

# CHAPTER 9

## THE IRON AGE IN THE WESTERN MEDITERRANEAN

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### I INTRODUCTION

The economic history of the Iron Age in the western Mediterranean is a complex tale in which encounters and entanglements between diverse indigenous peoples and foreign agents from several expanding states of the eastern and central Mediterranean played a recurrent and crucial role. The chronology, nature, and consequences of these encounters have been the subject of a great deal of historical and archaeological research for many years. The last decade, in particular, has witnessed not only a significant increase in the quantity of archaeological data bearing on these issues, but a transformation of interpretive perspectives and theoretical discussion. However, despite these improvements, there remain major gaps in, and problems with, the data that present serious difficulties for writing economic history.

One significant problem with the important, but patchy, textual record is that it comes almost exclusively from one of the several foreign colonial agents involved in the region (i.e. Greek sources). This has resulted in a tradition of strongly Hellenocentric historiography. But Greek economic history in the western Mediterranean can be properly understood only if it is contextualized within a larger social landscape in which Greeks were, in many instances, of marginal importance (except to themselves). Moreover, it must be recognized that Greeks were as much transformed as they were agents of transformation in the dynamic history of encounters in the region.

Archaeological research offers a broader potential base for reconstructing a more balanced economic history grounded in the material record of everyday life of all the societies involved. However, it is beset with its own problems. Research coverage tends to be highly variable from one area to another along the Mediterranean coast in terms of density of coverage, scale of excavation, methods employed, and extent of publication. For example, excavation of Phoenician settlements has been far more limited than that of Greek colonies, systematic survey has been practiced in only some regions, and settlement and burial data are quite unevenly available. Moreover, for a variety of reasons, we know a great deal more about trade than about any

other aspect of the economy. Inevitably, the brief review presented here will reflect these limitations, even as it attempts to unsettle and move beyond some traditional Hellenocentric assumptions.

The western Mediterranean is taken here, somewhat arbitrarily, to include essentially the Mediterranean coastal zone running from southern Spain through southeastern France (North Africa is excluded for reasons of space and competence). The time period covered extends from the eighth century BC to the Roman conquest (roughly the second century BC).

The region under consideration here is characterized by a diverse and dynamic landscape of social identities, linguistic communities, political formations, and modes of interaction. However, in very general terms, one is dealing with indigenous societies constituting three broad linguistic groupings (Iberian, Celtic, and Ligurian) and, on the other hand, with three different major sources of external traders and colonists. The earliest external agents from the eastern Mediterranean were Phoenician traders who established several trading settlements on the coast of southern Spain as early as the eighth century BC. Greek traders were sporadically active in Spain as well, but did not establish any colonies until the sixth century BC. The Phoenician settlements were eventually incorporated within the expanding commercial and political sphere of the former Phoenician colony of Carthage during the sixth and fifth centuries BC before succumbing to Roman domination following the Second Punic War. In southern France, Etruscan traders began to frequent the region in the late seventh century BC, and they were quickly followed, at the beginning of the sixth century BC, by the first colonial settlements of Phocaean Greeks at Marseille (ancient Massalia) and, in Spain, at Ampurias (ancient Emporion) and perhaps near Malaga (ancient Mainake?). In southern France, Etruscan goods disappeared in the face of a gradual dominance of Massaliote products throughout the lower Rhône basin from the fifth century BC until the expansion of Roman trade and Roman military annexation of the region in the late second century BC.

## II INDIGENOUS SOCIETIES

Given the situation outlined above, an assessment of the economic history of the western Mediterranean must be grounded in some more detailed consideration of the dynamic social and cultural landscape of the region during the Iron Age, although space precludes more than a schematic summary. As noted earlier, languages belonging to three distinct indigenous linguistic groups (Celtic, Iberian, and Ligurian) were spoken in the region. Celtic languages (which are still spoken in parts of Ireland, Britain, and Brittany) belong to the Indo-European family, whereas Iberian languages did not (they are now extinct and, despite the development of several

regional variants of Iberian scripts based upon the Phoenician alphabet, are still largely incomprehensible). Because it is known only from toponyms and ethnonyms, Ligurian is even less well understood and its affiliation is uncertain; although most scholars seem to agree on a tentative placement within the Indo-European family.<sup>1</sup>

As a general summary of an extremely complicated situation, suffice it to say that Ligurian languages are associated with peoples occupying the area from Marseille eastward into Italy. The term Iberian, on the other hand, is used most consistently to designate peoples in western Languedoc, Roussillon, and along the Mediterranean coast of Spain. Use of the term Celtic is more complex and widespread in its distribution. However, Celtic speakers were clearly a particularly important component of the peoples inhabiting the lower Rhône basin and the interior regions of western Languedoc and Spain.

Textual, toponymic and coin-legend data also present us with a much larger number of names of peoples associated with smaller and more precisely localized territories.<sup>2</sup> At least some of these (particularly groups named on coins) have a much more likely chance than do broad linguistic categories of representing genuine foci of indigenous identity and of being meaningful native ethnonyms. However, it should be remembered that the bureaucratic division of the landscape of Gallia Narbonensis and Hispania under Roman administration into *civitas* territories, based upon Roman perceptions of these indigenous groupings, froze into homogeneous static form what was undoubtedly a momentary state in a fluid process of continual transformation of heterogeneous systems of identity and political relations. Before Roman control, there is no reason to expect a uniform model of ethnic identity, territorial definition, or political structure. Indeed, there is good reason to expect considerable temporal and spatial diversity.

A few of these group names appear in very early texts, and then disappear from the record (e.g. the Segobrigai around Massalia, the Elisyces of Western Languedoc, the Tartessians of southwestern Spain). However, most date to the second century BC and later. Among all these names, a few are applied to fairly broad areas (e.g., the Sordones of Roussillon, the Elisyces of western Languedoc, the Volcae Arecomici of eastern Languedoc, the Cavares, Vocontii and Sallyes of Provence) and appear to encompass smaller named groups. These are generally interpreted as political confederations of smaller “tribal” units; and at least some were probably alliances between peoples speaking different languages, as the term “Celts-Ligurian” applied to the Sallyes by Greco-Roman authors may indicate. The duration, nature, and structure of such political alliances (e.g., asymmetrical patron-client

<sup>1</sup> Cf. Lambert 1994; Whatmough 1970.

