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# INTRODUCTION

There are two liquids most pleasing to human bodies: inside – wine, outside – oil.

–Pliny (23–79 CE), *Natural History* XIV, 29.150

It is evident that the country now called Hellas had in ancient times no settled population . . . without commerce, without freedom of communication either by land or sea, cultivating no more of their territory than the exigencies of life required, destitute of capital, never planting their land . . .

–Thucydides (ca. 460–400 BCE), *History of the Peloponnesian War*, 1.2.1–2

### OIL, WINE, AND CULTURAL HISTORY IN PRE-CLASSICAL GREECE

This book aims to explore the centrality of olive oil and wine in various realms of ancient Greek life and how this interdependence came to exist and persist. Indeed, this book argues that oil and wine can be regarded not just as economic commodities, but *cultural commodities* that actively shaped the paths of ancient Greek history. Cultural commodities can be defined as things that have become deeply entangled with humans through increasing ties of dependency that are reinforced by a high value constructed within multiple contexts of exchange. On the one hand, expansions and contractions of dependencies between people and oil/wine can be seen by tracing shifting emphases in exchange modes – such as commensal, gift, and commercial exchange – within their social and environmental contexts over the long term. On the other hand, the

value attributed to oil and wine, although it generally remained consistently high, was constructed in different ways as internal and external stimuli, including changes in the natural environment, affected the relationships between people and things over time. Cultural commodities therefore lie at the intersection of value, exchange, and dependency, where discontinuation is no longer an option because of the long history of increasing entanglement. Ultimately, cultural commodities become signifiers of identity, deeply rooted in social and ideological practices. For the cultures of pre-Classical Greece, the history of their entanglement with oil and wine is one that begins in the Bronze Age and continues throughout the ensuing Early Iron Age despite dramatic socioeconomic and environmental changes. By the Archaic period, olive oil and wine were taken as an always present staple of daily life: their status as cultural commodities had been solidified. Ultimately, the idea of cultural commodities connects olive oil and wine to their cultural contexts over the longue durée, making it possible to project their value and cultural significance into the future. Indeed, the book concludes by suggesting that the history presented here has meaningful implications for the future of oil and wine in the Mediterranean.

Scholars, both ancient and modern, have long recognized the fundamental role of olive oil and wine within Mediterranean cultures.<sup>1</sup> In the first century CE, very few would have contradicted Pliny the Elder when he wrote that, “There are two liquids most pleasing to human bodies: inside – wine, outside – oil” (*Natural History* XIV, 29.150). Indeed, both liquids were so ubiquitous and essential to daily life that within his *Natural History*, Pliny dedicated an entire book to the history and varieties of grapevine and wine (XIV),<sup>2</sup> as well as six chapters to the olive tree and oil (XV.1–6). Even our first Greek literature in the Archaic period (around the eighth century BCE) indicates clearly that both olive oil and wine were already intensely integrated into contemporary agricultural, social, and economic spheres. Hesiod’s *Works and Days* describes in detail the best practices of wine-making, one of the fundamental agricultural activities performed during the yearly cycle. And yet, for ancient Greeks themselves, the history of oil and wine before the Archaic period was unclear at best and otherwise nonexistent. For example, Thucydides’ fifth-century view of the ancient past of Hellas was quite bleak, isolated, and agriculturally destitute. In the section known as the “Archaeology” quoted in the epigraph, he described the land of Greece in “ancient times” as one of dispersed populations producing only the bare minimum of agricultural commodities needed for survival, without “planting” their land, and without access to commercial networks by land or sea (*Peloponnesian War* 1.2.1–2). Moreover, the verb used for “planting,” φυτεύοντες, specifically expresses the planting of fruit trees, most notably vines and olives.<sup>3</sup>

