# Prehistorical International Relations: How, Why, What

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Archaeologically produced knowledge of prehistory has grown to a point where international relations (IR) may begin to incorporate it in their own work. In this article, we try to facilitate this process by introducing IR scholars to archaeology's material data and ways of thinking about it. New types of system units, such as households and kinship, emerged in prehistory and had effects on temporality and territoriality as well as knock-on effects on institutions, such as war and trade. If we understand the origins of these phenomena better, we are better equipped to understand how they work at the present time. Focusing on a key topic in IR, namely systems emergence, we splice archaeological and IR approaches to systems. Four key factors for systems emergence appear: competition for resources, interaction capacity, social imitation, and stable food resources. We then show how these factors were at work in the two earliest proto-systems to be found in Europe, namely House Polity Proto-systems (9000–4500 BCE) and Segmentary Polity Proto-systems (4500–2500 BCE). They are still active. We conclude that when studies of prehistoric systems, institutions, and practices point up deep structural factors like, we should not expect them to lose their relevance any time soon.

Les connaissances sur la préhistoire issues de l'archéologie ont pris une telle envergure que les relations internationales (RI) pourraient commencer à les intégrer dans leurs propres travaux. Dans le présent article, nous tentons de faciliter ce processus en présentant les données matérielles de l'archéologie, et les courants de pensée qui y sont associés, aux chercheurs en relations internationales. De nouveaux types d'unités de systèmes, comme les foyers et la parenté, ont vu le jour à la préhistoire. Ils ont eu des effets sur la temporalité et la territorialité, mais aussi des répercussions sur les institutions, telles que la guerre et le commerce. Une meilleure compréhension des origines de ces phénomènes permet de plus facilement décrypter leur fonctionnement actuel. En se concentrant sur un sujet clé en RI, l'émergence des systèmes, nous unissons au sein de systèmes les approches archéologiques et des relations internationales. Quatre facteurs clés pour l'émergence de systèmes se dessinent: la concurrence dans l'accès aux ressources, la capacité d'interaction, l'imitation sociale et la stabilité des ressources alimentaires. Nous montrons ensuite l'influence de ces facteurs dans les deux protosystèmes les plus anciens trouvés en Europe: le protosystème du régime de la maison (9 000 à 4 500 av. J.-C.) et le protosystème du régime segmentaire (4 500 à 2 500 av. J.-C.). Ils sont toujours actifs. Nous concluons que, quand des systèmes, institutions et pratiques préhistoriques révèlent des facteurs structurels profondément ancrés, il est prévisible qu'ils restent pertinents encore longtemps.

El conocimiento de la prehistoria generado gracias a la arqueología ha crecido hasta un punto en el que las Relaciones Internacionales (RRII) pueden empezar a incorporarlo a su propio trabajo. En este artículo, intentamos facilitar este proceso iniciando a los investigadores en materia de las RRII en el conocimiento de los datos materiales sobre la arqueología y en las formas de pensar sobre ellos. En la prehistoria surgieron nuevos tipos de unidades de sistemas, como los hogares y el parentesco, que tuvieron efectos en la temporalidad y en la territorialidad, así como repercusiones en instituciones como la guerra y el comercio. Si entendemos mejor los orígenes de estos fenómenos, estaremos mejor equipados para entender cómo funcionan en la actualidad. Centrándonos en un tema clave de las RRII, como es la emergencia de los sistemas, aunamos a los sistemas los enfoques de la arqueología y de las RRII. En este sentido, destacan cuatro factores clave para la formación de sistemas: la competencia por los recursos, la capacidad de interacción, la imitación social y los recursos alimentarios estables. A continuación, mostramos cómo estos factores actuaron en los dos primeros proto-sistemas que pueden encontrarse en Europa, en concreto, los proto-sistemas de política doméstica (9000-4500 a.C.) y los proto-sistemas de política segmentaria (4500-2500 a.C.), que aún siguen vigentes. Concluimos que cuando los estudios de los sistemas, las instituciones y las prácticas prehistóricas señalan factores estructurales profundos, no debemos esperar a que pierdan su relevancia a corto plazo.

#### Introduction

*Homo sapiens* stands almost alone in having a past of developed social and political organization.<sup>1</sup> However, we would not have guessed that from looking at extant international relations (IR) literature. While IR is quick to claim questions of organization between polities as its core, it has not even begun the work of generalizing about this issue over the entire million-year span during which the species has evolved. With a few exceptions that are noted below, we have left prehistory—that is, the 99.5 percent or more of our past for which we have no written sources—unexplored. There is an obvious but not particularly scientific reason for this, namely the discipline's presentism. There are also good reasons why we have not taken on prehistory so far. It is really only during the last fifty years or so that archaeology, which specializes in prehistory, has established data enough for social sciences to generalize from. Those data are material, and it is inherently tricky to move from material data to establishing generalizations about social and political organization. Doing so takes special training that few if any social scientists have. While these are doubtless good reasons, it is also the case than none of them is insurmountable, particularly if we join hands with archaeologists. Given that archaeology already

<sup>&</sup>lt;sup>1</sup>On the competition, see *inter alia* Davies and Underdown 2006; De Waal 1982.

Neumann, Iver B., and Håkon Glørstad. (2022) Prehistorical International Relations: How, Why, What. *Global Studies Quarterly*, https://doi.org/10.1093/isagsq/ksac055 © The Author(s) (2022). Published by Oxford University Press on behalf of the International Studies Association. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

deals in social analysis—in the United States, it is organized as one of the four fields of cultural anthropology and so is even categorized primarily as a social science—there are already overlaps that we will draw on in the following.

First, we look at the general reasons why the social sciences have not engaged with archaeological material in more detail. We note the existence of theoretical bridgeheads for IR into archaeology. Having made brief reference to three of them, world systems theory, theory of uneven and combined development, and the English School of IR, we introduce a fourth, namely the so-called peer-group polity approach first suggested by archaeologist Colin Renfrew and associates. We find this approach to be compatible with the kind of generative systems theory that dominates the extant literature. We bring the first and general part of the article to a close by forging a framework of analysis for use on prehistorical data from the peer-group polity approach and the general approach to the study of systems recently suggested by Butcher and Griffiths (2017).

