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THE STRUCTURE OF ANCIENT ECONOMY

Ancient economic history is still in its infancy, both because few economists have learned much about the ancient world and because ancient historians have typically not incorporated economics into their analysis.

(Temin 2006:133)

The economy is the foundation of society today, just as it was in the ancient past. It is the source of material support for all of society's households as well as its social, political, and religious institutions. While our modern economy is often described as a result of the industrial revolution, this is not really the case. Today's economy is actually the collective byproduct of more than 10,000 years of economic development. It is a composite of *formal* and *informal* forms of production and distribution that have evolved over time. Ancient, premodern, and modern economies all developed in the same way, by adding new types of production and distribution to existing forms of work to meet specific needs.

This book is about the organization of ancient and premodern economies. It starts from the premise that just like today, the scale, complexity, and organization of the economy was a primary factor in determining the direction and development of ancient societies. The preceding epigraph suggests that the study of ancient economy is still in its infancy. If this is true, then the pages that follow will only attempt a few cautious steps to advance what can be said about how economies operated in the past. The lack of progress in the field is primarily one of omission rather than commission. Researchers have often

examined how aspects of the economy reinforce social and political relations rather than focusing specifically on the economy as its own specific domain of investigation.¹ While Temin chooses to criticize the lack of discourse between economists and economic historians as the reason for this, the blame is not theirs alone. Anthropologists and archaeologists likewise have not focused enough on the premodern economy despite having the tools to do so. At least three obstacles have stood in the way of the concerted study of past economic systems.

The first obstacle is empirical and methodological, and reflects the difficulty of reconstructing ancient economic activity from a single disciplinary perspective. Historians make excellent use of textual records for the periods for which there are documents. Unfortunately, that eliminates all preliterate societies from the discussion, and the records available from historic periods rarely include detailed information about the life of commoners within society. Archaeologists can reach back into the prehistoric past and examine economic behavior using material remains from production, distribution, and consumption activities. The limitation for archaeologists is that they rarely have large enough samples of material remains to reconstruct economic systems, or the inclination to view them in a holistic and systematic way. To write an economic history of even one society is an enormous and complex task. It requires the use of multiple data sets that include textual sources, art historical depictions, archaeological remains, and comparison with ethnographic cases to develop a synergistic understanding of past economic patterns.

The second problem is one of competing research paradigms. The strong evolutionary focus in anthropology of the 1960s and 1970s affected the way that social researchers viewed the economy. The holistic approach of anthropology together with the influential work of Karl Polanyi argued that the economy could not be examined as a separate sphere of activity because it was deeply embedded in other aspects of society. The result was that the economy came to be viewed largely as subordinate to larger social and political processes. At the same time, the strong evolutionary current within archaeology focused on identifying cause and effect relationships to explain major cultural changes such as population growth, warfare, agricultural intensification, and state development. Obscured in the process was a concern for basic economic structures that were the mainstay of traditional Marxist analysis. While social anthropology constructed detailed analytical frameworks² for studying kinship, jural relations, political organization, marriage, religion, forms of exchange, and production technologies, archaeologists struggled to develop the means to apply them to the past. The result was a lack of attention to identifying organization and change in the economic structures that define the economy.

The third and final obstacle to studying the ancient economy is the most challenging. The view adopted here is that the study of the ancient economy is

most productive if it is undertaken from a comparative perspective.³ Solutions to similar economic problems at different points in time can take similar forms. Nevertheless, the amount of time needed to develop an in-depth understanding of an ancient society can lead investigators to see them as unique and overlook the structural dimensions of the economy that they share with other societies unless they have a direct historical connection. Comparative economic research needs to look beyond the particularism that defines regions, cultures, and individual societies. This is a daunting proposition given the enormous variation that existed in the past and the limited or incomplete information available to researchers to explore it. Nowhere is this more evident than in the economy, which can be organized in similar and different ways in societies at different levels of organizational complexity.

This study examines the ancient economy from a comparative perspective. It does not attempt to develop a single synthetic view of what ancient and premodern economies were, how they were organized, or how they developed. That would be impractical given the enormous variation in the scale, structure, and integration of past economies. In fact, it does the opposite. It attempts to identify a broad range of different organizational structures found in, and shared by, societies at different levels of complexity at different points in time. The emphasis is on modes of organization and how they operated. Humans are problem solvers and it should be no surprise to find similar forms of economic organization in different societies to meet similar needs and get work done. Identifying this variation provides the foundation for a comparative analysis of past economic structures, and supplies the basis for exploring the evolutionary forces behind their development.

