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CHAPTER ONE

Surplus: The Politics of Production and the Strategies of Everyday Life

An Introduction

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Archaeologists identify surplus as a central pivot in the big issues of historical change: the development of state society, the emergence of inequality and social stratification, the creation and intensification of agriculture, specialization and technological evolution, the division of labor (including between men and women), the formation of exchange networks and markets, the beginning of sedentism and eventually urban life. Observed through the lenses of such macro-theoretical issues, surplus occupies an interpretive position not unlike other variables considered to be basic "triggers" to societal transformation, such as demographic growth and climatological change. Like these variables, the role of surplus in reconstructions of change is often vague, assumed, and monolithic or is difficult to pinpoint in relation to emergent conditions in a sociopolitical landscape (Dalton 1960). "The production of surplus . . . permitted the . . ." is a common phrase repeated throughout archaeological literature to explain why changes occurred but also why societies in the past seemingly became more like our own.

Surplus's legacy in archaeology is associated closely with social evolutionary models of change. Such models tend to emanate from top-down approaches to political economy, conceived either managerially or coercively (see Brumfiel and Earle 1987), and view surplus production as part of macro-level processes. However, the explicit study of surplus as a major intellectual theme has become less common today than during the heyday of the New Archaeology from the 1960s through the 1980s. With the rise of theoretical perspectives influenced by "post-processual"

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critique, many archaeologists have progressively either rejected the targeted study of surplus or simply abandoned it in favor of the social and cultural dimensions of consumption. The analyses of important social archaeological topics, such as identity, being, temporality, and materiality (e.g., Meskell and Preucel 2007), we argue, are essentially matters of consumption. They represent an intellectual shift toward subjectivity, particularly through its experiential and phenomenological dimensions. Some scholars have argued, however, that when taken to an extreme, such approaches lead to a "bleaching" (Carrier 1997) of production in favor of consumption, either producing an idealized romantization of the past or impeding archaeological understanding of history's material reality (see Brumfiel 1992; Harvey 1989; Jameson 1991; Trigger 1998). These studies also can be overly particularistic, rejecting the existence of common processes operating in otherwise very different sociocultural contexts and inhibiting efforts to promote a comparative anthropology and archaeology.

However, as the studies in this volume attest and the critical genealogy of surplus reveals, the social dynamics of consumption are inextricably tied to production. The politics that produce subjects and surplus are always entangled with consumption (see Ekstrom and Brembeck 2004; Miller 1987), in ways that differ depending on the social, temporal, and geographic scale at which we focus our analytical gaze. A dialectical tie—simultaneously biological, physical, material, and cultural—between consumption and production is a major relationship that shapes not only practice but also historical change, a dynamic that few fields but archaeology can truly capture. Archaeologically, indeed, our narratives of surplus often emanate not from an abstract conception of productive capacity but from the material results of this dialectic—the archaeological record. Even in social anthropology, this duality cannot be easily resolved despite the ethnographer's ability to engage with living and speaking subjects. As Ingold (2011:5) aptly asserts, "To ask which comes first, production or consumption, is to pose a chicken and egg question."

Social evolutionary approaches to surplus, however, can reduce the utility of the concept among archaeologists examining other aspects of society and change. The deployment of surplus exclusively in terms of topics like state formation and a division of labor may offer analytical tools that are either unproductive or poorly suited to many case studies. An understanding of, for example, the local and global dimensions of the African diaspora is poorly assisted by a concept wedded exclusively in social evolutionary terms. Further, archaeologists studying small-scale societies and foragers may find the concept of surplus of limited use; either these groups are denied the ability to engage in social surplus production, or surplus is seen only as a stepping stone that will cause them to settle down and abandon their ways of life. Even for archaeologists working in sociopolitical cases seemingly closely wedded to

the surplus concept, ancient complex societies, its dominant usage limits the ability to reconstruct local people and the strategies of everyday life. Yet we argue that the notion of surplus, when disarticulated from an exclusive connection to social evolutionary models, offers a useful concept and framework to operationalize the roles of production, distribution, and consumption in multiple comparative situations. Surplus offers an analytical thread to connect areas of archaeological research often kept separate, and this volume attempts to foster this conversation.

We begin this conversation by first exploring the intellectual genealogy of surplus as an analytical construct and a historical phenomenon. Situating surplus within the emergence of materialism in philosophy, history, and economic theory constitutes our point of departure. This trajectory suggests a tension between idealist and materialist constructions of long-term change. Moreover, it demonstrates very different conceptions of social progress and of the role of economic behavior, societal integration, and inequality along the contours of history. The surplus concept in anthropology and archaeology, however, receives its greatest attention in social evolutionary models of societal integration. Social evolutionism is not a monolithic intellectual perspective, and we examine the influence of classical economic and Marxian theory in shaping its framing of surplus. While some social evolutionary models highlight the ecological and rational characteristics of classical economics, more Marxian-inspired approaches focus on the political dimensions of inequality to examine the co-option and mobilization of surplus. Yet the pages of anthropological history exhibit a self-conscious critique of the surplus concept by a school of scholars wary of how the idea has been used and abused. These scholars stress that we consider the socially relative nature of surplus as bound to cultural and institutional contexts. Throughout this introduction, we recognize the significance and importance of all these works in understanding the role of surplus in society. We also let authors speak for themselves as much as possible, which we hope will strengthen this volume as a resource for scholars interested in this genealogy. However, the literature on this topic is rich in several related fields, and it is impossible to include and summarize every scholar who has addressed it.

The critique of surplus opened the door to a multifaceted consideration of production, distribution, consumption, and transformation in archaeology, and the contributions to this volume highlight this trend. Drawing on research in West Africa, Mesoamerica, the Andes, the US Southeast, northern Europe, and Asia, this volume's chapters resist the tendency to offer single, uni-faceted definitions of surplus. Instead, they consider the way surplus was connected to different practical domains, institutions, forms of social organization, and experience. Contributors ask "Why produce a surplus? Who produces a surplus? What constitutes surplus?" from various angles and from the potential perspectives of different social actors, scales, places,

and things. In the process, they offer rich insight into ways to recognize and measure surplus; the organizational dimensions and social practices that shaped surplus production, mobilization, and use; and the ways surplus contributed to the transformation of society and the meanings and values associated with people and things.

MATERIALISM AND HISTORY: A BRIEF GENEALOGY

The identification of the role of surplus in social evolution was an important achievement in models of historical change. It reflects a historical turn toward a materialism that enabled philosophers and social scientists to observe and measure both variation and transformation. Prior to the emergence of materialism as a philosophical approach, the transformational dialectic of Hegel's idealism (e.g., Findlay 1977; Hegel 1977) offered a powerful analytical framework to conceptualize history. For Hegel, historical change involved the transformation of "spirit" (*geist*) from one mode to another. Hegel's work was significant in that he recognized long-term changes and variations throughout history in the mentality and ethos of a people. At different stages in humanity, people differed in their degree of spiritual alienation, which prevented the true realization of self. However, this was not simply a negative condition but was crucial to transformation: "an essential moment of estrangement necessary for historical development" (Miller 1987:27). Hegel saw change as a teleological progression toward enlightenment generated by the unity of mind and soul, not only providing those few enlightened thinkers with harmony but also enabling them to see the contours of history itself—something he saw himself as having achieved. Through a dialectical process, a new spirit or mentality emerged from the seeds of a previous one, eventually leading to a realization of the Absolute but also demanding a perspective that was fundamentally and necessarily historical.

Before Hegel's revolution, grand narratives of human variation were dominated by a form of spatial determinism that saw difference in terms of the climatological and geographic characteristics of place (Dove and Carpenter 2008). In this regard, Hegel's history was a direct condemnation of this view toward human variation. He not only neglected to integrate material processes into his idealist scheme of history he rejected them with a bias toward the perceived glory of his intellectual forbears in the classical world. As he wrote, "Where the Greeks once lived, the Turks now live, and there's an end on it" (quoted in Geertz 1963:2). To go beyond Hegelian idealism posed a philosophical challenge: the struggle to reincorporate the physical elements of the material world into history without reverting to the spatial absolutism that saw Western and non-Western people as unchanging extensions of their natural environment, such as the temperate

climes that fostered civilization and the harsh, hot, or cold conditions that could only support savagery.

