Max Planck Institute for Social Anthropology Department 'Resilience and Transformation in Eurasia'

David Wengrow

Cities before the State in Early Eurasia

Goody Lecture 2015



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Jack Goody (1919–2015)

Sir John Rankine Goody was brought up near London and initially studied English at Cambridge. Formative experiences during the Second World War led him to switch to social anthropology. He undertook fieldwork in Northern Ghana during the last decade of British colonial rule and taught anthropology at Cambridge University alongside Meyer Fortes and Edmund Leach, After succeeding Fortes as William Wyse Professor of Social Anthropology in 1973, he began to explore long-term historical contrasts between sub-Saharan African societies and those of Europe and Asia. Following V. Gordon Childe, Goody emphasized commonalities across the Eurasian landmass since the urban revolution of the Bronze Age. In numerous publications he highlighted developments in East Asia and criticised the eurocentric bias of Western historians and social theorists. Core themes include productive systems, the transmission of property and class inequality in global history; kinship, marriage and the "domestic domain"; technologies of communication, especially writing, the transmission of myth, and of knowledge generally; and consumption, including cuisine and flowers. These topics are not approached in isolation but in their interconnections. Ethnographic insights are essential, but they form just one component of Goody's comparative vision. His best known works include Death, Property and the Ancestors (1962); Technology, Tradition and the State in Africa (1971); Production and Reproduction (1976); The Domestication of the Savage Mind (1977); The Development of the Family and Marriage in Europe (1983); The Oriental, The Ancient and the Primitive (1990); The East in the West (1996); The Theft of History (2006); Renaissances: the one or the many? (2010); The Eurasian Miracle (2010); Metals, Culture and Capitalism: an essay on the origins of the modern world (2012).

Goody's agenda is one which the Department 'Resilience and Transformation in Eurasia' at the Max Planck Institute for Social Anthropology seeks to continue. In an annual lecture series, a distinguished scholar addresses pertinent themes for anthropology and related fields:

Goody Lecture 2011: Keith Hart, "Jack Goody's Vision of World History and African Development Today".

Goody Lecture 2012: Peter Burke, "A Case of Cultural Hybridity: the European Renaissance".

Goody Lecture 2013: Martha Mundy, "The Solace of the Past in the Unspeakable Present: the historical anthropology of the 'Near East'".

Goody Lecture 2014: Francesca Bray, "Rice as Self: food, history and nation-building in Japan and Malaysia".

The fifth Goody Lecture was given by David Wengrow on 8th July 2015.

David Wengrow

Cities before the State in Early Eurasia*

Introduction

Of Jack Goody's many books and articles, perhaps one of the less well known is his short contribution to a landmark conference on *The Evolution of Social Systems*, published in 1977 (Goody 1977 a). It comes in that section of the book devoted to questions of 'demography, trade and technology', and has the title: "Population and Polity in the Voltaic Region". Characteristically, Goody began his discussion of this theme on a much broader canvas, asking: "What is the nature of the relationship between states and population, between the centralisation of the polity and the density of the inhabitants?"

In *African Political Systems*, Meyer Fortes and Edward E. Evans-Pritchard (1940: 7) had accepted the basic proposition that there is probably "a limit to the size of population that can hold together without some kind of centralized government." They went on, however, to distinguish between size and density of population – raw numbers as against the physical distribution of people within a given macro-region. When the focus shifts from size to density, they suggested, a comparison of pre-colonial societies across central and southern Africa revealed an inverse relationship between demography and political centralisation. Permanent institutions of government, specialised bureaucracies

^{*} For the honour of delivering the Goody Lecture, I am deeply grateful to the Max Planck Institute for Social Anthropology. My choice of topic was in response to a provocation from David Graeber, who asked me whether human prehistory furnishes examples of egalitarian experiments on an urban scale. I hope this goes a little way to providing an answer. For their observations on earlier drafts I am grateful to Maurice Bloch, Ewa Domaradzka, and Alpa Shah. My thanks also to John Chapman who has been a generous advisor on the Ukrainian material.

and judiciaries, as well as sharp differences of rank and wealth, were in fact most strongly developed in areas with low demographic densities, such as the Zulu and Bemba polities, while the more populous agricultural settlements – such as those of the Tallensi in Northern Ghana – often lacked these features.

