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# Alcohol and Social Complexity in Ancient Western Asia<sup>1</sup>

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by Alexander H. Joffe

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An underappreciated feature of complex societies is the production and consumption of alcoholic beverages, in particular wines and beers. A variety of data are reviewed which suggest significant expansion of alcoholic beverage production and consumption in many areas of Western Asia during the 4th and 3d millennia B.C. Production of beverages formed part of the processes by which emerging elites expanded control over craft production, established symbols, created manipulable surpluses, and renegotiated gender roles. Consumption of beverages was an important element of nutrition, ritual, and political economy in the early societies of Mesopotamia, Egypt, Syria, and the Levant. Review of evidence from the Aegean indicates similar processes at work but with emphasis on competitive feasting and hospitality. These different uses of alcoholic beverages represent significant regularities in the emergence of social complexity and the rise of the state.

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The rise of social complexity was a series of complex and interrelated processes which spanned the ancient world. Many possible causal factors and constituent elements have been discussed by scholars in the past few decades, but no single theory for the rise of social complexity has been sustained. The present discussion makes no pretense to presenting a high-level theory. Rather, it points to another small but significant regularity in the development of complex societies in ancient Western Asia: the creation and use of alcoholic beverages, in particular beers and wines, for a variety of socioeconomic and political purposes. These include as a source of nutrition but, more important, as a mechanism for reorganizing agricultural production for intra- and intersocietal exchange, labor mobilization, and centralized distribution and as elite symbols.

Following the cue of Dietler (1991) in his important discussion of alcoholic beverages in Iron Age Europe, this paper presents three case studies from the ancient Western Asian world: beer in Egypt, wine in the Levant and Egypt, and a variety of beverages in Mesopotamia. These examples, illustrated by floral, ceramic, and iconographic evidence, and a cursory examination of more widespread changes in ceramic assemblages throughout ancient Western Asia suggest that the production, exchange, and consumption of alcoholic beverages form a significant element and regularity in the emergence of complex, hierarchically organized societies, along with the restructuring of labor and gender relations. Review of similar evidence from the Mediterranean and beyond further demonstrates common features. While its precise functions varied within highly diverse local processes of institutional development and can be documented unevenly in the archaeological record, alcohol nonetheless stood at the nexus of power, production, and gender renegotiation.

## Alcohol in Anthropological Perspective

The appearance of beer has been regarded by some as an indicator of social complexity—the rather prosaic knowledge of brewing being regarded, in a sense following the Sumerian lead, as a sign of civilized behavior. The discovery of fermentation is likely to have been early, going hand in hand with if not precipitating increased familiarity with and manipulation of grains during prehistory (Braidwood et al. 1953, Katz and Voigt 1986). Increasing population densities and resulting contamination of water supplies are likely to have spurred the search for suitable substitutes; indeed, as many travelers to Asia, Latin America, and the occasional North American city know, local beers or the ubiquitous Coca-Cola are often safer bets than the water (see Cohen 1989).

As Mary Douglas puts it, "Drinking is essentially a social act, performed in a recognized social context" (1987:4). Anthropological attention has focused largely on health and nutrition, the generation and reinforcement of individual and group identities, and rituals re-

lated to religion and status (see Heath 1987). Of particular interest here is the role of alcoholic beverages in political economy. In the context of early complex societies this may be construed to include both economic activity and the social construction of competition, corporate identification, power, status, and gender (see Gefou-Madianou 1992a). Complementing these functions, the social setting and intoxicating effects of alcoholic beverages serve to construct an "ideal world." In Douglas's words, "They make an intelligible, bearable world which is much more how an ideal world should be than the painful chaos threatening all the time." These ideal worlds, as she notes, "are not false worlds, but fragile ones, momentarily upheld and easily overturned" (1987:11, 12). In this regard alone alcoholic beverages would have certainly found a place in emerging complex societies, where individual circumstances underwent significant and not necessarily pleasant transformation.

Alcoholic beverages and intoxicated states have a place in many religious beliefs and ritual behaviors (see Armstrong 1993:16–27). Beyond the private rituals of small groups (e.g., March 1987), however, in early complex societies the creation of ideal worlds entailed the forging of formal links between emerging sociopolitical orders, ontological cosmogonies and cosmologies, and agricultural producers. In their discussion of maize and beer in the pre-Hispanic Andes, Hastorf and Johannesen follow the symbolic lead of Lévi-Strauss (1969) and suggest that "the importance of transformed substances developed into a cognitive structure for Andean people. . . . therefore it is likely that such transformations were active in the process of political change" (1993:121). Redistribution of beverages in the process of feasting secured allegiance but also fused subsistence, labor, and belief. The combination of transformational, psychoactive, and alimentary qualities and their association with sociopolitical and religious concepts and institutions created a powerful tool for manufacturing consent.

Emergent elites and early state institutions tread a fine line between coercion and provision of benefits in their relationships with agricultural producers. In many nonstratified societies alcoholic beverages such as beer form an important part of competitive feasting and other power-diffusing mechanisms. In early stratified societies the same tools were turned on their heads. Religious sanction of new power relationships had to be coupled with effective redistribution, at least initially, for hierarchical mind sets and behaviors to take hold. Feasting may have given way to rationing, and elite responsibility as provider, in terms of both image and practical reality, was fixed at an early stage. Risk abatement through central administration of storable food supplies remained an important prerogative of states even in modern times (e.g., Murphy 1988). Even so, in early states production was not necessarily centralized; part of the process of state-level development was competition between various organs of authority for control over a variety of levels of production and distribution, including the domestic. A unified concept of the early

state as administrator or manager thus begins to fray under closer examination (Kohl 1987, Bawden 1989).

The relationship of the state to alcoholic beverages is long-standing and pervasive. Today the bureaucratic state regulates production through standards and quality controls on the manufacturing process, exchange through taxes and tariffs, and consumption through restrictions on drinking ages, drivers' blood alcohol levels, and public display (except perhaps in New Orleans). In many places marketing is the prerogative of the state, while in others production itself is a state monopoly. The tightening of the Soviet vodka monopoly under Gorbachev was a recent example of elites' attempting to enhance their own power within a closed system, seeking to balance alcohol production and consumption in an effort to raise capital while ameliorating the deleterious effects of widespread intoxication on a fragile economy.

Open consumption of alcoholic beverages in modern capitalist states is highly regulated, both legally and culturally, in licensed establishments such as restaurants, in highly contained and even more highly regulated contexts such as bars, and in a range of public contexts, such as concerts and sporting events, in which alcohol fuels a presumably higher level of individual and group participation under slightly relaxed behavioral norms. In Western societies the ideological backgrounds of these differing contexts relate primarily to consumer capitalism but also to gender roles and representation. Private mating rituals involving higher than normal levels of assertiveness and even aggression on the part of males and females are spatially compartmentalized, socially sanctioned, and chemically facilitated through the inhibition abatement provided by alcohol. But, more important, alcohol is fundamental to both small- and large-scale rituals of male solidarity. From the corner bar to the fraternity party to the football stadium, alcohol fuels different types and levels of bonding activities that help shape male interpersonal relations and contribute to cultural maintenance. Women are often absent from these situations except as facilitators of consumption or objects of desire. Although today the public intersection of gender and alcohol serves primarily to promote capitalist consumption, it still creates a powerful avenue for manipulation of male attitudes and actions.

In early complex societies efforts at monopolization by emerging state institutions entailed competition between various organs or sectors of society capable of providing alcoholic beverages, particularly beer, to both aligned and unaligned groups. As will be shown, consumption was apparently encouraged rather than discouraged. Even with the establishment of centralized state institutions the ease of decentralized beer production permitted the maintenance of alternative economies, centers of power, and continued domestic production (e.g., Crump 1987). The wide range of nutritional beverages with alcoholic content, made of honey, palm, cactus, sugarcane, rice, tubers, sorghum, maize, and milk, among others, should also be recalled here (Darby

1979, Steinkraus 1979). Stigma and sanction likely did not emerge until established societies began recognizing the costs of alcoholic beverage consumption and even then were culturally conditioned (see Marshall 1979). Braudel also stressed the prosaic role of alcohol as “an everyday stimulant, a cheap source of calories and certainly an easily accessible luxury, with vicious consequences” (Braudel 1973:175). While everyday beverages may have satisfied widespread needs for nutrients and intoxicants, diacritical beverages, containers, and behaviors such as those associated with wines and distilled spirits were necessary for increasingly stratified elites to elaborate privileges, including sumptuary prerogatives and attendant etiquette, and partition their sector of society off from the majority. Changes in gender roles, particularly the declining status of women, are more difficult to document archaeologically but may be suggested to have gone hand in hand with increasing institutional needs for labor and provisioning.

## Beer in Egypt

Many types of beer were manufactured in ancient Egypt (see Helck 1971a). The basis for most was the fermentation of wheat or barley, activated by malting, the use of germinated grains as a source of enzymes to convert carbohydrates into sugars, intensified by prolonged heating, and flavored by the addition of dates, fruits, and wines (Darby, Ghalioungui, and Grivetti 1977:534–47; Hardwick 1979). Geller has recently discussed the evidence for Predynastic beer production in Egypt (1992, 1993). His excavations of a brewery at Hierakonpolis revealed a complex with two parallel rows of vats, two extant to a row, set into a burned platform, with two additional vats nearby. Residue found within the vats contained several stable carboxylic acids, fermentation by-products, and uncarbonized wheat, barley, grapes, and dates (1993:261).

Geller has also reassessed previously known materials from Abydos, Mahasna, Badari, Ballas, and other sites and suggested that brewing was widespread in Naqada I–III Egypt (Geller 1992:21–23; 1993:262–63). An adjoining site which he interprets as a bakery would confirm the connections between baking and brewing known from iconographic evidence (Darby, Ghalioungui, and Grivetti 1977:501–50; Geller 1993:260; Samuel 1994). The use of bread in beer production is known in both Egypt and Mesopotamia (Hartman and Oppenheim 1950:11; Chazan and Lehner 1990:29), and Geller points to textual and iconographic evidence suggesting that brewing was done largely by women (1992:21).

The scale of beer and bread production indicated by the archaeological evidence is considerable. The six vats were capable of producing up to 1,100 liters per day (Geller 1993:263). This is well beyond the domestic or household level, leading to the conclusion that community production and provisioning were being undertaken. A number of additional brewing and bakery sites have been located through surface survey at Hierakon-

polis (Geller 1993:264). Geller has suggested that Hierakonpolis was the Predynastic Milwaukee or St. Louis, “with beer-making a dominant elite-building and maintaining industry” (1992:24).

Throughout the later Predynastic or Naqada II and III periods local Egyptian elites made efforts toward self-definition, including increasing control over craft production and symbols (e.g., Cialowicz 1989; Davis 1983, 1990). Securing of copper resources and technology from the southern Levant was another goal (Seeher 1990, 1991; Endrödi 1991:29), as was eventually the maintenance of a small-scale colonial system in the southern Levant (Joffe 1993, Dessel and Joffe n.d.). It is significant that vats associated with beer making have been found at several sites in this colonial system, such as ‘En Besor, along with sealings indicating royal administration of the sites (Gophna and Gazit 1985, Brandl 1992, Gophna 1990, Schulman 1992, van den Brink 1995). Beer production and distribution played an important role in the official provisioning of the colonial system, a situation apparently paralleled in Uruk Mesopotamia (see below).

