociologists, and other scholars interested in the origins and development of urbanism. When I use terms such as "we," it is to this group I refer, and phrases such as "of interest" mean of interest to many members of this group.

Work on ancient urbanism is influenced by the legacy of concepts, attitudes, and assumptions of earlier writers such as Weber, Childe, Wheatley, and Mumford, and by geographers such as Von Thünen, Christaller, Lösch, Berry, and C. Smith. Adams' (1966) comparative study of Mesopotamian and Central Mexican urbanism provides a key foundation for further work, and scholars still often refer to Fox (1977). These and other "classics" remain important, but I concentrate on more recent publications, mostly since Blanton's (1976) review and mostly those in English, in which earlier publications are cited amply. I discuss regions outside Mesoamerica as an outsider, and even within Mesoamerica my coverage is uneven. However, I hope to provide guidance for specialists in all areas and many disciplines. I emphasize Southwest Asia, Egypt, South Asia, China, Mesoamerica, Andean South America, Sub-Saharan Africa, Greece, and Rome. I omit Southeast Asian, Medieval European, and other cities, as well as most settlements in less

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complex polities, only for lack of time and space; these are also highly useful for students of urbanism.

In the 1980s and early 1990s there was much excavation and survey involving sites described as "urban," but interest focused more on the origins and development of complex polities or states, especially in their political, economic, and technological aspects, and the notion of "urban society" often seemed little more than an appendage to the concept of "the state." Relatively few archaeological publications directly addressed urbanism as a theoretical topic. Notable exceptions include Kolata (1983), Marcus (1983), and Sanders & Santley (1983). Recently we have seen an upsurge of attention to theoretical and conceptual issues about the nature of premodern cities and their social and physical contexts. This is a welcome trend that is likely to continue.

KEY DEFINITIONS AND CONCEPTS

"City," "urban site," "urban society," and "urbanization" are often undertheorized, and it is easy to find publications that leave these terms undefined and assume that we all know what they mean. Often a site is simply labeled a city or a society is called urban without the author explaining why. It is also common to see "urban society" and "the state" conflated, as if no states ever existed without cities and as if cities never existed without states. Fox (1977, p. 24) asserts that cities are found only in societies that are organized as states. Probably many would still agree with this, but others argue that one or the other sometimes occurred without the other. M.L. Smith (2003b), for example, claims that there were cities in Early Historic India before real states arose, whereas others question whether the early Egyptian state was very urbanized. One can define both "city" and "state" in ways that make their co-occurrence tautological, but it is better to frame the matter more broadly, as issues concerning the relations among kinds of settlements (or kinds of systems of settlements) and forms of political, economic, social, and religious institutions and practices, as well as technologies and natural environments.

It is notoriously difficult to agree on a cross-culturally applicable definition of "the" city, but we cannot do without definitions altogether. One mischievous property of the English language is that routine use of the definite article encourages us to speak unthinkingly of "the" city and "the" state. This leads us toward reification and essentialization of categories and creates unnecessary conceptual difficulties. It is far better to think of "cities" or "a" city, but never of "the" city.

No single criterion, such as sheer size or use of writing, is adequate, and it seems best to use a somewhat fuzzy core concept rather than to try to establish criteria that will clearly demarcate all cities from all noncities. I vaguely define a city as a permanent settlement within the larger territory occupied by a society considered home by a significant number of residents whose activities, roles, practices, experiences, identities, and attitudes differ significantly from those of other members of the society who identify most closely with "rural" lands outside such settlements.

All settlements have catchment areas, but only cities have hinterlands. Inhabitants of cities may have interests and even additional dwellings in the countryside, and rural people may visit cities for many purposes—the distinction is, above all, one of identities (cf. Emberling 2003). Unless we also consider size, this definition could include the larger settlements in many relatively small societies whose political institutions are not highly developed. Quite so, this definitional problem is why it is useful to think of urbanism as a cluster of variables that can be measured (if only roughly) on ordinal or interval scales, rather than as a discrete category.

There may or may not be terminological or jural distinctions between city and countryside in specific cases, but there is always a physical contrast between a relatively large and concentrated settlement or closely spaced settlement cluster and a less densely occupied hinterland. This contrast is true, to some degree, even for low-density settlements such as those in the Maya Lowlands and parts of Africa. Also, cities are typically political, economic, and religious centers for a surrounding territory and loci for wider ranges of specialized production and services than are found elsewhere in the region.

I use "urban" as an adjective pertaining to city-ness and "rural" for places, entities, and practices outside of cities. Societies without cities can be called nonurban, but not rural, because rural has meaning only as a sector within societies that also have an urban sector. I use "urbanization" to denote the creation of cities by a society that formerly lacked urban settlements (in contrast to some usages in which urbanization refers to processes by which individuals from the rural sector make a transition to the urban sector). An urban society is simply a society with cities. That is, it has places that are the physical settings for urban activities, practices, experiences, and functions. "Urbanism" denotes the prevalence of urban places in a society.

Many argue that the differences between urban and other kinds of settlements or societies are qualitative as well as quantitative. This may be true. Nevertheless, we have better conceptual tools if we think of multiple properties (i.e., variables or axes) along which rough measurements can be made. This enables us to think of degrees and kinds of urbanization. Ideas about abrupt changes in specific historical trajectories or qualitative differences between cases then become hypotheses to be tested empirically, rather than prior assumptions that restrict our thought.

Sometimes there is only a single urban settlement within the territory of a society or polity. I discuss the thorny concept of "city-state" in a later section. I avoid the term "territorial state." I use "regional" polity to refer to those polities large enough to encompass substantial parts of one or more natural regions, typically with more than one urban settlement. Polities span a continuum from small to large. Often there are several cities in a region, rankable in terms of their size and/or significance. A city that is clearly preeminent, at least politically, is a "capital city." A capital city that is far larger than any other single settlement within its region is a "primate city."