WHAT IS THE ECONOMY?

Definitions have value because they both clarify a domain of meaning and identify the specific variables or attributes that concepts encompass.⁴ Nowhere is this more true than when investigators attempt to define the economy. Karl Polanyi (1957) argued that there were two ways to define the economy: a formal or neoclassical way and a substantive way. The neoclassical approach views the economy as a domain of human behavior concerned with material provisioning that can be studied separately from the rest of society. Material provisioning is based on rational choice theory where individuals make conscious choices about how to meet their needs or desires (Samuelson 1967:5). Lionel Robbins defines economics from this perspective as “the science which studies human behavior as a relationship between ends and scarce means which have alternative uses” (Robbins 1935:16).

The substantive view of the economy is different. It holds that processes of material provisioning cannot be understood apart from the broader social

structures in which they are found (Dalton 1961; Polanyi 1944). For those favoring the substantive view, the economy is embedded in the social systems where provisioning takes place. As a result, behaviors such as maximization, utility, and rational choice *cannot* be understood in the universal terms used by neoclassical economics because they are culture-specific. The literature on these differences is vast and defines what have been called the Formalist–Substantive and the Modernist–Primitivist debates in anthropology and archaeology (Dalton 1961; Kaplan 1968; Plattner 1989b; Polanyi 1957; Polanyi et al. 1957; Schneider 1974). The important question is, What view of the economy provides the *best* approach to studying and understanding the ancient economy?

The economy is defined here as a *socially mediated form of material provisioning and interaction involving the production and allocation of resources among alternative ends*. Several things are implied by defining the economy in this way. First, it focuses on the behaviors and interactions associated with the material provisioning of everyday life. Interaction at this level involves the interplay of individuals with the resources in their natural environment and the groups who use or control them. Second, the economy is a socially mediated realm of behavior. This recognizes that the values and behaviors that shape provisioning decisions are learned and acquired in the societies in which individuals live. It also recognizes that material provisioning was often embedded in other social, religious, and political activities. Third, the production and allocation of resources refers to the decision-making processes that individuals and groups go through with regard to the production, distribution, and consumption of resources. It is here that altruistic or self-motivated choice confronts the cultural norms that shape them. Judging the rationality or irrationality of those choices depends on the cultural and ethnocentric vantage point from which individuals observe them.

The perspective adopted here contains elements of both formalist and substantive views of the economy. The formal view of the economy derives from Adam Smith (1827), who argued that economic provisioning was the result of rational decision making by individuals who allocate their time and resources to different ends. It is based on the empirical fact that humans are problem solvers who make choices that determine their physical and social well-being. They have to eat to survive, select mates to reproduce, and raise offspring that represent the next generation. To this end people are decision makers who mediate these and other issues through their own calculations and/or the advice and counsel of others. People are rational within the cultural universes where they operate, but they are not the emotionless, fully informed, rational *Homo economicus* at the core of neoclassical economics. Instead, they are bounded by their beliefs, rationality, and cultural experiences, which bias their selection choices in different ways (Sandstrom 2008; Thaler 2015).

The substantive perspective is valuable because it emphasizes the variation in how each society defines the scope of its economic interaction. Societies set the parameters of the economic base. They establish the specifics of economic interaction (value, exchange equivalencies, the expectations of reciprocity), define the norms of material and social well-being, and set standards of expected economic involvement in preserving social and community values (Dalton 1961; Gudeman 2001). Nevertheless, while society defines the ideology of economic interaction, people operate creatively within it. They make individual decisions set within the culturally mediated range of acceptable and nonacceptable options open to them.

This dimension of individual economic action blends the formal and substantive views of the economy together. Every ancient household was responsible for its own livelihood. Households understood the economic risk of resource shortfall and worked both individually and collectively to ensure that they had sufficient resources to survive. The result was that households formed collective action groups that worked at improving their economic well-being through their individual effort and participation in broader, community-based social interaction. The strategies that households adopted were a multifaceted mix of intensified and diversified production activities that, together with mutual aid networks at the community level, helped meet their everyday material and social needs (Netting 1981, 1993; Sahlins 1972).

