1. Property in prehistory

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The evolution of property rights has been of great interest to legal scholars, economists, and anthropologists from at least the seminal philosophical thoughts of Locke (1689) and the expanding knowledge of property among traditional peoples (Maine, 1861; Demsetz, 1967). Based largely on first principles, property systems have been modeled as unintended consequences of costs-benefits choices by individuals and as intentional design of codes by governing bodies (Krier, 2009). These evolutionary formulations provide logically consistent and pleasing outlines of the past, but they would seem to demand empirical validation. It is broadly felt by social scientists, however, that 'because property began in prehistoric times, no one can really prove what actually happened, as a matter of historical truth' (Krier, 2009: 9). Without written documentation, can we know with any certainty about the history of property? I hope to show that the robust material record provided by archaeology allows reasonable evaluations of how property systems developed.

An evolution theory of property can be formulated using a combination of the ethnographic and archaeological records to test theoretical concepts from anthropology, economics, political economy, and legal theory. Following the logic of Flannery and Marcus (2012), I combine ethnographic and archaeological evidence to describe property relationships in traditional societies and how they developed through prehistory. Cross-culturally, many forms of property have existed (Strathern, 1999) probably as a continuum from identification or association with things to social and political possession to ownership enforced by the rule of written law (Hodder, 2012). The 20th-century archives of ethnographies provide vivid descriptions of alternative ways that property operated outside of modern states, and property relationships can be arranged into pseudo-evolutionary patterns, hypotheses really, that link sociopolitical complexity to particular developmental trajectories in line with the views of legal and economic thinkers (compare Maine, 1861; Hoebel, 1954; Earle, 1998, 2000; Dow and Reed, 2013).

I define property broadly as the complex of relationships between people and their land, animals, slaves, facilities, and moveable goods. This definition of property rights encompasses variable conceptions and modes of enforcement of 'that is mine'. I suggest that a mosaic of overlapping and conflicting property relationships emerged with changing and variable subsistence and political economies. Although highly variable and contextual, property relationships were linked systematically to long-term trends in population growth, intensification, warfare, social stratification, and the evolution of complex political institutions. Fundamental were the defense and political control of land and facilities, and the emergence of increasingly extensive and high-volume systems of trade requiring changing rules of alienation.

1. PROPERTY IN TRADITIONAL SOCIETIES: THE ETHNOGRAPHIC RECORD

Property in traditional societies involved a wide range of concepts, including *habitus* (habit); labor investment; inheritance; warrior defense and seizure; physical marking; and identity, gifting, and trade. To understand property principles, I consider the ethnographic record of the non-written and extra-legal ways that people related to places and things. I use the past tense to describe these patterns, because they were largely recorded in the last century by anthropologists. To simplify referencing, unless otherwise specified, the ethnographies used are discussed in Johnson and Earle (2000).

A. *Habitus*: Living with Things

Habitus refers to regular ways (schema), by which people come to think about themselves and their rights based on everyday experiences. Pierre Bourdieu (1977) developed the concept to mean the taken-for-granted (non-conscious) practices that guide what people do and think. Individuals and groups hold closely both portable and fixed things of everyday life (Robin, 2013) as people are deeply entangled with the materiality of things (Hodder, 2012). Through the year, a subsistence farmer got up each day in his home (which he often had built), dressed in the clothes made for him by his wife, walked to his fields along paths that he cleared, carried his tools of work (perhaps a beautifully hafted stone axe), and weeded and harvested his garden. Varying place-to-place, time-to-time, and person-to-person, humans became closely associated with the materials of their lives, and these associations formed the most elemental basis for property.

Ethnographies of traditional societies are filled with examples of the associations of people with tools, houses, and places. These associations are fundamentally social, but they vary in interesting ways. Residential mobility makes the moving of objects quite costly, so that mobile people do not accumulate much. Among the !Kung foragers of southern Africa, the material inventory was quite limited to things that could be easily carried in frequent moves. Structures were ephemeral, built to last only a few days or weeks or sometimes a few months. Although frequently moving, nomad pastoralists, in contrast, used domestic animals to transport more things that were closely held by individuals and families. They fashioned houses (such as yurts) to be easily broken down into moveable parts. In traditional horticultural societies, the inventory of material goods expanded substantially, and houses became more permanent as groups moved less frequently depending on fallow cycles used to maintain sustainable production. Houses with their material culture could be occupied for five years, a generation, or longer depending on patterns of resettlement. Sub-clan groups often lived together in quite large structures creating a habitual association for the group. In Venezuela, for example, the circular Yanomamo *shabono*, built of light poles and palm-leaf thatch, averaged perhaps 10m across and 3m high with a surrounding stockade wall and interior structure open to the air. These structures existed for perhaps 10 years, or as long as the social group held together. With stable social groups (clans and lineages with constituent families), houses often survived for a generation or more, and the everyday practices around the home formed a stable sense of belonging, as

described for the Berber house (Bourdieu, 1977). As a general rule, the association between an individual and group and things of everyday life increased with the length of their use.

Productive lands show a distinctive association between social groups and the length and intensity of use. The land used by low-density !Kung foragers was their home range, a rather amorphous zone of repeated use and management. Although home ranges of neighboring groups overlapped, outsiders were discouraged to use them unless invited to do so. In some cases, as with the Shoshoni foragers of the Great Basin, ownership was asserted over the most intensively used resource, like the pinion groves near winter housing and storage. When agriculture was based on low-intensity shifting cultivation, as for the Machiguenga forest people, farmed plots were maintained for a few years and then allowed to revert to forest to replenish soil nutrients. Typically, a local group (clan or lineage) was associated with a broad and poorly defined forest territory that allowed farmers to open unused forests in a cycle of fallow; productive fields belonged to individual families only as long as their fields continued in use. As population densities increased and subsistence production intensified, field areas were maintained longer in production, eventually being in continuous use. The length of farming on a plot tightened the farmer's association with fields, sometimes across generations.

A different type of association typified ritual or religious locations. Boulders, hills, and crevices were homes to supernatural beings or forces, and these places often were associated with local people and their myths of having emerged there from the earth. All societies populate their world with the supernatural, but the association with particular locations shows a material patterning suggestive of close association. Among foragers, the landscape is often marked with rock art, which identified particular ritual spots for ceremonies and shamanistic practices. Such locations were of particular groups, their rituals and songs. The more repeated and long-standing the association, the more it would have taken on aspects of ownership. More settled populations used individual places repeatedly over longer periods of time, often involving the construction of shrines, monuments, and ritual grounds that linked people to significant places.