By the 1960s these earlier findings were being rejected by development theorists, and by the emerging school of cultural ecology, most closely associated with the work of Marvin Harris at Columbia. A pointed attack was launched by R. F. Stevenson in his *Population and Political Systems in Tropical Africa* (1965), which argued that the patterns observed by Evans-Pritchard and Fortes were little more than a temporary anomaly; the historical outcome of (mainly British) military and commercial incursions into the African continent during the late 19th and early 20th centuries. In *The Rise of Anthropological Theory*, Harris took Stevenson's "brilliant defence of the population density-state formation hypothesis" to exemplify the methodological bankruptcy of British structural-functionalism, reasserting the apparently obvious fact that – when viewed over the long-term – societies on every continent exhibit "a close correspondence between state systems and high population density" (1969: 537), and Africa is no exception.

Flying in the face of academic trends, Goody's 1977 essay mounted a counter-attack. It was based – not on the virtues of synchronic comparison – but on the 'virginal innocence' of his North American colleagues in matters of African history. He began by citing a range of late 19th century travellers' accounts that substantiate the arguments of *African Political Systems* with first-hand observations, for example on the anarchic character of the Tallensi and their independence from the neighbouring Mamprusi kingdom. But he also highlighted a more basic shortcoming of the population density-state formation hypothesis: its failure to consider the different technological setting of African and Eurasian state formation, and its impact on the relationship between population size and polity.

Goody pointed out how inventions which had fostered demographic growth in Eurasia since the Bronze Age – the plough, the wheel, and irrigation – hardly penetrated south of the Sahara in pre-colonial times; a point developed in two earlier books: *Technology, Tradition and the State in Africa* (1971), and *Production and Reproduction* (1976). Population levels in sub-Saharan Africa therefore remained relatively low and, while cultivable land was plentiful, its productivity was limited by the prevailing mode of shifting agriculture. The immediate hinterlands of the savannah states were not richly cultivated field systems, as in the great river valley civilisations of Eurasia. Instead they were areas of extended wilderness: sparsely populated frontiers, ideally suited to the inculcation of martial values, and to predation with imported horse and gun.

On the cusp of the frontier, stateless peoples often clustered in large agricultural settlements. These offered refuge from enslavement, as well as access to fertile land. Aggregations of otherwise unrelated descent groups posed a challenge to established systems of political organisation. The frontier was therefore a locus of political innovation. In areas such as the Cameroon Grassfields this resulted in emergence of new chiefdoms or kingdoms, which in turn produced new frontier zones, and so on, in a sort of 'domino effect'. But in other cases 'tribes without rulers' managed to achieve a considerable degree of demographic centralisation without introducing state-like structures of governance into their own affairs. The result, in areas such as Northern Ghana, was a political landscape of 'big tribes' and 'little kingdoms'.

While echoed in the work of other Africanists, such as Robin Horton (1971) and Igor Kopytoff (1987), Goody's essay on population and polity has been overlooked in more general studies of long-term settlement growth (e.g. Fletcher 1995). And the search for systemic relations between ecology, scale, and social inequality in pre-industrial cities has continued, taking new theoretical support from fields such as management studies and evolutionary psychology. One recent proposal is that pristine urban forms in tropical or semi-tropical zones tended to be of the sprawling, low-density kind – as exemplified by the earliest large-scale settlements in Amazonia, the Maya Lowlands, the Middle Niger, and South-East Asia (Fletcher 2009). These are to be contrasted with compressed high-density urbanism, thought to have typically emerged in semi-arid regions – for example along the Nile, Tigris-Euphrates, Indus, and Huang He.

Whether such a broad contrast in urban form can be supported on purely ecological grounds is debatable – the more arid zones are not without their garden suburbs (e.g. Kemp 2012). More obviously problematic is the attempt to find broad alignments between types of ecology, urbanisation, and politi-

cal structure. A recent comparative study argues that pre-modern cities in the semi-tropics were 'pre-adapted' to heterarchical systems of government, while those of the semi-arid regions were contrastingly predisposed to stratified states (Scarborough and Lucero 2010). But there is no clear evidence for rigid social stratification in the Bronze Age cities of the Indus Valley or, indeed, for the first half a millennium or so of Mesopotamian urbanism; while the tropics, by contrast, produced both the Khmer Empire and Classic Maya kingship.