The evidence of beer production should be coupled with that for bread production by the emergent state. The bread mold or *bedja* bowl has been recently discussed by Chazan and Lehner (1990) in terms of both its function and ubiquity in Early Dynastic and Old Kingdom contexts and its formal and functional similarities to the Uruk beveled-rim bowl. They note that with the rise of the state and the need for mobilizing and provisioning large labor forces “a technology which would have allowed the production of large quantities of bread would have been desirable” (1990:31). They observe, for example, that bread molds comprise some 32% of the total sherd count from the excavations at the Giza Mycerinus pyramid complex (1990:26), and large-scale bakeries have recently been discovered nearby. With the benefit of modern occupational safety consciousness one can imagine that a steady supply of bread and beer may have tempered the tedium of pyramid building while simultaneously increasing its hazards.

Millard (1988) has suggested that the *bedja* bowl and the beveled-rim bowl were related developments—an idea that appears unlikely given the presence of plausible antecedents in both Egyptian and Mesopotamian ceramic assemblages (Chazan and Lehner 1990:27). It is interesting to note, however, the similarities in both early Egyptian and Mesopotamian notational systems of the signs for “bread” and “beer” (Chazan and Lehner 1990: fig. 1). The simultaneous appearance and florescence of these similar ceramic forms during periods of emerging central authority indicate parallel processes of intensified control over production and distribution of subsistence goods. These goods were designed to be cheap and nutritious, as well as perhaps mood-altering, conditions which intensified the ideology and role of the state as provider. The eventual bureaucratization of beer production, particularly in the Middle Kingdom, has been well described by Kemp (1989:120–28). The origins of the Egyptian bureaucratic mind, however, are

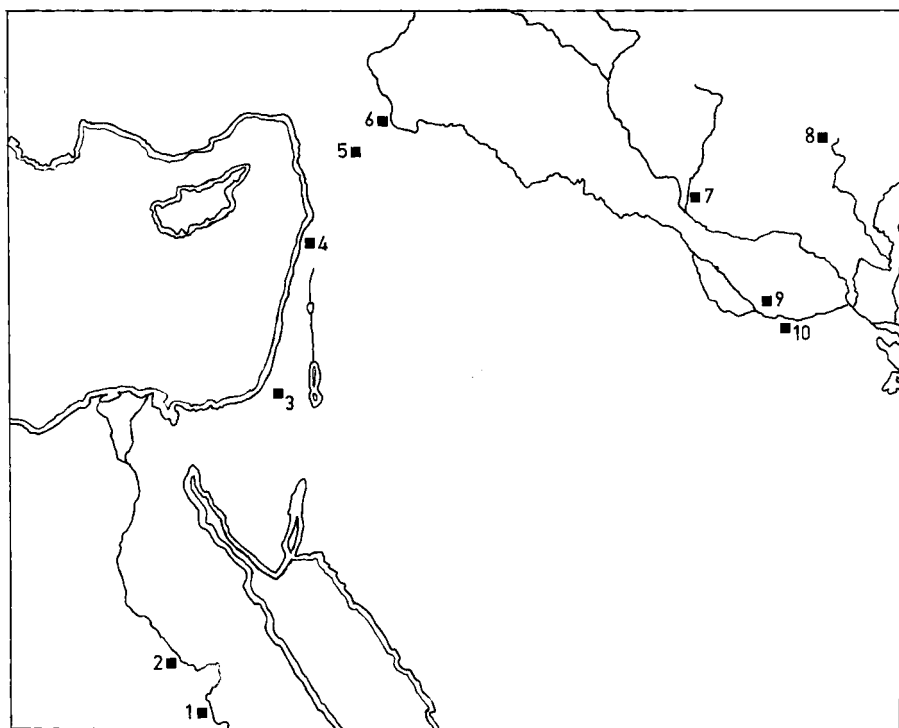


FIG. 1. Major sites mentioned in text. 1, Hierakonpolis; 2, Abydos; 3, 'En Besor; 4, Byblos; 5, Ebla; 6, Habuba Kabira; 7, Khafaje; 8, Godin Tepe; 9, Uruk; 10, Ur.

to be found in much earlier periods. During the later 4th and throughout the 3d millennium food, time, and people became commodified, and elaborate systems of valuation for both were established and maintained by proliferating administrative structures. Beer from the state helped accelerate the acceptance of these new structures and relationships.

The production of beer was not simply intended for the living. The rise of social complexity in Egypt was fundamentally linked to the development and entrenchment of mortuary beliefs, which in their manipulation and progressive elaboration by elites served to extend the inequalities of this world into the next. Beginning in the Naqada II period increasing amounts of wealth were removed from circulation at all levels of society through placement of goods in mortuary contexts (Endesfelder 1984). The best-known results of this process are the massive pyramid and temple complexes of the Old Kingdom and their attendant funerary cults. Provisioning of burials and procurement of specialized goods became driving forces of increasing inequality, as more people became dependent on goods distributed by emergent elites and subservient to the extractive goals of those elites (Bard 1992). Beer was regularly included in funerary repasts and offerings, becoming an important provision for the quintessential "ideal world" (Darby, Ghalioungui, and Grivetti 1977:531).

While beer remained a staple of the Egyptian diet, secured by both household and state-level production,

elites continued their quest for self-definition through the progressive elaboration of sumptuary prerogatives. The role of wine, both local and imported, was critical.

### Wine in the Levant and Egypt

Despite some disagreement about the exact location of the first domestication event (e.g., Unwin 1991:61-77), it is clear that by the 4th millennium the Mediterranean crops of grapes, olives, dates, and figs were all being used in the Levant (Stager 1985, Spiegel-Roy 1986, Zohary and Hopf 1993, Neef 1990, Liphshitz et al. 1991, Zohary 1995; see also Runnells and Hansen 1986). Production of these crops requires appropriate strategies of labor organization and land tenure. Olive trees may take ten to twelve years to begin producing fruit and grape vines three to five. During this time households must remain present to tend the crops and maintain an adequate complementary subsistence base. Households enlarged by any number of extending strategies have a labor and, hence, a productive advantage over smaller units. Finally, the long-term investment in Mediterranean crops would imply appropriate concepts of land-ownership (Reyna 1976, Wilk and Netting 1984, Stager 1985, Smith 1987).

The Levantine Early Bronze Age, ca. 3500-2350 B.C., saw the emergence of a small-scale "urban" society out of the collapse of the village-level Chalcolithic. During

this period the production of wines and oils became a focal point for the new economy (Esse 1991, Joffe 1993). Production for intrasocietal consumption and exchange was a nexus for social and economic interaction between highlands and lowlands. The production of ceramic jars and jugs known as red-polished or “Abydos” ware (after one of the type’s original find spots in Egypt) was an important means of controlling another aspect of craft production. Raw materials, including clays and tempers, and vessel volumes were controlled by elites (Beynon et al. 1986, Schaub 1987, Porat 1989, Goren 1990). Some vessels were incised with Egyptian potmarks before firing, indicating knowledge of their final destination (Adams and Porat 1996). Another Levantine ceramic form associated with wines and oils was the so-called combed metallic ware (fig. 2). These storage jars are found at sites throughout the Levant as well as in Egypt and like the Abydos wares were made of specific fabrics and tempers originating in the area of Mount Hermon (Greenberg and Porat 1996). Few production facilities have been found on tell sites, suggesting that most primary processing of Mediterranean crops took place in rural sites (Stager 1985, Joffe 1993). The reorganization of the landscape in social, political, and economic terms is the most salient feature of the Early Bronze Age.

Most production of wines, oils, and vessels in the Levant appears to have been intended for intrasocietal distribution and consumption. An unknown amount of the total production, however, was transferred to Egypt. Egypt is known to have produced its own wines from at least the late Predynastic period (Ward 1991:15; James 1995:198–202) and in later periods produced numerous varieties (Ghalioungui 1979). The changing patterns of consumption of Levantine wines and oils in Egypt in late prehistory and the early historic periods are excellent examples of how intersocietal interaction intensifies local processes of inequality among both producers and consumers.

The late Predynastic colonial system in the southern Levant apparently exported quantities of goods back to Egypt, although the scale of the program was not especially large (Ward 1991; cf. Ben-Tor 1991). Indeed, the types of materials plausibly exported and the archaeologically attested scale of contacts suggests that the rationale of the colonial system was not economic but rather political and ideological—the exercise of social power through the dispatch of a permanent mission to a distant frontier to gather intelligence and to secure specialized goods for elite consumption and redistribution (Dessel and Joffe n.d.; see Helms 1988, 1992). Until recently only some 200-odd vessels had been known from all Egyptian contexts from Dynasties One through Six (Helck 1971b:28–34). The recent discovery of an elite pre-Dynasty Zero tomb at Abydos with more than 400 vessels, many of which originated in the southern Levant, indicates only the remarkable success of one individual in securing large quantities of foreign goods (Dreyer 1992). If stretched out over a lifetime they indi-

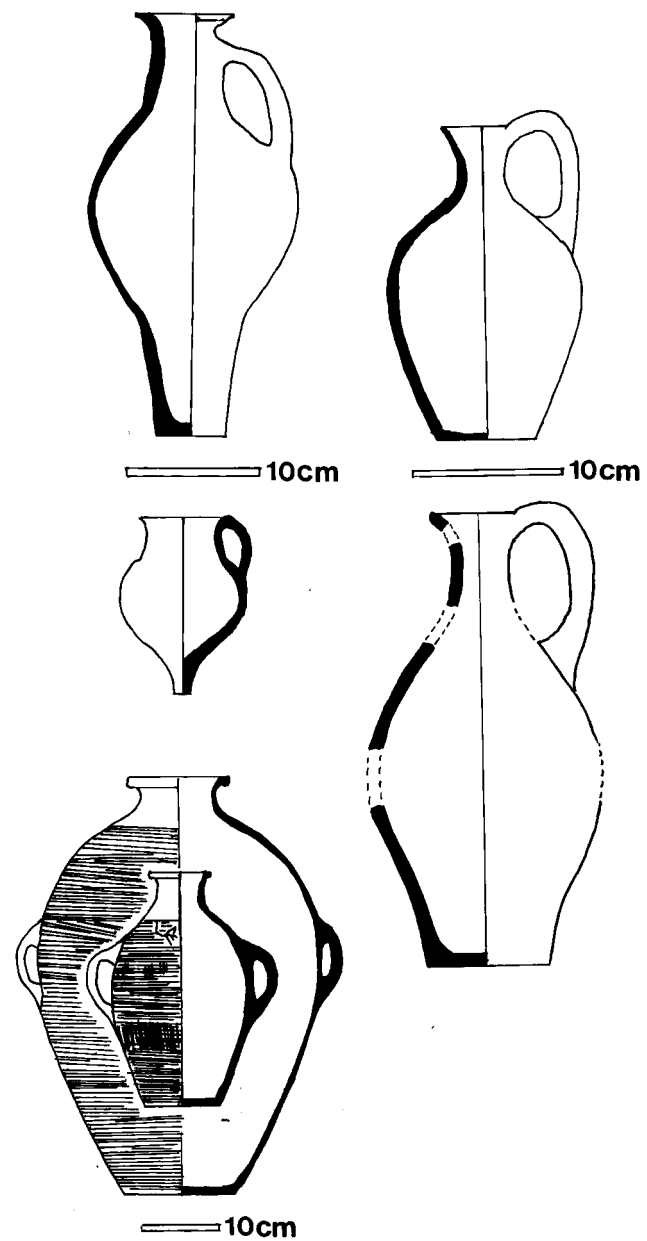


FIG. 2. *Red-polished and combed, metallic wares from the Levant (adapted from Joffe n.d.a).*

cate mere acquisitiveness. Reuse of containers prior to their final placement in mortuary contexts is suggested by recent gas-chromatography/mass-spectrometry studies (Serpico and White 1996).