In the second and empirical part of the article, we complement our general argument for why we should include prehistorical matter by a performative argument. We respond to Wimmer and Min's (2010, 251) charge that IR often "takes for granted what needs to be explained: how world politics came to be organized as a system." By drawing on a wide array of archaeological work for the best-researched prehistorical region in the world in this regard, the one we now call Europe, we discuss how dynamic density increased historically, in a form that made it possible for a number of polities to interact in a sustainable way. Two proto-systems emerged successively. These were, first, what we call House Polity Proto-systems (9000-4500 Before the Common Era [BCE]), followed by Segmentary Polity Proto-systems (4500-2500 BCE). These peer-group protosystems have not been studied within the social sciences before, and so increase our universe of cases. The structural and functional differentiation of these proto-systems is low, so teasing out how they worked tells us something about basic systems dynamics. Most importantly, they push back our inquiry into systems by about nine millennia. Our study has direct bearings on today's situation, for given that we are able to identify continuities between these systems and those already studied by IR-they all feature competition for resources, a degree of interaction capacity, social imitation, and stable food resources-our study suggests that there are deeper structural factors at work in the systems IR already studies than what has been previously noted. We bring our argument to a close by suggesting some further possibilities for how the study of prehistory offers new research questions and may throw light on old ones.

## Taking on Archaeologists and Their Material Data

While history is often said to be the study of the past by means of written sources, even the most traditional historian would not disregard the importance of other conspicuous remnants of the past, such as an abandoned castle or a carefully crafted monument. It is also an inescapable fact that the deeper back one goes, the fewer the written sources. In most regions of the world, the use of written sources would only take us back centuries. Even in the Middle East it would only take us back some five millennia. If we want to do more than merely scratch the surface of the million-year-long past of our species, then, we have to look beyond written sources and conspicuous monuments. We must also take into consideration the inconspicuous remnants of the past—the arrowheads, the graves, the ceramic shards, the postholes, the

middens, the bits and bobs of everyday life left behind, by intention or by accident. In recent decades, historians have become more willing to do so. Historians of Ancient Chinese, Africa, and the Roman Empire are among those who have made considerable progress by enlarging their narrative sources material data. Within the discipline of IR, we have yet to see a similar move. True, we have a clutch of valuable studies that draw on prehistory. To mention but the most important ones, Masters (1964) pioneered prehistorical IR by drawing on anthropological work on preliterate Nilotic peoples such as the Nuer in order to illuminate the workings of anarchical political order. Our study of systems follows the same logic. We have valuable work by Wallersteininspired scholars on Bronze Age world systems (Sherratt 1993; Cioffi-Revilla and Landman 2002). Rosenberg (2010) made use of archaeological scholarship in order to lie the foundations for longue durée studies of uneven and combined development. Donnelly (2012a) drew on our knowledge of relations between hunter-gatherer bands as a way of testing Waltz's (1979) hypotheses about how like units behave toward one another when those units are not states and Snyder (2002) did the same to garner new insights into the origins of war. The most ambitious attempt at addressing prehistory in IR remains Buzan and Little's work, which tried to interest the discipline not only in the last 400 years of our species' past, but also in the last 40,000 (Buzan and Little 2000; Buzan forthcoming).

Given that archaeological data only began to surface some two centuries ago, perhaps our tardiness in drawing on it should be excused. While there was plenty of breakthroughs regarding our knowledge of prehistory in the latenineteenth and early twentieth centuries, it is really only over the last fifty years that our knowledge has reached a level which makes it possible for social scientists to generalize about social and political organization in select regions. The digging disciplines-geology, paleontology, and archaeology-all hail from the end of the eighteenth century. Relative timelines (stone before metal, bronze before iron) were laid down in the early nineteenth century. Absolute timelines were attempted a century later and have since been honed considerably by developments within dendrology, C14 dating, thermoluminescence, and various calibration techniques. Renewal of different natural science techniques has also given new evidence concerning ancient DNA, diet, mobility, and so on. Systematic digs have produced rich caches of data, and big-data analysis is growing in importance within archaeology. Although our knowledge of the past always remains partial, and more so the further back we go, we now have enough data to sustain the kind of generalizations that social sciences deal in.

Archaeology's extensive time frame means that material traces from the past are the most important and, in most cases, the only source material available for research. It is for practical, as opposed to logical, reasons that archaeology is defined as the study of humankind based on the study of physical evidence from the past in general and on ancient objects in particular. The wide scope of the discipline has led to it being classified variously as a natural science, as a branch of history, and also as subdiscipline of the social sciences. For the last sixty years, and under the influence particularly of American but also of British scholars, archaeology has increasingly presented itself as a branch of anthropology. This would make it a social science and so a cousin of IR. Theoretically, a lingering divide see behavioral approaches (so-called processual archaeology) pair off against more anthropologically informed approaches (so-called post-processual archaeology; Trigger 2006). The growing interest in various new scientific techniques and methods (Kristiansen 2021) is shared by both groups, but are more often associated with the former. Both groups are subdivided into several different branches and specializations. Forensic archaeology, battlefield archaeology, garbology, and underwater archaeology jostle with the Marxist archaeology, symbolic and structural archaeology, gender archaeology, and colonial and postcolonial archaeology. Both groups have joined interests in themes such as landscape archaeology, urban archaeology, and material culture studies. Finally, due to a close connection between national legislation and archaeology, the discipline has developed into quite distinct national variants, with the old colonial powers still taking the lead in homogenizing and internationalizing the discipline.

Given the obvious parallels and overlaps between archaeology's and IR's subject matter, we must ask why there is little or no prehistorical IR (compare Wight 1966; Weber 2015). First, IR is a presentist discipline. It is not self-evident that history, let alone prehistory, should have a place in it at all. Second, it is not self-evident to non-archaeologists how material sources may be used to identify what social scientists are interested in, namely social and political organization. To put it differently, archaeologists do not deal with polities direct, but only via what they call material culture (as opposed to political and social culture) and define as "a recurring set of artefact types that co-occur in a particular region during a set time-period" (Anthony 2007, 139). There is a sense in which dealing with prehistorical data in order to gauge social and political organization must therefore be predicated on a certain willing suspension of disbelief in order to work. Although it is generally a weak kind of argument, the argumentatio ex nihilo, or, more accurately, by pars pro toto, is de rigueur in archaeology. If a large midden of debris is found, but no remnants of housing, given that a certain kind of housing is generally established for the time and place in question, the archaeologist will assume that such housing was there. A third and final reason why there is so little prehistoric IR concerns method. Few if any scholars are equipped to draw on material data. Cases in point are the scholars whose prehistorical work was mentioned above. With the partial exception of world systems theorists, who do discuss which goods tended to be traded where and when, none of these theorists engaged the material data on which the secondary archaeological sources they drew on were based. Social scientists have rightly been skeptical about even handling data that they are not equipped to handle, and they rightly remain so. While these are all good reasons why prehistoric IR has so far been rarely attempted, they should not hold us back from attempting it now. Our argument so far is that it is possible for social scientists to look at material data, that data are actually readily available to us-particularly with a little help from archaeologists-and that there exist theoretical bridges that facilitate our use of material data. However, we have not given any reasons exactly why we should look at these data. An obvious, if somewhat flat-footed, empirical answer is inspired by Sir Edmund Hillary: because it is there. Any science should study as many relevant cases as possible. If we have entire classes of polities, the interactions of which have not been studied, then by the very ground rules of science we do not pass muster. Second, arguments about indigeneity, ancient artifacts, historic claims to territory, and boundary-drawing frequently involve references to prehistory. In order to assess claims made about prehistory, social scientists need to know something about the data that form the basis for such claims, as well as the methodology of how