<sup>2</sup> See especially Barruol 1973; 1975; 1980; Gayraud 1981; Ruiz and Molinos 1998.

arrangements, loose associations of equal partners through cross-cutting religious institutions, etc.) are not yet clear, but were probably extremely variable.

One theme that has attracted a great deal of recent research attention and publication is a process called “Iberization” or “Iberism.”<sup>3</sup> These terms have been used to describe (often somewhat ambiguously) either the process of formation of a local Iberian culture (a kind of *in situ* ethnogenesis), especially in southern Spain; or the diffusion through trade of elements of such a culture formed elsewhere; or the actual displacement of local populations by Iberian immigrants. What is clear is that, both in the larger context of Spain and within the western Languedoc-Roussillon region, the phenomena described as Iberization were rather heterogeneous, exhibiting a great deal of local variation. There is also general agreement that Iberization was a transformation associated in some important way with the development of colonial trade relations in which Ibero-Punic goods played a significant role. Untermann has recently used linguistic data (including the disappearance of Iberian names in later inscriptions written in Latin) to suggest that the general population of western Languedoc/Roussillon was largely Celtic speaking and that Iberians were a specialized urban group of literate merchants who controlled trade and other economic transactions until the Roman conquest.<sup>4</sup> At present, this issue is an active research frontier that is certain to stimulate an increasing volume of fieldwork and publication.

### III FOREIGN AGENTS: TRADERS AND COLONISTS

#### (a) *Phoenicians and Carthaginians*

The first agents from the eastern Mediterranean to establish an economic presence in the western Mediterranean were Phoenician traders/colonists who founded a number of small settlements along the coast of southern Spain and on Ibiza.<sup>5</sup> This process began around 800 BC according to the most secure calibrated <sup>14</sup>C evidence (at Morro de Mezquitilla), or perhaps as early as 900 BC if one credits a few less secure dates.<sup>6</sup> These sites (e.g. Cadiz/Gades in southwestern Spain and a dense concentration along the southeastern coast – Guardamar in Alicante, Toscanos and Morro de Mezquitilla near Malaga, etc.) were located at the mouths of rivers. Often these were rivers leading to rich metal resources (especially silver, but also gold, copper, tin, lead, and iron) and the sites were situated to exploit both good ports and agricultural land. It has been suggested frequently that,

<sup>3</sup> Cf. Gailledrat 1993; 1997; Garcia 1993b; Panosa Domingo 1993; Py 1993a; Ruiz and Molinos, 1998.

<sup>4</sup> Untermann 1992.

<sup>5</sup> Aubet 1993; Frankenstein 1979a; Gras et al. 1995; Moscati and Amiet 1988; Niemeyer 1996.

<sup>6</sup> Castro et al. 1996; Mederos 1997; Moret 2000.

before the conquest of Tyre by the Assyrians in 573 BC, these Spanish settlements were an important component of a trans-Mediterranean Phoenician metal trade, although other products may have been exploited as well. It is clear that these colonies were importing significant quantities of material from the eastern Mediterranean, producing their own products for export (e.g., wine), and engaging in trade with surrounding native societies. The late seventh century BC appears to have marked the apex of Phoenician trade expansion in the western Mediterranean, and many of the early establishments had disappeared or become “indigenized” by the early sixth century BC. This decline is often credited to an economic crisis in the Phoenician network provoked by the fall of Tyre, although the phenomenon is actually considerably more complex than is allowed by this simple explanation.<sup>7</sup>

During the sixth and fifth centuries BC, the increasingly powerful former Phoenician colony of Carthage became active in southern Spain, founding its own colonies and taking control of some of the older Phoenician sites. The rapidly expanding urban centers of Gadir/Cádiz, Malaka/Málaga, and Ebusus/Ibiza eclipsed older Phoenician trading ports such as Toscanos in size and importance. Carthaginian expansion in Spain became particularly active under the Barcids during the late third century BC, with the foundation of Cartago Nova/Cartagena in 229 and the first extension of control over the interior of southern Spain. These territories were eventually annexed by Rome following the defeat of Carthage in the Second Punic War at the end of the third century BC. The history of all these Phoenico-Punic colonies involved processes of complex demographic and structural transformation, as well as changing economic and political relations with indigenous peoples and other Mediterranean states.<sup>8</sup>

Until recently, archaeological research on Phoenician and Carthaginian colonial settlements in Spain has been somewhat limited, although cemeteries were an early focus of attention. This was due in large measure to the fact that settlement excavations have been hindered by the existence of modern cities built over many of the ancient sites. For example, the coastal island site of Gades, one of the most important and (at an estimated 10 hectares) largest of all Phoenician colonies in the region, lies buried under modern Cádiz.

However, excavations and survey work during the past decade or so have dramatically increased the quantity of information on Phoenician colonization. Excavations at Sa Caleta, on the island of Ibiza, for example, have revealed a small town of about 4 hectares with characteristic Phoenician architecture and organizational structure and traces of iron and silver processing. After about a century of occupation, it was abandoned around

<sup>7</sup> Aubet 1993; van Dommelen 1998.

<sup>8</sup> Aubet 1993; Gras et al. 1995; Niemeyer 1996.