The formalist and substantive perspectives are alternative but compatible theoretical positions about how the economy was structured. The debate between these two views is no longer foremost in the minds of anthropologists and economic historians. Nevertheless, the legacy of the substantivist perspective continues to frame how researchers view the organization of, and sources of change in ancient economies. Polanyi argued that the economy did not grow organically through individual decision making or maximization strategies, but was created and operated through society's social, political, and religious institutions. The reason was that he saw barter and other forms of commercial negotiation as dangerous and disruptive forces if they were left unchecked to operate freely within society. Researchers who argue for strongly centralized economies and elite-centered explanations for culture change carry with them Polanyi's top-down view of cultural organization and change (Carrasco 1978; Finley 1985; Murra 1980).

On the other hand, researchers who focus on individual decision making see economic development from a different perspective. They often favor a bottom-up view of economic development with considerable latitude for technological innovation and organizational change emanating from households on all levels of society (e.g., Reina 1963). A number of scholars have argued that Polanyi's denial of individual decision making has impeded our understanding of everything from household level economic structure to the

development of markets, merchants, and commerce in ancient societies (Blanton and Fargher 2010; Feinman 2013a; Hirth 2016; Silver 1995). Individual incentive and the rational economic choices that people make are compatible with a recognition of the embedded nature of the economy. After all, it was Adam Smith who said that “economic actors tend to make strenuous efforts to re-entangle economic relations in a nexus of social relations for the stability and predictability of the markets” (cited in Oka and Kusimba 2008:365).

COMPARING ANCIENT, MODERN, AND PREMODERN ECONOMIES

The 21st century has a rapidly changing and growing world economy. Technological advances in computers and telecommunications have led to significant restructuring in manufacturing, distribution, and consumerism at the global level. The International Monetary Fund, the World Bank, the European Common Market, and Wall Street are some of the large-scale trade and financial institutions that help make the global economy work. The result is that the modern economy is often perceived as being very different from economies of the ancient past. But is it? From the perspective of economic anthropology, the similarities between modern and premodern economies are closer than one might think.

Take our financial institutions, for example. A drive down any major street in America will reveal more banks than grocery stores. The scale of our financial institutions would lead us to think that the implementation of economic change in the modern world occurs at a scale much larger than it did several hundred years ago when Thomas Jefferson argued strenuously against the need for a strong central bank. But if we adopted the top-down view of economic development, it would contradict recent Chinese experience. The current business revolution in China occurred largely through informal lending relationships and mobilizing capital along kinship lines that have dominated ancient and premodern societies for thousands of years. While formal banks and banking institutions exist, they have not provided the capital to fund the many recent small business ventures in both China (Ayyagaria et al. 2011; Dong et al. 2012; Turvey and Kong 2010) and India (Kumar 2009; Ravi 2003).

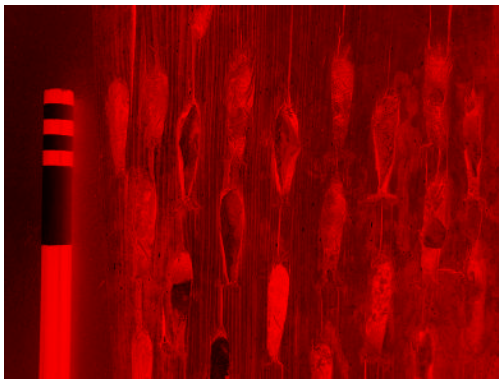
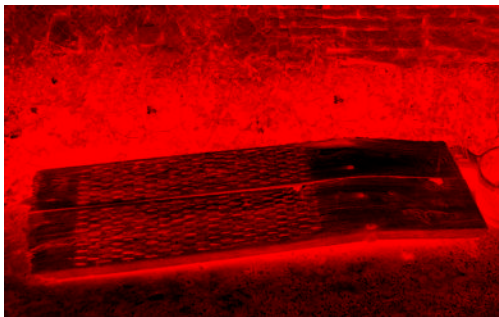
Another example is the replacement of general purpose money with formal currencies, which are argued to represent an important evolutionary advance in the development of commercial economies (Dalton 1965; Polanyi 1957; Schneider 1974; Weatherford 1997). Be that as it may, special purpose monies are still with us and even growing in importance. Community currencies such as Ithaca HOURS and other local exchange trading systems (LETS)⁵ have developed in a number of places as ways to procure and trade services against