For archaeology, the routines of everyday and ritual life incorporated many artifacts and structures that are regularly recovered. Such objects include houses and cooking hearths, stone and ceramic tools, weapons and adornments, terraced fields, and shrines (Robin, 2013). *Habitus* (association) of objects and places with individuals and groups can be analyzed by the length of curation, the time that a tool or structure is kept and refurbished for use. Across different societies, the length of curation varied. Some tools, housing, and subsistence areas were formed for immediate use and abandonment, while others lasted for a person's lifetime or more.

B. Making Things

Developing a labor theory of property, John Locke (1689) argued that an individual's work, which was uniquely his, creates property. Elementally a forager's taking and making things from nature, as for example the killing of a deer or the flaking of a stone knife, formed ownership (Barnard and Woodburn, 1988). With this basic logic,

archaeologists can study the amount and organization of labor investment in houses, fields, monuments, and artifacts as a means of studying changing patterns of property creation.

In traditional societies, the labor and organization invested in facilities and objects reflected patterns of ownership. Houses and agricultural facilities, for example, show variable labor investment and its organizational structure. Mobile foragers could quickly erect ephemeral structures, and they belonged to the builder's family until abandoned. The portable housing of pastoralists was made individually and carried with the family for as long as it lasted. With the construction of more permanent and larger housing by settled agriculturalists, such as the Yanomamo *shabono*, the village group worked together to build the village building, and it belonged to the group with individual families holding rights to divided spaces within the building. Among horticulturalists, fairly permanent houses were often built for individual families, who possessed them for their use life, often a generation or more. The labor required for permanent houses could be quite significant, requiring assistance from neighbors, which created reciprocal, future obligations. Houses of many families were often clustered into clan groups, regularly within fortified enclosures. Individual farmsteads were also common. Housing and its association with family units generally materialized the social organization and created obligations.

The building of agricultural facilities in traditional societies created important property relationships. As a general trend, population growth (and surplus production) required the intensification of land use, which involved progressively more labor investments in land. For foragers and pastoralists, such labor included systematic clearing by burning, and construction of hunting blinds, corrals, wells, fishing weirs and the like. Each investment would have increased the bonds between individuals and their cooperating group and their resources. Investments in productive facilities were closely associated with horticulturalists. The work involved clearing the forest, soil manipulation and fertilization, building terracing to catch and retain soil and moisture, and the digging of irrigation and drainage ditches, all of which increased productivity and sustainability. This labor investment created what has been called *landesque capital* (Håkansson and Widgren, 2014). As field systems were intensified, more labor was invested in them, and ownership became increasingly closely held by farming families (Cancian, 1972). Intensification could involve the construction of large agricultural facilities, such as terracing, drainage, and irrigation. Although such projects were family-based improvement initiatives, the need to coordinate construction events and management to provide larger labor crews for some specific activities and to reconstruct facilities quickly after catastrophic events involved social groups and their leaders. This would have created overlapping property rights held by individual families, local groups, and their chiefs. Agricultural facilities marked the landscape with elaborate patterns of walls, paths, and ditches that became physical demarcations for property systems, often with overarching patterns of use rights and responsibilities (Earle, 1998).

Similar patterns of labor investment and ownership in traditional societies involved the construction of ceremonial facilities, such as cult houses, dance grounds, stone arrangements and earthen mounds, and eventually temples and churches. The scale of construction varied from a small group working together to large and coordinated

workforces. The outcome was a set of ritual facilities that could range from being simple and largely ephemeral to being massive and permanent. A forager group could clear and mark ceremonial spaces with rock art. Pastoralists constructed ceremonial gathering places used repeatedly, horticulturalists often built shrines associated with their ceremonial and mortuary places, and state societies built massively monumental places for worship. The construction and use of ceremonial facilities involved group labor, which, at larger scales, required or encouraged the involvement of leaders. The larger the scale of construction, the more important leaders were for recruiting and feeding those building the facilities. The religious landscapes came to materialize nested property rights of the families that participated in the construction and subsequent ceremonies, of the group associated with all participants, and of the leaders who organized social action.

Portable objects also show distinctive patterns of labor investment and property rights. Expedient tools with low labor investments carry minimal sense of property, but increased labor investment strengthened the bond between makers and their products. The giving of such objects both within and between families carried personal connections obligating reciprocity.

Labor as a means to study property rights is exceptionally well suited for archaeology. All material things recovered in excavations can be studied as to the amount and organization of labor required in their making. The amount of labor can be observed ethnographically or by experiment. Measuring landesque capital, for example, involves estimating the labor involved in clearing the forest, improving the soil, and building facilities like terraces, irrigation ditches, and the like. The same can be done for any capital improvement.

C. Inheritance

Inheritance in traditional societies determined how rights to land, housing, and agricultural facilities were transferred according to ties of the living to their ancestors. This topic is of general interest to anthropologists, but it is rarely framed in terms of property rights. Ancestors helped their descendants in such things as war and health, and reciprocally they demanded obedience and offerings. Membership in social groups was frequently inherited from one or both parents, and, because groups were typically corporate (holding land and facilities in common), group membership determined personal access to subsistence and ritual resources. Ties to ancestors were materialized in mortuary customs.

Anthropologists have long referred to kin organizations in traditional societies as *corporate groups*. A corporate group owns a territory, certain facilities like cult houses, and religious paraphernalia and knowledge. The formation of such groups can best be understood in the context of warfare, as discussed momentarily, because rights depended on an ability to defend those rights, and the only effective defense was through the group. Individuals, of course, held rights to their personal improvements, such as houses and fields, and leaders held overarching rights based on their organization of defense and of construction events for fortification and important facilities. All rights were ultimately held through the group and could not be transferred

outside it. Individuals held rights to group resources, including personal defense, based on membership obtained through rules of inheritance.

In traditional groups, cemeteries were not universal, but varied according to the group's corporate nature (Saxe, 1970). Low-density, highly mobile foragers did not bury their dead in cemeteries; rather they believed that the dead entered an amorphous space through the camp's home range, and no evidence of formal burials is observed. Horticultural groups, which settled into small villages or hamlet clusters, were more closely defined as corporate groups holding property rights; these were characteristically thought of as belonging to ancestors, who resided in the group's cemetery (Goodenough, 1951). For example, 'the most prominent man-made feature of the Baegu landscape [in the Solomon Islands] and the physical focus of Baegu religious life is the shrine and sacred grove' (Ross, 1973: 194). Here the ancestors were buried and venerated with regular ceremonies. Although land boundaries of such low-density horticultural groups were rarely delineated, their cemeteries marked focally the group's lands. Group members needed an appropriate ancestor buried in the sacred grove in order to claim rights to the land. Among higher-density farmers of highland New Guinea, such as the Mae Enga, ritual events and features carefully marked property boundaries, and ancestral rights were materialized in a cult building that housed the dead leaders representing the corporate group. Associated with emergent political hierarchies in chiefdoms and states, regional leaders were often buried in impressive monuments associated with regionally significant ceremonial sites. A hierarchy in the burial landscape materialized layers of rights to land and labor within both the community and its political institutions. Archaeologically, patterns of inheritance of property in land and facilities can be investigated by the structure of cemeteries and how they related to the social institutions formalized in the settlements (Saxe, 1970; Goldstein, 1980).

