

SESSION: Theorizing social change: social organization, complexity and inequality

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Since the beginnings of the discipline, anthropology has been concerned with how and why societies change. For that purpose, anthropologists have developed different models that classify societies based on selected characteristics and establish causal relations explaining both the emergence of social types and transitions between them. Different types of social organization have been associated with varying levels of social complexity and social inequality, the two latter being defined and measured in several possible ways, including social, economic and political dimensions. To account for the emergence and evolution of these phenomena some scholars propose the existence of universal prime-movers (e.g. population pressure), while others search for complex and context-specific factors. Moreover, while some approaches focus on cultural determinants and emergent properties of social systems, others tend to focus on individual strategies and agency as drivers of change. Similarly, studies may either concentrate on the general increase in complexity or on increases and decreases in complexity as products of particular histories and specific adaptations. This research has advanced the understanding of egalitarianism, the emergence and evolution of inequality, as well as their relationships to social complexity and changes in social organization.

In this session we want to further explore these relationships by putting into dialogue different approaches to the study of social change and the evolution of the human social organization. We invite young and established researchers from different disciplines and backgrounds to contribute either theoretical contributions or empirical case studies (ethnographic or archaeological) that address one or more of the following questions and issues:

- What is social complexity and how can it be measured? How are increases/decreases in social complexity related to inequality and other aspects of social organization?
- The validity and uses of one or more typologies for classifying societies based on their sociopolitical organization or aspects thereof.
- Changes in social organization and their relationship to both, the natural and the sociocultural environment.
- Evolutionary changes leading to new forms and types of social organization, increase or decrease in complexity, or changes in forms and degree of inequality.

PAPER PRESENTATION:

Ritual signaling as an adaptation strategy of marginalized groups - A case study from the island of Mauritius

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The process of adaptation is the motor of animal evolution and one of the hallmarks of humankind - humans are considered to be one of the most adaptable animals, not least because we developed culture as an adaptive mechanism. Behavioral ecology looks at various adaptive strategies to local environments by assessing fitness outcomes of behaviors. Life history theory analyzes the timing of these behaviors across the life-span. One of the oldest evolutionary strategies in the adaptive toolkit is ritual - a communication device that guarantees the truthfulness of its message by raising the costs of delivering it. A successful ritual performance can secure access to mates, allies or even gods.

Many groups use costly rituals to signal adherence to the group, its values, norms, and taboos. Individual motivations notwithstanding, the costliness of performance alone communicates devotion and acceptance of the social and cosmic order. At the same time, certain individuals or groups of individuals can use ritual action to challenge the existing order or to improve their social standing in it.

Our research on the Mauritian Tamil ritual Kavadi shows that young and low-status men engage in the most extreme and extravagant forms of participation, which is a finding not unique to this island. Lacking other resources, these men are using their bodies by ritually mutilating them to signal their underlying qualities to others and to bargain with gods for their fortune. In this context, ritual serves as an adaptation- and status management strategy in a religious group.

Hunter-gatherers and the spread of industrial society: Changes in Inupiaq social organization

Buela, Alberto (Universität Wien, Wien, AUT)

This paper explores shifts in the social organization of a hunting and gathering society as a result of contact with and incorporation into a dominant industrial society. It will present a case study of an Inupiaq group of Northwest Alaska, drawing on ethnohistoric literature and ethnographic fieldwork. By the time of contact with Euro-Americans the Inupiat were relatively complex hunter-gatherers and trans-egalitarian, that is, with certain levels of inequality but lacking stratification and inheritable rank. Throughout the last 150 years the Inupiat became increasingly incorporated into American industrial society, capitalist economy and state structures. This led to the emergence of a mixed economy that combines subsistence hunting, fishing and gathering with cash and wage labor, as well as to disruptions and transformations of Inupiaq social organization. The present study investigates how these developments transformed traditional forms of leadership, hierarchies, division of labor, age and gender roles, as well as the role of

kinship. These shifts are related to the adoption of new technologies, changes in subsistence, increased dependence on cash and wage labor, as well as the imposition of social institutions and organization through missionaries and the state. Through this case study, the paper will address discussions around the dynamics of social inequality and complexity, focusing on the effects of a changing social environment and the interplay of causal factors in processes of rapid change.