to handle them. Third, a focus on prehistorical empirics should take the place of historisophical speculations about the state of nature, etc., that we find in political philosophy from Hobbes and Rousseau onward (Graeber and Wengrow 2021).

However, the major reason for turning to prehistory is theoretical. Prehistorical social life tends to be less technologically differentiated than historical social life and relations between polities tend to be less dense and less complex. The less differentiated a phenomenon is, the easier it is to see how it functions (Durkheim 1995). A genealogical point to be made here is: we want to know when the phenomena we study emerged, and how and why they changed. As we will try to demonstrate below, when we look at present IR debates armed with a certain knowledge of prehistory and early history, IR debates about basic issues such as the importance of temporality and territoriality to social life, and the roots of inter-polity systems and other stuff that our discipline is supposed to specialize in may easily come across as a little shallow. Basic stuff such as the importance of food resources for emergence of sociability and polities, the emergence of basic types such as households and kinship and their effects on temporality and territoriality, and the knock-on effect of such changes on institutions such as war and trade began in prehistory. Studies of such phenomena should therefore begin in prehistory. Furthermore, when Marx argued that the weight of the dead bogged down the living and Foucault argued that criticism is the art of not being governed so much, they invited us to search for the deep roots of phenomena not only as a goal in itself, but also in order to understand what we must take as given and what we may attempt to change. As our study of examples regarding the basic nature of systems demonstrate, it would be arbitrary and premature to halt the search for roots where written history begins. We need to press on into prehistory.

## A Theoretical Bridgehead: The Peer-Group Polity Approach

As long as social scientists themselves do not have the required training to handle material data, a full engagement with prehistory will demand collaboration with archaeologists. In addition to the already mentioned bridgeheadsworld systems theorizing, combined and uneven development approaches, and English School work-we may build on the so-called peer-group polity approach that was pioneered in the 1980s by Cambridge archaeologist Colin Renfrew and associates (Renfrew and Cherry 1986). "Polities" is a well-known concept in political science overall; Ferguson and Mansbach (1996, 34) define them as groups of humans that have a self-reflected identity or "we-ness," a capacity to mobilize resources and a degree of institutionalization and hierarchy. Renfrew began from the empirical observation that what he calls "early state modules"-the most frequently used social science terms would be clustered chiefdomstended to cover an era of approximately 1,500 sq. km. In many early civilizations, their number was of the order of ten, within a factor of two or so. Indeed, Renfrew saw these clustered chiefdoms as the territorial core area of such civilizations. As he put it:

They usually include closely similar political institutions, a common system of weights and measures, the same system of writing (if any), essentially the same structure of religious beliefs (albeit with local variations, such as a special patron deity), the same spoken language, and indeed generally what the archaeologist would call the same «culture», in whatever sense he might choose to use that term. The individual political unit—the states—are often fiercely independent and competitive. Indeed, not uncommonly, one of them may come to achieve political dominance over the others. (Renfrew and Cherry 1986, 2)

Renfrew's willingness to go relational where other archaeologists staved positional is apposite here, for it opens the door to an investigation that highlights the importance of IR's core interest-relations between polities-for the further differentiation of the polities involved. The peer-group approach sees three factors that one finds in the interaction between peer-group polities, be they tribes or chiefdoms, as being particularly important for constitutive change. These are what social scientists would refer to as competition (including warfare), interaction capacity (including trade and gift-giving), and social imitation. Renfrew sees the cause of social imitation as lying in the need for assurance and the hankering after prestige. He gives writing systems and the institution of kingship as examples of areas where social imitation is particularly apposite. In a region with peer polities that are not highly differentiated internally, but that show strong interactions both symbolically and materially, these three factors would make us predict intensification of production and increase in intra-polity hierarchical structures for the exercise of power (Buzan and Albert 2010, 317). This prediction sits well with the whole thrust of the basic literature on the logic of self-help in state systems.

The model has been popular for social analyses where such conditions can be established archaeologically, in particular Bronze and Iron Age studies. However, Renfrew et al. were criticized for pseudo-originality and overblown evolutionism (Shanks and Tilley 1987; Crumley 1988; Kohl 1989). The approach has weathered the criticisms and remains in use (e.g., Ma 2003; Karl 2005; Galaty and Parkinson 2007; Snodgrass 2012; Fourrier 2013; Lenski 2016).

The peer-group polity approach focuses on conditions of possibility for a system to emerge, and so is not deterministic. It does not highlight, but rather implies, the generative force of anarchy. For IR scholars, it is compatible with and complementary of the generative way of studying systems that dominate in political science (Waltz 1979; Wendt 1999; Buzan and Little 2000; Donnelly 2009, 2012a, 2012b; Albert 2016; Butcher and Griffiths 2017; Donnelly 2021) and affords the great advantage that we may readily use archaeological scholarship on these systems (inter alia Childe 1936; Steward 1955; Binford and Binford 1968; Renfrew 1973; Service 1975; White 1975; Rowlands 1980; Hodder 1982; Godelier 1986; Renfrew and Cherry 1986; Kristiansen 1998; Sherratt 1995). Specifically, we may draw on the archaeological consensus that there is one key precondition for interpolity proto-systems to mature, namely the existence of stable food sources (Childe 1925; Keeley 1988; Klassen 2004; Vankilde 2007). Having set out the case for why we should avail ourselves of prehistoric data and how we should do it in abstract terms, we will now attempt to press the same points by way of empirical demonstration.