D. Warrior Defense and Seizure

Possession is nine-tenths of property law, or so the expression goes. Of course, this is not true in modern states with legal systems registering and guaranteeing ownership and transfer rights, but, in traditional societies, it was a practical truth. Ownership rested on force, the ability to defend or seize things of value. Warfare, conquest, and raiding were means to seize land, people, and valuables that were bound to socially recognized property rights. Thus property can be investigated in prehistory by the patterns of warfare.

Based on warfare patterns observed ethnographically, any society can fight as an organized group, but the frequency and objectives of warfare varied greatly. Among low-density foragers, fighting occurred at times to defend home ranges against outsiders, but such warfare was episodic and small-scale. Pastoralists, because they were highly mobile and held moveable wealth in animals, practiced warfare to defend broad territories by rapidly mobilizing tribal warriors to counter incursions by outsiders, and to raid by stealth for animals and slaves. With the establishment of permanent settlements linked to intensification of wild and domesticated food production, the typical organization became the corporate clan-based unit that asserted and defended ownership of land (Dow and Reed, 2013).

Inter-clan warfare involved the fortification of villages. Although fortification is often discussed as responding to fear, the best defense was typically to be invisible; for example, to melt into the forest. Fortified villages rather signified the intention to stand and fight for property, most commonly agricultural land, but also good fishing grounds and mineral resources. In-place fortifications created a permanent state of war, but with a highly ceremonial element to test the strength of the enemy and to minimize death. These are what I have called hill fort societies (Earle, 1997), and they represent a particular pattern of corporate ownership. With chiefdoms and states, central fortified settlements with chiefs and lords often dominated unfortified countryside villages; as war chiefs coordinated protection of the group's lands, they could establish overarching rights to the labor and surpluses from community members and their lands.

The result was typically three layers of overarching ownership: the individual as maker of improvements, the group as defender of territory, and the leader as coordinator of defense and social labor for the construction of fortification, ceremonial monuments and large-scale irrigations systems. With the emergence of conquest warfare associated with complex chiefdoms and early states, the defeat of another social group involved loss both of their land and freedom. The land and its people became the property of the conquerors, who reassigned lands at will and took individuals as slaves.[1] These were classic feudal societies. Raiding (warfare at a distance) seized moveable wealth, grain, cattle, and slaves. It was oriented towards such wealth that could be taken home. As a strategy for wealth transfer, raiding is not necessarily associated with fortification except when rather large amounts of wealth were stored centrally. Archaeologically, the forms of fortification and specialized weapons document the types of warfare and their roles in forceful property transfer. Corporately held land had defensive works, and raiding involved specialized personal weapons.

E. Physical Marking

In the absence of writing and deeds, property was marked focally by houses, cemeteries, and shrines and by boundary lines drawn on the landscape by planting trees, digging ditches, and building walls and other physical features that divided up the landscape. Both as intended and unintended consequences, landscape modifications parceled up space and reified strong property relationships. For the archaeologist, constructed landscapes allow investigations of how property rights in land and related facilities were defined physically.

Ethnographic work on landscape markings includes extensive studies of rock art, housing, walls, forts, and monuments. All markings involved socially significant processes with overlapping mixtures of group identification, life-crisis transition ceremonies, religious performances, social labor mobilization and directed coordination, and of course property relationships. Frost's (1914) famous poem describes 'mending-time', when owners of adjacent farms walked the property line, repairing together breaks from the previous year. The marking of territory by the Tsembaga of

[1] The subject of property in slaves is here dealt with peripherally; it deserves a dedicated essay.

highland New Guinea involved laying out community territory by planting rows of scrubs; only those participating in that ceremony could make gardens within the community's lands. Cemeteries transcribed particular rights and obligations in community land, and because chiefs organized and financed major constructions, they asserted overarching rights to mobilize surpluses from communities. In medieval Europe, for example, property was marked by walls, ditches, hedgerows, churches, and castles, all of which established rights of farmers, communities, lords, and the church.

Archaeologically described patterns of built landscapes are endless, although they have rarely been looked upon as property systems. They have been called territorial markers, field systems, houses, cemeteries, or socio-religious monuments. All these descriptions are accurate, but their multiplicity obscures the underlying property relationships that they established.

F. Identity, Gifting, and Trade

Ethnographically people considered themselves inseparable from their social groups, and their association with a group was marked by stylistically distinctive dress, bodily adornments including tattooing, and things of everyday life. A person's body and things were ultimately those of a group, marking specific roles and statuses. A Nuer pastoralist always carried his spear for protection and defense and as a symbol of male status. The association was between a person, a social group, and his or her gear. Foragers often had a personal kit with a bow, from which they were never parted. Many agriculturalists carried an axe or shovel. Objects marking roles and status in more complex political systems were frequently *inalienable objects*, meaning that they could not be transferred without loss of personal status (Weiner, 1992). In chiefdoms and traditional states, inalienable objects, such as the warrior sword, the chief's cape or the king's crown, carefully defined the way in which a person could act. Rules for obtaining and transferring such objects were constrained by institutional property rights that determined to whom they could be transferred and the obligations that they carried.

Gift exchange and trade of objects were well documented ethnographically as a means to transfer ownership. Based on the maker's fundamental ownership, exchange and trade transferred that possession (with variable obligations) to others, often in long chains. The alienability of objects and the social contexts of transfers were fundamental to understanding how property rights changed. For a woman's identity, for example, marriage outside of her group involved a transfer of her labor and rights to children; at marriage, a woman's group was often compensated by a bridewealth payment.

Exchange and trade can be seen as two ends of a spectrum representing the social contexts of transfer (Sahlins, 1972). Gift-like exchanges presumed a nexus of social relations both built and maintained by transfers. Exchanges thus built social relationships by carrying residual obligations in an object's *social biography* (Kopytoff, 1986). In the landmark book *The Gift*, Mauss (1925 [2000]) describes how transfers of objects in traditional societies entailed responsibilities of reciprocity with interpersonal obligations. Gifting carried social obligations, including the expectation of reciprocal return. Giving valuables was a means to build social networks and alliances of interdependence, firmly established in ceremonial gifts at marriage and other life-crisis ceremonies. Prestige goods circulating in the Kula ring of islands off New Guinea, for

example, had specific routes of transfer, and the repeated exchanges materialized the social relationships involved.

