



Scale Matters: The Quality of Quantity in Research on Social Relations

Background

Models of mobility and of connected issues of human decision making have been developed in settings of large anonymous societies with high densities. They rely on the presupposition that we are, in all instances, dealing with individuals living in bounded groups that share certain strategies. Recently, this has been challenged from two sides. On the one hand it has been suggested that social relations among hunter-gatherers, and similar situations of “small scale”, are qualitatively different from those elsewhere (Bird-David, 2017. Before nation: scale-blind anthropology and foragers worlds. *Current Anthropology*, 58/2: 209-226). Here links between persons have been characterized as “multirelated”, “hyperrelational” and “pluripresent” and the prototypical relationship that structures social processes, including migration and mobility, is that of being kin to one another (in multiple ways) rather than that of being a replaceable individual in a collective group. Actions and decisions in these contexts are said to be indexical rather than categorical, i.e., they are always and critically tied to a particular here and now and in relationships with particular rather than generic others. On the other hand it has been suggested that the often taken for granted assumption that hunter-gatherers are “small-scale societies” needs to be challenged since there is evidence for large-scale social networks dominated by links between non-relatives resulting in expansive complex societies (Bird et al. 2019. Variability in the organization and size of hunter-gatherer groups: Foragers do not live in small-scale societies. *Journal of Human Evolution*, 131, 96-108).

In this workshop we discuss matters of size and scale with regard to human sociality and mobility, which have been the focus of our research group at the University of Cologne in recent years (see <https://www.sfb806.uni-koeln.de/index.php/projects/s-supraregional-systems/e3>). While there seems to be agreement that size matters, e.g., the overall number of people in a group, the question that we see to tackle is whether and how a difference in group size translates into a difference in scale. In other words, when and how do quantitative differences make a qualitative difference? This issue has far-ranging implications as has been discussed in terms of formal systems (e.g. simulations) and in terms of past and present transformations (e.g. personal versus mediated presence and interaction). We encourage participants to discuss in particular how their own research material contributes to such wider debates. What difference does it make to our understanding of small mobile groups if they are not the kind of actors that dominant models of mobility assume? What are the consequences of assuming that existing models can seamlessly be upscaled and downscaled – or of assuming that models are limited by scale?

Our Workshop

We are inviting a small circle of researchers (mostly anthropologists) to this workshop whom we know have encountered **both** qualities of quantity sketched above: you all have experienced the personal qualities of multirelational encounters that defy countability and typology, **and** you have all dealt with the effects of globalization, demographic growth, and bureaucratization that provoke the opposite. You have been working with research tools that nudge us in opposite directions: Ethnography that allows us to delve into the complexity of cases and at the same time modes of analyses that require us to look at the results in terms of “cases” of a certain type in the first place. In this workshop we would like to hear how you juggle both experiences in your work, what difference the quality of quantity makes with regard to the subject matter

of your interest and to discuss what we all may be able to recommend with regard to these contradictory tendencies.

Workshop Program

Wednesday, 30th June 2021

14:30 – 14:55	Introduction
15:00 – 15:30	Robert Kelly, University of Wyoming
15:30 – 16:00	Nurit Bird-David, University of Haifa
16:30 – 17:00	Thomas Widlok and Stephan Henn, University of Cologne
17:15 – 17:30	Discussant: Bob Layton, University of Durham
17:30 – 18:15	General discussion

Thursday, 1st July 2021

14:00 – 15:00	Virtual Museum Tour Option
15:00 – 15:30	Charlotte Damm, University of Tromsø
15:30 – 16:00	Elsbeth Ready, MPI Leipzig
16:30 – 17:00	Andreas Maier, University of Cologne
17:15 – 17:30	Discussant: Andreas Womelsdorf, University of Vienna
17:30 – 18:15	General discussion

Friday, 2nd July 2021

15:00 – 15:30	Brian Coddig, University of Utah
15:30 – 16:00	Dores Cruz, University of Cologne
16:30 – 17:00	Bram Tucker, University of Georgia
17:15 – 17:30	Discussant: Gerd-Christian Weniger, Neanderthal Museum
17:30 – 18:15	General discussion
18:15 – 18:45	Farewell