600–590 BC in favor of Ebusus/Ibiza.<sup>9</sup> Another major Phoenician colony that has been extensively explored archaeologically is Toscanos, which was founded near Malaga around 740–730 BC. A small early settlement on a hill expanded quickly to include several more impressive domestic structures and a fortification. Around 700 BC a large two-storey warehouse, of a type that has also been found in Sardinia and North Africa, was constructed in the center of the settlement. It contained a large number of amphoras and other storage vessels. During the seventh century the settlement grew to its maximum extent (estimated at 12–15 hectares) and attained an estimated population of about 1,000 to 1,500. Traces of copper and iron working were also found for this period. By the beginning of the sixth century BC, the warehouse and large residences were abandoned, and the site as a whole appears to have been abandoned by around 550 BC.<sup>10</sup>

This pattern of expansion, fortification (during the seventh century BC), and eventual decline and abandonment (by the mid sixth century BC) appears to have been fairly typical for a number of other Phoenician settlements along the south coast. In general, these Phoenician colonies were quite small, with most ranging from less than 1 hectare to 3 or 4 hectares in size. Gades and Toscanos were exceptionally large, yet even these were quite small compared to Phoenician colonies elsewhere in the Mediterranean, such as Motya (40 hectares) or Citium (70 hectares).<sup>11</sup>

The well preserved port site at Guardamar, buried under modern dunes near the mouth of the Segura in Alicante, highlights some other difficulties in understanding the nature of Phoenician colonies. Founded by Phoenicians near the end of the eighth century BC, the town appears to have attracted a growing native population as well. This native presence became increasingly discernable after the mid-seventh century BC and dominant during the sixth century BC.<sup>12</sup> In general, without extensive excavation of structures, it is often difficult to distinguish Phoenician and indigenous Iberian settlements, and one should be extremely wary of identifications made solely on the basis of ceramics. There is no textual or archaeological evidence for Phoenician colonial settlements along the eastern coast of Spain north of a line running roughly from Alicante to Ibiza.<sup>13</sup> Untermann has argued on linguistic grounds that Ruscino (the name in ancient Greco-Roman texts for the site of Château-Roussillon and the river along which it is located) may be a Phoenician toponym, but there is nothing else at present to indicate that this was a colonial site.<sup>14</sup> On the other hand, the presence of small diasporic groups of Phoenician traders residing within indigenous Iberian settlements has been suggested for a few sites, such as

<sup>9</sup> Ramon 1991. <sup>10</sup> Niemeyer 1982; 1995. <sup>11</sup> Aubet 1993; van Dommelen 1998.

<sup>12</sup> Azuar et al. 1998; González Prats et al. 1997. <sup>13</sup> Asenio et al. 2000. <sup>14</sup> Untermann 1980.

La Peña Negra, at Crevillente, Alicante, and this is a possibility that should be explored further north as well.<sup>15</sup>

(b) *Etruscans*

In contrast to southern Spain, merchants from a few city states in Etruria have usually been credited with being the first alien agents operating on a significant scale in Mediterranean France.<sup>16</sup> This Etruscan presence is identified by Etruscan objects on consumption sites: primarily wine amphoras and, to a much lesser extent, *bucchero nero* drinking cups and pitchers, and a few bronze basins. This wine trade apparently emerged during the last quarter of the seventh century BC and began to wane with the increase in Massaliote wine production and trading activity during the late sixth century BC, although Etruscan amphoras continued to be imported in significant quantities in Languedoc into the fourth century BC. Not only were Etruscans the first colonial agents in this region, but the inhabitants of southern France were by far the biggest consumers of Etruscan exports.<sup>17</sup>

Unlike the Phoenician and Greek situations, there is no compelling textual or archaeological evidence to suggest the presence of Etruscan colonial settlements in the western Mediterranean, and it is assumed that the Etruscan presence was predominantly in the form of a “floater trade” conducted by small ships plying the coastal waters. However, the existence of diasporic trading posts in the midst of indigenous settlements (in the form of small resident groups of Etruscan traders) has been proposed for a few sites, most notably Saint-Blaise in Provence and Lattes in eastern Languedoc.<sup>18</sup> This suggestion is made primarily on the basis of quantitative analysis of imported ceramics, but also of epigraphic evidence in the case of Lattes.<sup>19</sup> An Etruscan inscription has also been found at the coastal site of Pech Maho, in western Languedoc.<sup>20</sup> All of this epigraphic evidence actually dates to the period after the late sixth century BC, when imports of *bucchero nero* had ceased and amphora imports were concentrated mostly in Languedoc. Very recent excavations in a fifth century BC house at Lattes offer some potential additional support for this hypothesis.<sup>21</sup> These combined data certainly indicate a distinctive relationship between Lattois consumers and Etruscan goods that is quite different from the contemporary situation in Provence, although at present the evidence for resident Etruscans is suggestive rather than conclusive.<sup>22</sup>

Two things are clear. The first is that trade in Etruscan goods was largely a coastal phenomenon: there are no indigenous sites with significant

<sup>15</sup> González Prats 1991: 184.

<sup>16</sup> Bouloumié 1980; 1987; Gras 1985a; 1985b; Morel 1981b; Py 1985; 1995.

<sup>17</sup> Gras 1985a.

<sup>18</sup> Bouloumié 1982b; 1987; Py 1995.

<sup>19</sup> Bats 1988b; Colonna 1980.

<sup>20</sup> Lejeune et al. 1988.

<sup>21</sup> Lebeaupin et al. 2002.

<sup>22</sup> Py 1995.

quantities of this material more than about 30 km. inland (although small numbers of *bucchero nero* drinking cups and bronze basins circulated more widely, and a handful of amphora sherds have been found as far north as Lyon). The second is that there is a particularly high concentration of Etruscan imports in the lower Rhône Basin.<sup>23</sup> Etruscan amphoras also constitute a significant proportion of imported materials as far west as Rousillon, but, with the exception of the Greek colony of Emporion, Etruscan imports are conspicuously absent from (or very poorly represented at) sites further south in Spain.<sup>24</sup>

The recent discovery of large quantities of Etruscan amphoras in the early levels of occupation at Marseille has led to the realization that the wine consumed by the first couple of generations of Massaliote colonists was also predominantly Etruscan.<sup>25</sup> This has also stimulated some provocative speculation about whether Massaliote, rather than Etruscan, merchants might have been primarily (or solely) responsible for the import and distribution of Etruscan wine into southern France before Massaliote wine production was fully developed. Indeed, radical arguments have recently been voiced suggesting not only that Massalioes may have been responsible for a major portion of the Etruscan material found in southern France, but that the idea of Etruscan merchants trading in the region before the foundation of Massalia may be illusory.<sup>26</sup> However, as was demonstrated at the most recent *Convegno di Studi Etruschi ed Italici* (held at Marseille and Lattes in 2002), where these issues were hotly debated, most scholars remain convinced of both the temporal priority of Etruscan traders and an important Etruscan merchant activity in the region during the sixth century BC which persisted somewhat later in Languedoc.