Enlightenment era thinkers, particularly through the works of Locke, Smith, Malthus, and Ricardo, offered powerful conceptual apparatuses to examine the material conditions of history. They sought foremost to model economic relations of society and, more importantly, how these relations fostered social cohesion and a body politic (Carrier 1997; Dumont 1986; Gudeman 1986). Drawing on their training in the classics and also on their detailed readings of reports written by explorers, conquerors, clergy, and commercial merchants, as well as their own travels and accountings of investments, they systematically imposed a Western economic logic across space and time (and were, in fact, instrumental in institutionalizing this logic in the pages of Western economic history). The rational, calculating individual was the guiding force of history, leading to more effective social institutions. These thinkers sought to resolve the paradox between the individual and the commonwealth. In the case of Locke, a social contract protected individual interests, particularly private property (Dumont 1986). For Smith, however, just and successful social institutions (i.e., the market) could only develop as an unintended consequence of free, rational individuals (Carrier 1997). His famous "invisible hand" thus emerged as a glue that was not imposed by government but instead grew from below: "I have never known much good done by those who affected to trade for the public good" (Smith 1991:351). For these writers, surplus should be employed as capital investments to improve one's holdings, generate greater value, and, in the process, improve society.

Historically, the starting point for the accumulation of surplus is labor, and societies differ in skill, composition, and available resources. Land, labor, and capital, the trinity of the factors of production, emerge through Enlightenment era writings as analytical tools to classify societies across space and time and to assess their success and predict their failures. Indeed, Smith saw historical evolution as an increase in the efficiency of the division of labor, which enabled individuals to generate greater surplus to enhance their own interest and promote society: "And thus the certainty of being able to exchange all that surplus part of the produce of his own labour, *which is over and above his own consumption*, for such parts of the produce of other men's labour as he may have occasion for, encourages every man to apply himself to a particular occupation, and to cultivate and bring to perfection whatever talent of genius he may possess for that particular species of business" (ibid.:21, emphasis added). Not only does Smith offer a definition of surplus that continues to be employed today (discussed later), this surplus and the drive to produce it fostered social union and the improvement of humankind, particularly through the growth of better-developed market systems that could facilitate its trade.

Classical economists and their neoclassical heirs pursue a fundamentally "presentist" view of economics (Stocking 1982). Private property, efficiency, rationalization, and the free, calculating individual are assumed to be either operating or, in the case of less-developed and evolved nations, somehow deterred by the tyranny of social institutions and government (Carrier 1997). Ironically, therefore, their historical narratives are fundamentally ahistorical projections of their own lives and interests across all peoples and places: an economic logic born of emerging industrial capitalism (see Dalton 1960; Gudeman 1986; Pearson 1957; Polanyi 1957; Weber 2001). Thus, while these economists model the character of world economies, they pose essentially idealist conceptions. Marx, for instance, viewed writers like Ricardo and Smith as deceived by their own historically contingent categories. For Marx, the same division of labor writers such as Smith and Ricardo championed was the product of class relations and a phenomenon that could only emerge as a historical process. Both groups of scholars saw such divisions as basic to political economy. But what these writers took as a given or a natural progression, Marx took it upon himself to understand and explain in historical terms.

As an early follower of Hegel, Marx's history is dialectical (Friedman 1974:448). However, he sought to incorporate the material processes of making a living as the basic building blocks of historical change (Giddens 1971). He criticized older followers of Hegel as promoting what were, in his mind, no more than ideological categories—"illusions of consciousness"—and he rejected the intellectual revolt of contemporary Hegelians as simply contesting these categories rather than the underlying material processes: "in no way combating the real existing world when they are combating solely the *phrases* of this world" (Marx and Engels 1998:36, emphasis added). As a political activist and a journalist, Marx was concerned about growing inequities in the social fabric with industrialization, which created divisions between town and country and between workers and those to whom they became progressively enchained: the bourgeoisie.

Rather than assume that mid-nineteenth-century socioeconomic divisions could be projected across time and space, Marx's dialectic forced him to consider such relations as emergent from previous conditions. Thus, to truly offer an explanatory historical vision of capitalism, he had to reconstruct previous articulations between how people made a living, the means of production, and the configuration of ownership, the relations of production, which he referred to together as a mode of production (Giddens 1971; Gudeman 1986; Hobsbawm 1964; Marx and Engels 1998; Miller 1987:36–37; Palerm 1980; Patterson 2003; Roseberry 1988; Wolf 1982). With the processes of making a living through praxis and the relations and ideologies that enable its mobilization, a mode of production is simultaneously material, mental, and social (Godelier 1986): "This mode of production must not be considered

simply as being the production of the physical existence of the individuals. Rather it is a definite form of activity of these individuals, a definite form of expressing their life, a definite *mode of life* on their part" (Marx and Engels 1998:37, original emphasis). This integrative feature contrasts with other early writers, not only Smith and Ricardo but also the materialism of Feuerbach and the vulgar materialism of the mid-twentieth century (see Friedman 1974).

Marx's modes of production, such as primitive communism, tribal, Asiatic, feudal, and capitalist, are marked by differing degrees of alienation, another concept he inherited from Hegel. But rather than the segmentation between mind and spirit, modes of production differ across history between producers and owners (Hobsbawm 1964; Marx 1998). Like Hegel, however, the first alienation was between self and the physical world, but Marx argued that this split occurred through a "sensuous" process that was both mental and material: "Division of labour only becomes truly such from the moment when division of material and mental labour appears . . . from now on consciousness is in a position to emancipate itself from the world and to proceed to the formation of 'pure' theory, theology, philosophy, ethics, etc" (Marx and Engels 1998:50).

After this original split between mind and matter, the degree of alienation is viewed as the extent to which something akin to property exists. In the most "primitive" societies, there was no property; hence, alienation was either nonexistent or minimal. Labor, in these fictional people, existed as a "necessary" process to reproduce one's livelihood. People reaped the benefits of their own labor. However, with Asiatic and feudal models of production, which Wolf (1982) lumps together as a "tributary mode of production," producers must produce enough to feed themselves, to reproduce their livelihood, and to pay rent, tax, tribute, or tithes. These societies experience greater economic alienation than those societies Wolf labels as following a "kin-based mode of production," but they nonetheless retain some control over the product of their labor (see Brown and Kelly; Miller, this volume). They produce enough to feed themselves and replace the means of production, but they also must either offer direct products to kings and nobles (or gods [Godelier 1999]) or exchange a portion of their total product in markets to pay rent in cash. Thus, the germ of surplus, which Marx views as surplus labor, begins with a division of labor. But Marx's division of labor is not tailored to models of greater productive efficiency, as it is with Smith. Rather, alienation as connected to a division of labor is a social, economic, ideological, and political relation—a class relation (Dalton 1960; McGuire 1992; Saitta and Keene 1990). As he wrote, "What distinguishes the various economic formations of society . . . is the form in which this surplus labour is in each case extorted from the immediate producer, the worker" (Marx 1977:325)

For Marx, only in capitalist society has alienation reached a degree not before witnessed in the history of humankind (Harvey 2010). In capitalism, producers do not control the products of their labor; in fact, they are left only with their labor, which they must exchange on the market to survive. Productive efficiency in capitalism, in terms of the length of the working day, mechanization, wages, level of unemployment, and the price of bread, therefore emerges to further alienate producers from product: workers in a steel factory, for instance, never produce a complete product but only bits and pieces, preventing them from realizing the fruits of their labor in both mental and material ways. This also enables capitalists to profit from surplus labor, generate greater value, and thus exploit workers who are chained and, today, indebted to the system (Graeber 2011).

SURPLUS AND SOCIAL EVOLUTION

Theories of social evolution enabled archaeologists to be historical and comparative and to link their research to a growing science of anthropology, particularly in the post–World War II United States (Johnson and Earle 2000; Trigger 1998). Twentieth-century evolutionism is also heir to writers like Spencer (1972), who employed an organic analogy to trace social evolution as a process of increasing complexity; Durkheim (1951, 1984), who wrote about the breakdown of mechanical solidarity and growing socio-psychological anomie; Morgan (1985), whose scheme of technological shifts greatly affected Marx and Engels (see Engels 1972); and Darwin (1936), whose work enabled scholars to consider the role of adaptation in societal change. Nonetheless, in archaeology, the influences of classical economic and Marxist theory are pronounced in social evolutionary models on surplus, particularly in terms of the mechanics of change and the importance of accumulation in fostering transformation.