The Egyptian colonies in the southern Levant disappeared during the latter part of the First Dynasty, and the succeeding two dynasties are apparently periods of internal reorganization in Egypt. In the southern Levant a small-scale urban society emerges during this period but one which is largely cut off from any international trade (Joffe 1991, Dessel and Joffe n.d.). The effects of a limited amount of interaction with Egypt helped cata-

lyze local processes of increasing complexity but were not necessary to sustain the urban system. The production and intrasocietal exchange of Mediterranean crop products continued, but the focus of intersocietal interaction shifted to the northern Levant.

The urban transformation of the northern Levant appears to have taken place slightly later than that of the southern Levant, in the first quarter of the 3d millennium rather than the last centuries of the 4th. In the northern Levant, however, the potential of Mediterranean crops was coupled with that of tree products, in particular timber and resins, which were increasingly attractive to Egyptian elites of Dynasties Three and Four. While sporadic sea contacts had been undertaken since Predynastic times, during the Old Kingdom sea-borne trade between the northern Levant, especially the port of Byblos, and Egypt became highly significant for both parties (Ward 1963, Wright 1988, Joffe n.d.a). Large-scale trade developed, with ships regularly visiting Byblos to transport timber and an Egyptian mission resident at the site. During this period combed-ware storage jars of wines and oils were exported to Egypt (Mazzoni 1985, 1987). The shift from the southern to the northern Levant gave Egypt access to trade networks which transported exotic items such as lapis lazuli from Afghanistan (Pinnock 1988) and opened the way for protodiplomatic contacts with emerging Syro-Mesopotamian polities such as Ebla (e.g., Scandone-Matthiae 1982). This was the same axis which had brought Uruk influences to Egypt in the mid-4th millennium (Moorey 1990, Boehmer 1991, Amiran 1992). Syro-Mesopotamian polities were developing their own oil and wine infrastructures at this time (Shigeo, Harumit, and Akira 1990; Archi 1991a, b; Mazzoni 1994; Guardata 1994).

There is a clear shift in the types of imports found in Egyptian contexts from Dynasty One through Six (Kantor 1992:21–22; Hennessy 1967:71–73; Marfoe 1987:27; Stager 1992:37–38). As Helck has shown in his study of the distribution of the various vessel types found in Egyptian contexts (1971b:28–34), primarily tombs, the import and use of red-polished forms peaked in Dynasty One and then dropped dramatically in Dynasties Two and Three. Import of these tablewares increased slightly in Dynasty Four but then ceased almost completely. The import of combed-ware storage jars began in Dynasty One, was unknown in Dynasties Two and Three, and then reappeared as the dominant form in Dynasties Four through Six. The shift from the import of goods and specialized containers to bulk shipments indicates that during the Old Kingdom greater quantities of foreign wines and oils were needed to supply a larger group entitled to exotic commodities.

Throughout the Old Kingdom Egyptian elites sought to redefine and enlarge their prerogatives through the canonization of the visual arts and writing (Baines 1989, 1991a; Davis 1990) and the continual elaboration of religio-political institutions and their architectural manifestations (Kemp 1989:64–83)—including mortuary belief and ritual (Baines 1991b), most notably the

introduction of mummification (with its attendant need for exotic imported oils and woods), bureaucracy (Kanawati 1977), and, above all, divine kingship (Baines 1995). Foreign wines and drinking apparatus provided another avenue for the exercise of prerogatives and the display of status. As Dietler (1990:386) notes, “in hierarchical systems imported drink and/or drinking practices would be valued mainly for their diacritical symbolic function, and imported drinking gear could be extremely useful in differentiating elite drinking even when the supply of exotic drink was meagre or irregular.” Although Ward (1991:15) has noted that imported vessels are found in “middle-class” burials, this may be accounted for by redistribution of imports by central authorities. Bulk shipments during the Old Kingdom supplied the ever-larger circle of elites and clients, while those at the top sought new ways to define their status. An innovation that held imports in check was offering stelae, which substituted representations of funerary goods for the real thing. Interestingly, this appears to have been an innovation which originated in lesser tombs and “trickled up” to the elite (James 1995:202–3).

Relatively small quantities of goods received from the Levant, primarily wines and oils in their containers and copper, were differentially distributed by the Egyptian elite, as is seen from their final funerary contexts. This helped to legitimate the elite’s political authority and their manipulation of power and ideology in this world and the next (Endesfelder 1984; Kemp 1983:106; Bard 1992; Hassan 1992). Craft production played an important role in diffusing elite ideology. The early imitation of the South Levantine ledge handle (Dessel 1991) and the manufacture of stone imitations of red-polished ware containers (el-Khouli 1978) are further indications of the importance of the Levantine containers as symbols in Egyptian society.

An interesting set of parallel developments involves the role of women in Egypt. By the Old Kingdom women were normally shown in tomb paintings engaged in brewing and baking, as dancers and singers, and participating in the harvest. There are also scenes which represent women in weaving establishments, either workshops or craft organizations (Eyre 1987:37–38). As will be shown below, these findings are a strong cross-cultural regularity and indicate that the circumscription of prerogatives and the direct exploitation of female labor were important features of emergent states.

Both the northern and the southern Levant participated in the commoditization of Mediterranean crop products but with very different results. In the southern Levant, while export to Egypt was initially a factor in agricultural and ceramic production during the late 4th and early 3d millennia, most of the region participated little or not at all in mid-3d-millennium international trade. Nonetheless, large quantities of products continued to be manufactured. Internal demands must account for the bulk of production in the southern Levant, hence the production of both serving and transport vessels. In the northern Levant use of alcohol and Mediter-

ranean crop products by elites for local political economic purposes was doubtless present, but the evidence from Egypt suggests that the larger rationale was production for commercial exchange. A similar pattern is seen in Roman Libya, where provincial elites reorganized local olive oil production to gain prestige and wealth serving an international market (Mattingly 1981). In world-systems terms, this demonstrates how the position and developmental trajectories of peripheral areas could shift according to changing requirements of cores.

## Alcoholic Beverages in Mesopotamia

The question of alcoholic beverages in Mesopotamia is more complex than that of Egypt or the Levant. As is often the case, the first and most internally diverse society has some of the most fragmentary evidence for addressing many aspects of early social complexity (see Powell 1994, 1995). There are, however, various data we may use to create a strong circumstantial case for the importance of alcoholic beverages in early Mesopotamia.

Ceramic evidence from Mesopotamia suggests that production and consumption of alcoholic beverages increased throughout the 4th and 3d millennia. Residue analyses have begun to recover the contents of ancient vessels, adding significantly to our understanding of their use. Shapes of vessels are ambiguous as indicators of function but have begun to stimulate further research (e.g., Frangipane 1994). Ubaid-period assemblages, for example, contain spouted vat and jar forms and elaborate painted cups (see Vértessalji 1984). Simple cups of different size appear to be common in domestic contexts in numbers which may exceed those of household members (e.g., Roaf 1989:118). The Ubaid period also saw the appearance of larger architectural units, the loci of both extended domestic groups and specialized community functions (Jasim 1989). The strategies used to attract followers, create alliances, and support nascent specialists may have included feasts and redistribution of transformed food products.

The increase of workshop-produced spouted jars and flasks in Uruk-period assemblages<sup>2</sup> indicates increased use of beverages made and stored in closed vessels (see Sørenhagen 1974/75; Delougaz 1952:125–37) (see fig. 3). Alcoholic beverages fit these parameters well. The function of the beveled-rim bowl as ration container has been cited above. There is also ceramic evidence for the distillation of liquids during the Uruk period (Levey 1950; cf. Rysanek and Václavů 1989). Uruk and Jemdet Nasr iconography provides numerous scenes of industrial production and storage, including many depictions

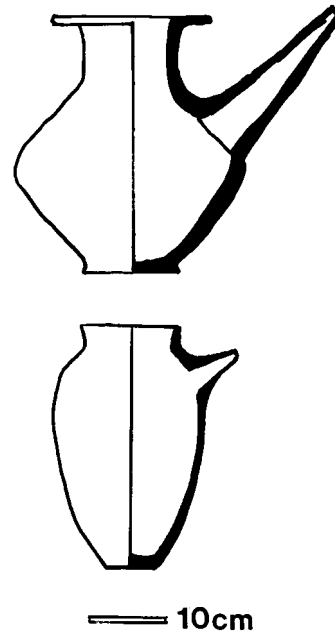


FIG. 3. Uruk-period spouted vessels (redrawn after Perkins 1949: fig. 12, nos. 2 and 9).

of a variety of handled and spouted vessels. There are also many scenes depicting rows of seated “pigtailed figures,” apparently women, engaged in production activities (Moortgat 1966:7–8, nos. 35–40; Buchanan 1981:49, nos. 144–53; Teissier 1984:4–5, nos. 4–6). These include weaving and pottery making (see fig. 4). The underlying iconographic themes are administrative, suggesting emphasis on the regularization of command and control structures (see Brandes 1979; Dittmann 1986; Collon 1987:15–16). Nissen (1977) views these artifacts as low-level institutional seals. Archaic texts from Uruk also list very large quantities of goods manufactured, stored, and distributed, including vessels and beer (Englund, Nissen, and Damerow 1993). One administrative archive records the production of at least eight different types of beer, as well as several different sizes of jars (Nissen, Damerow, and Englund 1993:45–46). Administered production and redistribution were central features of the economy.

McGovern, Badler, and Michel have recently published analyses of residues found in Late Uruk storage vessels from Early Period V at Godin Tepe (Badler, McGovern, and Michel 1990, Michel, McGovern, and Badler 1993, McGovern and Michel 1995). The complex is an Uruk (or Proto-Elamite) enclave within a highland Iranian site and served as a trading center (Weiss and Young 1975). The presence of tartaric acid in samples strongly indicates that the vessels contained a grape product, probably wine. The context of the vessels, stopped and lying on their sides, supports this conclusion, as does discovery of a large funnel. A double-handled jug in the same room, analysis of which showed that it had contained beer, is further evidence for alcoholic beverages in the Uruk period. These vessels were

2. In a personal communication Virginia Badler indicates that her experience with the largely unpublished Godin Tepe assemblage suggests little change in the relative proportions of spouted vessels during the Uruk period. It should be noted, however, that Godin Tepe is only briefly an “Uruk” site.

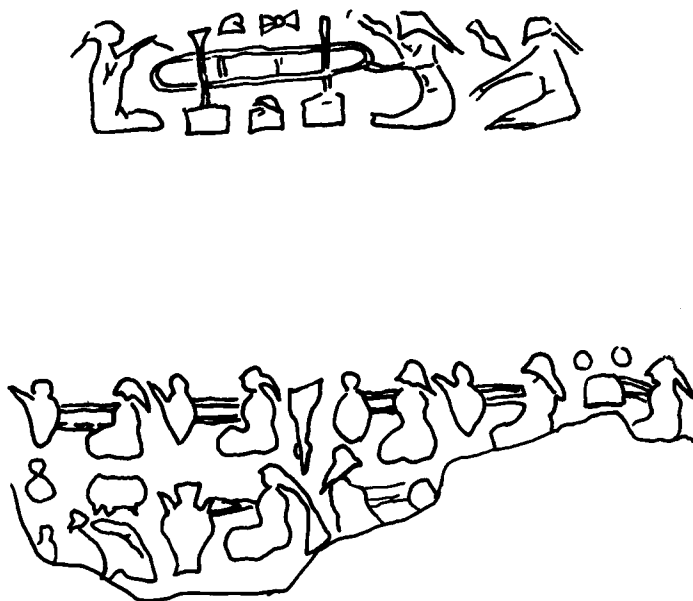


FIG. 4. Uruk-period seal impressions showing weaving and potting (redrawn after Amiet 1980:nos. 319, 331).

found in Room 18 of the Oval Enclosure on the citadel of Godin Tepe (see Young 1986:fig. 1).