Although size and sociopolitical complexity alone are not adequate criteria for city-ness, some general notions about size and complexity are useful. Settlements or societies with no more than a few hundred members cannot sustain the degrees

of specialization and sociopolitical power that we are accustomed to thinking of as urban. Populations of a least a few thousand seem a necessary, if not sufficient, requirement for a settlement or a society to be urban.

MAJOR ISSUES

My selection of the most interesting issues is personal, and I say little or nothing about many topics of interest. To my mind, the most important recent development is increasing recognition that ancient cities, like all other ancient and modern sociocultural phenomena, and no matter what the spatiotemporal scale of analysis, cannot be well understood without taking explicit account of individuals—their practices, perceptions, experiences, attitudes, values, calculations, and emotions. Emphatically, this is not to say that the search for regularities in larger-scale or longer-term phenomena should be discontinued. Indeed, connecting individuals with polities, institutions, and other larger entities is among the most challenging and potentially rewarding tasks that confront us. It is difficult to make well-warranted inferences about individuals in societies where contemporary texts are scanty or absent. Nevertheless, these difficulties are not all insurmountable. Even when we cannot track particular persons, we must constantly think about how individuals could plausibly have given rise to the larger-scale phenomena observable without texts.

Many scholars have thought of increasing urbanism as simply a by-product or even an unintended consequence of the creation of increasingly large and complex political systems. It has long been recognized that politically and/or economically powerful persons often sponsor monumental architecture as an expression of their power. Some (notably A. Smith 2003) now go further and view civic-ceremonial buildings and layouts themselves as active instruments for shaping behavior, attitudes, and emotions—as parts of the means by which power is both legitimized and enacted. At issue is the extent to which early cities did not simply "happen" as consequences of technological, political, and economic innovations, but instead were actively and intentionally created.

Whether or not there ever were highly urban settlements in the absence of state-like polities, or statelike polities that wholly lacked highly urban settlements, marked differences can be found in degrees and kinds of urbanism among different early complex societies. What were the associations of kinds of cities with specific political forms? How large and strong can polities become if no settlements are very urban, and how urban can settlements become if polities are small and weak? It is as unproductive to try too hard to fit all cases into a single kind of historical trajectory as it is to avoid comparison altogether. We need richer accounts, based on better data, that do justice to the uniqueness of specific cases but also are alert to significant resemblances among different cases.

Other major topics include structure within cities and top-down planning versus grassroots self-organization; social, economic, and political relations between cities and their hinterlands; interactions of cities with their physical environments

(including issues of sustainability); and the roles of religion and other ideology in the emergence or creation of cities.

Before discussing these issues in detail, I briefly review recent literature about early urban occurrences in various major world regions.

WHAT, WHEN, WHERE?

Multiregional Studies

The book edited by ML Smith (2003a) emphasizes the social construction of ancient cities. Contributors provide examples from Mesoamerica, Mesopotamia, Peru, South Asia, Africa, and China. The volume edited by Nichols & Charlton (1997) concentrates on what they define as city-states. Numerous reviewers have found their definition of city-state problematic, especially in being excessively broad (it includes everything from Teotihuacan—a regional state or possibly a hegemonic empire—to the numerous small polities in the Basin of Mexico in the 1300s). Nevertheless, their book contains numerous valuable case studies from Mesoamerica, Mesopotamia, Egypt, South Asia, China, Greece, Okinawa, and Peru. Hansen (2000) provides studies of some 30 cases that may meet his definition of city-state. Contributors represent the Near East, Greece, Italy, barbarian and medieval Europe, the Arabian Peninsula, China, South Asia, Southeast Asia, Sub-Saharan Africa, and Mesoamerica. A recent supplement (Hansen 2002) adds six more cases from Mesopotamia, Anatolia, Syria, Mesoamerica, South Asia, and Europe. Both of Hansen's works (2000, 2002) and the Nichols & Charlton (1997) volume emphasize state at least as much as city, but all three include much useful data for studies of urbanism. Storey's (2004) edited volume focuses on demography but is informative about many other aspects of early cities in Greece, the Roman Republic and Empire, the Levant, China, Korea, Bolivia, Mesoamerica, Southeast Asia, Africa, Medieval Denmark, and even eighteenth- to nineteenth-century New York. Several Old World regions are also represented in Gates (2003).

The book on empires edited by Alcock et al. (2001) includes useful data on urbanism, as does Feinman & Marcus' (1998) edited volume on early states, and Trigger's (2003) volume on early civilizations. The volume on communities edited by Canuto & Yeager (2000) includes some cities. The early section of Southall (1998) on ancient cities makes little use of recent research and tends to treat traditional Marxist categories as givens into which cases are fitted, rather than as concepts deserving further research and refinement. Hall (1998) may be of considerable value for the past few centuries but says little about the earliest cities.

Southwest Asia

Van De Mieroop (1997) is a good general book on Mesopotamian cities, though it does not cover the most recent discoveries. Pre-Pottery Neolithic A (PPNA) Jericho (c. 10,000–8500 B.C.) in the Jordan Valley and Çatal Höyük in Anatolia (c. 7000–6000 B.C.) have been claimed as the world's first cities, but Emberling (2003),

Van De Mieroop (1997, pp. 26–27), and A. Smith (2003) briskly dismiss these claims. Çatal Höyük was an exceptionally large settlement for its time, but it unreasonably stretches the concept of city to label either Çatal Höyük or PPNA Jericho urban. By the Ubaid period (c. 5500–3800 B.C.) settlements in southern Mesopotamia have a better claim to be precursors of cities (Stein & Rothman 1994). Emberling (2003) sees a rather sudden rise of fully urban settlements in southern Mesopotamia c. 3500 B.C. at sites such as Uruk and a nearly contemporary appearance in northern Mesopotamia at Tell Brak. Rothman (2001) provides much new data on the late prehistoric Uruk period of the fourth millennium B.C. Many regional specialists doubt Marcus' (1998) claim for a large regional state at this early date, as well as Algaze's (1993) argument for a major political expansion from the south into northern Mesopotamia. There were strong and varied southern presences in the north at this time, but their political and economic nature is debated. Clearly there was a great deal of regional interaction well before the better-documented literate societies of the third millennium. However, Stein (1999, 2002) argues that it is inappropriate to try to apply "world systems" concepts to these phenomena, and he proposes instead a "trade diaspora" model. Data from Hudson & Levine (1999) are important for later periods.