In fact, the very framing of the question in terms of a distinct “Greek trade” and “Etruscan trade” in competition, seems a rather anachronistic projection of modernist conceptions of nationalist mercantilism and pervasive state control of the economy.<sup>27</sup> A more realistic scenario would envision a heterogeneous mixture of merchants from various cities (including Greeks from the central and eastern Mediterranean) plying the coastal waters in small ships with cargoes of mixed origins, at least during the first several centuries of the encounter. The fairly abundant shipwreck evidence (see below) tends to support this idea. There is little reason to imagine that merchant ships “flew the flag” (so to speak), that ship crews were ethnically homogeneous, or that the origin of cargoes is necessarily an indicator of the identity of merchants. Indeed, it is quite possible that Etruscan traders may have been resident at Massalia, and vice versa; just as it is probable that

<sup>23</sup> Py 1995. <sup>24</sup> Hérubel 2000; Morel 1981b; Rouillard 1991.

<sup>25</sup> Over 80 percent of the amphoras during the first half of the sixth century BC: Gantès 1992b; Hesnard 1994; 1995.

<sup>26</sup> Bats 1998; 2000. <sup>27</sup> Dietler 1990a; Gras 2000.



Phoenician merchants had a presence at the Etruscan port of Pyrgi.<sup>28</sup> Nor is there any clear reason to imagine that the much invoked naval battle of Alalia (around 540 BC) was fought over state concerns about trade or had much effect on the activities of merchants and consumers.

(c) *Massalia*

Massalia (modern Marseille) was the first permanent colonial settlement in southern France, and indeed along the entire west Mediterranean coast up to the Phoenician settlements in southern Spain. It also became by far the largest and most important colonial city in the entire region. The city was founded about 600 BC by Phocaeen Greeks on the north shore of one of the best natural harbors in all of Mediterranean France and one of the last well-protected harbors between the Rhône and the Pyrenees.

Although the early city was well known from ancient textual references, archaeological documentation was limited until recently.<sup>29</sup> Fortunately, the archaeological exploration and understanding of Massalia has undergone a dramatic transformation, thanks to several grand-scale excavations along the edge of the ancient port and a very active program of smaller rescue excavations throughout the interior portion of the city and its perimeter.<sup>30</sup> These excavations have yielded massive quantities of ceramics and extremely well preserved organic material, including the remains of nine wooden ships dating as far back as the sixth century BC, and they have revealed the changing character of the waterfront over a period of more than a millennium.<sup>31</sup> Excavations on the interior of the ancient city, although still limited in extent, have revealed previously unknown details of domestic and public architecture, patterns of consumption, and funerary practices. They have also identified craft production areas, including metalworking and coin minting, and kilns and clay pits for the manufacture of Massaliote wine amphoras and other ceramics.

At its maximum extent, Massalia was a bustling port city of about 50 hectares with a population of perhaps 15,000–20,000 inhabitants.<sup>32</sup> This is vastly larger than any other settlement in the western Mediterranean (colonial or indigenous) until the Roman period. However, it is still relatively small by the standards of Greek colonies in southern Italy or Etruscan cities.<sup>33</sup> The city extended, eventually, over three large hills contained on a quasi-peninsula overlooking a small harbor and was defended by a rampart. On present evidence, it appears that the first generation of colonists

<sup>28</sup> Sourisseau 2002; Colonna 1985. <sup>29</sup> Cf. Benoit 1965; Clerc 1927; Vasseur 1914; Villard 1960.

<sup>30</sup> Bertucchi et al. 1995; Bouiron and Tréziny 2001; Euzennat 1980; 1992; Gantès 1990; 1992a; Gantès and Moliner 1990; Guéry 1992; Hermary et al. 1999; Hesnard 1995; Hesnard et al. 1999; Tréziny and Troussat 1992.

<sup>31</sup> Pomey and Hesnard 1993.

<sup>32</sup> Bats 1986: 23.

<sup>33</sup> Tréziny 1986; 2002.

probably occupied only about 12 hectares on the western tip of the peninsula. However, by the middle of the sixth century BC the city had grown to around 30 hectares and included the Butte des Moulins. By the late sixth century BC an area of perhaps 40 hectares (now including the Butte des Carmes and extending to the Corne du Port) was enclosed by a rampart. From the late fourth through the second centuries BC, the settlement expanded again to reach a maximum size of about 50 hectares.<sup>34</sup>

The massive dressed-stone wharf that one now sees at the Corne du Port is a fairly late feature of the Roman period (first to third centuries AD), and its construction created such disturbance that possible earlier dock constructions in this area are difficult to detect. However, the excavations further west at the Place Jules-Verne have revealed the presence of a substantial wharf construction of large stone blocks in this area already in the late sixth century BC, thus refuting the earlier hypothesis that ships were simply beached on the shore. Over the centuries the shoreline continued to shift as a result of silting and changes in water level, and dock installations were repeatedly reconstructed. During the fourth century BC, this area was apparently used for shipbuilding; and the shore is littered with the remains of wooden hoists for maneuvering ships into drydock for the last few centuries BC. From the first century AD on, a series of more substantial wharves (of wood and stone construction) and warehouses (filled with large storage jars, called *dolia*) were built.<sup>35</sup>