The presence of wine and beer products in the heart of the enclave indicates that these products were manufactured and distributed by the management along with other foodstuffs (Badler 1995, personal communication) and possibly exported to the lowlands.<sup>3</sup> Similar structures and ceramic assemblages were found at the Uruk site of Habuba Kabira South on the bend of the Euphrates (e.g., Sürenhagen 1974/75:fig. 3), perhaps indicating parallel redistributive mechanisms. Other evidence from Uruk colonies or missions such as seals and sealings has demonstrated highly organized administrative mechanisms (see Algaze 1993a, 1995). As in the contemporary Egyptian enclave at 'En Besor, part of life in a foreign mission in late prehistory was receiving rations of alcoholic beverages.

The origin of grapes in Greater Mesopotamia remains a topic of debate. *Vitis sylvestris*, the wild race of cultivated grapes, is widespread today throughout the Taurus and Caucasus ranges but does not appear to extend to the Zagros (Zohary and Hopf 1993:143–50, map 16).<sup>4</sup> Grapes are present in increasing quantities in 4th- and 3d-millennium archaeobotanical samples from Kurban Hüyük (Miller 1991:150). Badler suggests that since the Sumerian sign for grapes, *gestin*, does not appear until the Jemdet Nasr period and since Transcaucasian pot-

tery comprises up to a third of the Late Period V ceramic assemblage at Godin Tepe, grapes were likely introduced to Iran and the Mesopotamian lowlands from the north (Badler 1995). The appearance, however, of another sign interpreted as wine, *tin*, in the Late Uruk period complicates the question (Green 1989:44). References to grapes, raisins, and wine become increasingly frequent in cuneiform sources only in the second half of the 3d millennium and thereafter (Postgate 1987, Powell 1995).

Large complexes containing two-story ovens without associated pottery production waste, such as at the Early Dynastic Southern Unit at Abu Salabikh and the Temple Oval at Khafaje, may indicate combined bread and beer production on a scale beyond the provisioning of individual domestic groups (Crawford 1981:110–11). Early Dynastic iconographic evidence indicates social consumption of alcoholic beverages from large storage jars. The so-called banquet scenes depict groups of seated individuals drinking from cups or from vessels through large straws (Moortgat 1966:17, nos. 135–41; Buchanan 1981:nos. 332–36; Selz 1983; Teissier 1984:10–11, no. 63; Crawford 1991:158; Pinnock 1994) (see fig. 5). These scenes appear in both glyptic and decora-

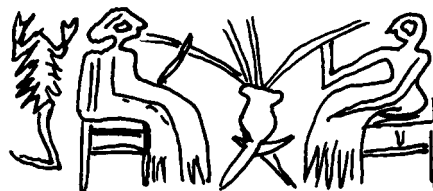


FIG. 5. Early Dynastic seal impression with drinking scene (redrawn after Amiet 1980:no. 1171).

3. Badler (personal communication) disagrees with this latter suggestion, pointing out that there is no evidence for it. She also reminds us that no spouted vessels or fragments were found in Early Period V Room 18. See also Algaze (1993b:84).

4. Badler states that wild grapes grow in the Godin Tepe region today. Whether these are wild or in fact feral should be investigated.



tive arts, and drinking vessels and straws have been found in elite burials, most notably the Royal Cemetery at Ur. Drinking scenes also appear in Syrian seals of the early 2d millennium (Teissier 1984:63–64, nos. 352–59). The underlying theme in the seals appears to be redistribution of beverages in ceremonial or celebratory situations in the larger context of increasing intercity rivalry (see Collon 1987:27). Pollock also suggests that seals with banquet scenes are most often found associated with burials of females while contest scenes are associated with burials of males. Thus, while the ritual activity and representation of the banquet involved both males and females, the rituals that reinforced male authority and solidarity were limited to males (Pollock 1991:381). Competing institutions or “great estates” of private corporations, temples, and palaces had to vie for and retain dependents (Gelb 1969, Diakonoff 1982, Steinkeller 1993). Consumption of alcoholic beverages in such situations may have been designed to reward success and reinforce loyalty and solidarity.

Inscriptional evidence provides considerable insight into the alcoholic beverage production process (Hartman and Oppenheim 1950, Civil 1964, Röllig 1970). A recent well-publicized experiment re-creating beer according to a Sumerian recipe contained in the “Hymn to Ninkasi” has also helped clarify the process (Katz and Maytag 1991). The Early Dynastic Standard List of Professions may include brewers, and numerous administrative texts record brewing and distribution of beer (see Biggs 1974:62–71 and personal communication; Nissen 1993:62–63). The changes in gender roles in Early Dynastic society—in particular, the increase in dependent and captive female labor documented, for example, in the Girsu-Lagash texts dealing with weaving establishments and other texts dealing with prisoners of war—should also be considered in relation to the expansion of alcoholic beverage production (Gelb 1973; Maekawa 1980, 1987; Zagarell 1986). The identity of brewers and vintners is unclear from textual sources, except that by the Ur III and Old Babylonian periods professional chefs serving royal institutions were men (Bottéro 1985:45; Limet 1987:139–40). Textual sources indicate that by the 2d millennium the palace at Mari had become a major importer and distributor of wines, a conclusion supported by archaeological evidence (Finet 1974–77, Zettler and Miller 1995). Milano has noted that in contrast to 3d-millennium texts from Mari, in which beer rations were common, those of the 2d millennium mentioned them rarely, and their place was taken by rigorously controlled royal distribution and consumption of wine (Milano 1989:219, 229–30). During the 1st millennium textual sources record the distribution of daily wine rations to men and women in the service of the Assyrian king (Wilson 1972).

Outside Mesopotamia proper, there are changes in the ceramic assemblages of early 3d-millennium state-level societies reflecting the increasing role of alcoholic beverage production and consumption. The Ninevite 5 assemblage of northern Mesopotamia has, for example, a number of new forms such as chalices, cups, and small

necked jars (see Roaf and Killick 1987, Schwartz 1988). The metallic-ware assemblage of northern Syria has a wide variety of small cups, pedestaled vessels, and pot stands (Kühne 1976). Second-millennium assemblages such as the Old Imperial Hittite have a wide variety of elaborate jars, jugs, chalices, and cups. Early and Middle Bronze Age Cyprus provides extremely elaborate examples of ceramic vessels and art with designs and motifs relating to Mediterranean crop products (Karageorghis 1991; see also Bolger 1991), although the dominance of mortuary over occupational data makes direct association with state formation uncertain (see Knapp 1990). The early Iron Age Philistine assemblage is made up almost exclusively of vessels related to drinking (Dothan 1982). The redistributive nature of banquet scenes is echoed in the later West Semitic and biblical motif of the *marzeah*, a human and divine feast partially associated with the cult of the dead during which copious amounts of wine were consumed (Lewis 1989, Armstrong 1993). A strong association is suggested between early states and societies in phases of initial or secondary formation and paraphernalia related to unifying social and ritual behavior such as drinking. The mechanisms of production and the rituals surrounding consumption both served to marginalize women.

## Alcohol in Other Complex Societies

Dietler (1990) has pointed to the importance of drinking in the political economy of small-scale societies. The use of drinking as a mechanism of labor mobilization and implementation of political authority helps explain the intrasocietal significance of Mediterranean crop production. As Dietler notes, alcohol “is a medium that allows surplus agricultural produce to be converted into labor, prestige, ‘social credit,’ political power, bride-wealth, or durable valuables; and this is a very useful mechanism of indirect conversion which, for example, can be used to circumvent the normal barriers to direct convertibility of subsistence goods to more socially valued items in multi-centric economies” (Dietler 1990: 369–70). All these came into play in the emergence of early complex societies, characterized in Egypt by the development of regional and then panregional elites, in Mesopotamia by the evolution of competing economic institutions in an urban environment, and in the Levant by the transition from village to small-scale urban society organized around competing kin-based elites.

We know little about the nutritional status of early complex societies, but it appears that large proportions of their populations received the bulk of their calories from grain products (Milano 1989). Recent studies suggest that animal products and meat were among the food items controlled and distributed by early states (Zeder 1991). Diacritical rules and culinary preferences relating to meat consumption are varied, however, and the taphonomic processes which incorporate animal bones into the archaeological record are extremely complex. Control of animal products came about when

cities could effectively dominate rather than periodically interact with the pastoral landscape on the margins of the irrigated zones (see Adams 1974). Competition for the productive landscape in the immediate vicinity of sites, areas of agricultural rather than pastoral production, is attested much earlier (Adams 1981: 135–55; Cooper 1983). Fish and fowl were abundant and directly available in the canals and swamps adjacent to urban settlements. Given these complexities it seems unlikely that we can yet confidently reconstruct the animal economy of early states (Joffe 1996). Control over production and distribution of cereals and cereal products by early states in Mesopotamia and Egypt would have been much easier (Butzer 1976:76–98). Storable and transportable cereals would also have been preferable to meat for risk abatement in early states.

The diacritical symbolic role of foreign drinking styles should be viewed in the context of the emerging hierarchical levels of cuisine discussed by Goody (1982, 1989; cf. Sangren 1989). For a redistributing elite, beer would have acquired value from its ease of production and potential abundance, but specialized import products such as wine and their containers were necessary for meaningful diacritical symbolic impact. Biochemical analyses of human skeletal remains from ancient Western Asia are urgently required to illuminate such issues of differential access to both nutritional and diacritical food products (e.g., Hastorf 1991, Ubelaker, Katzenberg, and Doyon 1995).

Viewed in cross-cultural perspective, the use of alcohol in complex societies is extremely common. Alcoholic beverages have a long history in the circum-Mediterranean world. Aegean societies had strong associations with alcoholic beverages and Mediterranean crops, although many details remain contested. The Early Helladic sauceboat and *depas amphikypellon* at Troy and the Early Minoan teapot are examples of new pouring and drinking vessels with metal prototypes (Sherratt 1987:92; see also Mellink 1986). Renfrew and others have suggested that Mediterranean crop production played an important role in the emergence of elites during the 3d millennium, although it seems unlikely that crops were extensively cultivated before the 2d millennium (A. C. Renfrew 1972:208–10; J. M. Renfrew 1995; cf. Runnells and Hansen 1986; Runnells, personal communication). A similar role for Mediterranean crops has been suggested in the case of the emergence of complex societies in Iberia. Gilman (1976, 1981) has also pointed to the appearance of the chalice or *copa* in Argaric grave assemblages of the early 2d millennium as an indication of changes in drinking practices. Chapman disagrees, however, and, pointing to the location of many fortified Copper Age sites in dry-farming areas, suggests that polyculture may be the product rather than the cause of intensification (Chapman 1990: 130–31, 214).

The socioeconomic role of Mediterranean crops is somewhat obscure during the 2d millennium. Cretan Hieroglyphic and Linear A both have ideograms for

wine, and texts dealing with wine have been found at major Minoan palace centers. Limited documentation in Linear B tablets suggests widespread cultivation and production of wine and oil. There is evidence for palatial administration of specific trade-oriented industries such as perfumed oil and other specialty oils exported in stirrup jars, but there is little indication that domestic wine and oil production was monitored (Ventris and Chadwick 1973:217–18, 323–37; Shelmerdine 1985; T. G. Palaima, personal communication; R. Palmer, personal communication). Wine was produced by local farmers, then collected and distributed by palaces for special occasions such as festivals, and then only to the upper class (Palmer 1995). The wine magazine and tablets at Pylos, however, document large-scale collection and storage of wine (Palmer 1994).