Publications describing quite different urban trajectories in the Levant include Falconer & Savage (1995), Herzog (1997), Schwartz & Falconer (1994), and Fleming (2004).

Marcus (1998) minimizes differences between Egypt and Mesopotamia, but most regional specialists are impressed by differences as well as similarities. In Mesopotamia a large natural and cultural region was occupied for most of the time from the fourth through the second millennium by numerous small autonomous polities that can reasonably be called city-states. Periods of wider political integration were short-lived. In contrast, Egypt was politically unified for much of this time, and periods of political fragmentation generally appear to have been times of trouble. That Egypt was a more sharply bounded natural region, and its districts more closely interconnected by the Nile, whereas the subregions of Mesopotamia were less effectively linked by the Tigris and Euphrates, may partly explain this difference. Nevertheless, differences in traditions of political institutions, practices, and concepts were probably important also.

Egypt

Egypt in the late Predynastic (c. 3600–3050 B.C.), Early Dynastic (3050–2700 B.C.), and Old Kingdom (2700–2160 B.C.) was not as devoid of cities as once thought. Very little is known of settlements during this interval, and some, especially Memphis, may have been of considerable size. Most, however, seem to have covered no more than 10–20 ha, and they very likely were not highly urbanized. More striking is the early and relatively rapid development of a sizable regional state in the Early Dynastic. Throughout Egypt's history, political unification has been the normal state of affairs. Many late Predynastic regional centers seem to

have actually become smaller in the Early Dynastic, at least partly because they became more compact, but probably also because, with political unification, they became less important. New Kingdom Amarna was large but atypical (Kemp 2000). Other useful recent publications include Baines (2003), Bard (1997), Brewer & Teeter (1999), Kemp (1989), Lacovara (1997), O'Connor (1998), and Wilkinson (1999).

Sub-Saharan Africa

Recent work, especially that reported by R. McIntosh (1991, 1998), S.K. McIntosh (1991; 1999a,b), and McIntosh & McIntosh (1993) has emphasized historical trajectories interestingly different from those commonly used in comparative studies of political and urban development.

South Asia

The Indus Valley (or Harappan) civilization (c. 2600–1900 B.C.) remains enigmatic and perhaps unusually different from all other early civilizations, so much so that Possehl (1998) even questions whether its political organization should be termed a state. However that may be, its largest settlements were surely urban to a significant extent. Kenoyer (1998), Possehl (2002), J. McIntosh (2001), and Ratnagar (2001) are recent books on Harappan civilization. Other recent publications include Jansen (1980, 1989), Kenoyer (1991, 1997), Miller (2000), and Possehl (1997).

  Also of interest are major settlements of the Early Historic period (ca. 600 B.C. to the early centuries A.D.). Publications include Allchin (1995), Chakrabarti (1995), Champakalakshmi (1996), Sinopoli (2001), M.L. Smith (2003b), and Spodek & Srinavasan (1993). For coverage of the historic medieval city of Vijayanagara, see Fritz et al. (1984), Mack (2002), Morrison (2001), and Sinopoli (2003).

China

For decades we have had fascinating data on the frequently huge prehistoric and early historic cities of the Shang, Western Chou, Spring and Autumn, and Warring States periods (c. 1500–221 B.C.), especially through the English-language publications of the late K.-C. Chang and studies such as Boyd (1962), on architecture and town planning, and Wheatley (1971); however, scholars aware of what regional settlement-pattern studies in other parts of the world have accomplished have been frustrated by the absence of comparable data from China. This lack of data is now changing, largely owing to the efforts of Feinman, Underhill, and others (Underhill et al. 1998, 2002). Much further work has been done on urban sites themselves, both in the traditional heartland of northern China and in other regions (Shen 1994, Yates 1997). Major sources for later imperial China are Skinner (1977) and Steinhardt (1990).

Mesoamerica

Sanders et al. (2003) presents papers (with parallel texts in Spanish and English) from the first two of a projected series of six international conferences on urbanism in Mesoamerica, sponsored by the Instituto Nacional de Antropología e Historia and Pennsylvania State University. Areas represented include western Mexico, the central Mexican highlands, northern and central Veracruz, the Mixteca and nearby parts of Guerrero and Oaxaca, and the Maya Lowlands. There are also chapters on West Africa and Medieval France. Regional synthesis chapters in Adams & MacLeod (2000) include data on Mesoamerican urban settlements. M.E. Smith (2004) reviews Late Postclassic (c. A.D. 1250–1520) Mesoamerican city sizes.

The best-known indications of early complex societies in Mesoamerica are "Olmec" sites such as San Lorenzo, in the hot and moist southern Gulf of Mexico lowlands, perhaps as early as 1200 bc (uncalibrated ^{14}C dates), although a degree of complexity is also present as early or earlier at sites in the Pacific lowlands of Chiapas and Guatemala. The extent to which these societies are "chiefdoms" or "states" and their main settlements "urban" is debated interminably. Better data are needed, but the most important requirement is to outgrow typological approaches and focus instead on degrees and kinds of urbanism. Among other things, doing so should make it easier to explore possible quantum leaps.