Trade, in contrast, presumed the lack of enduring social relations; the motivation for transfers was economic advantage. With increasing specialization in the making of commodities, markets effectively erased the social biography of objects, allowing for their complete alienation for market-valued compensation. By and large, the instituted context of exchange determined the nature of transferable rights and obligations (Polanyi, 1957).

Archaeology may not be well suited to characterizing the social context of transfers, but, relying on ethnographic analogies, the volume and social significance of exchanges of goods can shed some light on this. *Prestige goods exchange* channeled valuables carrying symbolic meaning (Friedman and Rowlands, 1978). In contrast, higher-volume trade of raw materials and utilitarian objects was typical of market-like conditions. Large-scale craft specialization and market integration appear to be the best archaeological evidence of full alienability, because production would appear to have been geared to market exchange, in which relationships were not socially imbedded.

2. DOCUMENTING THE EVOLUTION OF PROPERTY WITH ARCHAEOLOGY

The conception of property as personal ownership with rights of transfer does not include the rich variability within property relationships across human history and societies. Property rights have developed in complicated ways related to subsistence intensification, trade, social stratification, and emergent power relationships. As recognized by Engels (1884 [1972]), social evolution was linked to patterns of ownership and transfer. With the available archaeological record, the formulation of property relationships through prehistory can be sketched out. The important point is that property relations to land, its facilities, and moveable goods have very long and fairly systematic histories.

Understanding property in prehistory begins by comprehending broader demographic, economic, social, and political trends and divergences (Johnson and Earle, 2000; Flannery and Marcus, 2012). Across time, an uneven, but still relentless, increase in population was associated with human colonization of the world and long-term subsistence intensification. The tempo and mode of population growth and subsistence intensification were highly variable, constrained in large measure by feedback between environmental possibilities, technological knowledge, and subsistence strategies. These processes were in some senses universal, but they created great variation across time and societies in how people related to resources and things. Changes were especially linked to multi-scalar sociopolitical institutions (family, local group, and regional and interregional polities). These developments involved increasing levels of integration, social engagement, and extent of social inequality. In some historical situations, the development of market exchange and writing transformed property relationships. The history of property involves a considerable range of social and economic transformations, and we are dealing with processes that defy narrow definitions. What follows is an overview of how property relationships appear to have changed in prehistory. As

archaeological evidence is always fragmentary and inferences are always problematic, every statement should be modified by 'probably' or 'possibly'; limitations of evidence and interpretation must be taken for granted.

I propose four evolutionary phases of property through prehistory. Importantly these changes represent systematic transformations that were gradual, and complicated by overlapping and socially transferable rights. By calling them phases, I do not imply stages, because at the same time property rights could be held in contrasting and contested ways within and between world regions. Some trends can be proposed, however, despite the fact that alternative forms of property always existed simultaneously. I draw my illustrations primarily from European prehistory, because that is the world region that I know best. This sequence is, however, only one specific example of multiple, largely independent and often divergent developments. To provide a full documentation of the timing of regional property developments is well beyond this chapter's scope.

A. Phase 1: The World of Low-density Foragers

Early in human history, as populations spread across the globe, population densities were low and highly mobile. In many situations, people moved opportunistically over large regions. They appear to have followed game and taken advantage of previously unexploited plant and animal resources. In many situations, movement and subsistence were nomadic and opportunistic. Humans spread out of Africa to colonize Australia by 40,000 BP (before the present) and the New World by 15,000 BP. Very low-density foragers came to occupy most of the world from the tropics to arctic extremes, and from the seacoasts to high mountains. Elemental senses of property based on association and making would certainly have existed from the beginning. Because nomadic foraging emphasized flexible family movement and group recombination, however, defense of property would have been largely impractical and undesirable. Barring access to places and things would have hindered the formation of social networks, and such networking encouraged the development of object exchanges, which carried reciprocal obligations.

Human working of stone created tools that were the most ancient artifacts (over 3 million years BP). Some tools were expedient – made simply by removing a flake or two from a stone core, using the flakes for cutting or scraping, and then discarding them. The association of humans with such expedient tools would have been brief and so associated with only a minimal sense of property. Other stone tools, however, came to be carefully crafted as special implements, such as an Acheulean hand axe (over 0.5 million years BP) and eventually an array of tools with special functions. Many were carefully curated and carried with a person for repeated use. Through time, although expedient tools continued to represent much of the tool assemblage, a general (although variable) trend developed for increasingly formal tools, for which personal ownership would have been probable.

Overall, systems of property in land would appear to have remained flexible, largely because the ability to move through the landscape was highly valued by foragers. In particularly favorable locales, small groups established home ranges closely associated with habitual movements. Strong connections would thus have emerged between

groups and specific places, some marked by rock art. Dated to early occupations of Europe, Australia and Indonesia (30–40,000 BP), rock art at particular locations and repeated use of rock shelters and water sources suggest that forager groups developed an association with place consistent with elemental property rights.

The European record for low-density foragers reaches back into deep history associated with pre-modern hominid populations. With the arrival and settlement of anatomically modern humans, the emergence of more complex foraging populations was associated with particular resource bases like fish runs and animal migration routes, and with ceremonial sites. Rock art was famously elaborated after 35,000 BP in France and Spain, presumably associated with repeated ceremonies. As the Pleistocene ended (after 15,000 BP), foragers broadened their diet and increased mobility. Sites were then widely scattered and relatively impermanent, and generally no built landscape features are known. In southern Scandinavia, intensive, complex foragers emerged who were dependent on productive coastal resources, and whose settlements were relatively permanent and associated with small cemeteries and ritual structures. Some precious items, especially rare stone axes, were traded from the outside and a few graves were richer than others. These complex foragers were similar to Early Neolithic societies.

To summarize, some elements of property rights existed among low-density foragers. With relatively high mobility and low population densities, small groups would have developed habitual associations with landscapes, but to maintain flexibility of movement and association, groups would have formed broad social networks with reciprocal access to resources. Although material goods were by and large relatively limited and not curated for long periods, the procuring of food and the making of objects would have created an elemental sense of property. Some objects of social significance were exchanged as a means to create social networks. From the beginning of humanity, land and goods existed in property relationships that expressed personal use and interpersonal reciprocal obligations.