The Mycenaean state could command sufficient Mediterranean crop surpluses for palatial needs. Archaeological evidence includes large assemblages of drinking vessels, magazines, and intense conflagrations, fueled by oils, that consumed the palaces. But palaces did not manipulate production or exchange to the point that this became a major component of administrative record keeping. This is an important contrast with Western Asian practice. Halstead suggests that in the Aegean, in contrast to Western Asian societies, social storage rather than redistribution was the basis for palatial organization (Halstead 1988). There is, however, more extensive documentary evidence for textile production and for rations provided to slave women workers, both typical features of early Western Asian palatial economies (Killen 1964, 1984; Palmer, personal communication).

The social storage model and Mediterranean crop production beyond the range of central record keeping and administration must also be juxtaposed with the proliferation of drinking and serving forms in the decorated Mycenaean pottery repertoire (see Mountjoy 1986). Ceramic evidence suggests that elite Mycenaean society partook extensively of wine products but in contexts of feasting and other forms of solidarity, hospitality, and display. Control over production and exchange were secondary to social contexts of consumption (Wright 1995). Finally, although there is archaeological and documentary evidence for barley and wheat cultivation, there is virtually no evidence for beer production in the Bronze Age and/or Classical Aegean (Palmer 1992, personal communication).

First-millennium-b.c. Greece provides many well-documented examples of processes and institutions associated with alcoholic beverages in the context of secondary state formation. New vessel shapes connected with wine consumption, such as amphorae, various craters, and cups, emerge in Greek city-states during the 7th and 6th centuries b.c. These point to changes in drinking practices connected with the development of new sociopolitical institutions and ideologies (see Boardman 1974:184–88). The connections between drinking practices, ideology, and craft production are

also seen in the elaboration of painted decoration on Greek pottery from the 7th century onward. Whereas earlier Geometric and Archaic decoration focused largely on cultic scenes, usually funerary, later decoration depicts both mythological ones and scenes from daily life (Boardman 1974:196–233). Both types of scenes served to transmit and reinforce dominant socio-political and religious ideologies. Though ceramic production and distribution took place in a market context, forms and decorations reflected the common belief in a unified religious and ritual background, specific elements of which also constituted the founding myths of individual city-states, as well as common social myths. Depictions of sports, fighting, feasting, and sex reflect the self-perception of the early polis as a place of leisure, competition, and display, albeit primarily for males.

Should Vickers (1986) prove correct that surviving ceramic vessels are mere “down-market” imitations of precious-metal prototypes, this is another example of the diffusion of elite styles and ideology to lower classes of society.<sup>5</sup> The search for richer materials for elite drinking equipment and cheaper alternatives has numerous parallels. These include various forms of rhyta (zoomorphic drinking cups) found in many Central and Western Asian societies, the metal wine sets common in the Late Bronze Age Eastern Mediterranean and Western Asia (Moorey 1980), and ivory originals imitated by Attic white-ground pottery such as *lekythoi* (Vickers 1984).

The institution of the symposium or private drinking party is another example of Greek commensality. Its origins lie in the Western Asian practice of the reclining banquet, transferred to Greece by the Late Geometric period, and local traditions of feasting (Ahlberg 1967, Denzter 1982, Reade 1995). The symposium was one of many ritualized structures which reformulated and diffused elite values as the male warrior group was transformed into the urban aristocratic leisure class (Murray 1983, Schmitt-Panel 1990). The private practice of the symposium has been viewed as “a psychological and cultural micro-universe which reproduces, in the context of a social grouping of a predominantly private nature, all the distinctive characteristics which, at a different level of organization, define the festival” (Pellizer 1990:177–78). Common architectural styles, vessel forms and decoration, and rituals helped standardize common values. The adoption of the *kline* or couch from Western Asia into the symposium is an example of the integration of a foreign element into local practice or style (Boardman 1990).

The symposium ritual included careful regulation of drinking to avoid the extremes of sober blandness and gravity and drunken irrationality and violence in order to provide an atmosphere where “all could enjoy liberty

and ease of speech, gaiety and release from cares” (Pellizer 1990:179). Pellizer further notes, “It is therefore a deliberate, controlled, collective exploration of the universe of passions, not without anxieties about elements of contravention which can reveal themselves once passions have been unleashed by drunkenness.” Entertainment in the form of recitation of poetry, song, and myth was highly formalized. Positive and negative models were described, and performance skills, poetic genres, and linguistic forms were developed. In addition to reinforcing dominant ideologies among adult males, the symposium became an important venue for education and initiatory ritual for adolescent males.

Male homosexuality was an important organizing principle of Archaic and Classical Greek society (see Dover 1978). The centrality of homosexuality to the military organization of Sparta, Athens, Thebes, and other cities is well known, and sources such as Xenophon and Plato discuss the connection between pederasty and education (Bremmer 1990:142; Pellizer 1990:180–82). Sexual contacts between men and boys are also frankly depicted on black-figure vases, where “male homosexual activity is so commonly shown that it acquires iconographic conventions of its own, and is promoted to being a main scene on large, fine vases” (Boardman 1974:210). Adolescent boys were present at the symposium as wine pourers and singers, permitted to sit and later recline with the adult males. Bremmer (1990) notes that the increase in number of pederastic scenes on Greek vases coincides with the establishment of the major athletic festivals during the early 6th century, as well as tremendous artistic production of kouroi, statues of young males. As he puts it, “pederasty became, next to sport, one of the main areas in which the competitive spirit of the aristocracy could realize itself” (1990:143). A connection between alcoholic beverages, the social institutions of emerging states, and gender is once again apparent.

With the innovation of hoplite warfare the role of the individual male as heroic warrior declined in importance, and the symposium began to shift from emphasis on banquet and war toward an aristocratic forum for spectacle in which individual and collective passions could be displayed and released (Pellizer 1990:183). The renegotiation of roles and the need to find outlets for passions is reflected in the transformation of Dionysian imagery on Greek vases. The Dionysos of the 6th century is a “humble, barefoot figure who holds a branch of a grape-vine and walks by himself in a procession of deities,” while the 5th-century Dionysos is “the Dionysos of the frenzied maenids in Euripides’ *Bacchae*—the god who has invaded Greece with his cult— . . . the god who tears a fawn in half with his bare hands on red-figure vases” (Carpenter 1986:124).

Farther west, the adoption in Central Italy of Greek and particularly Phoenician drinking equipment and practice is a significant feature of the 8th century B.C. (Rathje 1990, Pontrandolfo 1995). While the Homeric-inspired banquet was emulated in Italy, this differed

5. Wilma Stern (personal communication) points out that ceramic vessels may have been ordered by individuals for specific occasions. Thus the “down-market” hypothesis should not be applied to all ceramic vessels.

from the symposium in that sacrifice and consumption of animals were important components (Rathje 1990: 286). By the early Roman empire an extensive dining literature depicted the *convivium* or private dinner party as a setting for a kind of egalitarianism. This setting provided an opportunity for the upper classes to extend a temporary measure of equality to individuals of lesser status, as well as to require clients to provide dinners (D'Arms 1990, Coarelli 1995). For the upwardly mobile the dinner party was an occasion for the cultivation of informal contacts. For those of lesser classes the ideology of egalitarianism effectively reinforced crushing and degrading inequality.

To the north of the Mediterranean, Europe and the Asiatic steppe provide additional examples of alcoholic beverages in rather slower processes of emerging social complexity. Sherratt (1987) has suggested that the 3d-millennium-B.C. Bell Beaker complex represents the spread of alcohol-based hospitality and international drinking sets elements of which were copied from Aegean and Anatolian prototypes. The spread of animal traction and secondary products, including the horse and plough, more productive agriculture, and sophisticated metallurgy, created new opportunities for elite development, competition, and display. Attraction and reward of armed followers through warrior feasting and hospitality became central features of "this fundamentally new social fabric," and Sherratt suggests that the "social lubricant" was alcohol (p. 93). Before the spread of hybrid grapes with high sugar content, the beverage of choice in Europe was mead (beer being a later development). Sherratt also notes that hemp (*Cannabis sativa*), long cultivated for its fiber, was enjoyed by steppe peoples beyond the range of the drinking complex. He also suggests that alcoholic beverages were flavored with hemp and that corded ware and its predecessors may have been impressed with hemp fibers as a way of advertising the vessels' contents (Sherratt 1987:97-98 nn. 21, 22; 1991). These developments were also connected with fundamental changes in gender roles.

The ethnohistoric model for the social context of pre-Hispanic Andean maize beer or *chicha* production presented by Moore (1989) has many interesting parallels with the situation in Western Asia and Egypt. Three levels of production are noted: dependent women in the employ of the Inka state (also involved with spinning and weaving), groups of males specializing in *chicha* production, and simple household producers (Moore 1989:688-89; Hastorf and Johannessen 1993; Costin 1993). All these levels of production are found in early Mesopotamia and Egypt. Moore's analysis of archaeological evidence from Manchan, an elite regional center of the Chimú empire (A.D. 900-1470), however, did not confirm the existence of any of these levels of production, suggesting instead that domestic units provided the state with their excess *chicha* production (Moore 1989:691). This insight may account for the occasional difficulty in identifying large-scale production facilities.

Hastorf and Johannessen, however, had no difficulty

identifying elements associated with increased maize and *chicha* production in the Upper Mantaro Valley in Peru during Wanka I and II (ca. A.D. 500-1500). These included larger kernels, grinding facilities, ceramic jars and basins, and stable-isotopic analyses of human bone (1993:124-28). They suggest that periodic feasting and beer presentation were elements of alliance building; "the authority of local leaders depended in part on being able to maintain followers by reciprocally providing *chicha* in exchange for allegiance, work, and warfare" (p. 131). Discussing the Inca, Morris notes that large areas of Huánuco Pampa were dedicated to state-controlled production of *chicha* (1979:28-31). He has called maize beer "one of a series of interrelated key features that enabled the Cuzco rulers to extend and maintain their power over a vast region" (1979:21-22), noting that "just as *chicha* making and other aspects of state hospitality were at the heart of the most elegant zone of the provincial capital, they were also at the heart of provincial administration" (p. 32).

During the Zhou period (1027-221 B.C.) in China, elaborate rituals of ancestor worship developed around sacrificial feasts and consumption of large amounts of millet beer. The individual who contacted the ancestor, the *shi* or "personator of the dead," was a family member whose social status was enhanced by performance of the role (Armstrong 1993:28-42). The goal of the intoxicated state was to contact ancestors and demonstrate piety, thereby validating and strengthening the existing corporate family structure and social ideology of submission to parental authority. By the Han period (206 B.C.-A.D. 220) archaeological evidence indicates that beer and beer-drinking vessels formed an important part of elite tomb furnishings (Pirazzoli-t'Serstevens 1991).

Finally, the nonalcoholic but chemically potent examples of tea and coffee illustrate some of the socioeconomic and political aspects discussed above. The Japanese tea ceremony (*chanoyu*) is an example of a highly developed etiquette surrounding a commonly available beverage (Nakamura 1965). Originally an emulation of Chinese practice, tea drinking in Japan underwent many stages of evolution involving continual elaboration of ritual, equipment, and thought. The most profound development was its integration with Chinese Zen Buddhist thought during the Kamakura period, ca. A.D. 1185-1333 (Yasuhiko 1989). Initially a prerogative of warrior and other elite castes, tea drinking became available to all levels of society willing to learn its elaborate rules and philosophy. Its austere philosophy of meditative emptiness notwithstanding, the tea ceremony functions at the interpersonal level as an opportunity for competitive hospitality and display. As a cultural institution it is "both a symbol of power and a salve of power" and "succeeded in encapsulating an archaic system of values and pattern of human encounter within a newly bureaucratized and unified Japan" (McNeill 1989:256, 257). It is an ideology that inside the tearoom diffuses differences through the celebration of

common values and heritage and outside it seeks to promote the same values as mechanisms of social stability.