Social Dynamics at the Dawn of the Bronze Age

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The third Millennium BC in the Aegean and Western Anatolia is known to have been a period of profound social changes that led to the emergence of complex societies, which are sometimes even addressed as chiefdoms. According to archaeological research from recent decades, little social diversification is evident within and across settlements in the preceding Late Chalcolithic period, despite the clear evidence of spatial organisation. Nevertheless, some scholars ascribe a “proto-urban” character to these societies. The process of urbanization is then thought to have developed in Early Bronze Age 2 (around 2500 BC) citadels, which were interpreted as having been organized in either emerging or competing chiefdoms. These interpretations derived from the traditional approach to analyse social stratification by looking at the distribution of high value objects as well as burial customs and control mechanisms. In contrast, the period in focus, the Early Bronze Age 1 (3000–2750 BC), has long been a neglected period regarding studies of social organization compared to the later Bronze Ages. In this paper, we address the application of socio-anthropological concepts in archaeology, namely tribe and chiefdom not by analyzing the distribution of the high value goods, but by examining the vernacular evidence for social organization in the Western Anatolian Early Bronze Age sites in question. In addition, material manifestations of change and continuity in the social organisation will be presented for the prehistoric settlement of Çukuriçi Höyük (İzmir, Western Turkey) as well as contemporaneous selected regional sites. Moreover, alternative models such as simple vs. complex societies and heterarchical vs. hierarchical organisation will be discussed. As a base for this study, analyses of settlement patterns, distribution and sizes, architecture and distinct material culture will be used to understand social organisation at the dawn of Bronze Age Western Anatolia.

Keywords: Early Bronze Age 1, social organization, reflection of social change through archaeological data, Çukuriçi Höyük, regional comparison in Western Anatolia

Environmental Circumscription and the Formation of Chiefdoms: Simulating the Emergence of Social Complexity

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Agent-based modelling (ABM) describes a phenomenon in terms of agents (autonomous computational individuals), their functions, and interactions. It has proven successful in simulating complex systems, in which their properties as a whole are not predictable considering single individuals alone, resulting in emergent phenomena. Human societies can be usefully viewed as complex systems and studied with the tools and frameworks of complexity science (Wilensky & Rand, 2015). This project is a replication study of Scott (2011), a social simulation that tests the 'circumscription theory' using ABM. According to this theory, the emergence of states (autonomous political units of higher social complexity) is a predictable response to environmental circumscription, which entails warfare of social groups over available land resources (Carneiro, 1970, p. 734). Our research goals are: I. Testing ABM for its practical value for social anthropologists with little prior training in computational methods; II. Acquiring the necessary knowledge and skills to implement the replication study of Scott (2011).

After study of introductory literature to social simulations (Edmonds & Meyer, 2013), computational social science (Cioffi-Revilla, 2014), and ABM (Wilensky & Rand, 2015), we use NetLogo as programming environment for our replication, the same that was used by Scott (2011). Its strengths include learnability and being accessible enough for novices to quickly produce useful and meaningful models (Wilensky & Rand, 2015: 14). Such ease of use may be especially helpful for social anthropologists looking to validate theories that are not testable outside of simulations, such as Carneiro's circumscription theory (1970).

The primary hypothesis of Scott (2011, p. 4) states that an increase of habitable land in the modelled artificial landscape also increases the time required for one social group to subjugate all other groups in the simulation through warfare, forming a socially complex chiefdom. However, its results do not support this hypothesis, indicating that environmental circumscription by itself is not a sufficient condition for social complexity to emerge. We expect to corroborate these results in our project, contributing to the validation of its implemented model and the critical assessment of its interpretation.

With little prior training in computational methods before the start of this replication study, our new insights into ABM lead us to conclude that it is indeed accessible enough to quickly allow the specification and meaningful analysis of simulations. Reaching our goals may be a first indication that NetLogo can be an easily learnable tool also for other social anthropologists to conduct simulation-based research.

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