Urban Network Evolutions: Exploring dynamics and flows through evidence from urban contexts

"Now in earlier times the world’s history had consisted, so to speak, of a series of unrelated episodes, the origins and results of each being as widely separated as their localities, but from this point onwards [after the Second Punic war] history becomes an organic whole: the affairs of Italy and Africa are connected with those of Asia and of Greece, and all events bear a relationship and contribute to a single end."

Polybius, Histories 1.3

The rise of urban societies as the vehicles of societal processes has long been recognized as a turning point in history. However, the nature of urbanism and the way in which scholars define it remains a point of fierce discussion. While one might argue that there is no one way of defining urbanism and the forms it takes, it is important to try to tackle the underlying issues of what distinguishes urban societies, in particular what qualities make them urban. Urbanism and urban development are often discussed and researched within a diachronic perspective, giving the subject an evolutionary or linear framing. Such a framing insists that there is a defined beginning, trajectory and model, as well as, potentially, a defined end to urban societies and urbanism that can be studied through the interpretation of urban remains or historical sources. Thus urbanism is often taken to have emerged in a recognizable, coherent form at one point in time – and fairly rapidly – and thence developed into something more refined and elaborate.

Moreover, the emergence of urban societies is often assumed to be embedded in the emergence of states and political organizations. While this mode of inquiry has colored our conception of what it meant to be urban, there are other useful approaches that might shed light on how societies developed and which mechanisms lay behind such developments. One mode is to consider urban networks as dynamics and flows, which can inform us about the ways societies respond and develop, and which tell us about their thresholds of resilience (Raja and Sindbæk forthcoming).
The quote opening this chapter clearly shows how, already by the time of the Punic Wars, a contemporary observer could perceive his world as intimately connected across a wide geographical space; Polybius even notes the idea of an interlinked world history. Networks are underlined as central to understanding developments in the world. Cities were indeed the glue that bound regions together both internally and externally. Cities and their societies were the drivers of both contact and development. Since relationships and connections might be seen as imperative to urban behavior and dynamics, we are interested in exploring them from a network perspective. Understanding the nature of such connections and their meanings might allow for a more nuanced view of the diversity of urban societies and their behaviors over time. While much emphasis has been given to the material culture, particularly its monumental expressions, a network perspective brings new means of viewing different urban societies and how they interacted with the surrounding world as well as the strength of these networks.

The Centre for Urban Network Evolutions (UrbNet), based at Aarhus University, Denmark, was established in 2015 with a grant awarded by the Danish National Research Foundation. Its mission is to study urban societies in terms of their social networks in the broadest sense. In archaeological and historical research, this approach represents a new, explorative, even experimental perspective on a crucial topic. There is much debate among researchers about the transformative significance of urbanism in human history. Still, this development has often been studied as a byproduct of the development of political institutions, particularly state power; otherwise it is seen in material terms as a rise in settlement complexity rooted in regionally founded demographic growth. UrbNet explores an alternative suggestion: that what is distinct about urban civilizations and their role in world history is a property of the communications that they facilitate within and between societies. In this perspective, the networks of societies take center stage and become benchmarks for the ways in which those societies act and prioritize.

Urbanism can be a catalyst for changes in ways of life marked by social complexity and networks of wider, ultimately global, interdependence. Current research suggests that urban networks may have been critical in rapidly triggering societal and environmental changes across vast spaces a number of times in history. Crucial – and controversial – examples include the 4th-century BCE Hellenistic expansion, the rise of the Roman Empire, the 6th-century CE Justinian Plague, the 8th-century CE Abbasid-Tang “maritime silk road” and the 13th-century CE Mongol World System. In situations like these, it is crucial that we investigate and understand the relevant networks in detail. Here, a high-definition archaeological approach is one way to gain insight into specific situations that may have marked turning points. By investigating materials, such as glass or bones in a high-definition perspective (Barford et al. forthcoming; Ashby et al. 2015) – and guided by new questions pertaining to wider networks and local developments, for example, availability of local fuel or import possibilities – new patterns and explanations emerge.

The development of urbanism affects social networks in a number of ways. Family affiliations may become more entangled and focused on individuals in urban societ-
perspective. The majority of evidence known today has been gathered with reference to different perspectives, and much of it focuses on the structural and political properties of urban sites, such as their size and density, or features like town walls, monuments or public spaces (Hansen 2006). To understand how networks have operated in and between urban societies, we need to establish new datasets and, sometimes, develop and refine new methods for acquiring these data. A key challenge is thus to improve the means of archaeology to study developments across sites and regions. This requires us to understand the nature of contexts and finds and identify the pace of changes in site histories well enough to assess and compare their potential causes.

This is why some of the work conducted at UrbNet concerns technical matters such as improving the precision of dating methods for site-chronologies, improving the means of tracing the origin of archaeological materials or assessing the nature of the contexts. A much more challenging task than mapping sites and ruins and establishing the relative age of building- phases, this quest for new types of data aligns UrbNet’s research agenda with the potential of recent advances in archaeological science and geoscience. To obtain new answers, fundamental questions concerning human history must translate into investigations concerning things such as the isotopic composition of materials; the morphology, geochemistry or microbiology of sediments; the statistical distribution of dating results or the subtle patterns of ‘big data’. Even more challenging, the results need to translate back into historical narratives in order to realize their potential.

This last task calls for researchers with interdisciplinary training and broad outlooks, which is rare among researchers today but critical to the future development of historical and archaeological research on complex societies. UrbNet, therefore, has an important task in training scholars within this field, bridging scientific methods with contextual, historical studies. Such training must build on a knowledge of several fields of research, often crossing the boundaries of the humanities and sciences. It must also seek to bridge these through common hermeneutics, in some case by synthesizing approaches that may seem mutually exclusive. Developing UrbNet, and pursuing the basic research problems it aims to answer, is therefore not a short-term goal but a process which will require multiple levels of development and will inevitably take several years to unfold. The current book and its contributions are one step along this path.

Acknowledgements

This work was generously supported by the Danish National Research Foundation (grant number: 119) and the Carlsberg Foundation.

Bibliography