Coffee is a commodity whose cultivation has had a deep impact on societies and economies around the world. The often-repeated story of marginalized peasants and monocropping under the control of native elites subservient to transnational trading arrangements (e.g., Frank 1967) has been shown to be skewed in a number of ways. Recent historical studies of Brazil, for example, have shown that the hegemonic social and economic control of coffee growers has been significantly overstated. Small-scale growers and entrepreneurs were capable of making separate trading arrangements, and new industrial elites felt threatened by and in turn threatened the traditional primacy of large-scale growers (Font 1990). Recognizing the existence of different export interests in what has previously been considered an example of monolithic capitalism is a useful insight for the study of early state as well.

The reaction of early Islamic societies to the introduction of coffee illustrates how a beverage may create alternative social contexts which central authorities find difficult to control. The development of the coffeehouse beginning in the 16th century saw the emergence of new social behaviors and relations. Originally considered a near-sacred drink by the Sufi orders of Yemen that pioneered its consumption, the spread of the coffeehouse "provided the sixteenth-century urbanite with an excuse to do something that he had obviously been desperate to do—to get out of the house" (Hattox 1985: 89). The new norms and etiquette of hospitality, the conversation, sacred, profane, and political, not to mention the entertainment, drug use, gambling, and whoring, all made the coffeehouse an alternative to the mosque. Official responses to this new locus of interaction ranged from condemnation to outright repression. Hattox (1985:6) lists four basic areas of Islamic opposition to coffee: the chemical or physical composition of coffee was such that consumption was a violation of Islamic law; as an innovation it was forbidden; the social life of the coffeehouse was a threat to governmental elites; and the coffeehouse encouraged a variety of criminal and immoral activities. That the coffeehouse is now a fundamental feature of the Near Eastern social and cultural landscape suggests that this particular transformation was immutable.

Commodification of alcoholic beverages also bears investigation. The common functional role of goods such as metals and alcoholic beverages facilitated the development of "regimes of value" within disparate societies and different commodity contexts (Appadurai 1986:14–15). Mintz (1985) has discussed the way in which sugar, a stimulant which satisfies a biological craving, was transformed from a luxury into a necessity. Although the early capitalist context of this transformation should be considered, there is an interesting parallel with early trade in alcoholic beverages in ancient Western Asia. The emergence of precious-metal economies in Western Asia and Egypt during the mid-3d mil-

lennium reflects a similar process (Joffe n.d.a). In both cases what began as elite prerogatives eventually transformed the society, both intentionally and through a "trickle-down" process.

## Conclusions

The pendulum of archaeological thought has swung again toward healthy recognition of the contingent and the historical, but during this period of contentious reformulation it remains necessary to recognize common features of social evolution. Early complex societies were an extremely variegated lot, with different prehistoric and ecological contexts conditioning the character of emergent institutions, interrelationships, and evolutionary trajectories. Nevertheless, it is extraordinarily coincident that two major primary civilizations of the Old World evolved in the same short period of time. It is also extraordinary that the development of complex societies in Egypt and Mesopotamia involved many of the same features. This brief discussion has focused on alcoholic beverages, but it is useful to note a few others. These include the intertwining of art, writing, and administrative technology, metrology and time keeping, human sacrifice, large-scale public architecture, and the emergence and competition of religious and secular institutions. Sending out colonies to obtain specific goods and information was also a clear regularity (Algaze 1993b; cf. Dessel and Joffe n.d.). Such parallels are worthy of further investigation to determine whether they are organically connected. The development of increasing interconnectedness, or coevolution, of 3d-millennium societies leading to similar structures and interdependence is a topic of ongoing research (Joffe n.d.a), although recent world-systems explanations demand far closer connections than can now be documented (e.g., Frank 1993). The similar role of alcoholic beverages in early complex societies is further evidence of parallels between cultures once regarded as disparate and distinct.

Three general areas of similarity in the role of alcoholic beverages in complex societies may be identified: changes in production, distribution, and consumption, shifts in gender roles, and patterns of intersocietal interaction. The creation, control, and capture of alcoholic beverage production and distribution are especially important for understanding early state institutions. In Egypt numerous breweries have been found at many sites prior to the putative unification. In Mesopotamian cities a variety of local installations produced bread and beer even after the urban revolution, and so it may have been with any number of goods and commodities. Far from being unitary and all-knowing administrators, early institutions and elites competed imperfectly with one another for clients and prerogatives. The success of new institutions lay partially in their ability to produce and distribute commodities such as alcoholic beverages as both rewards and rations. Rather than being early

command economies, they were likely more akin to pre- and early industrial capitalism. The public and private sectors were overlapping and indistinct, with boundaries constantly being redrawn for the benefit of individual corporate entities. At the same time, smaller-scale economic activities took place at the level of the market (Renger 1990). The Aegean and European examples, however, provide a contrast with Western Asia. Rather than focusing on control of all facets of production and exchange, specific industries were administered, and elaborate contexts of consumption were developed. The goals of this strategy were to solidify and expand elite identity and prerogatives through reinforcement of client-patron and intraelite relationships. The differences between Western Asia and the Aegean arose from contrasts in societal scale and the nature of ruling elites and power strategies, whether bureaucratic, military, or patronage in orientation.

Gender issues remain important for understanding early states and social theory but are far more difficult to address archaeologically (see Gailey 1985; Silverblatt 1988; Wright 1991; Wylie 1991, 1992). The available evidence suggests that increases in social complexity manifest in spheres such as production were accompanied by new forms of clientage and servitude connected with competing institutions and the progressive socioeconomic and political marginalization of women. The role of women in production activities such as brewing, weaving, and pottery manufacture indicates that their labor was an important resource for early state institutions in both the Old and the New World. Whether this represented a gradual development or a radical shift is unclear. The centrality of alcoholic beverages to institutions and rituals of male authority is also a common feature. These reach an extreme level in Greek commensality and homosexuality.

A wide variety of evidence shows that alcoholic beverages and practices were transferred from one society to another. The socioreligious and political economic advantages of foreign connections to elites are reemerging as an important aspect of the evolution of social complexity. Among the processes of intersocietal interaction is identification and acquisition of particular resources which serve local ideological purposes. Because of the irregular spatial distribution of resources and goods, patterns of commodification are essentially contingent and historical. Large societies opportunistically took advantage of their neighbors and grew interdependent, in social if not economic terms, through those relationships. Resources included not only specialized goods and commodities but also styles and information. The diacritical value of alcoholic beverages, already invested with alimentary, transformational, and psychoactive qualities, was greatly enhanced by the mystique of foreign origins. Careful redistribution and imitation made alcoholic beverages powerful tools for social control. As today, the pride taken in acquiring and consuming foreign beverages could effectively mask social inequality.

Peering through the glass dimly, as it were, we have identified a small but significant role for a single category of goods in the evolution of social complexity. Further examination of goods through the same lenses of symbolism, valuation, commodification, redistribution, consumption, regularity, and contingency has utility for understanding both ancient and modern processes of change.

## Comments

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As Joffe notes, his analysis of alcohol and political complexity in ancient Western Asia is based upon a theoretical model of the social, political, and economic roles of drinking that I developed several years ago (Dietler 1990) through cross-cultural analysis of ethnographic and historical data. Consequently, it should hardly be surprising that I am in sympathy with his insistence upon understanding the underappreciated importance of alcohol in ancient societies and that I applaud his attempt to extend the analysis through a comparative treatment of several interrelated archaeological cases. My remarks are confined to some suggestions for clarification of a few issues that seem to require further analytical elaboration.

One feature that merits some emphasis is that alcohol has certain distinctive properties as a form of material culture. Alcohol is essentially a form of food with psychoactive properties that result from alternative techniques of preparation. Its heightened social significance derives from the fact that these psychoactive properties make it a particularly desirable element in communal consumption events known as feasts. Feasts are a specialized kind of ritual in which commensality forms the basic idiom upon which various types of "politico-symbolic drama" (Cohen 1974) are constructed and elaborated and in which alcohol enhances the dramaturgical effects while sharing the properties of food as a symbolically charged and highly condensed social fact embodying relations of production and exchange and linking the domestic and political economies. In fact, feasts, in their culturally specific manifestations, play a variety of characteristic roles in societies encompassing a wide range of sociopolitical structures. These include especially the implementation of "commensal politics," the reciprocal conversion of economic and symbolic capital, the symbolic reiteration and naturalization of status and role distinctions, the mobilization of labor, and the nodal articulation of regional exchange networks and religious systems (see Dietler 1996, n.d.; Hayden 1996).

Therefore there seems little need for Joffe to resurrect the old hyperfunctional explanation of alcohol's being safer to consume than water in order to explain its widespread importance in ancient Western Asia. After all, in many societies where this might be an issue, people drink both alcohol and water. Among the Luo of East Africa, where Ingrid Herbich and I conducted ethnographic research, people not only drank water of poor quality separately from beer but also always mixed the beer with water before drinking it (Herbich 1991).

A more important issue raised by the features noted above has to do with the role of drinking in commensal politics. After describing certain symbolically diacritical drinking practices, Joffe concludes that the acquisition and consumption of foreign beverages may "effectively mask social inequality." However, a somewhat more precise analysis of ideological strategies is necessary here. In fact, drinking/feasting ritual may serve either to symbolically deny or euphemize social inequality or to naturalize it, and diacritical ritual practices would clearly constitute an example of the latter (see Dietler 1990:377–80; 1996:92–99). In general, the paper would have benefited from a more subtle appreciation of the distinction between diacritical practices that serve to segregate commensal circles and patron-role practices that serve to reproduce hierarchical structures within an asymmetrical commensal relationship through redistributive hospitality. Both of these may be operative in different contexts within the same society, but the symbolic forces of the two are quite different, and an appreciation of this distinction is crucial to an understanding of the political dimensions of alcohol consumption in complex societies and to the interpretation of archaeological evidence of drinking (Dietler 1996, n.d.). It is also important, of course, to recognize that drinking rituals not only serve general strategies of ideological representation that reproduce idealized structures of social relations but also become arenas of contest for individuals competing for or making statements about their relative positions within the structure of social relations as they perceive and represent it.

The issue of the role of drinking in the dynamics of gender relations raised by Joffe is an interesting and important one, but it tends to be briefly hinted at rather than really subjected to analysis. For example, the general conclusion seems to consist simply of repeated variations on the statement "The mechanisms of production and the rituals surrounding consumption both served to marginalize women." However, on the previous page Joffe refers to evidence that in the Ur III and Old Babylonian periods elite households were served by professional chefs who were men. This would seem to suggest correspondence to a more general phenomenon identified by Goody (1982) in which, with the development of endogamous social classes marked by restricted commensal circles and diacritical culinary practices, one often notes a shift in the position of women of the elite class from food servers and prepares to commensal partners. Likewise, the selective use of the Greek sym-

posium as an example of the general marginalization of women in drinking practices should have been contextualized by contrasting it with the contemporary Etruscan symposium, in which wives were included as drinking partners. Other statements, such as his assertion that the uses of alcohol in early European prehistoric contexts "were also connected with fundamental changes in gender roles," need to be accompanied by some indication of what these changes were or how they might be connected. It is clear that drinking practices serve generally to mark gender (and other social) categories and statuses symbolically and that women often furnish the labor that supports male commensal politics, but the manifestations of these features are complex and highly variable (Bacon 1976; Child, Barry, and Bacon 1965; Dietler 1990:364–65; Gefou-Madianou 1992*b*). Joffe's attempts to address this issue in the context of complex societies would seem to require a careful analysis of the articulation of the dimensions of gender and class in the different cases he is comparing.