## An Example: The First Stirrings of Proto-Systems of Polities in Europe

The concept of an international or inter-polity system stands at the center of IR. While conceptualizations differ, all but one include the idea of dynamic density (Bull 1977; Wendt 1999; Buzan and Little 2000; Albert, Cederman, and Wendt 2010; the odd one out is Waltz 1979). This idea, which goes back to Durkheim and was first foregrounded in IR by Ruggie, singles out "the quantity, velocity, and diversity of transactions" as being key to understanding how a system works, and with what effects (Ruggie 1983, 281). Over the last decade, work on non-European systems has brought to the fore how the cultural diversity of these transactions makes for different system dynamics (Hui 2005; Phillips and Sharman 2015; Zarakol 2021). A question that has not been asked, however, is the genealogical one of how dynamic density increased historically, in a form that made it possible for a number of polities to interact in a sustainable way. This is the task that we have chosen as an example of how prehistorical data may enrich IR problematiques. Note that the question is not when relations between groups emerged as such. As pointed out by Buzan and Little (2000, 97) with reference to hunter-gatherer bands,

[f]or much of history, limits on interaction capacity meant that in many places international systems were linear, or one-dimensional [as opposed to multiordinate], in construction. That is to say, interaction occurred in chain-like formations, with each unit interacting with its neighbours, but not with those further afield.

If we follow Buzan and Little, then, and we think that we should, relations between groups are as old as the species itself. What we are interested in here, in contrast, is how and when those "limits on interaction capacity"/dynamic density mentioned by Buzan and Little fell away, so that a number of units (a Durkheimian would say the "volume" of the system) left the linear logic and approached the threshold of concurrent interaction that characterizes a fully fledged inter-polity system. The period under study here, then, is the period of proto-systems, beginning with the emergence of a stable food source and ending with the emergence of a fully fledged and stable system.

Increases in dynamic density between polities may be seen wherever forms of social organization that goes beyond hunting and gathering emerge. This occurs at different times in different regions, which means that we need to choose a region for our investigation. Our choice of the region that archaeologists and others now call Europe is due to how Europe displays two routes to social complexity-one based on exploitation of marine resources and the other on agriculture, and the fact that the sequence lasts the longest in Europe, which makes it easier to foreground the trajectory details of increased density. A third, and political, reason is the Occidentalist or Mesopotamo-centric character of extant literature. Just as there are no good reasons why the study of Europe after 1500 CE should marginalize the study of the rest of the world (Hobson 2012), so there is no good reason why the study of the Fertile Crescent should monopolize our study of prehistoric polity system and proto-systems.

If some of the basic traits of today's system—competition for resources, interaction capacity, a degree of social imitation, and stable food resources—as well as some of its institutions such as war and trade go back millennia, then this suggests that there are deep structural factors at work. Barry Buzan and Richard Little (2000, 91) are surely right when they argue that "[I]f international systems are considered an important phenomenon, then there is an obligation to be able to tell the story of how they began and how they evolved." This debate goes to the core of what IR is about, for IR's founding remit was to explain the patterned interactions of political units (Rosenberg 2016). And yet, Wimmer and Min (2010, 251) rightly wager that "much of

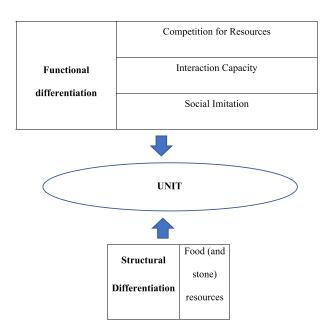


Figure 1. The emergence of units of prehistorical interpolity proto-systems.

international relations takes for granted what needs to be explained: how world politics came to be organized as a system." In the following, we will take up these cudgels.

#### Structural and Functional Differentiation

Before we can do so, there is one last translation job to be done. We must dock IR theorizing about systems to the peergroup approach. We find that this is most easily done by drawing on the generic framework for the study of systems recently suggested by Butcher and Griffiths (2017). Their crucial move is to separate between what they call structural differentiation, which is intra-unit, and functional differentiation, which is inter-unit. Structure concerns the distribution of resources among the polities of the system, for the kind of proto-systems we are interested in here, which primarily means food resources, be that agricultural and/or marine. Depending on the degree of differentiation of the proto-system in question, access to specialized types of stone and other technology-related resources may also be a factor. Given that structural differentiation concerns distribution of resources among polities, it is intra-unit.

While structural differentiation is primarily a question of the degree of available food resources, functionalist differentiation is a question of how polities solve the functions or tasks at hand. Butcher and Griffiths follow general thinking in the social sciences in stressing that functional differentiation concerns interaction capacity. However, given the lower degree of functional differentiation in prehistoric systems relative to the historical systems studied by Butcher and Griffiths, we will have to complement their one efficient cause of functional interaction, interaction capacity, with two additional causes regularly used by archaeologists, namely competition and social imitation (see Figure 1). In the rest of the article, which makes the case for the existence of two consecutive proto-systems in Europe, we will avail ourselves of this methodology. We discuss the four factors of competition for resources, interaction capacity, social imitation, and stable food resources for each of the two systems under discussion, which we will call House Polity Proto-systems and Segmentary Polity Proto-systems, respectively.

## 9000-4500 BCE: House Polity Proto-Systems

Before 9000 BCE, the only kind of political unit to be found in Europe, or anywhere else for that matter, was highly mobile hunter-gathering bands. The Central European Mesolithic (9000-6000 BCE) is inaugurated by the emergence of local systems of sedentary tribes. We know about these systems due to a radical transformation of resource utilization toward stable and local resources, to findings of clusters of houses, cemeteries, and organized exchange. The scale is small, yet significant. The necessary precondition for their emergence, a stable food source, is mainly based on two ecosystems, first a marine/lacustrine and later an agrarian system. Geographically, the key places for the archaeological discussion are the Iron Gates of the Danube, the Baltic, the Atlantic façade, and, as agriculture gains a foothold, the central European loess areas (see, on the one hand, Price 2000; Larsson and Zagorska 2006; Bonsall 2008, and, on the other, Renfrew 2007; Bailey 2008; Zvelebil 2008). Importantly, local systems seek one another out, so there are two stories to tell here: the emergence of local systems and that of regional systems that consist of a plurality of local systems. The house and its household is the major structuring element of these early polities, with the complexity of the house and of the layout of the village being solid indicators of the marked but low level of complexity of these polities.<sup>2</sup> Local House Polity Proto-systems emerged around 9000 BCE and increased in numbers and variations throughout the Neolithic, until around 4500 BCE.