Abstracts

Robert Kelly
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Title: What Good is Archaeology? Archaeological and Ethnographic Scales

The CRC project is entitled “Culture-Environment Interaction and Human Mobility in the Late Quaternary.” It uses ethnographic and ethnological data, as well as agent-based modeling, to devise a model, a First African Frontier model, that accounts for how modern humans migrated out of Africa into Europe and, in fact, to the rest of the world. I take a slightly different approach to the conference’s issue of scale, asking what the scale of archaeological data is, how it differs from that of ethnography, and, given the difference, what archaeology can contribute. In sum, archaeological data are aggregated data, especially for the time period in question where assemblages result from possibly thousands of years, and thousands of human actions. I argue that at this scale the “strong signal” is primarily telling us about human response to ecological and demographic conditions, and that human behavioral ecology provides a useful learning strategy to know when these material factors are *not* relevant. I then use terminal Pleistocene New World colonization as an example of a colonization process, including evidence for the scale of social relations at this time.

Nurit Bird-David
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Title: Foragers live in a connected world: Beyond small-scale/large-scale hunter-gatherer societies

In this presentation, I follow Fredrick Barth's (1978) long-overlooked call to investigate "scale" as a key analytical concept. As such, scale has drawn scarce and sporadic attention in anthropology today, while it has been extensively explored in various disciplines including geography and linguistics since the 1990s. Currently, this concept undergirds a developing debate between cultural and biological/evolutionary anthropologists as to how we should approach and understand hunter-gatherer societies. On the one hand, it has been argued that hunter-gatherer societies cannot be understood without freeing their analysis from Western scalar terms (Bird-David 2017a, b, xx), and on the other that "foragers do not live in small-scale societies" (Bird et al. 2019). I return to the research agenda Barth proposed in his conclusion of *Scale and Social Organization* (1978) for a theoretical platform from which to productively engage with this debate and go beyond it. Exceptional for his time, Barth suggested among other things to approach scale as a form of symbolization in relation to such issues as ideology, collective identity's management, distribution of information, social spaces of interaction, processes of aggregation, and more. He envisioned social systems with multiple scales that variably and simultaneously function in different contexts and domains. His ideas accord with recent ideas of scale and, articulating them, I explore their application and the implications to the study of hunter-gatherer societies.

Thomas Widlok and Stephan Henn
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Title: Upscaling forager mobility and broadening forager relations.

Ethnography has taught us to mistrust models of mobility that are purely resource-driven: We know that foragers often move for social reasons and we know that they are not driven by ecological necessity to move all over the place but rather anchor their moves in a region. But the ethnographic models of mobility also have their limitations since they beg the question as to how things change in the *longue durée*. Moreover, the ethnographic models tend to create a fundamental rift and bipolar opposition between small-scale foragers and larger populations with little indication as to how one could transform into the other.

In this paper we report on some results from agent-based modelling that allow us to envisage a move from local to cross-regional mobility and a shift from small-scale to larger-scale. We revisit the fission-fusion pattern and suggest how it can be reconceived so that it connects to out-of-region migration. We simulated how kinship rules influence population size and suggest how such simulations can help us explain moves from small to larger and from latent to actual wider networks. Finally, we discuss how hunter-gatherer ways of perceiving their environment and their social relationships can be reconciled with scenarios in which hunter-gatherers can upscale their mobility and broaden their social relationships without a categorical break with their modes of perception.

Charlotte Damm
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Title: Staying put and going far: the impact of local and interregional mobility on social interaction amongst northern foragers.

The first part of the contribution presents a case from prehistoric northern Scandinavia where there is a tendency for small residential groups (2-3 households), several of which may be operating within a limited geographical area. It is unclear how often other occupied residential sites are visited, and this may be limited by the amount of gear and boats required for such informal visits. However, this pattern is supplemented by evidence for some long-distance communication, resulting in a much more dynamic scenario of mobility and interaction. The consideration of scales will cover both group sizes and spatial distances.