A final suggestion is that beer (before the discovery of hops) and wine have dramatically different capabilities for preservation and this feature has significant implications for transport, storage, and commodification possibilities that are important to consider in the cases discussed in the paper.

The analysis of drinking and feasting practices is a promising new means of moving beyond mechanical considerations of structure and revealing the operation of agency in the analysis of the political and economic processes that underlay the development of ancient complex societies. Joffe should be commended for an illuminating if perhaps not yet exhaustively developed attempt to extend this perspective to the comparative consideration of several very important cases in Western Asia.

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Joffe wants to build a case for alcohol as the focus of transformative forces in ancient societies in parallel to that of Mintz (1985) on sugar for the modern world. While this is an interesting idea worth pursuing, he does not quite carry it off, for reasons at once methodological, substantive, and conceptual.

Although his essay opens with a welcome caution about the degree to which early states could centralize or monopolize labor and other sources of power, Joffe lets his enthusiasm for drink cloud this caution. Several examples of hasty interpretation of archaeological materials illustrate the methodological issue. Joffe treats 4th-millennium Mesopotamian beveled-rim bowls unproblematically as ration containers, but the function of this vessel form is in fact unresolved, the subject of a continuing debate (recent evidence suggests multiple uses, including processing, storage, and shipment of bi-

tumen [Peltenburg et al. 1996]). Sealing systems do not automatically mark highly centralized, hierarchical bureaucracies; the 6th-millennium Neolithic village at Sabi Abyad in northern Syria offers a cautionary case on this point (Akkermans and Verhoeven 1995). His discussion of Abydos and metallic combed pottery in the (Early Bronze Age) Levant not only relates these wares to oil and wine by assertion but also prematurely imposes "elite control" on production of this pottery. The cited petrographic studies offer evidence consistent with specialist potting villages producing for a regional market, an arrangement that does not require elite supervision. Even in southern Mesopotamia, a far more hierarchical and centralized state society than the petty city-states of Early Bronze II-III Palestine, "dependent" potters produced both for "state" institutions and for their own private profit and worked under contract in private potteries (Steinkeller 1996). Joffe uses these material systems to frame hierarchical, complex social contexts in which elites controlled alcohol consumption; his case begins to dissolve when more nuanced interpretations are developed for these same systems.

Joffe also leaves underexplored the causal links between the production and circulation of alcohol and regional social transformations. In the case of Levantine wine production and Egyptian consumption, the archaic Egyptian colonial system can only be seen as a "kick-off" stimulus for emerging social complexity in the southern Levant, since the colonial presence and Egyptian trade with the southern Levant withered soon after towns started to appear in the Levant (at the beginning of the Early Bronze II period). A stronger case can be made for connecting the surge in upland settlement during Early Bronze I times with surplus production of oil and wine to satisfy the Egyptian market (Finkelstein and Gophna 1993), but this process did not involve "urbanization," and the place of wine versus olive oil remains uncertain. A different difficulty appears in Joffe's discussion of (3d-millennium) southern Mesopotamia. After referring to competition for adherents among temples, the palace, and private estates, he suggests that drinking "may have been designed" to reward and reinforce loyalty. He is perhaps thinking of Sargon of Akkad's boast that he fed 5,400 men daily, occasions when alcohol doubtless played a central role (other texts make clear that southern Mesopotamians considered beer a necessary part of feasting [see Postgate 1993: 145]). However, drink cannot have been a significant factor in gaining and retaining loyalty, a task better accomplished with the pervasive strategy of land allotments and regular rations of food and textiles. These reservations combine to loosen the connections between alcohol production, elite benefits from controlling consumption, and social complexity.

When read at somewhat greater distance, Joffe's essay reveals bifurcating and perhaps incompatible goals. On the one hand, it seeks to ascribe to alcohol—the contexts of its production, circulation, and consumption—a causal role in the origins and dynamics of complex societies and especially states. The ambiguities in argu-

ment of the kind mentioned above suggest that alcohol probably played a marginal structural role in most cases, at least in the ancient Near East. Joffe's appeal to a parallel with Mintz (1985) on sugar has plausibility only after he shows broad structural transformations due to the nexus of expanding production, transformed labor, and intensified consumption of alcohol. On the other hand, the essay might be read for the "psycho-dynamic" aspects of alcohol as markers of cultural "styles" or as aids in coping with changing social roles (as an opiate of the people). This goal is far more interesting, and the essay marshals considerable evidence on these aspects of alcohol and other stimulants. But the urge to connect alcohol with the "material" foundations of ancient societies distracts Joffe's attention from pursuing a cultural/ideological analysis of beer and wine in the Near East during the Bronze Age in parallel to his discussion of wine in classical Greece or tea in Japan. The Near Eastern archives and libraries are a rich source for understanding the ideological aspects of everyday life, if only from the standpoint of the urban elites and their scribes. A detailed, focused study along these lines, combining textual with archaeological evidence, would make a significant contribution to the understanding of cultural and ideological responses to emerging social complexity, a process that doubtless began in the 6th millennium B.C., the time of the earliest known wine in the Near East (McGovern et al. 1996).

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Dietler's paper on wine in relation to elites showed how German "tribal" chiefs adopted southern wine-drinking habits and utensils. In his interesting article Joffe attempts to elicit the relationship between the use of alcoholic beverages and state formation in the Bronze Age. Of course elites drink and no doubt developed the range of drinks and certainly of utensils, but what is the connection with state formation? I am not aware of archaeological evidence of beer drinking in earlier Neolithic societies, but it is certainly the case in the ethnography of Africa that non-state societies brewed beer and drank it in as great quantities as members of simple states. It was a different matter with spirits.

Joffe concentrates on the association of states with the central accumulation of foodstuffs, either for redistribution or for "social storage." The evidence of simple states in Africa does not confirm these practices as major activities in the way he sees them. And even in more complex Bronze Age states a great deal of drinking was done at the local level which largely escaped "the reach of the state."

The development of complex societies, inevitably hierarchical and often "luxury" cultures, affects the distribution and production of all goods in varying degrees. But many of the activities themselves, including the



gendered aspects, were present well before the appearance of the “urban revolution.”

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Joffe’s analysis is most welcome and provocative, following by a few years a conference held in Rome on drinking in ancient societies (Milano 1994). The various papers, adopting different approaches, both ideological and material, presented there made it clear that the subject and its premises were stimulating and productive for further research. Investigating complex societies and the emergence of the state has in recent years been a prime focus of Near Eastern archaeology. The concomitant presence of a variety of incremental stimuli has been variously recognized and emphasized—for example, the dietary transformation based on the intensification of cereals, their concentration and redistribution being somehow pivotal to the promotion and stability of the process.

Alcohol deserves special consideration with regard to social and economic complexity, having both substantive and ideological/symbolic value. The nutritional function of beer and wine must be correctly assessed; beer especially makes up an important part of the daily food allowance (Zito 1994). Beer production depends on and is a significant facet of the process of intensification of cereal agriculture. Whatever the mechanisms and interactions involved in this process, one of its main benefits was an increase in storable food. This feature is usually emphasized for solid food, but it is and was highly influential for alcoholic liquids as well. That beer was contained in vessels of various sizes and forms for consumption and conservation and that large vats (*dug-lahtan*), ranging from 15 to 603 sila/l (Potts 1997: 141), were designated in Mesopotamia for its storage indicates that beer was not only consumed in large quantities and probably by a large number of individuals but also stored for long periods.<sup>1</sup> Michalowski (1994:28–29) has suggested that beer was probably ubiquitous in the workplace, stressing also that “in the third and early second millennia one sometimes encounters beer as a general metaphor for drink and it is noteworthy that in later texts it is replaced by the word for water in such contexts” (see also Naumann 1994:324–25; Milano 1994:438). The popularity of beer was determined by its nutritional value as a source of protein and sugar, its ease of brewing, and its storage possibilities. Wine, produced mostly in the Levant, had high energetic but lower nutritional value; it had a higher cost of production, depending on a vinification that could be done once a year, was less storable, and easily turned sour. It

1. Naumann (1994: 331), quoting Yoshikawa, refers to the use of a special sterilized beer on long-distance journeys in hot climatic conditions.

was and remains a highly prized luxury beverage. The early emergence in Egypt of sealing practices for the identification of the qualities and provenance of stored wine as well as the practical details on the selection and treatment of wine in the texts of Mari both provide a clear indication of the nature of this process (Helck 1986:635–37; Meyer 1986:1173–73; Milano 1994:426–27).

Concerning the ideological/symbolic nature of alcohol, I want to make some additional remarks on gender issues and women’s segregation in the consumption of alcoholic beverages. Woman’s behaviour in consuming alcohol was and still is strictly limited by the ratio of body weight to alcohol tolerance. Although this ratio may have been influential in the progressive marginalization of women in drinking over the course of the time, it was not, apparently, in the earlier stages of the history of the consumption of alcohol. Women are shown not only participating in symposia where alcohol was consumed but also drinking; the visual and the textual evidence in this case coincide.<sup>2</sup> Because alcohol is, within limits, conducive to sexual intercourse, women and alcohol were associated in visual art. While jars with tubes, indicating beer, stand alongside erotic scenes in Early Dynastic and Akkadian seals (Frankfort 1955:no. 559, pl. 53; Buchanan 1981:no. 458, 177), it is not rare for women to be active in drinking during intercourse; in a cylinder seal in linear style from the beginning of the 2d millennium at Tell Halaf, man and woman are represented twice, having sexual intercourse and drinking with tubes from a jar near a figure on a frame above an animal, probably the nude goddess in her temple (Hrouda 1962:29, 36, pl. 23[3]). The nude squatting woman in a mid-3d-millennium Syrian seal is drinking through a tube (Teissler 1984:no. 334, 194–95); her provocative posture and the symbols in the field allude to fertility, as in the many later erotic scenes. In one stamp seal from Bahrain, it is the squatting woman and not the man represented below her who is shown drinking (Porada 1971:331–37, fig. 7); this is also the case in the crude representations on several Old Babylonian clay reliefs and on a later Cypriot seal.<sup>3</sup>

It is rather surprising to find women instead of men drinking while having sexual intercourse,<sup>4</sup> and it may contradict the supposed marginalization of women in the consumption of alcoholic beverages. That brewing was under the patronage of a goddess, Ninkasi, and that goddesses could easily overindulge in drinking as gods did supports the assumption of gender equality with re-

2. For example, see Frankfort (1955:no. 359, pl. 35), where the presence of the scorpion in the field hints at fertility as the main subject of the scene. On the relation of women to banquet scenes, see Asher-Greve (1985:114–27); on the meaning of the scene and the presence of beer, see Selz (1983:441–61; Michalowski 1994:34–38).

3. For a list see Cooper (1975:262–63, 266), Barrelet (1968:292, 297, no. 527, table 50), Opificius (1961:nos. 611–12), Porada (1948:no. 39, pl. 10), Winter 1983:346–64, figs. 347–48, 354, 358, 361, 367), Michalowski (1994: 38).

4. Cooper (1975: 266) and Michalowski (1994: 38) give no interpretations for these “particularly striking” images.

gard to alcohol in earlier times. I agree with Joffe that increases in social complexity were accompanied, in many categories of clientage, by the progressive socioeconomic and political marginalization of women. Alcohol was certainly central to institutions and rituals of male authority, but the reasons for the segregation of women, in this case, must be sought elsewhere. The drunken mother goddess Ninmah in the "Enki and Ninmah" tale creates seven imperfect humans;<sup>5</sup> the foundations and reasons for gender limitation in alcoholic consumption are probably contained in this reference.