The mechanics of change in most social evolutionary models are teleological, a feature scholars inherited either from Hegel and Marx or from the unexamined assumption that all societies are becoming more like Euro-American ones. The latter teleology is culturally ethnocentric, whereas the former one is analytically unavoidable. For the latter, all societies are positioned along various levels of achievement or complexity, echoing the legacy of the Great Chain of Being but suggesting that its divinely ordained permanence is open to historical change: groups of people located lower on the ladder can eventually make great leaps up its rungs. The classical economic view—seen most clearly in the ideas of Smith, Malthus, and Ricardo on public goods, poverty, and population—suggests that "failing" societies can be improved through greater productive efficiency and by encouraging their integration into market systems to more adequately facilitate the trade of surplus

(Carrier 1997; Wrigley 2010). In this regard, many social evolutionary models are mirror images of prevailing trends in global developmental policy. Such an ethnocentric view suggests an economic logic operating throughout time and space that asserts the universality of the rationally calculating *Homo economicus*. Dialectical approaches, however, are analytically teleological. The conceptual structure of dialectical thinking suggests that transformation is emergent and born out of preexisting conditions. Because there is no turning back, history can only move in one direction—toward either Absolute Spirit, in Hegel's case, or communism, in Marx's.

Surplus production is modeled as a key adaptive strategy in directional, evolutionary models of change, from small-scale to more complex social formations. Creating and storing surpluses are buffering strategies to avoid risk (Flannery 1968; Halstead 1989; Kuijt 2009; Morgan 2012; O'Shea 1989; Rowley-Conwy and Zvelebil 1989). For instance, Ingold's concept of "practical storage" and Halstead's (1989) "normal surplus" frame surplus behavior as a cultural adaptation to manage resource scheduling—"a response to the non-concurrence of production and consumption schedules" (Ingold 1983:558). Risk aversion as a behavioral strategy exposes the susceptibility of humans to environmental fluctuations given particular technological and demographic characteristics. Adaptation to risk comes to dominate surplus in evolutionary accounts, even regarding social relations. Social processes are, in the last analysis, tied to acquiring items "which can be exchanged for food in times of need" (Rowley-Conwy and Zvelebil 1989:50). "In effect, this cultural mechanism allows food to be committed to 'social storage' . . . and later recouped on a time scale longer than that ensured by direct storage" (Halstead 1989:75; see also Ingold 1983; Halstead and O'Shea 1982; O'Shea 1981, 1989). Once saving emerges as a behavioral strategy to avoid risk, the stage is set for a series of dramatic changes in the structure of society, polity, and culture: "The surplus thus gathered will help tide the community over bad seasons; it will form a reserve against droughts and crop failures. It will serve to support a growing population. Ultimately it may constitute a basis for rudimentary trade, and so pave the way to a second revolution" (Childe 1951:71).

Surplus is transformational in evolutionary models. This transformational significance goes beyond a shift from small scale to larger scale, from nomadic to a sedentary way of life, from a mixed economy to full-fledged agricultural specialization. It is pervasive. Surplus enables social evolution as a historical process to occur. Evolutionary models frame society as an organism that becomes more specialized and hungry as it ages. As it grows, so do the capacity and the need for surplus production. Childe's views on surplus reflect both the teleology and the functionalism of social evolutionary models: "As the reproductive works of a community became more ambitious, so the need for an accumulated stock of surplus foodstuffs would

increase. Such an accumulation was a pre-condition of the growth of the village into a city" (ibid.:90). These evolving communities are given the ability to assess and anticipate their needs, an ability for self-reflection they retain as they transform into more complex entities. Devoid of human actors, society itself became the agent of change (see Wolf 1999).

Scholars of stratified society have taken a specific interest in surplus. Hirth (1996:221) stresses a basic causal connection between complexity and surplus, which he calls the *Accumulation Principle*: "Whatever the structure of the political economy, its central feature is that it permits the accumulation of strategic resources." Margomenou (2008:196) observes that "surplus production and management are intrinsically linked with assumptions regarding the emergence, development, reproduction, and institutionalization of socioeconomic inequality." Yet such assumptions differ depending upon one's conceptual orientation. Although the intellectual forbears of twentieth-century social evolutionary thought implied similar mechanics of change, their influences led to very different interpretations of the role of surplus in the relations of production, consumption, and distribution. From the 1970s to the 1980s, two trends—often lumped together simply as social evolutionary models—can be seen. Although considerable overlap exists, they differ fundamentally. One approach can be considered eco-rational, while the other is centered on growing inequality and the formation of political economies. While simplistic, the influence of classical economics is pronounced in the former, whereas a critical Marxist view toward class relations and power infuses the latter. Brumfiel and Earle (1987) make a similar observation in their comparative volume on exchange. They label eco-rational theories "adaptationist models" and those more focused on the coercive nature of stratification "political models" (see also Hirth 1996).

Influenced by the ecological anthropology of Julian Steward and the evolutionism of Elman Service, eco-rational models view social evolution as an inevitable process resulting from the increased efficiency of resource exploitation and specialization in relation to growing population density and environmental constraints. As regions are settled and population grows, the mosaic distribution of resources leads to community specialization, the production of surplus and exchange, and greater sociopolitical integration. Sanders and his colleagues (1979:297) offer a concise statement of this perspective: "Let us suppose, for example, that village A is located in an area where there are good ceramic clays, village B is near a basalt outcrop, and village C near an obsidian deposit. All three villages need ground stone and chipped stone tools, and pottery to maintain their lifestyles. Each village then specializes in a particular product, produces a surplus of these products, and exchanges them."

Sanders and colleagues' view exemplifies the eco-rational view of surplus, society, and evolution. It also strongly reflects the influence of classical economic theory on historical change. This hypothetical account differs little from the evolutionary speculations Smith (1991) made in *The Wealth of Nations* or those Ricardo (2004:14–15) made later in *Principles of Political Economy and Taxation.* This view of surplus and social evolution stresses the efficiency of production and the rationalization of exchange as a human historical universal leading to more evolved and better societies (discussed earlier).

Many elements archaeologists identify as key characteristics of complex society (see Childe 1951) are the unintended consequences of the self-interested policies of a parasitic and increasingly coercive dominant class. A basic tenet of political models is that people will not produce more than they need (which includes annual buffering against unpredictable shortfalls) unless they have to do so: "Agriculture does *not* automatically create a food surplus" (Carneiro 1970:734). Surplus production occurs as a political process. The political view of surplus, in other words, stresses that accumulation does not occur to enhance society or make it more efficient. Increased integration facilitates accumulation to finance the lives and interests of incipient elites and ruling classes (e.g., Brumfiel and Earle 1987; Clark and Blake 1994; Earle 1997; Gilman 1981). Despite her stress on demography, even Boserup (1965:54) emphasized coercion as an alternative to intensification: when not under the pressure of population growth, agriculturalists will intensify only "under the compulsion of a social hierarchy." Although Carneiro (1970) faulted Childe for assuming that surplus production was a natural process, Childe "clearly saw that the non-producers capture that surplus in their own interest" (Gilman 1981:4):

> Man, it is argued, is a lazy beast and prefers a simple life to luxuries earned by unremitting toil. Conquest would certainly constitute one means of overcoming this natural inertia. A tribe of pastoralists, for instance, may conquer the land of a peasant community. They will leave the peasants on the land, and even protect them from other enemies, on condition that they pay a tribute of farm produce. The peasant is thereby obliged to exert himself to produce more than he retains himself, for his new 'masters' (Childe 1951:107).

Foragers or horticulturalists are unwilling to work more than necessary for survival, a simplistic view that compelled Sahlins (1972) to refer to these groups as the "original affluent society." Sahlins argued that any surplus produced above the amount necessary for household reproduction is a measure of the effect of a social system on an economic system, specifically an indication of inequality. Drawing on a specific reading of Chayanov's (1966) consumer-to-worker ratio, Sahlins argued that households in a community can be arranged along an ideal slope that predicts

equilibrium given productive capacity and total product. Households above the line are overproducing (i.e., creating a surplus). Households below the line are underproducing. That is, people who cultivate more than they need are producing for those who are cultivating less, revealing unequal relations of dependency between households based on social stratification. Archaeologists have employed Sahlins's framework to examine the growth of inequality in particular regions, such as the development of the Maya state at Copan, Honduras (Abrams 1995), and the creation of stratified landscapes in Medieval Iceland (Bolender, Steinberg, and Durrenberger 2008; see also Bolender, this volume).