Inside the walls of the city there is not yet enough evidence to reconstruct a comprehensive plan of streets, quarters, and public buildings. However, the scattered patches of evidence indicate rapid expansion and continual transformations of the settlement, including changes in the structure of domestic units, the organization and orientation of housing blocks and streets, and the function of particular sites.<sup>36</sup> For example, the Rue Leca site, at the base of the Butte des Moulins, served as an extra-muros dump for houses on top of the hill during the late sixth and early fifth centuries BC. Around the mid-fifth century BC it became a potters' area, with the installation of a very large circular kiln for amphoras. At the end of the century it was replaced by a building with evidence of iron and bronze working, and during the late third century this was replaced by an impressive public bath complex. This in turn was destroyed in the second century BC and replaced with a large domestic structure with an interior courtyard and a workshop for metallurgy.<sup>37</sup>

Strabo (4.1.4; 12.1.41) noted the presence of two large temples dedicated to Artemis and Apollo, and a sanctuary to Athena; however, archaeological evidence of these and the other public structures that were normal for a

<sup>34</sup> Gantès 1992a; Tréziny 1995; 2001.

<sup>35</sup> Hesnard 1994; 1995; Hesnard et al. 2001.

<sup>36</sup> Moliner 2001.

<sup>37</sup> Conche 2001.

major Greek city is still meager.<sup>38</sup> Hypotheses about the location of the *agora* in the space between the Saint-Laurent and Moulins hills, at the Place de Lenche (and perhaps later near the Place Villeneuve-Bargemon), and the temples on the promontory of the Butte Saint-Laurent or elsewhere, are as yet unconfirmed by archaeological evidence.<sup>39</sup>

(d) *Massaliote colonies*

In addition to its own urban expansion, Massalia was able, eventually, to establish a series of secondary colonial settlements along the coast that were mentioned by various Greek and Roman authors (e.g., Strabo 4.1.5; 4.1.9). Most of these have been positively identified by archaeological research. The earliest was Agathe (modern Agde), founded at the end of the fifth century BC at the mouth of the Hérault river.<sup>40</sup> During the late fourth century BC, Olbia was founded near modern Hyères.<sup>41</sup> Later colonies included Antipolis/Antibes, Nikaia/Nice, and Tauroeis (probably near Six-Fours-les-Plages), all in the third century BC.<sup>42</sup> Another small Massaliote outpost, a fishing village founded near the beginning of the first century BC, has also been identified recently at the site of La Galère on Porquerolles island, near Hyères.<sup>43</sup>

A Greek presence of a different kind has also been suggested: small diasporic communities of Massaliote traders resident at indigenous settlements. These have been proposed to have existed as early as the sixth century BC near the site where the colony of Agde was later founded, as well as at sites such as Arles, Espeyran, Lattes, La Monédière and Pech-Maho.<sup>44</sup> However, in most cases the archaeological demonstration of this hypothesis is less than clear; and even the more generally accepted cases of early Agde and Arles present some interpretive enigmas.<sup>45</sup>

The functions of the Massaliote colonies were probably somewhat mixed.<sup>46</sup> Strabo (4.1.5 and 9) emphasized their essentially defensive character, stating that they were established as strongholds to defend against the indigenous peoples, and especially to keep the sea lanes clear. However, it is uncertain whether this is an accurate reflection of the goal of their foundation or reflects a set of subsequent conditions that had developed by Strabo's time. In any case, the Provençal colonies were clearly not defending Massaliote landholdings because it appears that it was only through Roman intervention that these settlements acquired narrow strips of land that were not under native control. The defensive character of some colonies would seem to be supported by lack of significant resources of trading interest

<sup>38</sup> Gantès 2001. <sup>39</sup> Gantès et al. 2001; Tréziny 1995. <sup>40</sup> Nickels 1981; 1982; 1995.

<sup>41</sup> Bats 1988c; 1989: 216–20, 1995. <sup>42</sup> Ducat 1982; Brien-Poitevin 1990. <sup>43</sup> Brun 1991; 1992.

<sup>44</sup> Nickels 1983; 1995; Bats 1992: 272. <sup>45</sup> Arcelin 1990; 1995. <sup>46</sup> Bats 1992; Morel 1992; 1995b.

around a site such as Antibes and the impressive fortifications and highly uniform layout of a settlement such as Olbia.<sup>47</sup> However, it is less clear in a case such as Agde, which was at the mouth of a river leading to important metal resources and which, in contrast to the Provençal colonies, appears to have had a more developed territory.<sup>48</sup> Agde was also the only one of these sub-colonies to develop its own ceramic industries for trade to the natives of the region, and none appears to have been a producer of wine. All of the colonies were quite small in comparison to Massalia. Agde and Olbia, which are the best explored and documented of these sites, covered areas of about 4.25 and 2.5 hectares, respectively.<sup>49</sup>

### (e) *Greek colonies in Spain*

Among the other Phocaean establishments in the west and central Mediterranean were at least five founded on the eastern and southeastern coasts of Spain.<sup>50</sup> Emporion was founded within a few decades of Massalia just south of the Pyrenees on the Catalan coast.<sup>51</sup> Although excavations began nearly a century ago, a good understanding of the settlement has emerged in publications only recently, and much remains to be explored below the levels of the third century BC. Emporion offers several intriguing contrasts to Massalia. In the first place, the size of the Greek settlement at Emporion was never more than about 5 hectares, and the population probably did not exceed 1,500 people.<sup>52</sup> Ancient texts (Strabo 3.4.8; Livy 34.9) indicate that the earliest settlement (called the *Palaiopolis*) was originally located on a small island. This site lies under the current village of San Martí d'Empúries, which is no longer an island. Recent excavations have shown that, again in contrast to Massalia, it was occupied by an indigenous settlement before its colonization by Phocaean settlers.<sup>53</sup> The texts further indicate that the colony later expanded to the mainland (to a site now referred to as *Neopolis*). The texts also emphasize that the Greeks were essentially surrounded by a large native settlement of 105 hectares that was initially separated from them by a common rampart, and that later the two communities became a creolized polity with a hybrid legal system. Modern excavations have tended to confirm the small and dependent nature of the colony and to suggest an intimate process of coexistence with the indigenous peoples of a type quite different than at Massalia, although the location of the initial adjacent indigenous settlement of the native "Indiketans" remains something of an enigma.<sup>54</sup>

<sup>47</sup> Ducat 1982; Bats 1989: 220; 1995. <sup>48</sup> Garcia 1993a; 1995. <sup>49</sup> Rouillard 1991: 258.