B. Phase 2: Neolithization and Local Corporate Groups

After 10,000 BCE, the growth of population and continuing intensification of subsistence were linked to *Neolithization*, a general process involving increased populations densities, subsistence intensification, more settled life with villages and more permanent housing, and cemeteries. Although highly variable according to timing, this process involved a fundamental change in property rights in land. With increasing competition for better and improved land, kin-based groups (clans, lineages, or houses) formed to defend resources against outsiders. As these social groups developed, rules of membership and land use became increasingly defined by customary law, but ultimately such rights always depended on force to hold on to good and improved lands. Members of such societies were horticulturalists, herders and intensive foragers (especially fishers) and made long-term capital improvements that included cleared fields, animal corrals, or fishing weirs. These were defended by corporate groups and their constituent families. By clearing fields and making other labor investments, individual families most probably retained use rights for the duration of the facilities' use life. At the same

time, the selective importance of leaders probably created an overarching right to some of the group's labor and resources.

Property in land and its associated houses and economic facilities would have been inherited through group membership, and land rights could not have been transferred outside the group. Such kin groups, as for example with the Neolithic megalithic cultures, were typically defined by descent from ancestors buried in the group's cemetery and by participation in key ceremonies associated with ancestral shrines. The regular occurrence of substantial houses, cemetery areas, and burial monuments became standard means to identify Neolithic groups around the world, including in China, the Middle East, Africa, Europe, and the Americas. Established houses and cemetery patterns must have materialized formal relationships of inheritance between social groups and their ancestors that established rights of land use.

In Europe during the Early Neolithic (6000–3000 BCE), horticulture with domesticated animals dominated subsistence, and more permanent houses and pit clusters were common. Fields and pastures were cut out of the forests, as indicated by shifts in the pollen record, with early succession trees and grasses. Length of settlements and relative intensity of farming were variable. In some areas such as southeastern Europe, villages were occupied for centuries, creating residential mounds. Elsewhere multiple family houses (probably used for 10 years or so) were typical, constructed of light posts and wattle and daub. Some could be quite large, requiring many days of group labor to build. Settlements often moved after short occupations, suggesting low-intensity shifting cultivation.

Cemeteries provided a focal point for a group's connection to land. Burial mounds and cemeteries became a regular part of the landscape across Europe. Associated with long-occupied villages were cemeteries with discrete clustering of burials, associated with inheritance through the local groups. In areas without permanent villages, burial monuments included long barrows, megalithic tombs, and dolmens, all requiring substantial labor to build. Many people, presumably from the local corporate group, dragged large stones, formed chambers, and covered them with earth; the social labor would have materialized the group's association with the monument and its association with inherited property rights in surrounding land. Burial monuments were visually striking, defining lasting memories of inheritance and social groups' coordination. I interpret these as representing the local corporate groups (clans), holding property rights as a social unit over surrounding agricultural lands and pasturage.

Although many factors influenced the formation of these kin-based corporate groups, their association worldwide with warfare is evident. As local populations became linked to improved, productive land, corporate principles emerged. Without overarching institutions to enforce property rights, the ability to retain land and its resources rested on the group's defensive might. Conversely, if populations were growing, the ability to obtain new lands required either migration into unused and unimproved areas or seizure of improved lands. Neolithic groups around the world developed patterns of group defense often evident in their fortified settlements. Agricultural fields produced stores of food that also required defense. Fortified villages were often occupied for long periods of time, suggesting that the local group was able to stand its ground. For some intensive foragers throughout the world, quite similar patterns existed in locales, such as rivers with rich and predictable fish runs. These locations held permanent villages

and saw intergroup warfare. Pastoralists, in contrast, depended on quite large regions through which they moved annually to take advantage of changing grass conditions. Tribal groups had distinctive cultural assemblages and ceremonies, and their warriors held special weaponry. Periodic large social gatherings characterized pastoralists and intensive foragers, probably in association with scattered cemetery clusters and ceremonial sites. The general outcome of Neolithization was formalized corporate groups (kin-based social units) with defensive postures.

In Europe, the Neolithic witnessed the development of two patterns of warfare that related to different means of defense. Neolithic settlements were often surrounded by stockades and encircling ditches. Examples include the Early Neolithic settlements of northern Europe (Keeley, 1996). These were horticultural settlements located on good soils. Alternatively, during the Middle Neolithic of northern Europe, personal weapons, especially battleaxes, defined the period; they were often found in individual burials, apparently marking warrior status. This period is associated with low settlement densities and large-scale forest clearing, suggestive of a mobile, pastoral society. Small burial mounds often cluster into cemeteries suggestive of a group's ownership of extensive lands through which herds could move. Linked by inheritance to group burial sites, warriors would have defended these territories.

Part of the process of Neolithization was stylistic elaboration of objects of both everyday and ceremonial use. With a more sedentary lifestyle, the ability to accumulate things increased dramatically. Examples included pottery for storage, cooking, and serving of food and beverages. Objects became critical to group identity and personal status and role. Associated with this would have been an increased concern for property and how it could be transferred. Through the Early Neolithic in Europe, exchange in special goods, such as amber beads for decoration and agricultural tools and battleaxes, increased. Flint axes were made from special mined stone that skilled craftsmen worked, and regional movement of axes and other valuables documents the development of hand-to-hand exchange networks likely associated with obligating social relations. In the Late Neolithic of Scandinavia, flint daggers made by gifted craftsmen were found in all excavated houses and graves. Proliferation of objects and their exchange document a dramatic expansion in the importance of property and rules of alienation.

To summarize, with Neolithization, the formation of settlements and associated cemeteries or burial monuments documents the establishment of local corporate groups, which defended landed property against outsiders. The proliferation of material objects represented an increasing personal identification with local social groups and with status. Furthermore their broad exchange would have significantly elaborated rules of property associated with rules of reciprocity and dependency, which formed the basis for subsequent amplifications of social hierarchies.

C. Phase 3: Origins of Political Economy with Overarching Property Relationships

At different times across the world, political institutions expanded in scale and complexity to incorporate thousands and eventually millions of subjects. In many if not most world regions, the village community continued to hold corporate property rights

over land. At the same time, family and individual property rights in land, facilities, and personal wealth often became increasingly distinct. Overarching community and family ownership, chiefs established rights to surplus extraction to fund their activities. Although chiefs, monarchs, and governing institutions provided services to their subjects (see Wittfogel, 1957; North, 1990; Blanton et al., 1996), an elite sector fashioned power relations and political economies based on new property relationships (Earle and Spriggs, 2015). Three multi-scale institutional structures came to hold distinctive overlapping property rights to lands, facilities, and moveable property.

Much that characterized the local 'Neolithic' community continued with the development of more complex political institutions. Villages were the typical settlements in both New and Old Worlds. Although sometimes quite large and associated with more ceremonial architecture, they were based on local subsistence. The corporate nature of the village was often expressed in large cemeteries, enclosing walls, and central ceremonial places. As chiefdoms and states formed across the archaeological sequence of coastal Peru, for example, settlements grew to considerable size, but the basic structure remained little changed with sprawling housing, multiple ceremonial platforms, and large cemeteries. Both settlements and cemeteries were used for hundreds of years, and their physical presence implies corporate property rights in land and facilities.