My aim in this lecture is to suggest that some aspects of Goody's countercase – as well as his later writings on literacy, urbanisation, and bureaucracy – are worth revisiting, partly as an alternative to this new wave of uniformitarian theorising on population and political structure. I will develop Goody's argument in two directions, suggesting that:

a) there is no logical or necessary connection between population density and the emergence of centralised managerial or political structures; and,

b) that population centres may develop and sustain themselves over long time periods through entirely different – and more egalitarian – modes of integration, even without the stimulus of predatory interventions by nearby states.

But I will also depart from Goody and more recent studies, arguing in the second part of my talk that the early appearance of 'cities without the state' is distinctive neither to sub-Saharan Africa nor to semi-tropical zones more generally. Instead I will suggest that cities organised 'from the bottom up' and on relatively egalitarian principles can be found at the very basis of urban civilisation in Eurasia itself.

I will make this case by reinterpreting what Goody himself considered the pivotal process of later human prehistory: the Urban Revolution of the fourth millennium BC. More specifically, I will argue that this process should no longer be defined around a single core area of Mesopotamia, but as a process with two primary foci: one in the latter region, and the other in the steppe-forest zone to the north of the Black Sea, in what is now Ukraine and Moldova. Around 6000 years ago these two regions witnessed the independent growth of settle-

ments in the order of hundreds of hectares, implying social organisation on a scale unprecedented in human history. But these parallel developments have never been accorded equal status in the long-term history of Eurasian societies.

The emergence of cities in Mesopotamia has long been viewed as marking a threshold in social evolution – the 'emergence of complex society' – associated with the development of commerce, literacy, and the state. For reasons touched on later, their Ukrainian counterparts are often denied urban status altogether, being relegated – by implication – to the status of an evolutionary backwater. I will argue here that the latter's exclusion from conventional schemes of social evolution masks the true diversity of urban form at the dawn of the Eurasian Bronze Age. That diversity may be better understood through a direct comparison of the two cases, focussing on specific divergences in strategies of large-scale social organisation. This Goody Lecture will attempt to lay foundations for such a comparison.

The Original Disconnection between Bureaucracy and Scale

Before approaching these wider comparative themes it is important to consider, in a little more detail, Jack Goody's own understanding of the Urban Revolution as a distinct 'civilizational package'. In his many writings, Goody has returned time and again to Mesopotamia – and to the origins there of urban life – as a key turning point in the history of Old World civilisations. His own understanding of that process is taken more or less wholesale from the early to mid-20th century writings of prehistorian V. Gordon Childe (e.g. Childe 1936). But Goody views Childe's work through the lens of an ethnographer and an Africanist, concerned with problems of development and inequality in the modern world. Arguably it is this particular combination of anthropological and archaeological perspective that gives unity and dynamism to the main body of his work over the decades.

As I noted earlier, Goody was struck by how many features of the Urban Revolution – part of the fabric of Eurasian societies for some six millennia – had remained alien to sub-Saharan Africa until quite recent times. The absence of innovations such as the plough and the wheel was not to be understood in a narrow technological sense, however. Technologies matter, for Goody, because of their social "adhesions": a term that he took from Edward B. Tylor to describe the connections between social and technological systems. Such connections always imply constraints as well as possibilities. Hence the absence or refusal of a given technology, such as mechanised agriculture, was important as much for what it enabled in terms of African social development, as for what is excluded.

Technological systems have properties of transmission that differ from one innovation to the next, and cannot be equated in any simple way with institutional change. Adopting the wheel is a different sort of process from adopting a system of writing, which is different again from adopting bilateral systems of property inheritance or forms of *haute cuisine*. As Goody repeatedly showed, consistent relationships have existed between these various kinds of processes, and they are important for understanding the development of Old World civilisations. But they are also complex and indirect. For that reason, civilisations are always messy and interesting things, best understood in historical as well as theoretical terms.