Monte Albán, in the highland Valley of Oaxaca, was a major settlement by 300 B.C. or earlier, the center of a polity that soon controlled the Valley and beyond (Blanton et al. 1993, Marcus & Flannery 1996). Blanton et al. (1999, p. 53) estimate a population of 5000 by 500–300 B.C., and 17,000 by 100 B.C. In the Southern Maya Lowlands, Nakbe and El Mirador were major sites with huge pyramids by this time, several centuries earlier than previously thought. For the Central Mexican highlands, Sanders et al. (1979) remains the best overall publication on settlement history in the c. 5000-km^2 Basin of Mexico. However, although this publication is based on surveys that were relatively complete and systematic, these surveys were not extremely intensive and were without benefit of the most recent data on ceramic chronology, so their results must be interpreted with caution. Really large settlements seem a little later than those found in Oaxaca, although little is known of Cholula, just east of the Basin, which may have become fairly urban quite early. In the southern Basin, Cuicuilco is poorly known because it was covered by several meters of nearly impenetrable lava (quite a different matter than volcanic ash) early in the first millennium A.D. Sanders et al. (1979, pp. 97–99) estimate that by 300 B.C. it had a population of 5000–10,000, and by 100 B.C. it may have covered over 400 ha, with a population of c. 20,000. Cuicuilco was soon overtaken by Teotihuacan, in the northeastern part of the Basin, which probably began very rapid growth in the first century B.C. (Cowgill 1997, 2000a, 2003; Millon 1981, 1988, 1992). Teotihuacan was by no means without urban predecessors in Mesoamerica, and it should not be thought of as a "pristine" city. Millon's (1973) exceptionally detailed surface survey and the fact that materials of all periods of

occupation are well represented on the surface, means that, even in the absence of deciphered texts, in some ways we know more about Teotihuacan than any other ancient city. By c. A.D. 200 it covered around 2000 ha, with a population estimated by Millon as 100,000–200,000, although I presently think it may have been no more than 80,000–100,000. Even so, it was exceptionally large in both area and population compared to early cities in most parts of the world, except probably China. Part of the reason may be differences in survey methods. Millon (1973) began by exploring the perimeter, defining city boundaries by a strip at least 300-m wide without evidence of Teotihuacan-period occupation. Work on ancient cities elsewhere has often concentrated on central parts, and it may be that total areas of occupation, especially those beyond city walls, have been underestimated in many cases. Another reason for Teotihuacan's large population may be that settlements elsewhere in the Basin were rather few and mostly small. Depopulation of the countryside was not as extreme as once thought, but a high proportion of Teotihuacan's food producers must have resided within the city. Survey data have been supplemented by few excavations in Teotihuacan's rural hinterland, but work in progress at small sites near the city by T.H. Charlton and C. Otis Charlton is beginning to remedy this situation. More data are also becoming available from Azcapotzalco and Cerro Portezuelo, moderate-sized regional centers 30–50 km from the city.

Aside from residential districts, the civic-ceremonial central part of Teotihuacan was itself exceptionally large, some 150–250 ha, with pyramids approaching those of Old Kingdom Egypt, though they were made of earth and rubble with calcareous concrete outer surfaces, rather than cut stone.

Teotihuacan was probably in decline in the 500s; some time in the 600s, major civic-ceremonial structures were burned, and there were sharp changes in the ceramic tradition and areas of densest settlement, probably reflecting a sizable incursion of newcomers. A period of political fragmentation ensued, followed by a regional state centered on the city of Tula, just northwest of the Basin of Mexico. Though overshadowed by Teotihuacan before it and by Aztec cities later, Tula was more substantial than often represented, covering up to 1400 ha and with a population reasonably estimated as c. 60,000. Mastache et al. (2002) is a recent summary of knowledge about that city and its hinterland. The dissolution of the Tula regional state was followed by another episode of political fragmentation and small polities in Central Mexico. Early in the 1400s the city of Tenochtitlan, in coalition with Texcoco and Tlacopan, launched a series of wars that conquered other Basin polities, absorbed its sister city, Tlatelolco, and by the late 1400s had created an empire (now called Aztec) that dominated much of Mesoamerica except for West Mexico (where the Tarascan state successfully resisted Aztec expansion), the Maya area, and most other groups east of the Isthmus of Tehuantepec. Combined use of textual and archaeological data has made the fifteenth- to sixteenth-century Basin of Mexico one of the best-studied instances of urbanism in the ancient world outside of Greece and Rome, although many issues are unresolved and much remains to be learned.

For the Maya Lowlands, especially important publications include Chase et al. (1990) and Houston et al. (2003).

Andean South America

Kolata (1983, 1997) are important works on Andean urbanism. Some Andeanists view Andean states as not highly urbanized, although a number of settlements certainly qualify as cities, including Wari, Tiwanaku, and Cuzco in the highlands, and Galindo and Chan Chan on the north coast of Peru. Stanish (2001a,b; C. Stanish, personal communication) argues that urbanization was limited because Andean states tended to depend on staple financing rather than wealth financing, and price-fixing market institutions were weakly developed. However, his idea that the largest Andean cities were smaller than in most other early states may depend on his acceptance of quite high estimates for some early cities in other regions and on limited use of Mesopotamian data, where fourth- and even third-millennium cities appear, by Mesoamerican standards, surprisingly small in both area and population. Von Hagen & Morris (1998, pp. 220–27) list several Andean settlements covering areas from 150 to more than 600 ha, and at least some seem to have had high density. Bawden (1996) suggests that big cities such as Galindo were an aberration from the Peruvian north coast cultural tradition and were supported by coercion rather than legitimated by appeal to tradition, and for that reason they were ultimately unsuccessful.

Greece and Rome

Whatever the case in the past, a significant number of classical scholars are paying attention to anthropological theory, and there are serious efforts to connect dirt archaeology and text-based historical studies. A sampling of important publications includes Allison (1999), Andreau (1999), Branigan (2001), Cahill (2002), Garnsey (1998), Hopkins (1978), Morley (1996), Morris (1997), Owens (1991), Parkins (1997), Parkins & Smith (1998), Rich & Wallace Hadrill (1991), Storey (2004), and Zanker (1998). For the city of Rome, Stambaugh (1988) is a highly readable introduction that pays attention to attitudes, intentions behind built aspects of environments, and ideation in general.