#### Structural Differentiation

Since marine resources were bountiful and populations small, this stable food resource had the nature of a public good. Hunting and gathering remained important additional sources of food. Around 7000 BCE, early farmers migrate into the Balkans and from the east. Break-out groups keep moving north to till new land. During the Seventh Millennium BCE, agriculture turned into the dominant source of food within House Polity Proto-systems. With the arrival of agriculture, organized violence and feuds increased, most likely due to rising population and resource competition. Evidence of massacres of whole communities has been demonstrated at sites in central Europe (Wild et al. 2004). The institution of war seems to be emerging.

Interaction within each housing polity system was dense. There was coastal traffic, open river routes and welldeveloped canoe-like boats, as well as sledges and skis for winter transport in the high north. However, the capacity for transporting cargo and people beyond the local peer-group proto-system remained low, not least because it depended on sheltered and predictable preconditions for traveling. Consequently, interactions with other groups of polities seem to have been limited mainly to ritualized exchange on a small scale.

House Polity Proto-systems were open proto-systems, and yet persistent cultural boundaries between different polity proto-systems have been documented for periods of more than a thousand years (Rowley-Conwy 2011). Recent research has rejected earlier claims that the extent of trade with hunter-gatherers was of crucial social importance (Layton and Rowley-Conwy 2013). Sedentary units preferred to interact with one another, so this proto-system is overall like-unit (compare Spruyt 1996). Evidence exists

<sup>&</sup>lt;sup>2</sup>French anthropology from Mauss via Lévi-Strauss to Bourdieu stresses the importance of the house in noble and strong lineage societies (Mauss 1966; Lévi-Strauss 1969; Sahlins 1972; Bourdieu 1979).

for long-distance exchange and contact (Klassen 2004). Typical items for such long-distance, cross-cultural exchange are axes and arrowheads made of exotic raw materials and to a lesser degree, object of adoration such as amber items and rare sea shells (Zvelebil 2008).

Social imitation is in evidence as housing systems created stable cultural transmission throughout time and space. Interestingly, we also see social imitation on the intersystem level, in the sense that clusters of new local peer-group proto-systems appear throughout the period. Whether these should be understood as isomorphic peelings-off of already existing peer-group proto-systems or as the result of social imitation by the already existing groups we do not know, but the former possibility seems most likely.

#### Functional Differentiation

Functional house polity differentiation was highly limited. It is, therefore, not surprising to find that the units spawned by functional differentiation were very similar. Recent ancient DNA studies have demonstrated considerable interbreeding between expanding farming population and local foragers (Lipson, Szécsényi-Nagy, and Reich 2017). This seems to confirm the general anthological axiom of an in-lawbased kinship system between polities (Lévi-Strauss 1969). Functional differentiation seems to have been limited to five different variables, namely tribal membership, age, sex, personal competence, and specialized social roles (Zvelebil 2008). Authority was executed in fluctuation between charismatic and traditional power, allowing for constant shifts in social constellations above household level.

Technology was based on easily available raw materials. Given the lack of metallurgy and limited exchange in goods, structural differentiation was very low. Evidence of violence is widely demonstrated (Cunliffe 2008, 84–85). With the coming of agriculture, aggression seems to have increased further and involved systematic killing and fortification as countermeasures (Golitko and Keeley 2007).

House Polity Proto-systems are simple and robust, with an ability to organize large numbers of people. The socalled mega-structures found in today's Ukraine and Romania (Cucuteni-Trypillia culture, 4000 BCE) could organize more than 15,000 subjects in single villages (Wengrow and Graeber 2015).<sup>3</sup> The stabilizing principle of House Polity Proto-systems is the house itself. The house and the household constitute a unit that allows for substitution. The house makes the world evident and transmits this evidence from one generation to the next by its mere physical presence, which also includes animals and spirits in the same social landscape (Descola 2013). Additional authority structures can therefore stay versatile and loose without challenging social organization. Consequently, this kind of social organization seems to define relations between households as relatively symmetrical.

The breakdown of House Polity Proto-systems remains an enigma (Shennon and Edinborough 2007; Shennon 2009; Gronenborn Strien, and Sirocko 2013). The causes may have been several and historically specific for each system. However, recent research seems to favor an explanation promoted by Jared Diamond (1997; Rascovan et al. 2018), namely that epidemic plagues haunted Stone-Age Europe at several occasions. The trajectory of House Polity Protosystems in what we now call Europe confirms that stable food production is a necessary condition for inter-polity protosystems to emerge. It also reminds us that a stable food source is not a sufficient condition for the system to, as it were, sustain itself. The production of surplus was small, and the surplus was not of a kind that invited trade based on comparative advantage. Rather than amalgamating and becoming fully fledged systems, proto-systems broke down regularly and could no longer sustain the emergence of its units. Without the system interaction, units reverted to a less-differentiated state (Weber 1978, 246). The case of House Polity Proto-systems speaks directly to a number of ongoing IR debates. In particular, it demonstrates how a ubiquitous polity in all succeeding periods, namely households, emerged historically (Yoffee 2005; Owens 2015; Scott 2017).

If we move from units to institutions, while the causes of war have presented themselves as a focus of IR research since the discipline's inception, the discipline has been slow to pick up on archaeological debates about this issue (but see Snyder 2002). Where IR debates have largely focused on causes linked to human nature, regime types, and systemic factors (Waltz 1959; Hobson 2017), archaeological debates tend to focus on the systemic question of scarcity of resources (Keeley 1996; Carman and Harding 1999; Christensen 2004; Fry 2006). The fact that the oldest securely dated extant finds of skeletons suggesting violent death in numbers coincide with the beginnings of sedentarization in the old world as well as in the "new" one (Carman and Harding 1999, but see Keeley 1996, 36ff.) strengthens explanations stressing systemic causes. From what we now know, warfare seems to have been rare in prehistory. Buzan (forthcoming, 194) is right in generalizing that during a subsequent era of what he terms conglomerate agrarian/pastoralist empires, "war was almost the default activity," but he fails to point out that this was not necessarily the case in previous eras.<sup>4</sup> Here, as elsewhere in IR, a broader engagement with literature on prehistory would have enabled further specification of the argument.

#### 4500–2500 BCE: Segmentary Polity Proto-systems

After the 4500 BCE breakdown of House Polity Protosystems, the Atlantic seaboard kept on offering an almost (almost, because there were also rivers such as the Danube) unique combination in terms of stable food supply, namely surf *and* turf. It is therefore not surprising that when a developed kind of proto-system emerged, it happened on the Atlantic seaboard, from Iberia to Norway. From 4000 BCE onward, we increasingly find large-scale structures for communal gatherings and rituals such as passages made of long lines of raised stones and monumental stone graves (Renfrew 1973; Daniel 1985; Midgley 2008; Müller 2011, 33; Whittle, Healy, and Bayliss 2011).