Elsewhere Goody extended these insights from technologies of the material world to technologies of the intellect. In *The Domestication of the Savage Mind* (1977 b) he reconsidered the distinction between oral and literate cultures in light of the first known writing systems, and also his own fieldwork on the uptake of literacy in contemporary West Africa. The cuneiform script of early Mesopotamia, as he recognised, was not initially designed to represent natural speech (and see Houston 2004). It answered to the more limited requirements of urban corporations – first temples and later palaces – breaking down the flow of agrarian goods and services into standard bits of information that could be quantified, stored, ordered into hierarchies, and otherwise manipulated in a bureaucratic manner.

But literate administration too had its 'adhesions'. As an ordered domain of knowledge, it came in time to encompass everything from cooking recipes and magical spells to native stories about the origins of urban life. Writing also became the medium of its own reinvention, as in the mythical tale of *Enmerkar and the Lord of Aratta*, which misrepresents script genesis as rooted in oral communication, set against a wider backdrop of aristocratic rivalry and the

quest for distant raw materials (as opposed to the internal bookkeeping systems of urban corporations). Literacy thus became both a defining characteristic of urban elites and a prime instrument for their socialisation into particular institutions and habits of thought.

The point I wish to emphasise here is that, for Goody, there was no universal or law-like connection between urban life, state sovereignty, and bureaucracy. These are instead parts of a distinct 'package' of developments that coalesced under a particular set of historical circumstances. This happened first in those densely populated parts of the Old World where the Neolithic domestication of plants and animals was supplemented by mechanised farming, and where authority became linked to private land-ownership and the maintenance of a full-time managerial class. There was no necessary causal relationship among these various things, but rather a series of 'adhesions' that, once set in place, became highly transmissible within a broader Eurasian context.

Goody's case could, in fact, be strengthened by an even deeper time-perspective, taking into account the prehistoric roots of specialised administration in the Middle East. One of the most intriguing aspects of that process is its commencement in Late Neolithic villages, beginning around 6000 BC. Archaeologists debate the details of this process, but what they agree on is that – some millennia prior to the invention of writing – early farming communities throughout the Middle East already shared a common system of accounting, property management, and information storage (Oates 1996). Evidence of such systems is found over a very large area, from the Syrian Euphrates (Akkermans and Verhoeven 1995) to the highlands of western Iran (Alizadeh 2006), in the form of product sealings and numerical tokens that were sometimes assembled in central archives. In origin, then, specialised administration is a village not an urban phenomenon (see also Wengrow 1998).

This poses some obvious problems for recent theorising on group size in fields such as evolutionary psychology (e.g. Dunbar et al. 2010; and see also Johnson 1982; Feinman 2010). It is often argued for example that human groups of up to 150 individuals – that is, roughly the size of a Neolithic village – should have no need for administrative systems to control transactions. Human social cognition should be adequate to maintain group cohesion through face-to-face interaction, moral pressure, and natural recall of debts and obligations. The

existence of village-scale administration in deep prehistory casts doubt on the whole idea of bureaucracy as a functional response to 'scalar stress'. No less problematic, for the same kind of models, is the phenomenon of settlements that are undeniably urban in scale, but lack such expected features as administrative hierarchies or managerial elites. It is to some examples of these that I now turn.

The Phenomenon of the Ukrainian "Mega-Sites"

In the 1970s Ukrainian archaeologists began a series of intensive surveys approximately 120 km south of Kiev, in the fertile lands between the Southern Bug and Dnieper Rivers. Using an innovative combination of aerial photography and geomagnetic prospection, they uncovered plans of the prehistoric settlements that have since come to be referred to as 'mega-sites'. Tens of such sites, each covering an area of over 100 hectares, have since been documented in Ukraine and neighbouring Moldova, where they date between 4000 and 3200 BC. Some, such as Maidanets'ke and Dobrovody, reached sizes of around 250 hectares, comparable with the largest Mesopotamian cities of the time. While Talljanky – the most gigantic of all the Ukrainian sites – is thought to have extended over roughly 400 hectares (Videiko 1996; Menotti and Korvin-Piotrovskiy 2012).