Theorists of political evolution, like their eco-rational counterparts, focused considerable attention on the way the germ of inequality arose from productive behavior and its consequences. Avoiding risk, again, generates strategies to save and store food, convert food to other goods, and transform these products into power and prestige. Through this process, some individuals retain a better position from which to translate normal surplus into social storage, which can then be used to mobilize social relationships and eventually acquire social power (Halstead 1989; Webster 1990). Halstead (1989), for instance, outlined clear roles for surplus and risk in the unintended formation of social complexity. First, normal surplus is created to avoid risk. Second, some normal surplus is converted into social surplus through the acquisition of valuables. Finally, productive imbalances between producers cause some individuals to accumulate more valuables and rights to labor than others "and so to transform predominance in social storage transactions into economic and political dominance" (ibid.:79).

Although their configurations vary, Halstead's view stresses two core processes that occur in many models of political economy regardless of societal complexity. First, producers' strategies can be co-opted. Second, particular agents seek to mobilize goods to manipulate social networks. Progressive links between these strategies lead to systemic inequality as well as elaborate systems of finance involving tribute, taxes, rent, tithes, and property. Despite being the consequences of agents' deliberate strategies, these transformations are unintended.

The co-option of food producers' strategies highlights the parasitic nature of institutionalized power. Productive strategies that tie people to land, such as agriculture, increase their susceptibility to control. For Wittfogel (1957), coercive political regimes developed as an outgrowth of the managerial requirements of complex hydraulic systems (see also Steward 1955). Childe (1951:90) noted the importance of such organizational processes in social evolution but observed the qualitatively different significance of investment: "Capital in the form of human labor was being sunk into the land. Its expenditure bound men to the soil; they would not lightly forgo the interest brought in by their reproductive works." These investments often

take the form of *landesque* capital, or "any investment in land with an anticipated life well beyond that of the present crop, or crop cycle" (Blaikie and Brookfield 1987:11; see also Brookfield 1984:36). Landesque capital can both persist into the future and endure from the past, making its study particularly important in understanding the relationship between production and politics (Earle and Doyel 2008; Fisher 2005, 2009; Fisher, Hill, and Feinman 2009; Kirch 1994).

Archaeologists argue that producers become tethered to their investments (e.g., Childe 1951; Earle 1997; Erickson 1993; Gilman 1981; Haas 1982; Mann 1986). As Geertz (1963:100) asserted, "Once the radical intensification of agriculture is accomplished, it is difficult to retreat from it." Erickson (1993:411) observed that landesque capital served to "tie farmers to the land, making them relatively immobile and subject to labor taxes and tribute." That is, investing in land chains people to place socially, culturally, and economically, making them more susceptible to coercion and control (Morehart 2010). Eventually, "Elite control over resource ownership effectively limits options available to a commoner population, which must trade off a 'surplus' product as rent in return for land-use rights" (Earle and Preucel 1987:512). For decades, this observation has been an influential yet untested hypothesis to explain not only patterned relations between elites and commoners, or landlords and farmers, and similar pairs but also the origins of inequality. A recent comparative study of different productive systems across time and space has at least in part confirmed the notion that the need to defend or control intensive landscape investments "is a potent contributor to the emergence and persistence of high levels of inequality" (Smith et al. 2010:92). This comparative analysis should also shed light on the assumption, as Morgan (2012:717) notes, scholars of foraging society make that storage behavior tethers groups in place, setting the "stage" for sedentism and inequality (see also Testart 1982).

Surplus mobilization is the second process that recurs in political models of social evolution. Mobilization is a historical elaboration of the relation between surplus production and alliance formation. Powerful groups, such as founding lineages, promote the production of surplus to generate prestige. For example, the patterned relation between accumulation and mobilization is the basic building block of Friedman and Rowlands's "epigenetic" model of evolution (Friedman and Rowlands 1977; see also Friedman 1974): "A local lineage that produces a surplus is able to convert it into a community feast in which prestige is gained" (Friedman and Rowlands 1977:207). This prestige, which is bolstered by supernatural sanction, then attracts dependents who seek affinity with more powerful lineages. Such dependency is expressed as persistent socioeconomic debt paid with food, labor, and other valuables, enabling powerful lineages to more than recoup any losses from expending surplus in feasts (ibid.:209). These systems grow as alliances and exchanges expand

into wider areas geographically and socially. In the process, they are progressively controlled by fewer individuals who monopolize access to particular valuables and mobilize them to extend coalitions, increase dependents, and intensify production.

Historically, anthropological research in Melanesia and Polynesia provided a body of data for comparative theory on such systems, including Friedman and Rowlands's model. Malinowski (1921), for instance, early recognized the importance of Trobriand Island chiefs in organizing the production, accumulation, and mobilization of goods and obligations. Chiefs stimulated agricultural production and accumulated surplus yams and mobilized them to finance the social and political hierarchy. The periodic expenditure of pigs during *kaiko* ceremonies was a significant mechanism for Rappaport's (1968:159) construction of the Tsembaga socio-ecological system in New Guinea, which he referred to as "a ritual means for disposing of a parasitic surplus of animals." Gosden (1989) suggested that debt is a dominant social principle in many Melanesian and Polynesian societies, making their study particularly important in understanding surplus mobilization and inequality (see also Gregory 1982). The distributional logic of such systems stresses accumulation to give and to foster lasting obligations, and leaders are positioned to either manipulate trade or control production:

> Generosity is the basis of power where debt is the central social principle, but generosity has its limits and its own structure. The main point to bear in mind is that generosity takes place only from a position of strength, a position in which the giver is privileged by restricted access to gifts through production or trade . . . In each series of transactions, or each round of tribute and redistribution, a little sticks to the palm of the chief. The wealth so accumulated can be used to support a greater number of restricted forms of production, through which more debt can be imposed. (Gosden 1989:367–69)

Earle (1977, 1978) specifically framed mobilization as a political critique of ecorational models that stressed the adaptive nature of redistribution in complex society. Service (1962, 1975) saw chiefs as centers of redistributive networks, facilitating trade and integrating communities adapted to specialized environments. Earle found little support for Service's hypothesis in Hawaii, where a centralized hierarchy existed despite the economic self-sufficiency of individual communities. Instead of enhancing the adaptive integration of society, redistribution serves to support elites who mobilize goods to establish and maintain alliances: "The increased 'surplus' associated with mobilization is used to support an elite population removed from subsistence activities but performing various control functions" (Earle 1977:227).

The co-option and mobilization of goods and people become institutionalized to finance increasingly complex political economies in states and empires.

However, as with emergent inequality in less stratified societies, the basic premise remains unchanged: "Control over finance translates into control over the political process" (Costin and Earle 1989:692). Political systems and economic systems expand together as rulers attempt to foster alliances and create subjects. States seek to maximize production and power (Stein 1998). For instance, Near Eastern states developed elaborate systems of agricultural and commodity production. The Sassanian Empire imposed complex irrigation systems to enhance the productivity of the landscape and generate a surplus (Adams 1974:4–5, 2006). During the third millennium BC, wool from over 2 million ovines was supplied annually to royal warehouses where at least 9,000 slaves were engaged in textile production for the Ur state (Adams 1978; see also Yoffee 1995). Chinese empires during the Qin and early Han Dynasties, moreover, instituted widespread agricultural reforms, which Anderson (1989) referred to as the first green revolution.

Intensification of food production and specialization develops not as an adaptation but either because of the direct control of the state or as the unintended by-product of producers' dependency on a progressively stratified political and economic landscape (Brumfiel 1980; Brumfiel and Earle 1987; Costin 1991). D'Altroy and Earle (1985) recognized two strategies of state finance: staple and wealth. Staple finance consists of the state's collection of basic staples, such as grains or livestock, which are stored and used to pay individuals for state services. Wealth finance involves the production of valuables and commodities to pay state officials or promote alliances. The Inca state employed both financial strategies, but they had different consequences for the empire's regional economy. Staples were collected as tribute from subject communities or from state land, stored in a vast network of storehouses, and distributed to warriors, bureaucrats, and corvée laborers (Murra 1956:204–8). Wealth items were predominantly produced by specialists attached to the state who crafted metal objects, fine ceramics, and textiles that were distributed to state personnel or local elites subject to the empire (Costin, this volume). The Aztec state, in contrast, exemplifies both of these strategies but in a different configuration, mainly as a result of the presence of a well-developed market system. Agricultural production intensified to meet tribute demands, creating full-time farmers (Parsons 1976). Simultaneously, administrative officials flooded markets with wealth items obtained through tribute, lowering the exchange value of crafts and solidifying communities' reliance on agricultural production (Brumfiel 1980; Calnek 1975). Hirth (1996) observed that the processes of mobilization and cooption recur in many complex societies. But he breaks them down further as dominant strategies of production, service, or distribution that characterize the organization of particular political economies.