Although the village unit was undoubtedly dominant in most world regions, patterns associated with more individualized property rights began to appear, usually associated with intensified agriculture and family-based capital improvements. In many areas, irrigation, drainage, and terracing systems covered the landscape, and their physical divisions were associated with household use. For example, in the local communities of the protohistoric Hawaiian state, households held individual house plots, irrigated pondfields, and dryland allotments. Investing in agricultural improvements (landesque capital), households could hold ownership of farm plots and houses for generations. The clearest examples of newly individualized property rights are found in Bronze Age Europe, but in many other regions the formation of hamlet-size settlements, household rebuilding on earlier foundations, and new burial practices suggest family-level ownership. These have been called *house societies* (Beck, 2007), which held land and goods within stratified contexts. In Iceland, for example, field walls of earth and stone and family cemeteries marked individual farmsteads (Bolender, 2007). In highland Andes, village cemeteries were replaced with household-scale burials in standing structures and caves and below house floors.

Ruling elites came to hold property rights over community lands by financing the building of facilities used by the general population. Apparently the earliest means to construct overarching property rights to surplus labor and staple products was the elaboration of ceremonial cycles involving mortuary or other religious practices. Already as part of Neolithization, the construction of religious monuments created permanent platforms for ceremonies that, as scales increased, involved leaders for their coordination. Even in relatively low-density forager societies, major monuments were built that required regional labor and chiefly coordination. Dating to 9000 BCE in a forager society, the earliest monumental complex known is Göbekli Tepe in southeastern Anatolia (Curry, 2008). This non-residential complex included extensive stone buildings, remarkable low-relief carving, and the transport of perhaps 2,000 stone

pillars (weighing up to 20 tons each). In the New World, foragers built notable earthworks including Poverty Point and the carefully planned Hopewell mound complexes (Russo, 1996). As regional ceremonies and monument construction came to mark the landscape, chiefs could reasonably assert rights over the land and labor to support the ceremonial cycles necessary for community revitalization.

Chiefly property rights also involved roles in warfare, the construction of defensive facilities, and conquest. As population densities increased, substantial labor was involved in digging ditches, mounding earthen ramparts, and building elaborate timber breastworks and other defenses. Large-scale construction would have required leadership for logistical planning, and the fortifications came to mark the community and its leadership. An ethnohistorical/archaeological example was the Wanka of highland Peru, which existed as large chiefdoms before Inca conquest (D'Altroy and Hastorf, 2001). The Wanka settlements consisted of large villages and towns positioned on hilltops above agricultural fields. Wanka leaders were war chiefs, with demonstrated effectiveness in battle; they coordinated the construction of the monumental stonewalls that surrounded the settlement redoubts. When a chiefdom defeated another, the property rights of the defeated were severed and the war chiefs assumed ownership of the best lands and of the vanquished as concubines or slaves. Complex chiefdoms and states, such as the Hawaiian chiefdom/states and the Inca empire, increasingly engaged in wars of conquest, creating new ownership rights over all conquered lands, which were given back to subjugated communities in return for obligatory payments in labor and produce. Slaves were frequently an object of both raiding and conquest warfare by chiefdoms and states.

Chiefly property rights involved constructing major capital improvements for food production. As discussed earlier, most subsistence intensification appears to have been generated by local farmer initiatives to improve lands incrementally, but, as chiefs mobilized labor to build major new facilities, as the 'builders' they could assert direct ownership over such facilities and require rent payments in compensation for access. Around the world, complex political systems were associated with building large-scale irrigation systems and similar facilities (Wittfogel, 1957). With the development of writing, inscriptions often record that a monarch financed the building of a major ditch or aqueduct. Examples of chiefly property rights associated with agricultural complexes include the Polynesian chiefdoms of Hawai'i and the Hohokam chiefdoms of the American Southwest (Earle and Doyle, 2008).

In Europe, the development of three levels of land ownership (community, household, and ruling sector) started in the Neolithic and was elaborated in the Bronze and Iron Ages. At the community level, villages retained many characteristics associated with Neolithic corporate communities. In southeastern Europe, for example, settlements and associated cemeteries were used and inherited for hundreds of years, suggesting ownership over surrounding lands. Evidence for family ownership includes house arrangements within the settlements. When long-term occupations created stratigraphic habitation layers, houses were often rebuilt directly on top of earlier ones, suggesting generations of re-use for house plots. House lots were inherited, and families thus maintained an established position within the community. In village cemeteries, burials formed family-sized clusters that imply an established pattern of intra-group inheritance rules.

Already by the Late Neolithic in Scandinavia, families invested substantial landesque capital in farming. As individual families cleared the forest, burned the slash, and carefully worked the soil, added mulch, cleared stones, plowed the soil and so on, the capital investment associated with shortened fallow would have increased the permanent association of families with particular farm lands. The Bronze Age (after 2000 BCE) documents the building of large (averaging 8m by 18m) post-and-beam constructions with massive timbers sunk into the ground that lasted perhaps a generation. These houses show a differentiation in sizes that reflects an emergent social hierarchy; large chiefly halls were 30–50m in length (Artursson, 2007; Bech, 2012). Scattered around the landscape, farmsteads represented long occupational sequences, for which the farmhouses were rebuilt generation after generation in one location.

At this time, Nordic society also built a distinctive landscape of burial barrows that materialized lines of family inheritance. For an initial burial, each mound was built of turf and often surrounded by a rock curbing. Initial burials were single, or sometimes a couple, fully dressed in gear. Subsequent burials were added to the barrows, which were constructed in lines or clusters prominently on ridges. A few well-spaced barrows were much larger than others, mirroring the pattern of house size hierarchies. Associated with barrow clusters were special structures, where ceremonies could have retained close ties between the living and their ancestors. Burials focally marked property held by individual chiefs, warriors, and independent farmers and indicated that these farms were inherited generation after generation, as suggested by the repeated rebuilding of farm buildings. Barrows appear to mark pasturelands critical for raising animals to be traded as exports for metal (Earle, 2002). Based on the hierarchy of house and burial sizes, individual farmsteads were imbedded within a chieftaincy network that would have defended rights to land.

Linear markings of field areas were also constructed in some areas during the Bronze Age, usually somewhat later than the barrows. In England, for example, stonewalls delineated extensive agro-pastoral complexes. These were *co-axial field systems*, meaning that their geometric layout did not correspond to topography but rather represented a formal division of the landscape as would be associated with property relations (Fleming, 1982). In Denmark during the later Bronze Age, repeated plowing patterns defined field borders of farmsteads.