The populations of these mega-sites are estimated in the many thousands. Smaller towns and villages – some comprising little more than a few farmsteads – surrounded them, often forming tiered settlement patterns. The mega-sites themselves lie within surprisingly easy reach of one another, at a distance of 10 to 15 km on the open grasslands. If contemporaneously occupied, they would therefore have drawn resources from a common hinterland. Their foundation represents the culmination of a long process, which saw the movement of Neolithic farming communities from the lower Danube through the high passes of the Carpathians, onto the rich soils of the steppe-forest zone north of the Black Sea (Anthony 2007). There they continued to base their livelihoods on cereal cultivation and herding, following patterns of resource allocation established over centuries of shared experience. The shifting frontier of this mixed farming economy is archaeologically traceable through an associated – and remarkably stable – repertory of houseforms and domestic craft products: the Cucuteni-Tripol'ye culture. It was on the black loess-lands of the Bug-Dnieper interfluve that these communities coalesced into settlements of enormous size (figure 1). Each such settlement comprised upwards of a thousand households and their attached gardens, forming concentric rings divided by streets and ditches. Many hundreds of households have been excavated. The great majority were constructed to a similar scale and layout, which remains constant across both large and small sites. Bigger-thanaverage structures have occasionally been found, but no clear distinction can be made between monumental and residential buildings (Chapman 2010).

The large open spaces at the heart of the mega-sites are mostly devoid of burials or architectural traces. Their elliptical plans give a first impression of rigid uniformity in the placing of household plots: a kind of closed circuit of social interaction, each domestic unit forming a reliable link in the chain. But recent fieldwork indicates a surprising degree of flexibility and deviation from this ideal scheme. Households could opt to cluster close together with common walls, or could find themselves relatively isolated. Clusters varied in size from single dwellings to groups of over twenty, and were sometimes separated by ditches or pits. Occasionally a particular corporate group attempted to violate the constraints of the overall settlement pattern – breaking the circuit, as it were – by establishing a non-linear cluster, or leaving open spaces where it might pool resources to build a 'big house' (Chapman et al. 2014). But centralising tendencies were muted, and never produced a clear distinction between private and public, or household and temple, spheres.

Egalitarian Cities?

The Ukrainian mega-sites were, in their day, the largest contiguous settlements in the world, rivalled only by the cities of the Mesopotamian floodplain. Yet ever since their discovery, the urban status of these sites has been called into question, and is often explicitly denied by archaeologists. Philip Kohl (2002) rejects the term 'cities' or even 'proto-urban formations', referring to them

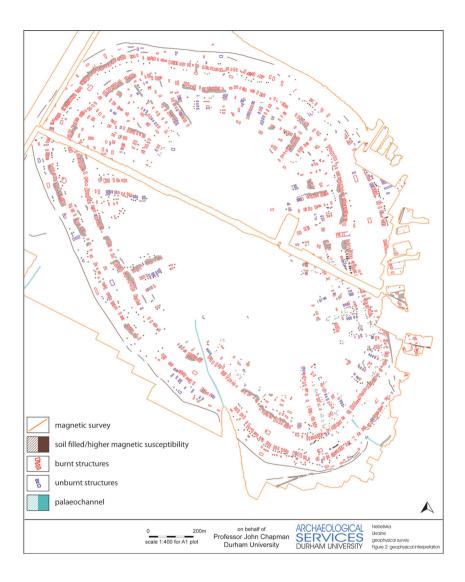


Figure 1:

Geophysical survey of the prehistoric megasite at Nebelivka, Ukraine. (Courtesy of Professor John Chapman and Durham University Archaeological Services)

simply as "giant sites" or "gigantic settlements"; others have characterised them as 'overgrown villages'; the reason being that none of the 'mega-sites' has yet produced compelling evidence either for 'specialisation' or 'internal social differentiation'. Elite neighbourhoods and grand burials are nowhere to be found. Central storage facilities are lacking, as is evidence of specialised administration or other systems of recording.