DEBATING SURPLUS: ABSOLUTE AND RELATIVE SURPLUS

Eco-rational models stress the adaptive functionality of surplus production and stratified integration, whereas political ones model the financial needs of developing inequality (Brumfiel and Earle 1987; Hirth 1996). In both models, however, the definition of surplus differs little. Surplus is typically defined as production in excess of biological necessity. Herskovits (1952:396) identified surplus as "goods in excess of the demands of survival." Hirth (1996:226) observed that the "political economy is organized to generate surplus above that required for normal household subsistence purposes." Kuijt (2009:643) defined surplus as excess above household needs—"beyond what is considered normal or sufficient." Dunnell (1999) maintained a more extreme, Darwinian position of surplus as energy expenditure that is not invested in reproduction but enhances the fitness of a social system, which is (perhaps ironically) similar to Bataille's (1964) views on excess and expenditure. Surplus, thus, is the excess amount left over after subsistence needs have been accommodated, calculated in reference to the individual, the household, the community, the population, or the region.

The recognition of surplus's tie to inequality in social evolutionary models constitutes a fundamental anthropological contribution to the study of economic relations. Indeed, Angle (1986) referred to this element of surplus theory as the "inequality process" to highlight the dual role of surplus in creating *and* reproducing inequality. Herskovits (1952:396) argued that "a knowledge of how the economic surplus is allocated in terms of alternative uses is basic to any attempt, in any culture, to assess the limits of economic inequality; for our own culture, the matter is vital in all efforts to understand the social disequilibrium arising out of this inequality." Yet he felt that contemporary Western economies were too complex to disentangle the elementary role of surplus in unequal relations. Anthropologists should thus look to nonliterate societies to understand the basic blueprint of how economic production generates social stratification. This was a common view anthropologists held during the mid-twentieth century that influenced economic anthropology and social evolutionism. As Sahlins (1963:285) put it in reference to Melanesia and Polynesia, "Where culture so experiments, anthropology finds its laboratories—makes its comparisons." However, the use of formal analytical concepts born from capitalism to study the economies of non-Western people exposed anthropology to criticism. Anthropologists and historians argued that formalist concepts failed to capture the social and institutional context of economic behavior (Polanyi 1957). Concepts such as profit, property, margin, wage, maximization, and utility came under fire. The way scholars defined, identified, and analytically framed surplus, however, was central to this substantivist critique (see also Brown and Kelly; Stahl; Wells, this volume).

Pearson (1957) presented an influential criticism of the concept of surplus in his essay "The Economy Has No Surplus." He faults not the notion of surplus entirely but instead the notion that a universal measure of surplus exists—the idea that surplus is production above a minimum consumption level necessary for biological survival. He terms this notion of surplus *absolute surplus*:

> The question is one of the relative uses to which resources are put under definite social arrangements . . . In these terms relative surpluses are simply material means and human services that are in some sense set aside or mobilized apart from the existing functional demands which a given social unit—a family—a firm—a society—makes upon its economy . . . Since we are not searching for absolute consumption levels after which surpluses automatically appear, research interest is directed toward the positive factor of the institutional means by which the course of the ongoing economic process is altered to support the material requirements of new or expanded societal roles. (ibid.:334, 325)

For Pearson, in other words, the idea of an absolute surplus should be abandoned in favor of a more relative conception that recognizes surplus exists only to the extent that it is identified as such given the cultural and institutional structure of particular societies.

As Rotstein (1961) observed, Pearson's critique of absolute surplus was twofold. First, obviously, he was critical of using concepts developed to understand capitalist markets to model potentially very different economic systems. In so doing, "Pearson has succeeded in shifting the problem into an area suited for investigation by the social sciences, namely the institutional sphere" (ibid.:561). Second, Pearson criticized a particular theory of development that homogenized surplus in two ways. Not only did it frame surplus universally as production over a biological minimum, it saw human perception toward surplus uniformly the same way: as exploitation. Dalton (1974:558) wrote: "I am aware that many of us who write about peasantries are socialists of one sort or another who unthinkingly equate peasantry with flagrant social injustice and to whom concepts like exploitation and surplus come easily." Surplus, thus, is uniformly and un-problematically defined as evidence of inequality and exploitation rather than also as part of the strategies (ecological, economic, and social) of people themselves (see also Bolender, this volume).

Dalton, carrying the Polanyian banner, criticized anthropologists not only for transposing a concept basic to Western capitalist market economies throughout history but also for fundamentally misunderstanding surplus in contemporary contexts. He also recognized the predetermined character of its application to models of evolutionary change: "When the term is used in *ex post facto* analysis of some unobserved change, or to explain some complex social structure, surplus becomes

a definitional identity and its role as inducer of socio-economic organizational change is incapable of empirical proof or refutation: it is a logical construct which need not have any connection with actual events" (Dalton 1960:483).

In other words, surplus took on an almost magical explanatory property and became a convenient reference point in theories of social change. Scholars were forced to begin their analyses with heuristic concepts that would eventually take on lives of their own and be reified as historically real and empirically observable phenomena: "a fictional world where the producer has natural rights outside of society" (Rotstein 1961:562).

Substantivists' basic question was simple: what is superfluous to a functioning social unit? "A deliberately contrived surplus (excess) would not make sense. It would be a contradiction in terms because the extra output would be deliberately sought only if it were, so to speak, earmarked prenatally" (Dalton 1960:485). Substantivists do not deny that people produce surplus but argue that the identification of surplus cannot be assumed. Distinguishing between biological subsistence and social subsistence is plagued further by a Western notion that such a dichotomy is analytically meaningful. For Malinowski, the social determinist, production cannot be determined outside of social forces. Hence, the analysis of a minimum is at best heuristic, at worst a myth:

> The quantity of the produce, the nature of the work and the manner in which it is carried out—all of which are essentially economic features—are highly modified by the social organization of the tribe and by their [*sic*] magical belief. Customary and legal norms, magical and mythological ideas, introduce system into their economic efforts and organize them on a social basis . . . We find a state of affairs where production, exchange, and consumption are socially organized and regulated by custom, and where a special system of traditional economic values governs their activities and spurs them on to efforts. (Malinowski 1921: 6, 15)

Or, as Wolf (1977:31) noted, "such allocations of men to work, such apportioning of the societal product always moves through the medium of the social relations which govern the societal whole" (see also Brown and Kelly, this volume).

Substantivists also called for an appreciation of the subjectivity of surplus and activities associated with its creation, distribution, mobilization, and storage: "A surplus simply means that more of something is currently available than previously, and the society recognizes that such is the case" (Dalton 1960:483). Hendon, for example, argues that these practices and processes can offer insight into the shared knowledge of the past—"of the people who produced, used, relied on, transacted for, worried about, gloated over, in short, thought and talked about *what* was being stored" (Hendon 2000:42, emphasis added). Hendon proposes that archaeologists

not center exclusively on surplus, a term archaeologists tend to take for granted, but rather on the situated practices we implicitly associate with it, such as storage (see also Halperin 1994; Smyth 1990). This is essentially the position that substantivists advocated. The practices are fundamental to the phenomenon, an observation that has basic relevance for archaeology: "It is the setting aside, the selecting out, the channeling in order to make the product available which is the necessary requirement" (Rotstein 1961:561).

Several scholars rejected Pearson's notion of relative surplus and his critique of absolute surplus. As Harris (1959a:188) argued, "His denial of the chronological and functional primacy of biological needs and of the techno-environmental adaptations for the fulfillment of these needs is tantamount to a renunciation of the search for order among cross-cultural phenomena." D. Webster (1985:378) reiterated Harris's critique from an archaeological perspective: "If surpluses are called into existence only by institutions, surpluses cannot be used to explain the existence of those institutions." Orans (1966) recognized the "fuzziness" in the way anthropologists and other scholars dealt with the surplus issue and minimum requirements. Each culture, he observed, had very different survival rates and institutional mechanisms. Meeting sub-minimal requirements (basal metabolism + specific dynamic action + reproductive activity), however, was necessary for the survival of any society. Thus, he attempted to establish "a surplus concept which, from the point of view of requirements, is culture-free" (ibid.:26), which he labeled "sub-minimal surplus" (net yield minus sub-minimal requirements).