As a direct result of renewed interaction between local proto-systems, there was a significant jump in social complexity, to what archaeologists call segmentary or megalith polities. Like House Polity Proto-systems, Segmentary Polity Proto-systems also exist on local and regional levels, but where regional house polity proto-systems remained tentative, this period saw the emergence of a region-wide Segmentary Polity Proto-system based on a combination of agrarian intensification and land rights.

<sup>&</sup>lt;sup>3</sup>These polities are fully comparable in size with the better-known urban polities that arose in Mesopotamia and elsewhere in the Middle East half a millennium later.

<sup>&</sup>lt;sup>4</sup>New findings may, as always, change this picture by rather supporting Keeley's (1996) argument that war was ubiquitous in the period under discussion here as well.

#### Structural Differentiation

Ancient DNA analyses indicate that the megalith builders were descendants mainly of Europe's first farmers that had trekked north from the Balkans, but with a marked genetic presence of the indigenous populations that they met en route (Haak et al. 2015). What we have here is in all probability a merging of farming communities and huntergatherer bands, which together constitute the new segmentary polities. The establishment of land rights that goes with agrarianism and increased agrarian production seems to have forced through new organizational solutions. Draft animals combined with wagons for transport and the simplest type of plough (the ard) increased production and decreased dependence on manpower and high female fertility (Goody 1971, 1976).

The interaction density between local Segmentary Polity Proto-systems was considerable. The fourth millennium marks the commencement of trade in stone, particularly flint (Allard 1978; Bradley and Edmonds 1993). Flint was unevenly spread, and so uneven distribution of crucial resources emerged as an important factor for inter-polity interaction. Before, early polities formed around places that offered a stable food supply. Territoriality was linked directly to food, and food alone. Now, for the first time, a territorially specific resource away from any one group of peer polities became crucially important. Large-scale mining of and trading in flint nodules were initiated (Russell 2000; Sørensen 2014). Standardized axes produced in specialized centers were distributed in large quantities, often over distances of more than 500 kilometers. The traded flint axes were useful tools in everyday life, but obviously also objects with great symbolical significance, not least since they stood out relative to the locally made axes of other types of bedrock that were still being produced in quantity. There was also exchange of symbolic items and luxury goods such as amber beads and even small quantities of copper and gold, which occur in pure form in nature (and so needs no technology to be gathered; Jensen 2001). At the end of the European Neolithic, then, the key preconditions for increased interaction between polities were in place: stable food production, long-distance transport, uneven distribution of key resources (flint). Conflicts are documented both as skeletal lesions from graves and as defense systems that bear the signs of attacks especially in the latter part of the Neolithic (Heath 2017). Special hand weapons also occur (battle axes and lances).

The new sedentary polities moved and raised the largest standing stones known from European prehistory. With reference to the most famous of these, Stonehenge, Renfrew argues that:

The rather small group of occupants of the territory in question would need to invest a great deal of their time [in erecting the megaliths]. They might need also to invoke the aid of neighbours in adjoining territories, who were encouraged no doubt by the prospect of feasting and local celebration. One can imagine that when the monument was completed it might itself have become the locus for further, annual celebrations and feast days. It served henceforth as a burying place and as a social focus for the territory. The suggestion here is that it was as a result of these ongoing social activities, along with other activities of a ritual or religious nature, that the cairn or barrow came to be the centre of a living community. (Renfrew 2007, 155–56) Chemical analyses of human bones from the megaliths demonstrate dietarian differences and human mobility (Price and Sjøgren 2013). This indicates the presence of different political groups occupying defined territories, and yet collaborating on large-scale imitative projects. Imitation is also on display regarding social organization. Burial patterns suggest a shift from emphasizing in-law-based kinship organization to one built on lineage and ancestor cult, manifested in large and impressive megalithic tombs (Sjøgren 1986; Tilley 1996). This change in kinship structure brought about change in a practice so basic to human life as the disposal of the dead. There is a reason why anthropologists have named these systems after their innovation in kinship system.

#### Functional Differentiation

Segmentary Polity Proto-systems sport a jump in density relative to House Polity Proto-systems. Whereas the in-lawbased kinship system of House Polity Proto-systems effectively capped their size, the size and import of the new lineage-based polities could grow when access to land and spatial resources allowed. The innovation of the lineage afforded polities with a new principle of expandable social organization, for lineages make possible that brothers stand against cousins, cousins stand against second cousins, etc., up to lineage (all those who trace descent from the same ancestor) against lineage and lineage-based polities against other polities. Indeed, this is what the moniker "segmentary" entails (Evans-Pritchard 1940; Masters 1964; Buzan and Albert 2010).

The emergence of land rights triggered social complexity and development. Social complexity spelt ongoing social change. Ongoing social change made it possible to see time as linear, and linear time facilitated long-term strategies for competition and hierarchization. This may have been a world-historical first, and yet the case is absent in studies of temporality in IR. Awareness of the connection between identity and land rights seems to be of great importance for inter-polity differentiation. Consequently, authority is increasingly based on tradition and connection to ancestors and lineages. Succession of rights through generations and close connection between agrarian/biological regeneration and the lineage are well documented in burial customs and monuments. Social and political organization became less fluid overall.

The emergence of different styles, particularly in ceramics, armaments, and dress, but also in terms of similar but different cultic centers (British henges are different from the stones found in Normandy which again differ from the Iberian and Sardinian ones) increased the feeling of self/other distinctions and hence firmed polity identities that had emerged during the half millennium between the breakdown of House Polity Proto-systems in the fifth millennium and the emergence of Segmentary Polity Protosystems. The ritual or cultic centers that were developed throughout Europe by different Segmentary Polity Protosystems seem to have triggered mirroring behavior. A process of competition and social imitation seems to have ensued. Ritual life became competitive, with monument building connected to the ancestor cult of the lineage becoming a key point of comparison (Smith 2011). Once again, key developments have an aesthetical aspect. Before, only practices seem to have spread. Now we see further differentiation, as there develops a series of variants on a theme, with each variant being a unique part of the same

series. Here we have an early example of a kind of differentiation that we know most recently from the emergence of nationalism: the theme is the same, and the differentiation rests on what an outsider to it will often deem to be minimal variation. We are warranted in talking about a regional system of local Segmentary Polity Proto-systems that covered the length of the Atlantic coastline, with common institutions of religion and trade. We can glimpse a process whereby interaction spawned changes in unit identity. This theme goes to the heart of systemic analyses in IR.