In addition to the community and individual property rights in many areas of Europe, chiefly superstructures emerged that were able to assert overarching rights to surplus from the lands. These overarching property rights are implied by the patterns of large-scale construction of religious monuments and defenses. Already during the Early Neolithic, construction began on ceremonial centers that are best documented in the British Isles, coastal France, and Scandinavia. These monumental places were used and rebuilt for hundreds of years in conjunction with community burial monuments (Earle, 2002). Most famous were the British causeway enclosures, which included complicated arrangements of ditches, banks, and entrances. Human remains found at these central gathering sites suggest mortuary ritual, perhaps bringing in human remains from the burial monuments of local groups. Later, construction included a plethora of rings and alignments of large stone uprights, of which Stonehenge is the most dramatic example. Major earthworks included the cursus monuments (long banked enclosures), a singular dramatic mound (Silbury Hill), and large post-built constructions and ceremonial

pathways. Renfrew (2001) has called such monuments 'locations of high devotional expression', places that served as stages for regional religious ceremonies carrying strong emotional effect and memories.

Constructions additionally created a permanent built landscape that institutionalized regional relationships of obligated labor and surplus. I interpret constructions of central monumental places as means used by emergent elites to attract regional populations from many local groups (Artursson et al., 2015). The labor crews required for digging, hauling, and building up would have been greater than available to any local group, typically with only a few hundred members of all ages. Creating the built landscape associated with ceremonies of the living and dead would thus have fashioned a hierarchy of obligations tied to the land and materialized by the monuments. In simple terms, it fashioned an imbedded system of property rights, in which emergent chiefs held residual rights to surplus production from surrounding communities.

During the Copper and Bronze Ages in much of Europe, property relationships were materialized in the built environment. Archaeologists have interpreted the construction of large, enclosed settlements in Iberia (García and Murillo-Barroso, 2013), the stone towers (Nuraghe) in Sardinia (Depalmas and Melis, 2010), and fortified tells in Hungary (Earle and Kolb, 2010) as focal markers of regional political organizations. During the Iron Age, the pattern of property in land and its resources then shifted quite generally to corporate communities with strong war chiefs defending surrounding agricultural land. The frequency of settlements increased as growing populations intensified subsistence production. In Britain and elsewhere, the dominant settlement feature became the hill fort, standing on a topographic rise surrounded by one or more earthen embankments and ditches. Within the hill forts were extensive storage facilities, requiring defense. A well-studied example of hill forts is the fortified Castro society of northwestern Spain, where locally strong polities defend their lands against conquest and incorporation by chieftains or states (Sastre, 2008). In Denmark, although fortifications were rare, the dispersed farms of the Bronze Age collapsed quickly into dense villages, which served the same function. Forts and compact villages were not fundamentally about fear. They asserted corporate property rights over productive land and guaranteed those rights by force. To the degree that leaders were involved in the construction and defense of communities, they could establish rights to surplus. Conquest warfare was ultimately critical for breaking community ownership and asserting state-based tributary systems. Like the Andean Wanka, only the formation of the Roman Empire was powerful enough to break the power of the Castro communities and sever their established land rights.

Parallel to the evolution of property rights in land throughout the world, ownership of goods came to include status and wealth objects and weaponry. Control over their production, distribution, and possession carried elements of personal identity and power that helped distance a ruling segment from its subjects. Property included highly elaborate gear, such as personal adornments (special belts, tunics, fastenings, plumed head gear, and the like), special weapons (swords and daggers, battleaxes, spears), and many symbolic objects linked to ceremonial occasions. Chiefs could accumulate such wealth by controlling bottlenecks in commodity chains, such as in their long-distance transport or their production by gifted specialists (Earle, 2013). Many examples of such objects and their restricted possession exist from prehistory. Their proliferation and

elaboration were associated with the emergence of social complexity, but interestingly not in all circumstances. Blanton and his colleagues (1996) distinguish between corporate strategies of power (linked to property in land) and network strategies employing control over goods. They see these alternative strategies as being group oriented, with overlapping ownership rights in land versus more exclusionary rights for the possession of valuables. Archaeologically monumental constructions identify corporate strategies, and stratified wealth distributions identify network strategies. Wealth concentrated in some households, but most dramatically in burials; the sumptuous burials of rulers, such as Moche lords or Egyptian pharaohs, are renowned.

In European prehistory starting in the Neolithic and through prehistory, individuals and families became associated with special things, weapons, and objects of adornment, especially of metals, as a means to mark personal and family statuses. Males were distinguished from females, and rich burials were distinguished from poorer ones. Trade in wealth objects became quite broad. All metals in Scandinavia were imported from central and southern Europe, and made by highly trained craftsmen into the distinctive Nordic style. The long commodity chains for metal weapons and wealth thus created many opportunities for control including raiding/trading, restrictions at points of transport or trans-shipment, and production by attached specialists. By asserting ownership over the objects, chiefs controlled their distribution, at the same time retaining residual rights. Special objects were closely linked to individuals, with whom they were often buried. Such items were inalienable, transferred only through proscribed channels of social and political networks. For example, manufactured by a specialist, swords would have been given by a chief to his warriors. Political gifts, inheritance and seizure were the likely means of transfer. The trade in metal and other high-valued items (amber, jet, Spondylus shell and textiles) was apparently handled in a special sphere that was not linked to markets (Friedman and Rowlands, 1978; Earle et al., 2011).

In the Iron Age, property in objects is less well documented, but it came to emphasize personal contact with the expanding Greek and Roman Empires (see Hedeager, 1992). At this time, property served as a means to define prestige and may well have been held as inalienable objects closely associated with their owner (Hedeager, 2011). Stimulated by Roman economic expansion, however, market-like conditions and coinage suggest increased trade in commodities, representing the alienation of consumer goods.

To summarize the changing role of property rights with the emergence of regional political institutions, two processes were involved. First was the creation of overlapping property rights in land involving local corporate groups. With intensification and individual improvements, families established ownership over houses and land, but these were apparently not transferable outside of the group. Overarching these two layers of property rights came the leaders' rights to labor and produce from corporate communities. Chiefly ownership could be established by monumental landscapes linked to key religious ceremonies (apparently the earliest mechanism), by regional defense and conquest, and by the construction of major capital improvements. Second was the control over manufacture and distribution of personal wealth that carried high value and marked status. Items appear to have become linked to particular sociopolitical patterns of distribution that created and maintained networks of power. As the

volumes of goods increased, such items must eventually have taken on characteristics of commodities.