Harris and others criticized substantivists for fear that their relativism would destroy the analytical tools necessary for a comparative anthropology. Harris (1959b:563) asserted that "surplus theory is worth defending because it states some of the necessary conditions for social stratification in terms which do not depend upon a mysterious urge, possessed by the Inca but absent among the Eskimo, to 'set aside,' 'select out,' and 'channel' hard-won comestibles." For archaeologists, however, more basic reasons exist not to entirely eschew the notion of absolute surplus. As Halstead (1989:70) insists: "We must cut the Gordian knot of Pearson's substantivist approach to surplus . . . In denying the possibility of establishing a minimum subsistence level, and so of identifying absolute surplus, he throws away the analytical tool for recognizing that individual social units at times have more or less food than they need just to survive."

How can archaeologists, limited by the material remnants of past behavior, distinguish between absolute and relative surplus? In other words, if all surpluses are relative, then truly the economy has no surplus, at least for archaeologists unable to ask people what they felt about this or that, entrapped by the unproductive chicken and the egg question Ingold (2011:5) criticized (discussed earlier). Our position

is that it is not necessary to entirely remove the notion of absolute surplus. Only if we extend the analytical priority of physiological requirements to a position of historical and causal priority—as an actual priority in terms of process and practice—would a problem exist (Morehart 2010:289). As Dalton himself (1960:486) stated, a distinction between surplus and non-surplus "is only justifiable if it serves some analytical purpose capable of empirical proof or refutation." Actual production may diverge greatly from the expectations of population-based models, but identifying such significant patterns of variation requires a working notion of absolute surplus. Brookfield (1972:39) argues that demographic subsistence requirements set a baseline—"a 'surface' which has close orthomorphism with the surface of population density." Any production beyond this surface constitutes a surplus that can be explained in terms of socially established needs or goals (cf. Pearson 1957). Again according to Brookfield, "Inputs may be wildly uneconomic when measured by caloric returns, yet wholly reasonable when measured against social returns" (Brookfield 1972:38; see also Costin, this volume).

Moreover, a dichotomous contrast between absolute and relative surplus is misleading, unless one assumes that societies are monolithic and indivisible entities without differentially positioned people and institutions—a notion substantivists would likely have rejected. On the one hand, societies differ remarkably in the dominant institutional structures or modes of production that govern surplus (e.g., Dalton 1960, 1963, 1977; Gosden 1989; Marx and Engels 1998; McGuire and Saitta 1996; Polanyi 1957; Saitta 1994a; Saitta and Keene 1990; Wolf 1982; see also Brown and Kelly; Wells, this volume). On the other hand, societies are neither closed systems nor internally undifferentiated. Saitta (1994b:28) notes that "social integration involves multiple flows of surplus and a plurality of active agents." People produce and mobilize surplus goods and labor to meet multiple and usually overlapping institutional spheres (Morehart 2014; De Lucia and Morehart, this volume).

Brookfield (1972) discussed three kinds of production related to a community's demographic, economic, and social goals: subsistence production, trade production, and social production. Subsistence production is obvious but can be defined at the community or the household level. Trade production involves the way agriculturalists produce a surplus to participate in local or regional exchange or market systems. Social production conveys the ways farmers produce a surplus or develop strategies to reproduce the social, political, and economic relationships in their communities. The distinction between trade production and social production is somewhat tenuous, however, and both may be better considered different paths social production can take.

Wolf (1966) proposed similar views regarding the social surpluses of peasant economies. Beyond subsistence and the basic surpluses necessary for the reproduction

of the means of production, a "replacement fund" (ibid.:6), peasants also produce a surplus to participate in the social and religious life of the community, a "ceremonial fund" (ibid.:7). They may also have to produce enough to pay tribute or rent to local or regional power holders, a "fund of rent" (ibid.:9–10)—what Sahlins (1963:292) labeled a "fund of power."

Brookfield's and Wolf's works stress people's strategies to meet multiple institutional demands, many of which are organized very differently and reflect the heterogeneity and fluidity both of communities and of society itself. Different modes of production, that is, co-occur, and people organize their economic behavior according to, and are often pulled between, the logic and burden of each (cf. Netting 1993). The social demands and costs of producing for the market can differ greatly, from setting aside goods or scheduling labor to pay tribute or from pooling the work and resources of an extended family or a community to host a ritual. Even in complex, stratified societies, relations of class, kin, and community coexist and shape the way surplus is conceived, produced, mobilized, and valued.

The substantive critique, however, should cause archaeologists to carefully consider how they define, identify, and use categories of economic thought and process. An analytical primacy placed on subsistence should not cause us to rank social phenomena as more or less important in our actual historical constructions (Dalton 1960:486). A determinist position, for example, would rank religion as secondary to biological survival. Thus, setting aside produce for religious events would be classed as surplus behavior. We do not disagree with this position, but it is often not empirically demonstrated, and two criticisms can be leveled against it. The first is cultural; the second is structural. First, studies of waste and pollution in anthropology have shown the intrinsic flaws in assuming that particular actions, phenomena, or relations are intrinsically more dirty or unhealthful than others. Even among people confident in their own modernity (sensu Latour 1993), decisions regarding waste, filth, and biological viability pass through highly structured filters that reflect basic ritualized behaviors and cultural perceptions of reality (e.g., Alley 1994; Douglas 1966; Foucault 1978). Thus, the entire idea that one can class particular behaviors as biological and others as social is a historically contingent, cultural belief, not a universal fact. To deny this is to engage not in anthropology but in theology (sensu Asad 1983); in the process, "all the interesting questions remain unanswered" (Dalton 1963:391).

Second, producing for subsistence could actually be secondary to meeting societal obligations (Morehart 2014). People engage in economic behaviors that perpetuate particular social relations but hinder biological survival. Why do people not ignore the phenomenon of debt when it affects the biological well-being of themselves and of their families? Is feeding your family primary or secondary when

a bank is about to foreclose on your home? As Rotstein (1961:562) observed, "There is no human society where such socially-derived claims are absent." Potentially dangerous and tragic consequences can result from determining what does and does not count as essential. In the process, our seemingly innocuous intellectual endeavors become social engineering.

SURPLUS AND THE STRATEGIES OF EVERYDAY LIFE: THIS BOOK

The goal of this volume is to reassert the importance of studying surplus as a social process intrinsic to understanding lifeways and historical change. Contributors reflect on surplus using specific case studies to facilitate discussion of multiple intersecting processes of production, consumption, and distribution. Areas of the world represented in this volume include Mesoamerica, South America, the US Southeast, northern Europe, West Africa, and Asia. As Stahl notes in her contribution, comparisons can "highlight both variation and moments when—as in polyrhythmic West African drumming—beats converge temporarily." Contributions examine surplus not only as a macro-scalar process on which states or other complex political formations depend. They also stress how differentially positioned people produced, modified, and mobilized their social and physical worlds. People are neither demographic automatons ruled by the pang of the gut nor political ones ruled by the force of might. In other words, if surplus captures the politics of production, it also conveys the active material means by which people developed the strategies of everyday life.

This comparative volume integrates variability, but common methodological and theoretical trends unite these works. First, several contributors consider various methodological approaches to identifying surplus and related behavior. Second, contributors consider the social and contextual dimensions of surplus production, distribution, and consumption, including structural (organizational and institutional) and experiential characteristics, a feature the notion of relative surplus highlights. Third, contributors consider the transformational dimensions of surplus, which involves not only shifts in the social fabric but also transformations in things produced, consumed, and mobilized. Considerable overlap exists in these studies, but they differ in the scale of analysis as well as in the social domains highlighted.

Efforts to identify surplus confront the central critique of substantivist economic anthropology, the very definition of surplus as excess. Mapping the spatial and temporal distribution of storage technologies elucidates the way surplus is related to social processes (Barrier 2011; Blitz 1993; D'Altroy and Earle 1985; D'Altroy and Hastorf 1984; DeBoer 1988; Halperin 1994; Halstead 1989; Hendon 2000; Kent 1999; Kuijt 2009; Kuijt et al. 2011; Margomenou 2008; Morgan 2012; O'Shea 1989;

Rowley-Conwy and Zvelebil 1989; Smyth 1990; Wesson 1999). Generally, contributors do not systematically evaluate the role of physical storage in surplus production (see Earle, this volume), but this does not make them any less able to assess surplus's role in the past. Even when archaeologists are able to document storage technologies, however, the multiple roles and institutional context of surplus are not self-evident.