This book aims to show, through a focus on oil and wine, that Thucydides' concept of his own past as bleak and barren was far from reality. In fact, despite a fluctuating climate and dramatic changes to sociopolitical structures, pre-Hellenes achieved and maintained all of the attributes Thucydides thought they lacked. This book traces how people did indeed plant their land with vines and olive trees from almost the outset of settled life on both the archipelago and Crete. The Minoan palatial era marked the start of extensive production and exchange of oil and wine that was maintained and even strengthened throughout the Mycenaean palatial era as communication by land and sea increased substantially. One could say that Thucydides is merely referring to his more recent past, that is, what we call the Early Iron Age. While his picture of a bleak and "dark" Iron Age was indeed once accepted by scholars and archaeologists, research over the last 30 years has overturned these misconceptions.<sup>4</sup> Not only did people continue to cultivate olives and grapes after the collapse of the palaces, but they also adopted innovative and adaptive solutions to the problems faced by climate change and population movements. Production shifted toward more hospitable regions at the same time that exchange networks were maintained, even across the Aegean. By the end of the Early Iron Age and the beginning of the Archaic era, it is increasingly clear that the regional entanglements surrounding oil and wine were expanding and interacting at more complex levels. The close of the pre-Classical period marks the point when Greek oil and wine, as cultural commodities, were deeply entrenched within group identity, produced in large quantities of surplus, and exchanged over vast stretches of the Mediterranean. The prehistory of oil and wine therefore challenges long-held notions of decline, isolation, and darkness.

To date, no scholar has focused on the long-term prehistory of olive oil and wine in Greece. Their focus has generally been placed on either the introduction of oil and wine production or the flourishing trade of these two commodities in the Classical, Hellenistic, and Roman periods.<sup>5</sup> The intervening Early Iron Age is commonly overlooked altogether. Scholarly work that has addressed olive oil or wine tend to do so separately while concentrating on a narrow time period, geographical region, or amphora type.<sup>6</sup> Moreover, few books have addressed how and to what extent the changes in oil and wine use affect or reflect the changes in Greek history. These trends in the literature are not without their reasons. Up to now, there has been a particular dearth of data related to daily life in the Early Iron Age. This is especially apparent when addressing archaeobotanical evidence, which itself had been overlooked for most other time periods as well. Recently, however, there has been a dramatic shift in focus for both broader historical interests and detailed objective analyses. The Postpalatial era and Early Iron Age have become subjects of interest, stemming from and leading to the publication of archaeological data related to those time periods.<sup>7</sup> In addition, a renewed interest in the diet and

agricultural practices of ancient people has fueled research and publication of archaeobotanical data, palaeoenvironmental analyses, and residue analyses conducted on pots used for cooking and eating.<sup>8</sup>

These recent trends present an opportune time for a synthesis of many variable data into a coherent treatise on olive oil and wine in the pre-Classical eras. In contrast to previous works, this book contextualizes olive oil and wine within longer-term sociopolitical trends, shifting exchange networks, and broader environmental histories that are not easily grasped through short-term perspectives. Adopting a long-term perspective allows an understanding of the dynamics of the relationships between humans and their social and environmental world. On a detailed level, the monograph is also concerned with the micro-history and material culture of oil and wine, particularly, their production, exchange, and consumption in specific social and economic contexts. Furthermore, it considers this historical phenomenon as an ideal occasion to delve deeper into broader theoretical issues of dependence, value, agency, and connectivity.

The implications of this historical study have a meaningful impact on issues of current and future agricultural practice and commerce in the Mediterranean. By understanding the resiliency of the relationship between people and olive oil/wine over a long period of time, we can gain some general insight into how to maintain these connections through political, economic, and environmental hardship. As the Mediterranean once again enters into dramatic climate change today, it is important to understand more fully the outcomes of these changes in the past and how populations adapted to and, eventually, thrived in new conditions. Indeed, the cultural commodities of olive oil and wine were as much entangled in Greece's past as they are in Greece's future.