Something should be said at this point about resource allocation. No doubt the provisioning of such immense populations and their herds would have transformed the landscape of the forest-steppe zone. Agriculture was most likely plough-assisted, extensive grazing lands were required, as was forest clearance for fuel and construction. Salt arrived in bulk from springs in the eastern Carpathians or the Black Sea coast (Chapman and Gaydarska 2003). Some tonnes of flint for tool manufacture were obtained annually from the Dniestr valley. An intensive potting industry was sustained (Ellis 1984). And copper was brought in from sources in the Balkans (Manzura 2005). The logistical challenges were daunting. But clearly they were met with considerable success for well over half a millennium, before the mega-site settlement system eventually broke down and its populations fragmented into smaller and more mobile communities, akin to those of the adjoining steppe.

As David Graeber reminds me, large-scale resource management from the 'bottom up' – that is, based on voluntary associations that operate by consensus – is well within the capacity of densely populated societies. An excellent example is provided in Stephen Lansing's (1991) account of traditional rice farming systems in Bali. Resource allocation was normally managed there through a network of 'water temples', outside the jurisdiction of the state. When problems arose, delegates were elected to represent the interests of some thousands of farmers at temple meetings, after which they returned to their ordinary roles in society. Some archaeologists doubt whether the Tripol'ye communities could ever have managed their affairs on similar principles, without ceding control to some permanent central authority. John Chapman (2010: 86), for example, writes:

With regard to the Tripol'ye megasites, it is impossible to talk of 250- or 450-hectare settlements without invoking the extreme social inequalities that would seem to be required to control effectively the commu-

nications and logistics of such centres. It is equally difficult to accept that such inequalities were not materialized through craft and/or ritual specialization.

Yet nothing in the surviving material culture or spatial organisation of the megasite points in this direction. It seems necessary, then, to return to first principles.

Cities before the State: framing a comparison

In an influential study, Roland Fletcher (1995: 198) cites the Tripol'ye megasites as the only known exception to an otherwise universal law of human settlement growth. Based on a global sample of pre-industrial cities he argues that there is a 100 hectare threshold above which dense and permanently inhabited settlements can expand, only if they first undergo certain basic organisational and/or technological changes. As in Chapman's analysis the expectations are set by normative theories of optimal group size and 'scalar stress', which originate outside archaeology in fields such as evolutionary psychology and management studies. They include the establishment of a complex internal division of labour within settlements, and dedicated systems of information storage to assist the management of resources on an urban scale.

Neither expectation is met in the Ukrainian case, and Fletcher (1995: 198) is candid about the wider implications:

Until we have further information the sites remain a fascinating enigma. Given that most of the previously well-known large compact 'non-urban' sites such as Poverty Point do not much exceed 100 ha and are the scale equivalent of T'ang Ch'ang-an at about 90–100 sq km, the discovery of these Late Tripol'ye sites is like finding several new, non-industrial, urban settlements which are perhaps compact and two to four times larger than Ch'ang-an! Plainly this would not be regarded as a trivial issue in the study of agrarian urban communities.

He further suggests that in classifying the Tripol'ye mega-sites as 'overgrown villages', rather than self-conscious experiments in urban life, archaeologists have systematically avoided a major threat to established theories of social evolution. But are the mega-sites really such 'severe anomalies' as they first seem?

A sustained comparison between the Tripol'ye mega-sites and contemporary urban settlements in Mesopotamia has never been undertaken. Various commentators point to contrasts in their respective levels of economic and political centralisation. But these are easily overdrawn. Take, for example, the assumption that Tripol'ye mega-sites could not have managed their agrarian hinterlands without permanent administrative hierarchies and systematic structures of coercion to enforce decisions. Similar ideas were once common in Near Eastern archaeology. But the earliest administrative texts from Uruk make no reference to field- or water systems. And archaeological survey suggests that the earliest Mesopotamian cities were still mainly supported by simple, gravity-fed irrigation systems that could be managed at a local scale, without centralised bureaucratic control (Adams 1981).