The nascent increases in structural differentiation that are on display do not seem to stem from the variegated food supply, but from new and important emerging technologies, the most important of which were the ard and the wheeled cattle-drawn vehicle (Cunliffe 2008). The combination increased food production because larger areas could be tilled by the same human effort. The resulting cereals were storable, which allowed for predictable consumption strategies. Increased food production enabled a much higher population density and the use of surplus to other activities than mere subsistence, such as communal building projects and nascent metallurgy.

The stabilizing principle of segmentary polities is the lineage and its succession through time. Contrary to House Polity Proto-systems, with their symmetrical relations between units and also between humans and their surroundings, the lineage was based on exclusive rights to land and crucial resources Territoriality emerged in a form that we may recognize from a contemporary vantage point. The annual cycle was connected to the agrarian cycle and also to the regeneration of the lineage and its rights. This is demonstrated from around 3500 BCE through a connection of the sideral year to burial monuments so that winter solsticethe beginning of a new agrarian year-enlightens the burial chamber of the lineage. The astronomical calendar was defined as a confirmation of the social order and established differences and the natural world was used to express the systematic differences between the lineages, so myth and ritual anchored the system (Ruggles 1999; Descola 2013). Note also that the spread of the sideral year is the beginning of a central precondition for increased dynamic density in interpolity systems, namely the standardization of time. The focus on the lineage and the ancestors gave predominance to authority structures based on tradition and history. This development from the earlier symmetrical organization of House Polity Proto-systems to more hierarchical Segmentary Polity Proto-systems was no doubt closely connected to the changes in agrarian production and its increased efficiency and yield. Martial alliances and religious gatherings integrated the system.

Multiple finds clearly demonstrate how Segmentary Polity Proto-systems came under increasing pressure from around 2800 BCE onward (Shennan and Edinborough 2007; Kristiansen et al. 2017). Around this time we see new waves of epidemic plagues, a reminder, if one should be needed at this juncture, that epidemies are nothing new. We see feuds, probably over access to land, another theme easily recognized today. These developments coincide with a colder and more unstable climate that caused a decrease in productivity (the Piora Oscillation; Litt et al. 2009). Perhaps most conspicuously, we see an expansion of highly mobile Indo-European speaking migrant groups from the south and the east. Around 2900 BCE, a migration of herders and farmers reached the Balkans from the Pontic-Caspian steppe (Kristiansen et al. 2017). In the Balkans, they met a Segmentary Polity Proto-system at the peak of differentiation, which seems, among other things, to have been the first to have discovered metallurgy. The ensuing structural differentiation resulted in a fully fledged system of farming communities aggregated in villages and metal production. It was also the end of the period of system gestation reaching from the linear-type interaction of hunter-gatherer bands to the emergence of a fully fledged system that has been our designated object of study here. We would wager that this example illustrates how investigations of prehistory that draw on archaeological material data may expand our knowledge of subject matter that is at the core of IR such as the initial gestation of emergent inter-polity systems.

The basic systemic principle of Segmentary Polity Protosystems is kinship, which constitutes the segmentary differentiation after which such systems are named. Kinship groups remain ubiquitous polities in global politics (Ferguson and Mansbach 1996; Al-Muhammed 2011). With a nod to raison d'état, Buzan (forthcoming, 350) even postulates a "raison de famille" as a key logic of early (proto)systems and argues, we think rightly, that "[k]inship seems likely to continue as a pervasive ghost institution." Indeed, the study of kinship polities was integral to the emergence of political anthropology (Evans-Pritchard 1940). However, as is the case with the study of the role of households, students of kinship in IR have largely missed a key legitimating factor for their choice of subject, namely that there once existed proto-systems whose basic units were exactly kinship-based polities (Haugevik and Neumann 2018, but see Masters 1964).

In evolutionary terms, kinship proto-systems are pathbreaking regarding what social scientists, following Kant, regard as the two given preconditions for social life in general, namely time (as well as its social action, temporality) and space (as well as its social gestation, territoriality). Again, the issue is missing in extant IR literature on territoriality and temporality (Agnew 1994; Johnson and Toft 2014; Agathangelou and Killian 2016; Hom 2021). The importance of standardizations of time in the social sciences has focused on the globalization of a particular understanding of temporality as linear. By looking to prehistory, we can get a firmer grasp on the importance of standardization to IR by studying the emergence of and effects of the very beginnings of the social concept of linear time.

Among mobile hunter-gatherers, territoriality is basically a question of maintaining control over trekking routes. Buzan (forthcoming, 204) is certainly right to argue that, with the onset of sedentariness, settlement made territoriality the framing within which politics was done. When the great majority of people spent their entire lives close to where they were born, territoriality also acquired a deep social and cultural meaning.

In House Polity Proto-systems, claims to territory are limited by the necessarily small size of household units and the necessarily limited density of proto-systems of household units, which sport no systemic integrative logic beyond the spatial proximity of units itself. The emergence of kinship as the functionally as well as the structurally principle of the kind of proto-systems on display here lends such systems a significant jump regarding territorial and social systemic reach. Kinship transcends space in that kin can move and still remain kin. Kinship also offers a way of incorporating new polities discovered outside the system into it, for such groups may be "discovered" to be kin and may be incorporated by being included in already existing kinship structures.

The changed role of territoriality in kinship-based protosystems has immediate repercussions for debates about the institution of war. Increasing productivity increased the value of arable land. The segmentary logic of kinship made it easier to mobilize armed forces. Fortifications demonstrate a perceived need to ward off attacks (Christensen 2004, 150). More resources to fight over by larger and better organized forces with more lethal weapons firmed the institution of war. We would argue that segmentary protosystems see the emergence of a logic of war that is still with us.

The institution of trade started with luxury goods and tended to have an aesthetic focus. It is worthy of note that the first stirrings of uneven and combined development, which has primarily been a focus of Marxist approaches, pertained to superstructure questions regarding prestige and hierarchy, as opposed to questions of base. Archaeologists routinely use finds of jewelry, many types of which store well, as a proxy for studying migration and exchange more generally. There is an obvious potential for IR to build on this work in order to identify the boundaries and density of interaction of prehistorical (proto)-systems. If we take into consideration that gift-giving seems to be a ubiquitous aspect of diplomacy and hypothesize that jewelry and other luxury goods such as crockery will be among the goods exchanged, there is also a potential here for us to deepen our understanding of basic preconditions for diplomacy (Numelin 1950; Kustermans 2021). We are, however, wary of pushing this kind of research, for it probably demands more knowledge about the meaning aspect than we have at present. If, in lieu of circumstantial evidence, we simply speculate that a particular kind of object has been used as gifts, identify its presence in dispersed polities and conclude that diplomacy was in evidence, we have simply wasted our time on fruitless circular argument.