#### OIL–WINE, OLIVES–VINES

The central objects of study in this book, olive oil and grape wine, are considered here together for very specific and necessary reasons. From a broader perspective, oil and wine can both be labeled as value-added commodities. That is to say, both olive oil and wine are derivatives of products that could have acted as simple commodities in and of themselves (olives and grapes) and, through technological skill, they are transformed into different commodities. In most cases, value-added commodities are considered more “valuable” because of the time, effort, and knowledge needed to produce them. In the case of both olive oil and especially wine, this transformation also brings about the additional benefit of an extended shelf life (although we do assume whole olives were also preserved in a similar way as today; Foxhall 2007, 12). Olive oil and wine are also useful to consider together since both processes of value-addition are very similar, both in concept and in the equipment used (and found in the

archaeological record). Of course there are some differences (e.g., specific growing regions, type of maintenance, labor necessary for harvest) but in general, the production of both oil and wine benefit from domesticated plants, which need constant and seasonal attention.<sup>9</sup> In addition, the equipment needed for both commodities includes specialized pressing beds, along with large catchment basins/pots, liquid bulk storage containers, liquid bulk transport containers, and smaller consumption containers. In most cases, it is impossible to determine definitively whether a container meant for liquids (based on shape) held either oil or wine. Indeed, many residue analyses determine that specific pots could have been used for either liquid, or in some cases both liquids had been inside the same pot at some point. As will be argued throughout this book, one final reason to consider both oil and wine together is their compatibility with regards to social contexts and their archaeological remains. Both oil and wine were used in the same types of activities and their respective exchange contexts. For example, in Bronze Age Greece, based on archaeological and written sources, oil and wine were both used in ritual activities, which included feasting and gift-giving. Containers for oil and wine, as well as drinking equipment, are found in almost all contexts of ancient Greek life including cemeteries, shrines, palaces, urban houses, farmsteads, and shipwrecks.

*Oil and Wine Production: Technologies and the Archaeological Record*

The first oil and wine production in Greece came relatively late. The earliest evidence not only for domestication but also for pressing olives for oil and grapes for wine comes from the Near East. Although recent studies of patterns in genetic variation of olives and grapes suggest a longer, more complex trajectory (Besnard et al. 2001, 2011; Arroyo-Garcia et al. 2006), the domestication of the olive has traditionally been placed in the Jordan Valley, and perhaps the site of Teleilat Ghassoul more specifically (Zohary and Spiegel-Roy 1975; Kislev 1987; Neef 1990; Hadjisavvas 2003, 117). This area could be extended more broadly to Palestine in the Chalcolithic era (sixth millennium BCE). The first use of wild olives for oil was discovered off the Carmel coast in Israel, where archaeologists have found hundreds of olive pips resting on stone grinding surfaces and in pits at the site of Atlit-Yam, suggesting some sort of processing as early as the Pottery Neolithic period (Galili et al. 1997; Hadjisavvas 2003, 117; Foxhall 2007, 13). Grapes were purposefully cultivated and wine produced about 3200 BCE in the Near East, although we know wild grapes were used much earlier (Hansen 2002, 55). Arguably the earliest evidence for wine production comes from the fourth millennium site of Areni cave in Armenia. There, grapes were crushed in a shallow, slightly slanted, and grooved ceramic 1m-long basin on the floor. From there, the must flowed

directly into a 60cm-deep vat imbedded into the floor where it would have fermented (Barnard et al. 2011). In Greece, the earliest evidence for wine production has been dated to sometime in the fifth millennium both on Crete and in Northern Greece (Valamoti 2004; Sarpaki 2012, 214). Olive cultivation was introduced in southern Greece and Crete at the end of the Neolithic Era and evidence for oil production becomes evident during the Bronze Age (Valamoti et al. 2018, 184; Langgut et al. 2019).<sup>10</sup>

Once the knowledge of making oil and wine became more widespread, multiple ways of pressing the fruit developed. The scale of production and access to resources would have determined whether simple mortars and pestles or larger, dedicated, and specialized facilities would have been necessary. Since there would often have been a correlation between the type of pressing facility and the scale of production, we can use changes in the types of grape or olive presses and fluctuations in their frequency in the archaeological record as proxies for changes in scale of oil and wine production. The actual and probable technologies of oil and wine processing are therefore important topics to address. Trends in these processing facilities visible over time can tell us about the production of oil and wine, its relative value, and the entanglements between people and things.