Archaeologically, an absolute surplus concept is analytically essential. As Miller notes in her contribution, it is important to delineate "the environmentally based contexts and parameters within which choices happened." At the simplest level, demographic agricultural relationships can be calculated by estimating the productivity of an agricultural landscape in relation to population estimates of associated communities, a procedure similar to catchment analysis (e.g., Brumfiel 1976; Earle 1978; Evans 1990; Feinman 1991; Flannery 1976; Hirth 1984; Kolata 1991; Morehart 2010; Parsons 1976; Rosenswig 2000; Steponaitis 1981; Wilkinson 1994; Zarky 1976). This approach can yield insight not only into the quantity of foodstuffs a landscape could produce in relation to population levels but also on the amount of labor requirements necessary to meet baseline needs. Such analyses are critical not just to model the financial structure of a complex society but also to examine how producers are connected to, invested in, and dependent on a broader social, political, economic, and ecological milieu.

Productivity and labor estimates of farming systems are often contrary to the monolithic expectations of demographic models and require explanations that consider a constellation of social, political, economic, and environmental forces (Brookfield 1972; Brumfiel 1976; Steponaitis 1981; Wilkinson 1994). Costin's analysis of *chicha* and textile production clearly demonstrates how surplus is related to the financial needs of a political system. The decision to cultivate maize (*Zea mays*) for chicha represents a calorically wasteful decision. In terms of a people's biological survival, Costin frames chicha production as surplus, "as the land and labor that were used could have been much more productively deployed." However, chicha production and cloth production were not secondary to the structure of polity but instead were central to its formation. When the Inca conquered the Wanka, both maize production for chicha and textile production intensified. In terms of relative surplus, entire populations of people were mobilized and relocated to produce not for themselves but for their imperial lords. De Lucia and Morehart's contribution, moreover, challenges a pure demographic model for the intensification of raised field (*chinampa*) agriculture at Xaltocan, a pre-Aztec polity of central Mexico. They estimate the labor requirements necessary to maintain the farming system in production, calculate its productivity, and compare this gross figure with the requirements of the town's local population. When the population's subsistence

requirement is subtracted, a sizable caloric surplus remains, which they suggest was used to invest in multiple political and social institutions. These case studies demonstrate that an evaluation of absolute surplus is critical to understand the social dimensions of production necessary for a consideration of relative surplus.

Political economies emerge out of local-level social relationships and come to reshape them. Thus, research that only follows top-down or bottom-up models is limited (Janusek and Kolata 2004; Marcus and Stanish 2006; Morehart and Eisenberg 2010; Thurston and Fisher 2007). In the middle of our models lie real people and real material, historical processes. Productive decisions people make to meet multiple institutional demands (or to avoid them) shape the contours of daily life and social change. As Brumfiel (1992:555) observed, "Because the vast majority of production in agrarian societies is household-based, political change almost always involves restructuring of household labor." De Lucia and Morehart stress the agency of household members in producing crafts and agricultural products to participate in the market, pay tribute, and conduct rituals tied to the household, the community, and the state. Costin reveals how polities restructured local economies in both direct and indirect ways. Miller analyzes the connection between the hydrological requirements of agricultural land and the organization of tenure, which shows how both have a direct impact on the structure of a political economy and the form of governance. Her chapter disentangles the organizational forms of surplus production in complex states that may have been partially based on more corporate (cf. Blanton et al. 1996) modes of political decision making, such as the polities of the Indus Valley. To the extent that the political economy was financed by agricultural production, the possible fact that a considerable portion of the region's land base was managed or owned collectively by kin groups would have shaped the structure of state power. The need for community-wide rather than household control of land for staple production, as a result of specific environmental conditions associated with shifting rivers, would encourage appeals to consensus, which not only promoted an appearance of governmental horizontality but could suggest that those who wielded power were subsumed within (or at least navigated) more communal, non-class relationships (Saitta 1994a, 1997; see also Brown and Kelly, this volume). Such a situation, moreover, may require the re-deployment of surpluses to foster long-term stability and create a social safety net. This suggests a pattern of surplus mobilization similar to traditional definitions of redistribution and complicates the parasitic notion of extractive state power common in models of political evolution (Blanton and Fargher 2008; Polanyi 1957; Service 1962, 1975).

Thurston offers a case that examines the role production plays in the historical tension between corporate and more hierarchical forms of governance. She outlines how a combination of top-down and bottom-up forces compelled intensified

production among pastoralists increasingly encapsulated by the Svear state in Iron Age Sweden. The state demanded increased surplus goods and labor in the form of taxation and military service. Similar to the multitasking households De Lucia and Morehart describe, Svear pastoralists engaged in occupational pluralism that enhanced the productivity of their holdings, such as farming, raising livestock, and craft production. Although political pressure for surplus in part compelled such intensification, producers were not passive. They attempted several means to evade the state. Thurston employs Scott's (1985, 1990) concepts of weapons of the weak and hidden transcripts to elucidate local strategies of resistance, an important dimension of life not otherwise represented by this volume's contributions.

Like Miller's study, Bolender's chapter provides an insightful reframing of surplus that questions the inherently exploitative nature of its production and appropriation. As he notes, if sufficient incentives exist, "the production of surplus to benefit elites is not inherently exploitative." Drawing on his previous analysis of stratification in Medieval Iceland (Bolender, Steinberg, and Durrenberger 2008), he argues that inequality in the landscape developed bottom-up from intergenerational inequities in households (see also Netting 1993). Estates deliberately defined some land as surplus to satisfy the competing demands of multiple heirs who saw the need to establish new households as a pressing social concern. As a result, stem households were able to change their internal ratio of consumers to producers in a way that was economically advantageous. A similar economic incentive contributed to the freeing of slaves, another key source of estate labor. Wage labor was cheaper than maintaining both dependents and slaves. Despite these processes, little societal benefit was associated with rent on surplus land. Rent obligations enabled landlords to control tenant labor indirectly through property—a system of control that has considerably more potential for social expansion than those based directly on enslavement or even kinship.

These productive dimensions of surplus are necessarily connected to distribution and consumption. The mobilization of goods and labor to finance ritual events provides an important example of this aspect of surplus (Costin 1998; Spielmann 2002; Wells 2006). Indeed, the archaeological study of feasting has expanded considerably since the beginning of the twenty-first century, helping to align archaeological research on economic behavior with a long tradition of economic anthropology (e.g., Dietler and Hayden 2001). Indeed, through an analysis of ritual mobilization, archaeologists can understand the symbolic dimensions of surplus. Drawing on Whitehouse (1995, 2000), Wells's chapter examines the ways modalities of religiosity shape the control over surplus labor and the allocation of surplus goods. Comparing Colonial period Maya and Nahua, his work shows heterogeneity not only within society but within particular institutional domains, such as religion.

He argues that Maya and Nahua reproduced both imagistic and doctrinal modes of religious experience through the production, mobilization, and consumption of surplus. In fact, each mode of religiosity marks a different moment in the pathways of surplus (cf. Appadurai 1986). Rituals associated with agricultural and craft production conform to a doctrinal model, whereas the ritual consumption of their product follows an imagistic mode of religious experience.

The analysis of feasts elucidates how differently organized societies stimulate production and coordinate people and how such processes can lead to debt and systemic changes in a social fabric. As Norman (this volume) discusses for seventeenth- and eighteenth-century Benin, for example, Huedan rulers were able to employ persuasive strategies to stimulate production and increase the number of followers, a "wealth in people" (Guyer 1993; Miers and Kopytoff 1977; see also Stahl, this volume). The moral basis of legitimate authority was connected to their ability to host feasts and rituals on behalf of the population whose labor in part underwrote the material basis of power (Norman, this volume). Brown and Kelly's chapter frames the social and political economy of Cahokia as one based not on class but instead on communal or kin relations (see also Saitta 1994a, 1997). Lineages or clans were able to mobilize surplus labor related to agriculture, plaza construction, token circulation and exchange, and earthmoving. This collective labor and its products, they argue, constituted a form of social surplus from the perspective of constituent kin groups. Rather than class-based extraction or forced tribute of appropriated surplus, kin groups willingly gave up surplus labor to meet their own social obligations so they could be part of ritual celebrations. They were invested in bigger processes and social phenomena, leading Brown and Kelly to view Cahokia as not unlike the materialization of a critical mass—"a direct consequence of the mass of relations alone."