I turn now from regional summaries to consideration of a few topics of interest.

CITIES AS CREATIONS

Scholars often assume that places with urban qualities simply arose as natural responses to various forms of political and/or economic centralization by which people were, in Childe's famous words, "persuaded or compelled" to congregate in considerable numbers in certain places, together with large and impressive structures and arrays of structures intended to express and further legitimize the authority of powerful political, religious, and/or military leaders. Increasingly powerful

political leaders intentionally planned their courts to be large and impressive, religious leaders oversaw construction of increasingly impressive temples, or both, while the dwellings of those who staffed these planned cores or otherwise served the rulers simply aggregated around the peripheries, with no particular planning or supervision. In this view, other features of the earliest urban places arose either as unintended consequences of these new kinds of settlements or as responses to these unintended consequences. However, investigators increasingly are thinking harder about links between kinds of early polities and kinds of settlements or communities. Perhaps many cities did simply come into being as unintended consequences of sociopolitical and technological developments. But many of the first cities (some would argue all) may have been intentionally created in their entirety to serve the interests of powerful individuals or groups. In theoretical terms, the idea of cities as inventions is appealing, but much remains to be done to develop this notion. If cities were created, why were they created, by whom, and for whom?

If the first cities were deliberately created, it is likely that they were new kinds of settlements that arose abruptly, rather than old kinds of settlements that gradually grew so large that they became qualitatively as well as quantitatively different. Did people merely find themselves in new kinds of settlements, calling forth new practices and new institutions? If there were multiple paths toward the first cities do these paths lead to different types of cities?

There is some empirical support for the former view, in some cases. Emberling (2003) observes thresholds and quantum leaps in the history of settlement size and complexity in Mesopotamia, and A. Balkansky (personal communication) notes this in Oaxaca also. The extent to which urbanism develops gradually or by abrupt steps should be explored in other regional traditions. Fletcher (1995) argues for thresholds, but I am uncomfortable with his high level of abstraction. In Greece and elsewhere, many cities seem to have been formed abruptly through the process called synoecism: bringing together the inhabitants of a cluster of separate villages into a single larger and more complex settlement. Attarian (2003) suggests something similar in north-coastal Peru. This should not be confused with the modern phenomenon of cities growing so large that they create contiguous metropolitan zones that encompass formerly physically separate settlements (which typically preserve their legal distinctness).

In other cases, urban settlements remained quite dispersed, with multiple population concentrations. This is what McIntosh (1999b) describes for the Inland Niger Delta, which is perhaps somewhat similar to the "capital zones" described by Stark (1999) for south central Veracruz in Mesoamerica and Maya "green cities" (Graham 1999). Even Harappan cities are described as having multiple nuclei (Kenoyer 1998), although they seem fairly compact. Do urban sites lacking a clear single central nucleus imply a relatively weak central political authority or multiple hierarchies? Compactness is surely strongly influenced by land prices, and where investment in costly strong defensive walls is thought necessary there is an obvious incentive to minimize the walled area. The contrast between single and multiple nuclei is another matter.

A. Smith's (2003) generally well-taken critique of neo-evolutionist approaches of the 1960s and 1970s emphasizes alleged inattention to space, whereas I blame excessive abstraction in general and inattention to individual practice. We both see excessive reification of sociopolitical types, compression of variation within these types, and, above all, too little sense of how things actually worked in specific cases. Smith addresses four central topics: ties among polities, links between regimes and their subjects, interactions between elites and grassroots organizations, and ties among the different institutions within the governing apparatus of a polity; he organizes his case studies around the concepts of experience, perception, and imagination. He is concerned with early complex polities in general, rather than cities as such, but he has much to say about early urbanism, which he sees as dramatically variable. He argues that built environments are not passive settings for action or expressions of power, but instead are active instruments for legitimizing and constituting authority, and legitimate authority in turn is a key basis for political and other kinds of power. Throughout this work, he emphasizes the concept of practice. Another recent publication in this vein is Blake (2002).

Betz (2002) goes further yet to argue that the first cities were inventions designed in their entirety as new kinds of settlement intended to attract people by the qualities of the cities' built features. She makes extensive use of neurological, psychological, city-planning, and other literature unfamiliar to most archaeologists. Miksic (1999), at an opposite extreme from Betz, writes, "Rather than desiring to live in cities, it is likely that many people in ancient times avoided them as far as possible" (p. 170). In any case, Betz raises issues and concepts that provide important insights. We must attend to environmental settings, technologies of production and transport, and political and economic considerations, but we miss something important if we do not also think hard about the likely new experiences, attitudes, and emotions generated by life in cities. It is also important to recognize that, for the first time, other segments of societies began to have the experience of not living in a city.

In thinking about cities as possibly having been creations, we should distinguish among "pristine" and mature and "planted" cities. Many think the term pristine is problematic, but it is a good term for settlements that exhibit a degree of urbanness previously unknown and unheard of in the local tradition, which means that occupants have neither a prior model to emulate nor prior experience with the consequences of urbanism. Over time, pristine cities mature and acquire features not previously present, often as responses or accommodations to earlier features. By planted cities I mean those created by people who did have some prior experience with urban life. Many of these cities were colonies derived from parent communities (notably among the Greeks). Other cities were special-purpose settlements; garrisons, ports, and other trading centers; and places for mining and other extraction of localized resources. In all cases, previous knowledge was available. Existing cities might be emulated, or the new city might be seen as an opportunity to avoid problems perceived to stem from features of older cities. Sometimes, as apparently in Greece, new forms could in turn provide models for parent

settlements. Special-purpose settlements, of course, often called for special features such as extensive fortifications for garrisons and harbors and storage facilities for trading centers.