Pressing technologies for both olive oil and wine have been thoroughly analyzed in previous publications (for in-depth overviews, see Brun 1993; Brun 2003, 53–58, 146–158; Brun 2004, 7–24; Foxhall 1993, 2007, 131–217; see also contributions in Amouretti and Brun 1993). Most studies, however, focus on the Hellenistic and Roman periods when pressing facilities are relatively easily identified and more prolific. Before this point, invisibility is an inherent problem. Trends in the location of pressing activities certainly changed over time and space and any rural production is inherently difficult, if not impossible, to identify with certainty.<sup>11</sup> For information on pressing outside of urban zones, one must turn to survey data. Indeed, Foxhall's (2007, 172, 173–176, table 6.2, 182–204) extensive overview of pressing equipment found in surveys throughout Greece indicates that pressing activities were often undertaken not only outside of urban spaces, but also outside of the immediate vicinity of farmsteads (i.e., out in the fields or groves themselves). Postdepositional activities might also play a part in the invisibility of stone pressing equipment since these objects were frequently reused both in antiquity and in our modern era (Foxhall 2007, 172). Moreover, it is often impossible to assign a secure date to these items since stone pressing technology changed very little over time and they are often found out of context or unassociated with other, datable, material. Out of the seventy-five entries recorded in Foxhall's (2007, 173–176, table 6.2) overview of pressing equipment found in survey, forty-six are identified as Roman–Late Roman with some labeled as “reused,” fifteen are undatable, and twelve are identified as Classical or Classical–Hellenistic, with some uncertainty.

The remainder are Medieval or modern. From this study alone it is clear that the vast majority of pressing equipment found in surveys is difficult to identify, variably interpreted, and nearly impossible to date with any certainty if it is not clearly a Roman-era *trapetum* press (Brun 1993; Foxhall 2007, 165–172). The data are complicated further by the fact that some evidence suggests these presses had multiple functions. As argued by Foxhall (2007, 132, 138, 184), presses could be transportable and multipurpose for wine, oil, or other industrial activities.<sup>12</sup>

The variable and complicated evidence for pressing in the Hellenistic, Classical, and Archaic periods has been thoroughly addressed by Lin Foxhall (1993; 2007, 138–165; see also Brun 2004, 84–130). The Archaic era presents the most complete evidence for large-scale “lever and beam” press installations at Azoria on Crete and Klazomenai on the coast of Asia Minor. Chapter 6 provides an in-depth overview of these two production facilities, as well as the complications with their interpretation. As discussed in Chapters 4 and 5, little evidence is available for pressing technologies in the Postpalatial era and Early Iron Age, which might suggest a change in scale of production or location of processing facilities. For these time periods, it is necessary to turn to other evidence for oil and wine production, including archaeobotanical remains, storage facilities, and contemporary craft production. It is in fact the Bronze Age that presents some of our best and most abundant evidence for olive and grape processing facilities (Brun 2004, 72–76). The thorough study, now over 25 years old, by Platon and Kopaka (1993) argued, based on their analysis of over forty presses, that there are three types of presses present on Minoan Crete and that their primary purposes can be understood by examining the characteristics of each type as a whole along with trends in its architectural placement, associated objects, associated archaeobotanical remains, and by analogy with ethnographic and historical examples. Their work serves as a foundation upon which new data from Crete and elsewhere can be integrated.<sup>13</sup> Wine production has been assigned as the primary purpose for Type I and II pressing installations, while olive oil production was primarily intended for Type III. The most basic and prevalent Type I pressing installation includes a ceramic high-walled crushing bed with a large, wide spout accompanied by a large catchment pot at a lower level. Type II pressing installations are larger rectangular basins built within a room or carved out of bedrock in an extra-urban environment where grapes would be crushed by foot. These basins have a channel or outlet leading to either a catchment pot or another basin placed at a lower level to catch the must. Type III installations are identified by a large, usually circular, and shallow cut-stone crushing bed with a narrow spout. Their stone construction and morphology strongly suggest crushing olives was their primary purpose. Chapters 2 and 3 provide an in-depth discussion of these three production technologies and how trends in their typology, context, and