D. Coda: Market Growth and the Privatizing of Property

The fourth phase of property development involved the emergence of integrating market economies that privatized property enforced by legal systems. Because these developments were linked in the Old World to the historic period, I do not deal with them at length. The gradual expansion of high-volume, long-distance trade in commodities such as metal, textiles, and other wealth created market-like conditions. As discussed by Polanyi (1944), integrating markets were transformational. They created several linked changes – a clearer definition of alienable private property, the ability to accumulate and transfer wealth as capital, the creation of industrial-scale production, gradual increase in the range of commodities and goods exchange through markets, and the use of media of exchange as means of transfer and stores of value. Quite early in Mesopotamia, for example, written sources contain contracts and sales. The general process of market involvement even created private ownership and market transfer of property in land and improvements (Hudson and Levine, 1996). The independent development of integrating markets also took place in Mesoamerica, but some states in the Andes and Polynesia never developed market systems and associated privatization. Market systems proved, however, to be fundamentally growth oriented, leading to increasingly broad integration of regions into world systems (Wallerstein, 1974), which helped spread principles of privatized ownership enforced by law.

With developing private property, the actual scope and extent of market involvement in different commodities varied greatly. Items not involved in market trade continued to hold traditional characteristics of property, creating a complicated patchwork of property relations within a single sociopolitical system. Except for prostitution, women rarely were considered as transferable property, although their rights were strongly limited by marriage rules. Those captured in war were slaves and they became a commodity in markets, and their obligated labor was critical to commercial plantations. The comprehensive alienability of land appears to have been one of the last property relationships to be transformed by markets. Market-based transformation of property began in prehistory, but economic historians tell its story.

3. CONCLUSIONS

Prehistory reveals a long-term trend towards increased human densities, decreased mobility, more intensive use of the environment, and longer associations of groups and individuals with tools, housing, subsistence plots, and ritual locations. Some societies were highly mobile, carrying little with them and moving broadly across overlapping home ranges. As population densities increased and environmental use intensified, more explicit concepts of property emerged with overlapping rights in land, buildings, and goods. Property in land and in residential, religious, and economic constructions can be understood through labor and through the increasingly permanent association of individuals and groups with places.

All societies appear to have been involved, more or less, in commodity transfers (exchange and trade) and thus required concepts of property. Looking at types of goods and their volumes gives a good sense of the mechanisms and the probable nature of these transfers. Starting at least by the Late Paleolithic (after 40,000 BP), low-density populations exchanged special objects in low volumes. These exchanges were evidently part of networking among social groups. Through time, the extent of such exchange increased and came to engage social distinctions linked to the inalienability of objects. Prestige goods exchange was commonly associated with chiefly hierarchies across Europe in the Bronze Age. At some point, the volume of exchange goods reached a tipping point that created market-like conditions. Eventually, a fully integrated market system involved privatization and freely traded commodities.

Based heavily on ethnographic documentation, six property principles appear to have governed the development of property rights through prehistory:

Principle 1. As measured by the time of use, the association of people with their objects, houses, and places formed elemental property relationships.
Principle 2. Fashioning resources into food, facilities, and objects with human labor created property relationships based on the organization of that labor.
Principle 3. Relating the living to their ancestors, mortuary practices formalized the inheritance of property in land and other things.
Principle 4. Warfare was the flip side of property. As people became increasing tied to places and accumulated wealth, intergroup warfare, conquest, and raiding became the means to seize (alienate) ownership forcefully.
Principle 5. Prior to writing, enduring property rights were inscribed on the land by built markers – land divisions associated with individuals and groups. Because building was a social action often organized by chiefs, it created overlapping rights to the land's produce.
Principle 6. Objects marking statuses were transferred through specific social relations including obligating gifts, political dependencies, alliances, and inheritance. As such, ownership of such objects was highly politicized. Market trade erased those social biographies and formalized rules of alienation.

Property through human history involved three changing relationships of people to land, objects, and other people – barring (vs. sharing) rights; embedding rights; and transferring (alienating) rights. *Barring rights* of use reflected the social and economic costs vs. benefits of exclusion as discussed by Demsetz (1967). For low-density foragers, although some association of bands with localities certainly existed, spatial mobility to offset risks and to exploit exceptional opportunities emphasized the importance of broad social networks allowing relatively unconstrained movement. At low densities (often <1 person/100 km^2), the definition and defense of territory was largely impractical. Tools and dress, housing, and other improvements would have been associated with their makers, but consumer goods were rather rare and short-lived, because of constant transport. Some formal tools and adornments were certainly curated as property, but special things were often gifted to build social networks. As population grew and resource use intensified, populations became less mobile. As the productive advantages of some locales increased, especially with capital improvements

in comparison to others, the advantages to barring use by others increased. Local corporate groups defended territories. Across human history, intensification of resource use and improvements (major agricultural facilities, defenses, permanent houses) were associated with increasingly formalized ownership rules. Concomitant with an increased sedentary life, intensified subsistence, and emergent social stratification, cultural objects proliferated and became embedded as property in social relationships.

Embedding rights involved the progressive development of multi-scalar institutions associated with ownership held at different levels in the society. Breaking the rather informal nature of property among low-density foragers, agriculturalists and higher-density foragers established local corporate groups to defend resources and associated capital improvements. Two layers of property rights existed: local groups with residual rights to land and cultural capital, and more individual rights based on improvements and use. The building of major capital improvements (sacred monuments and defensive and productive facilities) required coordination by leaders, who could then assert overarching ownership rights (often in the name of the community) that allowed for surplus mobilization. Prehistory would thus have been characterized by a sequence of property rights: formation of the corporate group, increasing individualization of household use rights, and the establishment of overarching chiefly rights. With the formation of states, the concomitant developments of writing, formal legal system, and monetized market systems worked together to create the modern conception of private property.

Transferring (alienating) rights was a facet of property relationships through prehistory, although its manner changed greatly. These rights involved elements of use, gift, seizure, and sale. For property in land, a local group held by cooperative defense the inalienable rights inherited through group membership. As resource use intensified, households that improved land and houses retained some rights of personal property, but without rights to transfer except through inheritance. Land rights were, however, regularly alienated by conquest, whereby a group and its warrior chief asserted direct control by seizure. Property rights in objects were more easily transferred through gift exchanges that functioned to build ties that obligated reciprocity. The objects could thus be considered as having multiple rights and obligations inherent in their possession. Objects of great significance that marked power relationships became inalienable, being passed largely by inheritance. Other transfers of such objects resulted from seizure or political failure. The creation of a monetized market economy ultimately created commodities that could be transferred by sale that did not carry social obligation. Although originally involving ownership of prestige and productive goods, the accumulation of wealth in markets led to the ability to purchase land as well.

What I present here outlines a model for how property systems have developed across human history. Much of this model remains hypothetical, but the rapid expansion in archaeological knowledge and techniques suggests that our understanding of how property evolved will become much better understood as archaeological research continues.

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