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Joffe provides a thoughtful overview of alcohol production and consumption in early states, one that directs us toward many interesting avenues for further investigation. While in no way intending to detract from the value of this work, I do want to point out several concerns I have with Joffe's interpretations.

Joffe is correct in pointing out that alcohol was potentially a vital tool for corporate political strategy in early states (*sensu* Blanton et al. 1997); I am less convinced that it could have been a tool for labor reward or social control. The substantial social problems associated with frequent alcohol consumption should have limited its utility as a labor relations or social control mechanism. Unlike sugar, coffee, tea, and other "drug foods" (Mintz 1985) that have been used to reward labor, alcohol is a powerful depressant. It is not clear to me why an emergent leader would want to foster a stupefied labor force. Secondly, while alcohol is both physically and mentally addictive, thereby offering the potential of being a useful tool for social control, it has never been easily controlled. With a little assistance almost any plant—literally from almonds to zinnias—can be turned into a palatable alcoholic beverage. As the United States's experience with prohibition attests, the production of alcohol is not easy for a state to control. I would posit that an emergent leader would attempt to control people not through alcoholic beverages themselves but rather through the rituals and mystique surrounding particular forms of them (e.g., those surrounding the consumption of fine wines and cognac today).

A second concern I have with Joffe's analysis is that he considers alcohol production and consumption almost completely from the perspective of political leaders or elites. Little discussion is offered concerning the attitudes and motivations of the nonelites in these emergent states. I would suggest that the very features of alcoholic beverages that make them potentially powerful sources of corporate unity also provide them the potential to be powerful tools of resistance. The "bond-

ing" aspects of alcohol consumption, its ability to eliminate inhibitions, and its powerful "calming" effect could all be useful physical and psychological attributes for those resisting domination. One form that comes readily to mind is the drunken revelry of carnival. Of course, the idea that carnival itself is an arena of political manipulation and domination is not without merit (Bakhtin 1968), but this does point out that both sides, the elite and the commoner, should be considered when examining alcohol production and consumption.

One thing is clear from Joffe's paper: alcohol is an engaging lens through which to view a plethora of sociopolitical processes, from political strategy to gender relations. Joffe should be credited with reminding us how fascinating the study of basic material goods can be. As a final thought, I would like to suggest that a useful parallel study would focus on the use of tobacco in complex societies of the Americas. Like alcohol in ancient Western Asia, tobacco was used in a variety of corporate political and religious ceremonies throughout the Americas and has powerful pharmacological properties. Interestingly, tobacco is one of the earliest American domesticates, even predating maize in North America (Smith 1992). While "smoking the peace pipe" has become a part of the vulgar stereotype of Native American cultures, it is true that tobacco was and is tremendously important in the social life of some Native American groups. If Joffe's work on alcohol production and consumption in ancient Western Asia is any indication, we stand to learn much from the study of tobacco in the ancient Americas.

## Reply

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I thank the commentators for their insightful remarks. My goal was to present examples from the Old World which highlight the variety of roles alcoholic beverages played in the emergence of complex societies and to suggest how these might have contributed to different patterns of sociopolitical and cultural development. Several important issues are raised by the comments, including separation between materialist approaches to production, circulation, and consumption and ideological approaches to representation, the question of gender and class, the elite-centered perspective of the paper, and the roles of drinking in prestate and nonstate societies.

Dietler points out that poor water quality does not always deter its consumption. It is useful to speculate, however, how water quality and local ecology generally were affected by early urban structures. Whether or not water quality was a health concern, the issue may well have been open to ideological manipulation by institutions encouraging consumption of a manufactured prod-

5. Michalowski (1994:41) points out that "drink serves here explicitly as an excuse for the lack of perfection."

uct as healthier and more beneficial. We need only recall the activities of baby-formula manufacturers touting the benefits of their products over breast milk in developing countries for a vivid example of institutional manipulation. In North America the alleged purity of bottled water and, by implication or allegation, the inferiority of publicly supplied tap water is another example of economic institutions' promoting nondiacritical patterns of consumption which complement the purely diacritical consumption of "designer" water. This competition between corporations and the government is a crude analogy with the scenario proposed for early complex societies.

Strict separation between materialist approaches to production, circulation, and consumption and ideological approaches to representation is therefore difficult to maintain. Edens is correct that rationing and feasting are not the only ways of rewarding and reinforcing loyalty; clearly they were used on both a regular and a periodic basis in ancient Western Asia. The banquet for 70,000 people held by Assur-nasirpal II in 879 B.C. to celebrate the construction of his new capital at Nimrud and the resulting "disembedding" of earlier Assyrian capitals and elites is perhaps the most extreme example (Grayson 1976:172–75; Joffe n.d.b). But even proto-cuneiform texts minutely detail production of staple products, including beer, at scales which can only have been part of an institutional rationing system (e.g., Nissen, Damerow, and Englund 1993:36–46; Damerow 1996).

The question of the function of beveled-rim bowls has been discussed at length by others, but I am persuaded that, at least at the major Uruk-period sites, these vessels did indeed function as ration containers for a variety of institutions providing a variety of commodities, thereby accounting for the variety of standards. I also find persuasive the suggestion that at least some were baking bowls; this should be investigated by technical means. With regard to the role of Egyptian stimulus in the emergence of small-scale urbanism in the southern Levant, a number of recent excavations (e.g., at Megiddo and Beth Yerah) have revealed urban features such as major fortification systems, civic structures, and temple compounds in the middle of Early Bronze I, predating the Egyptian "colonial" presence of late Dynasty Zero and early Dynasty One (e.g., Wolff 1996:731–32). While an Egyptian entrepreneurial presence had been in place for perhaps half a millennium before being replaced by official representatives, the southern Levant had a number of large fortified sites when the Egyptians arrived in earnest. I have maintained elsewhere that the scale of Egyptian colonialism—certainly the available evidence for overland trade—does not indicate large-scale export of wine or oil to Egypt and suggests that the purpose of the colonies was neither purely economic nor territorial but a more complex mixture of features relating to Egyptian diacritical, technological, and ideological needs (Joffe 1993, Dessel and Joffe n.d.). Finally, with regard to the question of Early Bronze II "metallic ware" and its relationship to elites of any sort, the petrographic evidence

indicating a highly restricted production area and the apparent speed of its dissemination have led Greenberg and Porat (1996) to posit an ethnic component. I prefer to suggest a high degree of urban control over workshop production, such as use of tempers and standardization, as well as over intersite exchange—features also suggested for other aspects of Early Bronze Age ceramics (e.g., Beynon et al. 1986, London 1988, Schaub 1987, Dessel 1991).

Peregrine raises the important issue of the depressant effect of alcohol and its impact on a labor force. Powell (1994), however, has suggested that some ancient beers should be compared to kvass and similar beverages with an alcohol content below 1%. Never having consumed kvass, I cannot report on its effect, although Powell indicates it is considerably less than that of lagers or ales. But not all Mesopotamian beers were so weak, and on some occasions, at different times of day or in conjunction with rituals, a state of stupefaction may have been desired by the producer and/or the consumer. Peregrine also raises the question of separating materialist and ideological approaches but usefully suggests that the two are interwoven, with control over provisions and amplifying rituals. Braudel's descriptions of the amount of early modern European drinking indicate that, short of complete incapacitation, drunkenness was tolerated to far greater degrees in the recent past than today.

The benefits and costs of alcohol consumption in developing states should, however, be considered. The North American experience is an interesting example of early colonial toleration yielding to early republican moralistic concerns, industrial-age opposition, and 20th-century regulatory and finally therapeutic approaches. By the 19th century alcohol's contribution to the creation of identities and group solidarity was increasingly a practical liability in the context of industrial production. Immigration of groups with their own consumption habits also contributed to the emergence of exclusionary attitudes among preexisting North American elites, with attending diacritical adjustments (Rorabaugh 1979, Lender and Martin 1987, Rumbarger 1989, Roizen 1991). When—if ever—did drinking become a problem in early urban societies? A perspective on alcohol in the rural communities of the 4th millennium is similarly needed. The Native American experience with alcohol, variously a high-value trade good vigorously exported by colonists, part of the suite of Western practices emulated or rejected by different groups, and a public health crisis which only deepened the tragedy of the displaced and disenfranchised, may be instructive (Mancall 1995). For example, Late Bronze Age international trade in organic materials, including alcohol and drugs, may be investigated in this light as well as that of diplomacy and the balance of power (Knapp 1991, Liverani 1990).

Several commentators raise the important question of gender. Unfortunately, the important contribution of McCorriston on the "fiber revolution" (1997) appeared too late to be incorporated into my discussion. Dietler and Mazzoni both mention examples in which women

are depicted drinking along with men and note that class plays an important role in conditioning drinking practices and their representation. I agree but can offer no systematic approach at this time, except to suggest that the biases of ancient class-structured societies, in which literacy was highly restricted and much art was created in "official" workshops employing canonical representations, limit the ability of archaeologists to use categories of data in isolation. Texts clearly indicate that upper-class women in Mesopotamia could hold considerable economic power (see Van de Mierop 1989). The iconography and literary texts which associate drinking and sex in the context of banquets, it should be noted, date from the Early Dynastic period and later rather than from the 4th millennium. Michalowski's (1994:40) characterization is strikingly similar to those proposed for the later symposium: "Alcohol, banquets, and food have a ceremonial character that provides a bracketing of social relationships, allowing for a free play of language and sex in a structured environment. As a result we encounter sexual license, formalized debate, and comment on rank, status, and order in society." Mazzoni's and Michalowski's remarks on the projection of gender roles and various practices in mythological texts point to another important sphere for research, to which I can contribute little.

Finally, the question of the elite or top-down perspective adopted in the paper is a serious one. This is of course a reflection of the traditional archaeological orientation to states, with emphasis on administration, bureaucracy, and political economy. The relationship between early states and household levels of societies has been underexplored, except for questions of the penetration of elite administrative activities (e.g., Wright, Miller, and Redding 1980). Archaeological biases toward the monumental have contributed to our relative ignorance. A recently published analysis of tartaric acid indicating grape wine residue from inside an Uruk-period spouted jar found buried in a ritual context at Warka (Badler, McGovern, and Glusker 1996), while an important contribution in itself, reflects the top-down orientation of earlier generations of archaeologists. A few recent examples of household archaeology, however, have begun to show the response of domestic units to early state-level structures (Pollock, Pope, and Coursey 1996). The task then becomes assessing the nature and degree of state-level socioeconomic control over households and household strategies of accommodation, evasion, and resistance. These are among the most pressing questions in the archaeology of social complexity in the Old World.

Production and distribution of alcoholic beverages doubtless played a role at lower levels of society, as Dietler indicates in his comment on distinguishing commensal circles and patron-client relations, and in prestate and nonstate contexts, as noted by Goody. But while these types of activities may be separated theoretically, it is far more difficult to do so archaeologically, especially in the context of evolving social complexity. The Ubaid house at Tell Madhūr in the Hamrin Basin

excavated by Roaf (1989) yielded far more drinking vessels than would be required by the residential unit. Is this evidence of a commensal circle or a patron-client system, or of the former developing into the latter? Clearly, production, circulation, and consumption of alcoholic beverages were present in prestate and nonstate societies, showing that in and of itself alcohol is not a prime mover in social evolution. It was certainly not my intention to suggest otherwise; rather, I view alcohol as one of many tools available for elite manipulation. But to what degree are ethnohistorically attested states and nonstates analogous to early complex societies? My persistent resort to North American examples indicates the difficulty in deriving comparative language or evolutionary frameworks free of ethnohistoric analogies or typological characterizations. While these are topics properly explored elsewhere, their intrusion calls attention to the challenge of developing genuinely archaeological theory.

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