frequency can help elucidate changes to scale and control of oil and wine production in the Minoan and Mycenaean palatial eras.

When addressing the production and exchange of oil and wine, it is also important to consider the production of a surplus. The idea that groups of people, from the first sedentary farmers to the nations of today, tend to produce a surplus of edible goods is a common fact. Most would say that the primary reason to produce a surplus of food is to withstand fluctuations in growing seasons and climate, such that if a bad drought hinders the amount of food produced, then the surplus from the previous year would tide people over. This simplistic view of surplus, however, has continually come into question (see, e.g., Bogaard 2017). Are there no other reasons to produce a surplus? Who is in charge of this surplus production, its storage, and its distribution? Anthropological studies on feasting have shown that surplus was indeed used for means other than purely practical and that the control of such surplus (and the ability to give it away) was a marker of distinction and power. Indeed, surplus can be envisioned as a culturally constructed “state of mind” dictated by what is thought to “be enough,” a concept that is influenced by who controls the surplus (Hastorf and Foxhall 2017, 37). Many recent studies have shown that pre-Classical Greek societies generally maintained a surplus of foodstuffs and its control varied according to region and time period. On Late Bronze Age Crete, surplus was stored in central-court buildings, often called palaces, in large pithoi within a labyrinth of storerooms and magazines (Christakis 2008). Similarly, Late Bronze Age palaces on the Mycenaean mainland also maintained rooms stocked with large jars, presumably filled with food. In contrast, perhaps a more communal aspect to surplus storage was adopted in northern Greece at this same time (Margomenou 2008).

Regarding the surplus of oil and wine specifically, two issues must be addressed. The first is that oil and wine are not grain and water. This means that one could argue that there should have been no need for a large surplus in these two liquids since they were not necessary for human or animal survival. Of course, olive oil provides essential fatty acids and wine could have been used to sterilize water given a high enough alcohol content.<sup>14</sup> As added-value commodities, they are the product of additional labor and expertise applied to otherwise viable commodities (olives and grapes). Yet, the fact remains that oil and wine are not necessary for human survival. But could someone from the ancient Mediterranean imagine surviving without them? This question is especially pertinent if we consider the production of surplus for reasons other than survival, namely, competitive display (gift-giving, feasting) and exchange (barter, trade). To consider the importance of oil and wine within these two realms where surplus is necessary, we must consider why and how these two liquids acquired such prominence within ancient Greek culture.



CULTURAL COMMODITIES: DEPENDENCY, VALUE,  
 AND THE LONGUE DURÉE

What initially motivated this project was the striking extent to which olive oil and wine are integrated into the daily lives and seasonal rhythms of people living in modern Greece. Perhaps even more striking was that despite dramatic political, social, economic, and environmental changes in recent history, Greek people nevertheless maintained their connections to their ancestral land and the products elicited from that land (even if they now live in a city; see, e.g., Forbes 1993). This insight led to the consideration of what are the underlying motivations, both conscious and subconscious, for the maintenance of this incredibly long-lasting connection between people, place, oil, and wine – present and past. Did communities in the pre-Classical period of Greece also maintain this continuity despite external and internal change? The synthesis of the archaeological, textual, and contextual evidence for the pre-Classical period of Greece presented here suggests that people did indeed develop a sort of inescapable relationship with oil and wine. During this long-term process, oil and wine became, what I call, *cultural commodities* and remain as such until today, a point to which the Conclusion of the book returns.