<sup>50</sup> Morel 1975; 1983a; 1983b; 1992; 1995a; Cabrera and Sánchez 2000; Rouillard 1991; 1995; Sanmartí-Grego et al. 1995.

<sup>51</sup> See Aquilué et al. 2002; Marcet and Sanmartí-Grego 1989; Rouillard 1991: 244–81; Sanmartí-Grego 1992.

<sup>52</sup> Sanmartí-Grego 1992: 29.

<sup>53</sup> Aquilué et al. 2000; 2002.

<sup>54</sup> Sanmartí-Grego 1992.

Other Greek colonies established on the Spanish coast have been much less fully documented archaeologically, if at all, and are known primarily from sometimes contradictory textual references.<sup>55</sup> Rhodes (at Rosas, just north of Emporion) was founded at the end of the fifth century BC. Mainake was the westernmost Greek colony. It has yet to be identified archaeologically and its location and nature are controversial; but, it was possibly located near Malaga, was probably founded in the sixth century BC and was short lived, existing during the period between the decline of Phoenician colonies and the expansion of Punic colonial activity in Spain. Hemeroskopeion (of uncertain chronology) was probably on the coast of Valencia and was possibly a Massaliote outpost. Alonis was probably at Santa Pola and was probably founded in the fifth century BC. All these settlements appear also to have been extremely small in their territorial extent – essentially very small coastal trading centers that had no political hegemony over their hinterlands and were, rather, tolerated by and dependent upon their more powerful Iberian neighbors. In other words, they fit well the Greek conception of the emporion.<sup>56</sup> Of the Spanish emporiae, only Emporion and Rhodes minted their own coins, and Rhodes did not do so until the third century BC. Only Emporion, Rhodes, and Hemeroskopeion produced their own ceramics for modest export, and none developed their own wine production.

#### IV AGRARIAN PRODUCTION AND SUBSISTENCE

##### (a) *Basic foods*

The basic global repertoire of cereal crops and domestic animals was quite similar for both colonists and indigenous societies in the western Mediterranean, although there were significant variations in the relative importance of different elements in the diet as well as in the culinary practices used to prepare food.<sup>57</sup> For indigenous sites, both faunal and seed/plant remains appear to have varied little from site to site, except in relative quantitative terms, from the Bronze Age through to the Late Iron Age; although these relative differences were often important and characteristic of, for example, coastal and interior agrarian strategies and local cultural preferences.<sup>58</sup> Barley, hard wheat (*Triticum aestivo compactum*), and spelt (*Triticum dicoccum*) were the most common sources of starch, and these are found in archaeological contexts with variable remains of millet, oats, lentils, chick peas, vetch, and a few wild plants. Ovicaprids, cattle, and pigs were the basic sources of meat. Within this trio of domesticates, ovicaprids

<sup>55</sup> See Rouillard 1991. <sup>56</sup> Bresson and Rouillard 1993. <sup>57</sup> Bats 1988c; 1992.

<sup>58</sup> Cf. Alonso 1999; Buxó 1992; 1997; 2001; Columeau 1978; Courtin 1974; Courtin et al. 1976; Erroux 1976; Garcia 1993a; Py 1984: 317–23.

are nearly always present and often dominant in archaeological faunal samples in terms of number of individuals, but cattle sometimes represented a greater meat-weight.<sup>59</sup> Horse and dog represent a minor proportion of the domesticated faunal remains at all sites where they are found, and wild fauna (primarily deer and hare) sometimes provide a small contribution. Fish and shellfish were another important source of protein for both colonists and indigenous societies. One can detect specific cultural preferences in this culinary domain. For example, Greeks were avid consumers of fish, but showed an aversion to shellfish; whereas many native settlements showed a taste for both fish and shellfish, with selective preferences for particular species varying from period to period.<sup>60</sup>

(b) *Wine and olive oil production*

One of the major initial differences in diet and agrarian practices between indigenous and colonial settlements was the central importance of olive oil and wine to the diet of colonists, both Greek and Phoenician. Although grapes and olives were indigenous to the Mediterranean regions of France and Spain, the concept of wine and olive oil as processed foodstuffs, as well as the techniques of their production, were introduced to the western Mediterranean by Greeks, Etruscans, and Phoenicians.<sup>61</sup> Native societies in both France and Spain quickly developed a taste for wine and incorporated its consumption into indigenous feasting practices as an addition to traditional grain-based beers and mead, and wine became the focus of extensive trade between indigenous peoples and colonists from the earliest moments of the encounter.<sup>62</sup> However, olive oil appears to have met with general indifference or resistance for many centuries, at least in France. Reciprocally, Greeks were equally resistant to grain-based indigenous forms of alcohol.

In France, production of wine was generally limited to Massalia until after the Roman conquest. Massalia imported most of its wine as well until the late sixth century BC, but then came to rely upon wine from its own vineyards as a major export commodity to supplement the meager grain production of the city through trade. Following the Roman conquest (especially during the Augustan period), wine production centers sprang up at various locations in Gallia Narbonensis and elsewhere in Gaul.<sup>63</sup> However, recent evidence indicates that limited wine production for local consumption had also begun several centuries earlier at a few indigenous coastal settlements, most notably the port town of Lattes, where a variety

<sup>59</sup> Cf. Arcelin et al. 1982: 131–7; Colomer and Gardeisen 1992; Columeau 1978; 1980; 1984; 1985; 1987; Crégut and Gagnière 1980; Gardeisen 1999a; 1999b.