#### Conclusion

While it is true that the material data with which archaeologists work seem unwieldy for scholars trained to draw on narrative data only, this is a methodic challenged that may be overcome, particularly with a little help from archaeologists themselves. Interdisciplinary collaboration is facilitated by overlaps in theory building. Due to the lower degree of differentiation that is typical of prehistoric social and political organization, prehistorical cases tend to lay bare how the basic functions of the system are handled. As we analyze these functions, we increase our knowledge about the gestation of the phenomena that fall within the remit of the social sciences. Given all the information about prehistory that is now available, analyses that halt the search for their roots at the arbitrary and premature inception of written history run the risk of coming across as somewhat shallow.

The case in point here was prehistoric inter-polity protosystems. Beginning from the archaeological consensus that peer-group polities first form when a stable food source is available, we identified two successive kinds of what we called peer-group proto-systems. Inter-polity systems emerged in Europe for the first time around 9000 BCE when hunter-gatherer bands took advantage of rich marine resources along the Atlantic seaboard to settle down. These House Polity Proto-systems were found scattered along the Atlantic seaboard, the Baltic, and the river Danube in the period 9000-4500 BCE. Contacts between them were very tentative. The Segmentary Polity Proto-systems that cropped up half a millennium later (4000-2500 BCE) were able to forge denser and more lasting ties between themselves over longer distances. The ritual or cultic centers that were developed by different Segmentary Polity Proto-systems seem to have triggered mirroring behavior. Ritual life became

imitative and competitive, with monument building connected to the ancestor cult of the lineage becoming a key point of comparison. We are warranted in talking about a regional system of local Segmentary Polity Proto-systems that covered the length of the Atlantic coastline, with common institutions of religion and trade. Note that the bulk of trade was in raw materials and objects that occurs unevenly in nature and is thus held unevenly by different polities. It is, therefore, a factor of structural differentiation throughout the system that comes in addition to food supply. Systems development was uneven and combined from the very beginning. We can now glimpse a process whereby interaction spawned changes in unit identity. The Segmentary Polity Proto-system transmuted into a fully fledged system in the third millennium BCE, primarily as a result of new social forms developed between an incoming migration from the Eurasian Steppe and local, European communities. We added to our knowledge of "international" systems by laying bare at the most basic level how unevenly held resources structure embryonic systems, and by adding two previously un-noted overtures to "international" systems-formation in what we now call Europe.

To generalize, prehistorical IR presents a research agenda that includes, but is not limited to, the following factors: transhistoricity, evolution, and practices.

First, transhistoricity. If we follow Kant, there exist two transhistorical and transcultural preconditions for social life in general, temporality and territoriality. Archaeology offers a new research question for IR scholars working on this, namely how different regions came to arrive on the specific concepts of territoriality and temporality that hold sway today. We demonstrated above how the coming to Europe of agriculture brought radical changes to the understanding of territoriality. Differences in the time of arrival of and forms of agriculture across the globe must be expected to have made for different understandings of territoriality. Increased interaction between regions brought further change. Extant work on cartography suggests that such longue durée comparisons can be very fruitful. By the same token, the coming of segmentary differentiation brought on by changes in the kinship system led to a new understanding of time as linear. This temporality took root in different regions at different times. The standardization of time that flowed from astronomical innovations counteracted this. Given that increased standardization of space and time also present themselves as central preconditions for first the international and then the global to exist, research questions pertaining to different temporalities and their standardization should potentially further enliven ongoing debates.

Second, evolution. The idea of a social science was exactly that the historian's particularist perspective should be complemented by a general one. IR should play a key role in debates about the effects on inter-polity relations wrought by the coming of agriculture and industrialization, how unit types such as states and empires have evolved across world history, and the longue durée changes in institutions such as trade, war and diplomacy. Studies such as Buzan and Lawson's (2015) on industrialization, Cohen and Westbrook's (2000) on diplomacy, and Snyder's (2002) on war are examples to follow in this regard. We have tried to demonstrate how a turn to prehistory may further help such a research agenda by outlining broadly what kind of material that exists and how it may be put to use for the study of systems and, even more tentatively, war. The lively archaeological debate about possible warfare in pre-history should inspire more IR research. If we juxtapose archaeological debates about how scarcity of resources may or may not be a necessary

precondition for war to emerge and an Eliasian (Elias 2000; see also Maynard Smith and Szatmany 1998) perspective on how density of population may lead to diminishing levels of the use of force, we get a concrete research question, namely how density of population within and across units of a system and the use of force are correlated across world history.

Third, practices. Post Covid, it should be clear that epidemics and pandemics as challenges to order and hierarchies not only are key to the study of the rise and fall of prehistorical systems, but also have an impact on systemmaintaining practices today. More study of prehistorical cases must be expected to yield lessons that are of use today. While prophylactic and containing practices regarding pandemics is a rather obvious thing to suggest in 2022, we will end with a perhaps less obvious proposition. In archaeology, objects that are primarily aesthetic (jewelry, ornaments) or that have an aesthetic aspect (megastructures, built means of transport) are routinely used as proxies for identifying the boundaries and density of interaction of what we have called prehistorical (proto-)systems (Hodder 1982). IR, which has traditionally turned up its nose on aesthetics, should try its hand at the same.

The study of prehistory offers IR scholars a number of opportunities for developing new cases and throwing new light on old ones. We have presented some of the material, discussed methodical problems, given an example of what may be done, and suggested some further possibilities. It is now up to social scientists to deepen and widen our knowledge by taking up those cudgels.

#### Acknowledgments

We would like to thank Morten Skumsrud Andersen, Barry Buzan, Alexander Cooley, Kendra Dupuy, Thomas Hylland Eriksen, Jakub Godzimirski, Kristin M. Haugevik, Dag O. Hessen, Patrick T. Jackson, Erdem Lamazhapov, Halvard Leira, Lene Melheim, Cecilie Basberg Neumann, Elana Wilson Rowe, Ole Jacob Sending, Jason Sharman, Jennifer Sterling-Folker, Einar Wigen, Julie Wilhelmsen, Michael C. Williams, Ayse Zarakol, and two anonymous reviewers for comments on earlier drafts.

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