one another instead of buying them with dollars (Jacob et al. 2004). Bitcoin and the Facebook Libra are more recent examples of nonregulated virtual currencies, which operate in the restricted world of cyber exchange (Segendorf 2014). Add to this the way that Internet business has facilitated the emergence of independent contracting in the form of Uber, Lyft, and Airbnb as replacements to formal taxicab companies and hotels makes for an increasingly decentralized and informal business environment.⁶

Many of the same structures found in ancient and premodern societies continue to operate today. Livelihoods continue to be organized around work in domestic settings. Social and religious institutions continue to be funded and operate through voluntary contributions and tithes as they have for centuries. Political institutions still rely on taxation, tolls, fines, and tariffs to fund their administrations. Societies in the ancient world built and supported urban centers and engaged in long-distance trade. Commerce and the production of goods for sale was carried out at all levels of cultural complexity, from tribal societies to states. Marketplaces developed and operated alongside private enterprise in virtually all large state societies, although not in the same way that capitalistic markets operate today.

Ancient and modern societies are similar to one another in two ways that make comparisons between them possible. First, they are both economically plastic. *Economic plasticity* refers to the principle that as economic systems grow in size, new forms of economic organization appear alongside preexisting ones without replacing them (Hirth and Pillsbury 2013). New forms of economic organization usually appear as solutions to special problems or circumstances. They normally are not initiated as rapid, broad-scale changes in the organization of work. They occur, instead, as small, new ways of doing things in the existing economy. New introductions can become important over time as they demonstrate their efficiency and supplant existing forms of production, resource mobilization, or product distribution. Economic innovation is largely an egalitarian process. New technology and forms of work will be added to the economy in proportion to their ability to increase productivity, reduce effort, and agree with existing ideological norms.⁷ But that does *not* mean that older forms of economic organization will disappear.

Second, both ancient and modern societies are heterogenous. *Economic heterogeneity* is a function of the natural conservativeness of economic systems. It refers to the diversity of organizational structures created over time as new forms of economic organization are added to economic systems (i.e., plasticity) without discarding existing forms. Preexisting economic arrangements may continue to be practiced even in the face of new, more productive or efficient ones depending on a variety of circumstances. The perpetuation of older technologies and economic practices can be the result of their being appropriate solutions for small-scale economic activities. Domestic economies are



1.1 20th-century *dhoukani* threshing sled with close-up of its stone chert blades. (Photographs by Nicholas Kardulias. Photography on top modified by author with permission of Nicholas Kardulias)

generally conservative because of limited labor and/or capital resources. Older practices and technologies will continue in use as long as they get the job done (Langlands 2017). This explains why rural farmers in Cyprus, Greece, and Turkey still used animal- and human-drawn sledges (*dhoukani*) edged with sharp chert flakes and blades (Figure 1.1) to thresh grain well into the middle of the 20th century (Anderson et al. 2004:figure 5; Kardulias and Yerkes 1996; Pearlman 1984). The result is a heterogenous economy where old technologies and traditional practices such as mobilizing resources through gifts or along kinship lines continue to be important even in today's modern capitalistic world.

RECONSTRUCTING ANCIENT AND PREMODERN ECONOMIES

How can a comparative understanding of past economies be developed given the diversity, plasticity, and heterogeneity of their economic practices? The place to begin is to recognize that no single discipline can do it alone. Temin is correct in the epigraph that few economists have displayed an interest in past economic systems, but this should not be a surprise. The field of contemporary economics is concerned with explaining the operation of capitalistic markets, not ancient or premarket economies.⁸ Economists rarely examine historic

trends in the economy unless they have the measurable data to do so. The recent study by Thomas Piketty (2014; Piketty and Zucman 2013) on the distribution of income and wealth is important in this regard as it examines trends over a 300-year time period, brief from our perspective, but valuable in what it demonstrates in terms of the nature of capital accumulation and long-term historic analysis.