In this book, I define cultural commodities as products that continue to be produced because they have become *indispensable* for the functioning of social and economic exchanges well beyond economic advantage. Cultural commodities can therefore be considered in opposition to subsistence commodities or economic commodities, such as a “cash crop” – commodities produced primarily for their economic benefits. The indispensability of cultural commodities is a result of the intersection of dependency and value. That is, a relationship of dependency developed between people and the commodity that was reinforced and held in place over time by a positive network of value. It was both needed and wanted. In the case presented here, oil and wine take an active role, shaping ancient Greek culture as they became inextricably bound to humans and humans to them. Ultimately, the cultural commodities of oil and wine become signifiers of Greek cultural identity, deeply rooted in social and ideological practices, rather than mere agricultural products functioning within an economic vacuum.

To delve deeper into this concept of cultural commodities, it is perhaps useful to explore the ideas of dependency and value as they apply to the ancient past. More specifically, it is important to address why these two ideas are integral for understanding the historical trajectory of oil and wine in the pre-Classical period.

*Dependency and Entanglement*

Dependency is a concept that has recently gained attention as one of the main ideas behind the theory of “entanglement” (Hodder 2012, 2014).<sup>15</sup>

Entanglement describes the complex relationships generated between people and things over time. Specifically, the relationships between people and things can be designated as ones of dependence (pl. dependences) or dependency (pl. dependencies). Dependence suggests a positive relationship whereby the one gains something through the presence of the other, whereas dependency suggests a more negative relationship whereby the one could not survive without the other. In his seminal work on the subject, Ian Hodder defines entanglement as the sum of the dependency between humans and things, things and things, things and humans, and humans and humans (represented as  $E=HT+TT+TH+HH$ ).

In this definition the word “thing” can include not only material objects, but also immaterial concepts such as institutions (which in themselves are bundles of human–thing interaction), thoughts, and even feelings. In this way, a “thing” is ultimately a flow of matter, energy, and information (Hodder 2012, 218).<sup>16</sup> Entanglement therefore takes the centrality of things espoused by material culture and materiality studies to the next level by assigning the same “things” primary agency. This is not to say that things necessarily actively think about how to act in the world. Rather, things achieve this level of agency through their *temporality* and *physicality*. These attributes of things, that they have a certain scheduled life that involves decay, serves to draw humans into their care, thereby creating a certain “stickiness” or “entrapment.” A pot, for example, does not have active agency in the sense that it thinks about its surroundings. Yet when it breaks the humans around it have to take action and make decisions about mending it, reusing it, or discarding it. Agency, therefore, does not have to be a conscious state, but rather a mode of eliciting action from or affecting in some way the world around you. The inescapability of this relationship between humans and things is the hallmark of the concept of entanglement: humans cannot disavow things (Hodder 2012, 68–70, 79).

As *living things*, grapevines and olive trees have the potential to influence humans in a particularly prominent and active way. One way that the agency of vines and olive trees can be seen is during the process of domestication and propagation. Plants of all kinds have the “desire” to reproduce (van der Veen 2014, 800). That is, all plants exist with certain mechanisms that allow for and encourage reproduction through various means, such as colors, smells, attractive morphology for bees and birds, and so on. When people started to domesticate olive trees and grapevines and cultivate those that produced the most pleasing fruit, the plants immediately became dependent on humans for their care. Instead of planting from seeds, which takes too long to generate a fruit-bearing plant, farmers used the technique of vegetative propagation. In this process, farmers choose the best individual that produces the best fruit and graft or clone it to keep that particular genetic line going. For the grapevine, important traits include hermaphroditic, self-pollinating flowers, a thicker stem,