

## *Aggregation and Urbanization as Fundamental Drivers of Social Change*

KEYNOTE LECTURE

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Population aggregation—the concentration of formerly dispersed people into villages, towns, and cities—is one of the most fundamental and consequential processes in the history of human society. Much social science research has focused on the negative consequences of urbanization—increased levels of stress, crime, poverty, and alienation. But research in several disciplines has also highlighted positive consequences of aggregation. Not only is economic efficiency promoted, but per-capita productivity and innovation rise as cities become more populous and denser. These scaling effects, long recognized for contemporary cities, have been explained in a comprehensive framework which highlights population size (scale) as a major driver of socio-economic change.

The analytical framework of scaling theory is sufficiently general to apply to both contemporary and premodern cities, and scholars have begun to publish applications to ancient and historical urban systems. The results suggest that the basic process of face-to-face social interaction in settlements is a creative and dynamic driver of social change and transformation, in the past and the present. When this perspective is applied to the earliest cities, traditional models are turned on their heads. Archaeologists formerly viewed state formation as the definitive social transformation, with cities created as an unintentional by-product of state development. New research, on the other hand, suggests that urbanization may have *preceded* the earliest states, and that the generative processes of urban social interaction in fact created the institutions and complexity we associate with states.

The implications of this new thinking for archaeology are clear: (1) we have the data to document early processes of aggregation and urbanization; and (2) our research contributes to a better understanding of some of the most fundamental human social transformations in the past and the present. Our task now is to carry out rigorous comparative analyses and model building so that archaeological data can improve social science knowledge on a much broader scale.