<sup>60</sup> Bats 1988c; Brien-Poitevin 1992; Sternberg 1995.

<sup>61</sup> Buxó 1997. <sup>62</sup> Dietler 1990b; 1996. <sup>63</sup> Brun 1993.

of evidence (including traces of vineyards) indicates production as early as the late third century BC.<sup>64</sup> Stone olive presses have been discovered at Lattes and a number of sites in the hinterland of Marseille dating from as early as the fourth century BC.<sup>65</sup> However, it is probable that these were primarily for the production of oil for export to Massalia and other Greek settlements rather than for local consumption.

In Spain, the situation was rather different, with indigenous production of wine and olive oil beginning much earlier. Most of the early Phoenician colonies initially imported wine from diverse sources in other regions of the Mediterranean, and sherds of Phoenician amphoras, in particular, are found on settlements of southern Spain from the eighth century BC on. Moreover, Ibiza was producing wine for export by the late sixth century BC, and the evidence for even earlier wine production at Phoenician colonies around the straits of Gibraltar is also increasingly clear.<sup>66</sup> However, there is also strong evidence for significant indigenous wine production in southern Spain as early as the seventh century BC. Wine pressing vats, large quantities of grape pips, and local native imitations of Phoenician amphoras (known as "Iberian" or "Ibero-Punic" amphoras) have been found together at Alt de Benimaquia (Denia, Alicante), clearly documenting wine production by the beginning of the sixth century BC. Similar botanical and/or amphoric evidence suggest wine production at at least half a dozen other Iberian sites as well, with some dating to the seventh century BC.<sup>67</sup> By the late fifth century BC, production was occurring in Catalonia as well, but not in Iberian Languedoc which continued to import its wine from further south.<sup>68</sup>

### (c) *Tools and storage facilities*

Archaeological evidence of farming tools is relatively rare, as the vast majority of all metal objects recovered from settlements consists of jewelry and dress ornaments.<sup>69</sup> However, metal sickles, adzes, axes, etc. are recovered, and fishing equipment (hooks, weights, etc.) is somewhat more plentiful at coastal sites.<sup>70</sup> Plant processing equipment is more widely found. Grind stones and rotary grinders, often of basalt, are known from house floors or domestic rubble at most settlements.<sup>71</sup> As with the metal for tools, these were a subject of widespread regional trade.<sup>72</sup> Clay ovens and perforated clay "grills" (either part of an oven structure or used over an open hearth) found in many domestic structures were probably used to bake cereal loaves or roast meat or fish.<sup>73</sup>

<sup>64</sup> Buxó 1996. <sup>65</sup> Brun 1993; Garcia 1992b. <sup>66</sup> Ramón 1991; Ramón Torres 1995.

<sup>67</sup> Domínguez 1987; Gómez and Guérin 1993; Guérin and Gómez 1999.

<sup>68</sup> Gailledrat 1997: 283. <sup>69</sup> Raux 1999; Tendille 1982. <sup>70</sup> Pons et al. 2000; Feugère 1992.

<sup>71</sup> Alonso 1999; Py 1992b. <sup>72</sup> Reille 1999a; 1999b.

<sup>73</sup> Daumas and Laudet 1981–2: 30–1; Lagrand 1959: 195–6; Py et al. 1992.



Grain storage practices and facilities varied from region to region. The most common practice attested during the Late Bronze Age and Early Iron Age in indigenous French and Spanish contexts was storage in large ceramic urns or jars (with a maximum storage capacity of about 100 liters). These are a common feature of domestic contexts at all settlements, and examples of such large urns associated directly with carbonized grain at a number of sites make the inference of this function fairly certain.<sup>74</sup> Thicker, larger capacity specialized storage jars common at Greek sites (*pitthoi* in Greek; *dolia* in Latin) began to make a timid appearance on some indigenous French sites in the late sixth century BC. However, these were at first of much smaller capacity (50 to 100 liters) than the more common examples of *dolia* found from the third century BC and later; and they were rare until the mid-fifth century BC, when their use became widespread.<sup>75</sup> In contrast to France, *dolia* are not found on indigenous Iberian sites before the Roman conquest, as local wheel-made jars (*tinajas*) continued to be the preferred storage vessel.<sup>76</sup> Other large storage jars (35 to 100 liter capacity) in a porous chaff-tempered, barely-fired fabric (called “*vases mal cuits*” or “*vases en torchis*”) have also been identified at many sites throughout Mediterranean France and northern Spain, and probably existed at other sites where they are difficult to distinguish from common daub rubble.<sup>77</sup> At Le Pègue the function of these vessels has been clearly established by their association with large amounts of carbonized grain and acorns.<sup>78</sup>

Large capacity specialized granary structures, as opposed to storage vessels in houses, are rare in Mediterranean France. Raised granaries on post supports, of the type common in many more northerly areas of Europe, have been identified at only a few sites in the region.<sup>79</sup> However, some house structures at a few late sixth or fifth century sites have been identified as specialized granaries on the basis of the presence of large numbers of large storage jars.<sup>80</sup> Moreover, in later centuries, multi-room houses at sites such as Lattes often contained special-function rooms filled with large *dolia* and *vases mal cuits* that clearly served a grain storage function.<sup>81</sup> In western Languedoc and, especially, Iberian Spain, there is evidence for raised granaries of another type: rectangular foundation structures of stone and mud brick that supported a platform above an aerated space.<sup>82</sup> These structures became common in the Iberian domain between the fifth and third centuries BC and they resemble structures widespread in Greek, Phoenico-Punic, and later Roman contexts around the Mediterranean.<sup>83</sup>

<sup>74</sup> Garcia 1987a: 46–8.    <sup>75</sup> Garcia 1987b: 48–63.    <sup>76</sup> Garcia 1997: 91.

<sup>77</sup> Lagrand 1985: 43; see Garcia 1987b: 64–6.    <sup>78</sup> Lagrand and Thalmann 1973: 29–30, 54.