Another important concept is "public amenity." This idea covers diverse features, including fountains, reservoirs, and aqueducts for water supply; systems of waste disposal such as drains and sewers; paved streets; places of worship; marketplaces; public baths; theaters and other facilities for recreation and public assemblies; provision for marginal and disabled persons (including medical facilities); fortifications and places of refuge; as well as institutions for maintaining public order and distributions of food or other material benefits to some sectors of the population. To what extent, in various traditions, were certain of these amenities already present in the earliest cities? Whatever the extent to which some amenities were present from the beginning, many were added or enhanced later in the history of established cities and can well be thought of as "embellishments" and their sponsors as "benefactors." In historically documented cases I see two principal kinds of benefactors: rulers (often distant in regional states or empires) and local dignitaries. Rulers can play the role of benefactor to enhance their prestige and authority, and they may also sponsor features that promote or impede specific attitudes and practices, thus using these material elements as active tools of power. Motives of local dignitaries are perhaps more mixed and variable; often they sponsor amenities to enhance their prestige in competition with other locals; and this can serve their own aspirations for a greater share in local power. In other cases, local dignitaries are expected to sponsor amenities simply to maintain their legitimacy, or a political superior may demand such sponsorship as what is, in effect, a form of taxation, even if phrased as a voluntary contribution. In Greece and Rome the variations in such practices over time and space are interesting.

Some amenities may be created at a grassroots level by nonelite elements of society, typically modest and on a neighborhood scale.

Cities as Cosmograms or Sacred Centers

In some regions, the clear close adherence of many cities to an overall plan, contemporary texts, or both, provide overwhelming evidence for meaningful overall planning, although the reasons and the meanings behind the planning may not be obvious. Greek and Roman texts, for example, advocate certain orientations as simply more healthful or more agreeable. It is much more difficult to decide whether less-close or less-pervasive spatial ordering is meaningful. Appearances of vague ordering may be only coincidental, or the ordering may be real but mean nothing more than a general idea that certain arrangements are more fitting and proper than are others. In some times and places people have thought it best that a Christian church should face eastward, but this preference was not always followed; as far as I know there was never any idea that anything essential was lost by a church's being oriented otherwise. It may be thought adequate to embody a very precise mental model by physical features (built or natural) that relate only

very approximately to the mental model. Carl et al. (2000) debate these issues for many parts of the world.

There is good evidence that the layouts of many cities in East and Southeast Asia were designed to be cosmograms, or at least to physically embody some important religious concepts, as argued by Wheatley (1971) and many others. However, the use of city layouts to express such concepts is less clear in other parts of the world, and there seems to be great variation. Kemp (2000), for example, discounts cosmic aspects to planning in New Kingdom Egypt, and he reminds us that one should approach each case with skepticism, remembering how easily one can deceive oneself with coincidences that seem too good to be merely accidental. In Mesoamerica, Teotihuacan shows overwhelming evidence for such a high degree of planning that it must have been meaningful, although the precise meanings are debated (Cowgill 2000b, Sugiyama 1993). The situation in the Maya area is less clear. M.E. Smith (2003) and Ashmore & Sabloff (2002, 2003) debate the degree of planning and argue over what counts as excessive subjectivity in detection and interpretation of meaningful spatial patterning.

Even when cities were not laid out to reflect cosmograms or other sacred principles, many were regarded as sacred centers. Most, or probably all, of the earliest cities had physically prominent places of worship. But it is unclear that the attraction of sacred places was more than occasionally a cause of emergence of pristine cities. At least in Greece and Early Historic South Asia (M.L. Smith 2003b) many shrines and pilgrimage centers were in hinterlands, and not in cities. In these cases one might say cities arose or were created at the places where they were located in spite of sacred centers being elsewhere within their regions.

URBAN ANATOMY: BOTTOM UP AND TOP DOWN

In considering structure within cities, three sectors should be distinguished: the central political authority (which, in the case of a regional state or empire, may be located outside the city); lesser elites, such as religious communities, prosperous merchants, regional governors, and local hereditary nobles; and nonelite residents (grass roots). Amenities may be provided by any of these levels, and at least the upper two may explicitly shape physical features and impose specific practices. Other structured aspects, however, may arise from practices at any of these levels without explicit planning, through self-organizing processes.

Studies of ancient urban neighborhoods often find that they are rather heterogeneous, at least in socioeconomic status. Better put, modern cities seem unusually segregated by socioeconomic status. Much work has been done on identifying and characterizing neighborhoods in Teotihuacan, most recently by Robertson (1999, 2004) who has used sophisticated computer and spatial mathematical methods applied to data from Millon's Mapping Project. He confirms and adds detail to Millon's earlier suggestion that neighborhoods were relatively heterogeneous internally. He goes beyond that to identify districts with different mixes of high- and low-status occupants. In broad terms, neighborhoods with higher proportions of

high-status occupants are more prevalent toward the center of the city, but to say this is to oversimplify more complex spatial patterns. He also sees a tendency for neighborhoods to become less heterogeneous over time, and he suggests that this may have led to increasing social tensions within Teotihuacan. Studies of craft specialization (summarized by Cowgill 2000a) find some specialists clustered in compact neighborhoods and others probably more dispersed, with both attached specialists and others likely organized on a household or neighborhood level.

For the Mesopotamian city of Nippur, Stone (1987, 1995), aided by texts, has provided especially interesting data on neighborhoods and spatial organization of the city. Keith (2003) discusses urban neighborhoods in the Old Babylonian period of the early second millennium B.C., and Stone & Zimansky (1992) address the anatomy of Mashkan-shapir. Bawden (1996, p. 86) observes considerable variation in North Coastal Perú; Late Moche Galindo (c. A.D. 700) was highly segregated into walled districts, whereas earlier Gallinazo and later Chimú settlements do not exhibit this rigid differentiation.