Secondly, it considers the crucial aspect of learning and communication networks, which depend not on how many and how far individuals travel, but what skills they possess for sharing and transmitting, a factor that requires insight into age, gender and tasks performed by the more mobile individuals. In other words, quantity and distance may be less important for transmission of knowledge and skills than the competence of a few persons and how long they remain with a new group. It does beg the question how such travellers

were received and perceived by the communities they visit. Indications from ethnographic data suggests that only information from close acquaintances is considered reliable, hence it is important to expand the number of individuals you trust. Finally, it reflects on the unfortunate practice in archaeology to focus on dominant patterns (as above the delimited resource areas) and neglecting deviating data “noise” that may represent vital information.

Elsbeth Ready
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Title: Ilagiit, parts of each other: The scale of Inuit kinship.

Recently, Bird-David (2017; 2019) has emphasized the unscaleable nature of social relations in forager societies, while Bird et al. (2019) argue that foragers "do not live in small-scale societies." In this paper, I draw on historical and contemporary Inuit studies, and my own fieldwork experience in Nunavik, to argue that these author's statements are not in contradiction with one another. I argue that Inuit social lives are based in pluripresent kinship, but these relations are extendable to non-kin and potentially over large spatial scales. I consider what kinds of changes threaten Inuit worlds of relatives today, and potential implications for archaeology.

Andreas Maier
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Title: Putting numbers on “small-scale” – Observation on quantity, densities and connectedness of hunter-gatherers from an archaeological perspective

Over the last twelve years, the ‘Cologne Protocol’ for palaeodemographic studies of past hunter-gatherer societies has produced a coherent set of estimates on regionally differentiated numbers and densities of people between roughly 40,000 and 14,000 years ago. Using these estimates, this paper 1) presents options for identifying groups and their larger social network in the archaeological record, 2) explores the possible structure of these networks, and 3) discusses how they are affected by rises and declines in the population. In doing so, I address question regarding the relation between different scale levels of quantity, size, and connectedness of societies, how they relate to social organization and what this means for model building and model transfer.

Brian Coddling
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Title: Socioecological Drivers of Hunter-Gatherer Group Size and Interaction Rates.

The size of hunter-gatherer groups vary across a number of scales. Variation at two scales have received recent attention in quantitative ethnography: co-residence (i.e., band size) size and inter-band interaction rates. Here we couple two theoretical concepts from ecology -- Allee's principal and the maximum sustainable yield -- to explore how underlying ecological and economic conditions may structure the pay-offs individuals receive from aggregating and interacting with unrelated others. We propose that co-residence size positively varies with the economy of scale associated with focal resources, and that interaction rates negatively vary with the maximum sustainable yield of those resources. We assess these predictions using an individual based model and ethnological data.

Dores Cruz
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Title: The macro, the micro, and the nano: spatial and temporal scales of analysis for an historical turn in anthropological research

Bram Tucker
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Title: Mikea or Malagasy? Scale, ethnicity, and cultural groups in ethnological and folk-sociological analysis.

Are ethnic units also cultural units? Barth (1969) argued that they are not. Some recent cultural evolutionary studies argue that they are (or can be), that ethnicity may function facilitate within-group cooperation and between-group competition, called parochial altruism (e.g. Handley and Mathew 2020). Ethnographers treat ethnicity and culture as equivalent each time we say that we study X people, or state that X people have particular beliefs, habits, customs, etc. X in this formula represents ethnonyms that we often know are complex, fluid, and socially-constructed. And yet our informants often do the same, with statements like, “we X believe...” In this paper I explore the ramifications of scale in ethnographic description and generalization, with a focus on my research participants in southwestern Madagascar, whom I usually describe as Mikea hunter-gatherers, Masikoro farmers, and Vezo fishers. I argue that there may be more differences in cultural knowledge among villages than among ethnic groups, and yet much of “Mikea culture” is common to all Malagasy people. I show that ethnicity neither requires nor engenders parochial altruism. I discuss some of the hazards and opportunities that arise from describing cultural features at different ethnological scales.