Very little is in fact known about the political organisation of the earliest Mesopotamian cities, those of the fourth millennium BC or 'Uruk Period'. Written sources of that time derive overwhelmingly from the site of Uruk, in southern Iraq, and are largely confined to bookkeeping documents and commodity receipts (Nissen et al. 1993). These relate to the internal economic organisation of temple complexes that occupied the central precinct of the city. Outside such grand institutions, smaller households and kin groups retained significant autonomy in agrarian and craft production (Pollock et al. 1996). There is no evidence at this point to suggest that literate administration was directly involved in the political life of the urban community. Pictorial art of the later fourth millennium includes a standard male figure with attributes of leadership (Schmandt-Besserat 1993); but we cannot know whether his office was permanent and hereditary, or granted on a temporary basis by popular consent.

Clear evidence for dynastic elites appears only later in Mesopotamian history, in the third millennium BC or 'Early Dynastic Period', many centuries after the initial appearance of cities. Only then do privately owned estates, intercity warfare, and royal decrees appear in the written record; only then do we find monumental representations of kings and their organised militias, claiming sanction from the city-gods; and only then do royal and elite tombs make their first appearance in the archaeological record (Pollock 1999). In this and most later periods of Mesopotamian history, autocratic institutions existed alongside civic assemblies, tribal councils, and other decision-making bodies whose influence was based on consensus and popular representation, rather than coercion or top-down control (Van de Mieroop 1999). Later Sumerian epic, such as the tale of Gilgamesh and Agga, accords such popular assemblies a central role in urban government, perhaps even superordinate to the authority of kings (see also Barjamovic 2004, with further references).

Returning to the fourth millennium BC, and if we confine our comparison to the earliest phases of urban life in each region, then both Mesopotamia and Ukraine may be considered examples of 'cities before the state', as indeed can the third millennium urban centres of the Indus Valley (Possehl 2003). What then were the salient differences between them? Here we might usefully adapt Goody's method, focussing on the comparison of everyday social practices, rather than broad institutional contrasts. In *Cooking, Cuisine, and Class* (1982) he highlighted the early linkage of food, hierarchy, and specialised commerce as a distinctive feature of Eurasian societies, beginning with the centralised production of graded comestibles in Mesopotamian temples (and see Damerow 1998). In drawing this discussion to a close I will suggest that, here again, the Ukrainian case departs from his expected Eurasian pattern, in ways that are nevertheless instructive.

Divergent Evolution in Early Eurasia: predatory and insular forms of urbanisation

Current reconstructions of the earliest large-scale urban institutions in Mesopotamia suggest that these were temple complexes, combining ritual and economic functions, but with no clearly defined political role (e.g. Ur 2014). They were built at the heart of the city, replicating on a monumental scale the format of ordinary dwellings, and housing a dependent staff of administrators, priests, farmers, and artisans, as well as attached storage areas, kitchens, and workshops. Temples also held executive ritual duties that could not be replicated in ordinary households. They represented the city to its divine patrons on behalf of the wider population: a role symbolised by their scale, magnificent appearance, and above all by their custodianship of cult statues – crafted in exotic materials – that received a regular regime of food offerings.

Like the prehistoric 'cottage industries' that came before them these 'Houses of the Gods' promoted the manufacturing sector as an integral part of household economy, and with additional divine sanction. They were centres of knowledge and industry – the ancient seedbeds of our modern factories, accounting procedures, and methods of timekeeping – where goods and labour were quantified to fixed standards and measures. Production was based on a maximising principal, transforming the vast agrarian surpluses of the Mesopotamian floodplain into stockpiles of easily marketable products such as wool textiles, leather goods, and processed comestibles – including varying grades of dairy-and cereal-based products – centrally packaged and sealed to ensure integrity as they passed between unknown parties (Englund 1998; Wengrow 2008).

But the most highly valued materials employed by urban artisans could not be locally obtained. Timber, fine stone, and metals – including silver used as currency – all had to be procured through trade with outsiders, beyond the floodplain. As has been evident now for some decades, the initial growth of urban settlement in southern Mesopotamia was thus linked to the establishment of trading colonies and outposts along the upper reaches of the Tigris and Euphrates, disseminating lowland manufactures to key supply zones in the neighbouring highlands. Conducted in the absence of standing armies or other obvious means of coercion, this 'Uruk Expansion' – as it has come to be known – was the world's first great commercial expansion, linking the local allocation of agrarian resources to market forces operating at an interregional scale (Algaze 1993; Wengrow 2010).