There is also a good deal of information on the anatomy of some cities of Classical Antiquity, notably Olynthus (Cahill 2002), and including, not surprisingly, Pompeii. But, even at Pompeii, there are limits to the "Pompeii premise," and interpretations are not as easy as one might think (Allison 1999).

Early cities, however, may be rather segregated ethnically. Ethnic enclaves are readily apparent at Teotihuacan, for example (Cowgill 2000a).

CITIES AND THEIR SETTINGS

In even the largest ancient cities no locale was more than a short walk from the countryside. Even at Teotihuacan, considered hyperlarge by many, few people could have lived more than 2 km (in a straight line) from the settlement margins, only a few minutes' brisk walk. Of course, movement in ancient cities was often restricted by cultural and legal impediments for various categories of residents, and in some cities there were also physical barriers to movement. Nevertheless, no one was nearly as physically remote from rural places as are many occupants of modern cities. Furthermore, in all but the most compact parts of ancient cities, some spaces within the settlement likely were used for agricultural production. This was even more true for less-compact urban settlements such as those in lowland Mesoamerica, parts of Africa, and elsewhere.

There was likely considerable variation in jural relations between cities and their hinterlands. In sixteenth-century Mesoamerica generally it seems no legal distinction and even no clear terminological distinction were made. In Greece the term *polis* applies both to a major settlement and to the polity associated with the settlement—a source of some ambiguity in interpreting ancient texts. Yet there is also a word for the countryside (*chora*), and texts very explicitly discuss the merits of holding land in both town and country; Greeks were perfectly aware of the difference, and it is hard to believe that Mesoamericans were not also highly aware of it.

In contrast, in medieval and later Europe there were often sharp legal distinctions between town and country. In cases where texts are lacking, how can we discern the legal and conceptual limits of cities? Even massive walls do not fully suffice: There can be large agricultural areas within the walls, or substantial housing outside them, which may or may not have been regarded as part of the city proper. We are confronted by a difficult task.

Literature on ecological and environmental aspects of relations between ancient cities and their hinterlands is growing. Not the least appeal of these topics is that they have potential relevance to present-day concerns that is readily grasped in anthropologically unsophisticated quarters, thereby providing access to funding on a scale unavailable for many other topics of research. Issues include the environmental impacts of cities, their long-term sustainability, technologies of provisioning ancient cities (e.g., Garnsey 1988, Morley 1996, Zeder 2003), and the extent to which ancient cities were more or less healthful than their hinterlands were (Miksic 1999, Storey 2004).

Environmental disasters have sometimes played critical roles in the demise of cities and polities, but it is easy to overdo such explanations, and we should never exclude consideration of other sources of change. Monocausal explanations in terms of environmental disasters sometimes tacitly assume that states and cities would be immortal as long as they weren't destroyed by external phenomena.

"Consumer" Cities?

Students of Greek and Roman cities debate the extent to which some of the cities some of the time may have been more than just "consumer" cities, as thought by Weber and Moses Finley. At issue is the extent of entrepreneurial spirit and practices and the degree to which activities in cities generated wealth, as well as consuming wealth generated in the countryside. This topic is related to, but not to be confused with, the formalist/substantivist debate of Polanyi and others. Recent publications include Rich & Wallace-Hadrill (1991), Parkins (1997), and Parkins & Smith (1998). The current state of this debate seems to be that Weber and Finley overestimated the differences between earlier cities and the cities of medieval Europe, with their relatively high degree of political autonomy and strongly entrepreneurial spirit. Entrepreneurial activities and attitudes were by no means insignificant in all early cities. The differences were not always as great as Fox's (1977) contrast between "administrative" and "mercantile" cities would suggest. Nevertheless, many scholars think this calls for modification of Weber and Finley's ideas rather than sweeping rejection, and new concepts to replace theirs have not been proposed.

Until the industrial revolution that started in the late 1700s was well underway, rights to income from large and diversified agrarian holdings were not only the most prestigious source of wealth everywhere, but also, as a rule, the least risky and often the most profitable. Debate about the Weber/Finley model is not so much about relations between cities and their hinterlands as about the extent to which prevalent attitudes and political, legal, and economic institutions hindered or promoted development of nonagrarian sectors of the economies of various ancient

and more recent societies. The general thrust of recent work on Mesopotamia, Rome, and the Late Postclassic Basin of Mexico suggests that there was somewhat more entrepreneurship and development in nonagrarian sectors than Weber, Finley, and many other scholars have thought, yet perhaps significantly less than in Early Modern Western Europe. However, a great deal remains to be learned about the economies of these and other early complex societies, and there may well have been considerable variation among them and over time. Also, material culture and technological knowledge must not be neglected. It is not clear to me that, for example, the Roman empire might have developed an industrial revolution early on if only institutions and attitudes had been more conducive to it. There was significant cumulative technological progress in the world between the 300s and the 1300s, and this is a factor that should not be dismissed.

The combination of textual and archaeological data enables specialists on Greece and Rome to argue about issues concerning internal social, economic, and physical aspects of cities and their interactions with their surroundings on a level that can scarcely be approached anywhere else in the ancient world. Nevertheless, classical scholars are searching for new concepts and models, and it is likely that their search will be aided by data and concepts from other regions. The consumer city concept is also debated for Mesopotamia (e.g., Van De Mieroop 1997). Archaeological, ethnohistoric, and archival work on Aztec society may be approaching a similar degree of development. Although controversy continues, a reasonable amount of evidence can be debated. Major recent publications include Berdan et al. (1996), Charlton et al. (2000), Hodge (1984), Hodge & Smith (1994), Nichols et al. (2002), M.E. Smith (2000), and papers in Sanders et al. (2003).