Ritual events, thus, are hardly idiosyncratic events but instead foster social integration. As Thompson and Moore argue in their contribution, the social efficacy of surplus is tied to a group's ability to anticipate its existence. Examining small-scale foragers in the coastal US Southeast, they consider two kinds of surplus: opportunistic and anticipated. While opportunistic surpluses are generated mainly by random events, such as the beaching of a whale, anticipated surpluses are regular occurrences at particular periods of time and, significantly, at specific places in the landscape. They have the potential to attract large groups of people. Thompson and Moore argue that shell ring sites in the Southeast, such as the Sapelo Island Shell Ring Complex, were associated with feasting made possible by the periodic, anticipated surplus of marine resources. Such rituals "were special but expected parts of the subsistence cycle and a naturalized part of life, a situation made possible by the regularity of the Georgia Bight's anticipated surpluses." Thompson and Moore, like

Costin, Miller, Thurston, and De Lucia and Morehart, help elucidate the environmental context within which surplus occurs, as well as the institutional dimensions of its use.

Thompson and Moore's study offers a useful transition to consider another key process related to surplus: its transformative dimension. They note in particular the potential of anticipated surpluses to cause such a shift to inequality: "Anticipated surpluses provide individuals and groups with the opportunity to develop sustained economic interdependencies that may institutionalize any inequities that result therefrom." In other words, surplus is implicated in the unintended transformation of society (Giddens 1984). Conflicts or contradictions in the ways surplus was tied to different institutional spheres caused structural transformations in a society's organizational, moral, and conceptual order. The ways surplus met overlapping institutional demands created systemic dependencies that could unintentionally contribute to conflict, greater inequality, and even collapse. Such shifts are emergent: novel changes born out of preexisting structural relationships.

Brown and Kelly argue that social stratification emerged at Cahokia as an unintended consequence of differentially positioned people collectively investing in social practices, such as communal feasts. Bolender discusses the emergence of a stratified landscape composed of households in debt to regional elites as a progressive unfolding of inequality across time and space. De Lucia and Morehart consider the ways households became progressively invested in and dependent on the stability of the political system through surplus production, which was disrupted by war and conquest. Norman argues that the Huedan political economy fell apart as elites shifted their behavior from reciprocity to the accumulation of the increased wealth they obtained through trans-Atlantic trade.

These transformational dynamics of surplus have a long history in the social sciences. Anthropologists and archaeologists have dealt with this issue historically in efforts to model system social change, particularly the transformation from surplus food to followers—the surplus people whose labor and debt underwrite political power. Halstead's (1989; discussed earlier) reconstruction of surplus and the shift to inequality in small-scale societies, for example, emphasizes the ways groups with more predictable stores of surplus food are able to convert them into valuables, such as fine pots, and mobilize them to extend influence (see also Rowley-Conwy and Zvelebil 1989). This process is also similar to the Friedman and Rowlands (1977) model discussed earlier in this chapter. The durable materiality of valuables allows them to move across time and space in ways food cannot. Drawing on D'Altroy and Earle's (1985) work on finance, furthermore, Taube (1996:71) notes the transformational dynamics of converting food to prestige goods in Formative Mesoamerica: "In the humid Olmec heartland, a major food surplus, even in the form of maize, must

have created problems of transportation and storage . . . The increasing importance of jadeite, precious feathers, and other exotic goods among the Middle Formative Olmec probably reflects a similar transition from a staple finance to one of wealth using rare materials that are more readily transported, stored, and converted."

Qualitative shifts in the nature of surplus and value are interconnected to power, in both direct and indirect ways. Malinowski (1921:9) observed early that not only did Trobriand chiefs control the production and accumulation of key resources but that "another important privilege of the chief is his power to transform food into objects of permanent wealth." Yet the focus only on the prerogatives of chiefly authority underestimates the historical dynamism of regimes of value and the ways they foster inequality and both physical and symbolic conflict and violence. For instance, Sherratt (2004) places both production and changing regimes of value as central processes in his rethinking of Childe's Urban Revolution. Across Europe, similar things followed very different pathways of consumption and value. People exchanged or hoarded prestige goods, such as metals, to enhance their own positions but also to restrict the ability of competing groups to participate in networks of circulation. His work stresses a key attribute of material culture: "the transmissibility of techniques can alter the conditions of local production and the circumstances of exchange" (ibid.:90). Entire industries of secondary products arose in direct response to manipulations in patterns of exchange (cf. Dalton 1977). In the process, "'Wealth' was not just accumulated; its very nature was redefined" (Sherratt 2004:101).

The Kwakuitl potlatch, long highlighted as a key example of accumulation and conspicuous consumption, offers a useful historical pause to consider shifting connections among surplus, power, and value. The growing interdependency between the Kwakuitl and European exchange networks, notably the fur trade, transformed both regimes of value and the institution itself. Wider access to wealth generated by this trade enabled non-nobles, people who lacked a traditional basis of authority, to host potlatches (Wolf 1999). This change in the political, economic, and social landscape caused an intensification of competitive feasting, an increase in the destruction of wealth, and even an increase in violence, particularly as chiefs sought to eliminate their new rivals. As Dalton (1977:201) notes, "Fighting major enemies with property was a new thing, a colonial change, and it sometimes took on frenetic intensity, as in the rampant potlatch, that was not the case in precolonial times."

Stahl's chapter well illustrates these transformational dynamics of value. She traces the complex and dynamic relationships among production, power, people, and things as basic to understanding the relationship between slavery and the state in West Africa. Similar to Norman, she employs the concept of wealth in people. However, she builds from this concept to examine how transformations in the

fabric of social, political, and economic relations affected transformation in the nature of surplus itself. She examines the processes—through structure and practice—by which people became slaves, both those "consumed" locally and those exchanged. Coercion was a leading way slaves were obtained outside of the enslaving group. Debt, however, was a key way by which insiders were enslaved. Just as these processes of enslavement differed, so did the transformational practices (conversionary strategies) necessary to make a person into a slave. Rituals, that is, could change a dependent to a slave: "Shrines had the power to transform free 'wealth in people' (often dependents) into alienable bodies (the enslaved)" (Stahl, this volume). Locally, slaves were used as surplus to finance the political economy, either as labor to meet tribute demands or as people exchanged to acquire prestige goods. Increasingly global connections in the pursuit of human surpluses led to an intensification of multiple forms of production directly or indirectly associated with technologies of enslavement, such as metallurgy, agriculture, leather working, and ritual equipment. After the British abolished the international slave trade, however, internal slavery and associated practices increased as production based not on technological innovation but on human labor intensified to meet the demands of "legitimate" markets.

Stahl's discussion of conversionary strategies stresses that surplus is not only imbricated with the transformation of society but that such changes are connected to social practices that dictate the transformations in the uses of things and shifting regimes of value. In other words, across the contours and contexts of time and space, the meanings people associate with stuff are bound to local systems of valuation and broader currents within a sociopolitical and economic landscape. Things have biographies, and systems of surplus production, distribution, and consumption have historical trajectories, not trans-historically uniform qualities (Appadurai 1986; Kopytoff 1986). The practical and institutional contexts within which things are created, thought about, stored, mobilized, and inherited shape their relative character as well as their role in fomenting broader societal transformations (Douglas and Isherwood 1979; Hendon 2000). As Guyer (1993) observes, value is a transformational process. Yet the ability to change the quality of things and people—to transform their very character and integrate them into distinctive spheres of exchange and conveyance (Bohannan 1955)—is not only transformational, it can also be dangerous. These processes require, as Stahl observes, specific practices. As such, a consideration of regimes of value is critical to any understanding of the intellectual genealogy of surplus in anthropology and archaeology.

In conclusion, the contributions in this volume place a renewed focus on the concept of surplus, positioning it at the center of archaeological discussions of production, consumption, power, strategy, agency, and change. These chapters

demonstrate the variable roles surplus plays in both domestic and political economies. Contributors examine surplus from various angles and from the potential perspectives of different social actors, scales, places, and things. Surplus is not just a path toward social inequality; it can also be a mechanism for resistance and power among commoners. Surpluses are not defined only by biological requirements but also by the manifold realms of everyday life, from ritual performances to social competition. Thus, this volume asks archaeologists to revisit and reposition the concept of surplus, to go beyond conventional ways of thinking about topics related to surplus, and to recognize the real people and material and historical processes that lie at the heart of our archaeological models.

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