By contrast, the growth of 'mega-sites' between the Bug and Dnieper has been generally viewed as an insular process, with only limited interaction across well-defined cultural frontiers, separating Tripol'ye populations from their neighbours on the Pontic steppe. One view, long established in continental European archaeology, holds that the mega-sites were refuge towns – not unlike those of the Tallensi, described by Goody – populated by farmers fleeing the predatory incursions of mounted steppe warriors. This interpretation is now considered implausible (see Anthony 2007; Kohl 2002). But it captures something of the inward orientation of Tripol'ye economy and society. Goods traded into the Tripol'ye sphere included Balkan metals and Mediterranean shells; but there is little to suggest that local production was strongly geared to the procurement of such long-range imports, or that they had crucial social and ritual functions in Tripol'ye settlements.

Insofar as it can be reconstructed, the ritual life of the Tripol'ye mega-sites seems to have been tightly focused on, and contained within, the domestic realm. Its main material components could be procured from within the regional economy of the steppe-forest zone, such as the clay and pigment used to make figurines (Bailey 2010) and ritual food vessels (Lazarovici 2010). The latter show no signs of the standardisation and graded uniformity so evident in Mesopotamian domestic assemblages. Instead each vessel was individually decorated with polychrome designs of often mesmerizing intensity. Tripol'ye pottery also exhibits a dazzling variety of forms, suggesting constant innovation and playfulness in the rules of commensality: each household to some extent inventing its own cuisine. Anthropomorphic figurines, found in most Tripol'ye dwellings, represent the self-contained social world of the household, replete with miniature representations of furniture and feasting equipment in harmoniously ordered sets.

Conclusion: another homage to Catalonia

To summarise: in Western Eurasia, the emergence of the world's first urban settlements had, not one, but two primary foci. The first – best known, and much discussed by Jack Goody – lay along the fertile alluvial soils of the Tigris and Euphrates Rivers, in what is now Iraq and part of Syria (ancient Mesopotamia). The second, and less well known, lay on the steppe-forest margins of the Dniester River. In the fourth millennium BC, these two areas both witnessed the growth of nucleated settlements on a scale unprecedented in human history. Earlier (Neolithic) farming communities had often reached sizes in the order of tens of hectares. But the urban agglomerations of the fourth millennium regularly extended over hundreds, and their populations numbered in the many thousands. A major threshold was crossed in scales of social organisation, and in that sense the term 'Urban Revolution' remains appropriate.

But more striking still are the divergent pathways to urbanisation followed in the Mesopotamian and Ukrainian cases. The former, Mesopotamian pathway was based on the centralisation of commercial, bureaucratic and ritual functions within large-scale institutions – Households of the Gods – which competed in a predatory fashion for access to interregional trade routes and exotic materials. The latter, Ukrainian pathway was based on a regionally contained system of procurement and exchange, that seems to have operated effectively for many centuries with little centralised management or accumulation of resources above the level of the individual household or small neighbourhood. Until now these two cases of pristine urbanisation have not been explicitly compared, and only the former – Mesopotamian – model is considered an exemplary stage in the evolution of 'complex society' or 'early civilisation'.

This may be partly understood as a result of recent geopolitics, which for decades rendered the Ukrainian findings inaccessible to western scholars. But today, I suggest, it is only theoretical blinkers that prevent us from fully incorporating the early cities of the steppe-forest zone into our wider understandings of social evolution. They stand as an enduring challenge to managerial and commercial models of pre-industrial settlement growth, and as a reminder of possibilities for which many of Jack Goody's generation gave their lives, in pre-Francoist Spain and elsewhere: possibilities of egalitarian organisation on an urban scale. To conclude, the first Ukrainian cities – together with their Mesopotamian counterparts – represent founding strands of a complex web, in which the history of Eurasian societies remains entangled. Insofar as the concept of an 'Urban Revolution' is to be retained, it should include them.

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