CITIES AND POLITIES

Possehl (1998) questions whether Harappan polities qualify as states. For the later Early Historic Period of South Asia, M.L. Smith (2003b) argues for cities without states, though Sinopoli (2001) takes a more moderate view. Such controversies may be irresolvable and not very productive as long as we stick with "cities" and "states" as typological boxes. It is more effective to frame the matter as issues concerning the relations between (a) types of settlements (or types of systems of settlements); (b) environmental circumstances and available technologies; and (c) types of political, social, economic, and religious institutions and practices. Is preexistence of certain types within any one of these categories a necessary condition for creation or spontaneous emergence of certain types within another category? Sufficient as well as necessary? If neither quite sufficient or necessary, is such preexistence at least conducive to change in another category? Were some types of early polity more prone to urbanism than were others? One issue here is the roles of environmental/technological constraints relative to institutions, practices, and ideas about what is desirable. Balkansky (2002, pp. 10–13) offers an especially insightful discussion of these issues for the Mesoamerican city of Monte Albán and the Monte Albán state, summarizing the views and theoretical assumptions of various researchers, emphasizing the importance of diverse analytical scales

(including macroregional), and making concrete suggestions about how different models can be empirically tested.

"City-States"

Concepts and definitions vary widely. One axis of differentiation is whether emphasis is more on the "state" aspect or the "city" aspect. The label unhappily invites us to confound kinds of polities and kinds of settlements. Trigger (2003) argues that there was a sharp contrast between city-states and regional states. His argument is useful in that it recognizes diversity among early polities and aptly questions whether either type consistently preceded the other, but I doubt whether all early states really fit neatly into one or the other of Trigger's two types. A small polity may or may not be highly urbanized, and a highly urbanized settlement may or may not be the capital of a large polity. When emphasis is mostly on the state, it would be better to use a term such as "little state" or "statelet" to refer to polities small enough that the central authority does not need to delegate much decision-making authority to persons located outside the center. When a polity is large enough that, given environmental circumstances and prevailing technology, appointees of the central authority or local dignitaries have a significant degree of autonomy, a whole new series of practices and interests come into play, especially struggles for still greater autonomy by the locals and resistance to these struggles from the center (e.g., Cowgill 1988). A chronic problem for small states is avoiding domination or incorporation by neighbors; for large states the problem is more one of avoiding fragmentation.

Fox (1977) emphasizes the city aspect, and for him city-states are limited to "mercantile" cities that have carried their relative independence from encompassing regional states to the logical extreme where the regional state, at least for practical purposes, no longer exists. Many find Fox's concept too narrow. One common denominator is that we are thinking of sets of polities whose citizens have both a strong identification with their specific city and awareness of strong cultural similarities with neighboring polities in the same general region. But we need to go beyond that common denominator if we are to make the concept very useful. I suggest it is best to focus on regions rather than settlements. The phenomenon of interest is that some regions, in environmental and technological terms, might have been politically integrated but, during significant periods, were not. This approach moves us away from the problematic notion of an isolated city-state, and it underscores the point that regions, or macroregions, rather than individual settlements, are, for many purposes, better units of study (Balkansky 2002).

ALTERNATIVES TO TYPOLOGIES

Fox's (1977) typology of cities, "regal-ritual," "administrative," and "mercantile," remains useful up to a point, but these categories are too broad and encompass too much variation. Rather than subdivide them into more categories, however, it would

be better to specify more variables (axes, dimensions) on which specific cases can be located in a multivariate space. Area and population are two obvious examples. Because it is difficult to estimate these figures very accurately, they should be presented with confidence intervals and sensible rounding (e.g., c. 15,000 ± 5000, rather than 14,847) and illustrated by versions of box-and-whisker plots in which the boxes might span a 67% confidence interval and the whiskers a 95% interval. Other variables, often only rankable on ordinal scales or even less quantifiable, might include sharpness of physical edges of settlement (including walls, which may or may not be transgressed by the settlement); investment in fortifications; extent of top-down planning; degree of spatial segmentation (physically distinct districts); scale of civic-ceremonial structures and configurations; durability of civic-ceremonial, residential, and other built features; division of labor (the extent to which households produce goods and services intended for consumption by other households); and prevalence of various kinds of amenities (as discussed previously). These variables occur to me as relevant to some of the issues discussed above. Other topics will suggest other variables. An important goal is to identify variables that have broad applicability across different regional traditions. This offers the possibility of developing knowledge bases that do not homogenize local variability too much, yet are suitable for cross-cultural comparisons.

PROBLEMS IN IDENTIFYING TIERS IN REGIONAL SITE HIERARCHIES

A considerable literature has been built up around the premise that the number of distinct tiers in a regional site hierarchy is diagnostic of distinct levels of sociopolitical integration (e.g., Flannery 1998). This premise appeals to some archaeologists because it implies that if the number of tiers can be satisfactorily ascertained one can simply read off from it the type of society—"chiefdom," "state," etc. More complex societies do tend to have wider ranges of site sizes. But both conceptual and methodological problems abound. There is no space to discuss them adequately here; I hope to do so in another publication.

METHODS AND FUTURE WORK

It is impractical to excavate more than small parts of large cities. This fact calls for sophistication in excavation research design, selection, and sampling, informed by theoretical issues to be tested, supplemented by systematic survey and, where feasible, remote-sensing techniques to detect subsurface features. We need a balance between surveys and excavations in hinterlands and in cities themselves: Neither can be understood without the other. "Complete coverage" is a phrase that masks great differences in survey intensity. Excavations as well as surveys are needed in hinterlands. Computer applications such as geographic information

systems and databases have much to offer, if used appropriately. Regional and macroregional knowledge bases require overcoming problems of integrating disparate databases created by multiple projects. Interdisciplinary approaches are needed, including not only natural sciences and geography but also history and psychology.

One central task for the future is to improve our ability to use the built environment to validly infer the social phenomena of which the built environment is both outcome and shaper. Ethnographic and historical analogies are important, with the usual proviso that we must take pains to avoid overgeneralizing from too few or inappropriate cases. Flannery (1998) offers some steps in this direction, but we need to go much further in testing assumptions, assembling accurate data, and refining concepts.

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