Economic historians have been called on to provide the field with longer term analyses (North 1978; North and Thomas 1973). The requirements of good scholarship for the economic historian follows that of all historians: reliance on good textual records. When records exist, economic history can provide detailed insights into past economic behavior. But historians face two significant shortcomings. The most obvious is that many societies either lacked writing or existed before writing was introduced.⁹ Second, when textual documents are preserved, they usually record a specific or narrow dimension of economic life such as palace economy (Heltzer 1982; Lipinski 1979; McGeough 2007), merchant activity (e.g., Casson 1989; Gotein 1967, 1973), estate operation (Rathbone 1991), or political activity such as conquest levies or taxation (Berdan and Anawalt 1992; Lee-fang Chien 2004). The result is often an in-depth discussion of one particular facet of society, rather than a holistic and integrated view of the entire economy. Aspects of the domestic economy, for example, can be particularly difficult to reconstruct.

Archaeology provides another entrée into the study of the ancient past. Archaeologists reconstruct history from durable material remains (e.g., Harris 1993). The advantage of archaeological research is twofold. It can examine all levels of the society from commoners to kings, and it is not time-bound or restricted to periods of written history. Careful analyses of material remains make it possible to reconstruct an array of economic topics ranging from agriculture (Barker and Gilbertson 2003; Harrison and Turner 1978) and craft production (Costin 1991; Hirth 2006b) to trade (Lobell 2009), type of storage (Christakis 1999; LeVine 1992; Rickman 1971), and the presence of complex economic institutions such as a marketplace (Camp 1986; Hirth 1998; Stark and Ossa 2010). The strength of archaeology is that the materials recovered from domestic contexts reflect consumption at the family and household level, information frequently missing from other sources. The disadvantage of archaeology is the issue of *equifinality*, namely that distributions of material remains could have been produced by several alternative social processes. Nevertheless, careful modeling and problem-oriented research make it possible for archaeologists to reconstruct different forms of both production and distribution (Costin 2001a; Earle and Smith 2011; Hirth 1998, 2008, 2010; Hirth and Cyphers 2020).

Finally, there is the voluminous work of countless economic anthropologists and ethnographers who have compiled detailed accounts of indigenous

premodern and semi-modern economies in different cultures around the world. These studies provide actual descriptions of economic behavior that can be used as testable models for past economic systems. They encompass a wide range of economic diversity from foraging and tribal groups (Evans-Pritchard 1940; Strathern 2007; Wiessner 1982) to chiefdom societies (Codere 1966; Malinowski 1922) and states (Halperin 2013; Netting 1981). They touch on a wide array of topics from the domestic economy (Wilk 1989b) and agriculture (Chibnik 1994; Netting 1989, 1993; Stone 1986) to merchants (Harding 1967), markets (Beals 1975), and market systems (Smith 1976a, 1976b). Many of these scholars follow the ethnographic tradition of providing a holistic description of society. In addition to materialist discussions many ethnographers probe the ritual (Monaghan 1995) and emic meaning of economic activity (Drucker and Heizer 1967; Gudeman 2001). The utility of ethnographic studies is that they provide models for how different economic activities (e.g., foraging, pastoralism, agriculture) were perceived and structured in societies of different size and complexity that lived in different types of environments. While they are not perfect analogues for ancient societies that have long since disappeared, they provide useful points of comparison with which to examine them.

A COMPARATIVE FRAMEWORK: DOMESTIC AND INSTITUTIONAL ORGANIZATION

A goal of this study is to develop a comparative perspective of the economic structures found in ancient and premodern (traditional) economies. It seeks to develop an organizational framework that is applicable for cross-cultural analysis in which different economic practices and activities can be analyzed and compared. The discussion draws heavily on economic anthropology to frame this understanding. Anthropology contains detailed ethnographic descriptions of different forms of production, communal labor, feasting, elite sponsorship, self-sufficient householding, usufruct property, traditional systems of land tenure, and an array of gift exchanges like those mentioned in many ancient and historic accounts. No assumption is made that any of these forms of organization are perfect analogies for past societies. But it does assume that there are commonalities and continuities in human behavior and ways of doing things that can be identified and profitably compared across a broad range of time.

While cross-cultural comparisons are an anathema for many historians, they provide a landscape of possibilities against which the key organizational features of the domestic and institutional economy can be examined. Moreover, it is the economic plasticity and heterogeneity of human societies that makes cross-cultural comparisons of economic systems possible.