<sup>79</sup> See Audouze and Buchsensschutz 1991: 161.

<sup>80</sup> Cf. Arcelin et al. 1982: 123–4; Lagrand 1985: 43; Lagrand and Thalmann 1973: 108.

<sup>81</sup> Dietler et al. 2002; Garcia 1992a; Py 1996.    <sup>82</sup> Gracia Alonso 1995.

<sup>83</sup> Garcia 1997; Gracia Alonso 1995; Rickman 1971.



In western Languedoc and Catalonia, underground pit granaries (or silos), useful for long-term anaerobic storage, are also common. These have been found at only a few sites and in small numbers outside the Aude basin and Catalonia, but they are found in dense concentrations in these two regions, especially between the fifth and third centuries BC.<sup>84</sup> Individual silos range in capacity from 300 liters (in domestic contexts) to over 10,000 liters (in collective storage fields: “*champs de silos/campos de silos*”). The plain surrounding Emporion is particularly remarkable in this respect, as there are over thirty fields of silos within a radius of 15 km around the site of the Mas Castellar at Pontós, some of them nearly 3 hectares in extent.<sup>85</sup> The enormous quantity of grain represented by these silos, the fact that they must be emptied immediately once opened, and their proximity to the coast, suggest the probability of significant grain production for export to Greek colonies and/or elsewhere from at least the fifth century BC until after the Roman conquest (when these structures ceased to be employed). Such silos can be reused only a few times (with sterilization by fire). Hence, such fields of silos undoubtedly represent the collective result of an extended temporal process in which a limited number of silos were in use at one time, and one should be cautious about overestimating the quantities of grain in circulation at a given moment. Nevertheless, the collective storage capacity is impressive, and they offer compelling evidence that these two regions became major suppliers of grain as a colonial trade network escalated in scale in the western Mediterranean during the fifth century BC. It is worth emphasizing that these concentrations of silos occur in zones of production and not in presumed centers of colonial consumption (such as Massalia or Emporion), nor in the hinterland of Massalia. Little is known about grain storage at Greek or Phoenico-Punic settlements, except for the presence of large numbers of *dolia* sherds at Marseille and other Greek sites. Rows of these *dolia* have been found in warehouses linked to ports, some of which could have been used for grain storage.<sup>86</sup>

#### (d) *Agricultural land, population, and food production*

For Greek colonies in the western Mediterranean, the extent and nature of a potential *chora* (i.e. the extra-urban land under direct political control) has been a subject of considerable research and debate.<sup>87</sup> This was the zone upon which the colonists would have depended for at least an important part of their subsistence. Especially in the case of Massalia, for which wine served as the primary commodity that articulated interaction with the

<sup>84</sup> Buxó 1997; 2001; Garcia 1987b: 67–93; 1997.

<sup>85</sup> Adroher et al. 1993; Buxó 1997: 253–60; Buxó et al. 1998. <sup>86</sup> Hesnard et al. 1999.

<sup>87</sup> E.g. Bats and Tréziny 1986; Clavel-Lévêque 1977; Guy 1995; Plana Mallart 1994.

natives of the region, the city also became dependent upon its *chora* for the vineyards that enabled it to sustain trade and political relations with indigenous peoples.

Despite the interpretive difficulties of investigating the establishment and evolution of such a territory, the weight of current opinion supports a reconstruction of the extent of the Massaliote *chora* that is far smaller than that proposed by earlier scholars.<sup>88</sup> Until at least the late third century BC, it appears to have been largely confined within a radius of about 10 km. from the city, in the area of the Huveaune valley that was ringed by mountains and hills dotted with fortified native settlements such as Les Baou de Saint-Marcel, only 8 km. east of the port.<sup>89</sup> It was not until about 400 years after its foundation that Massalia was able to expand its territory beyond this zone to some of the surrounding, more fertile plains; and the fate of its territory during the last couple of centuries BC appears to have been intimately linked to the expanding power of Rome. Ironically, Roman activity in southern France may well have first enabled Massalia to acquire a larger *chora*, and then taken it away after its ill-fated support of the losing side in the Roman Civil War.<sup>90</sup>

It has often been suggested that a small *chora* was typical of Phocaean colonies which, stereotypically, are considered to have had a commercial rather than an agrarian orientation.<sup>91</sup> However, Villard disputed this in the case of Massalia, stating that its ability to sustain a successful trading community grew out of its strength as a normal Greek *polis* with a balanced agrarian and fishing base.<sup>92</sup> Tréziny's analysis also shows that, in terms of relative size of city to territory, Massalia's *chora* was not significantly smaller than other (generally considerably larger) Greek colonial *poleis* in southern Italy.<sup>93</sup> A consideration of the Massaliote *chora* is impossible without also taking into account the sea. Not only was it a rich source of protein (from fish) but a convenient communication route that allowed Massaliote traders to expand the range of their native exchange networks in a dendritic fashion both east and west along the coast of Mediterranean France.

Population and subsistence productivity estimates are notoriously problematic. However, a few tentative figures are worth exploring in order to get at least some sense of the relative requirements of different kinds of settlements. Let us begin with Massalia. Bats and Py have offered tentative estimates of about 15,000 to 20,000 inhabitants for Massalia at the time of the Roman siege in 49 BC.<sup>94</sup> Using average consumption figures suggested by Gras of 6 hectoliters per person per year, one can estimate rather crudely that, in addition to other foods, such a population would

<sup>88</sup> Current: e.g., Arcelin 1986; 1992; Bats 1986; earlier: e.g., Clavel-Lévêque 1977; Villard 1960; Wever 1966.

<sup>89</sup> Guichard and Rayssiguier 1993. <sup>90</sup> Bats 1989: 204–5. <sup>91</sup> E.g. Lepore 1970.

<sup>92</sup> Villard 1992. <sup>93</sup> Trézinsky 1986. <sup>94</sup> Bats 1986: 23; Py 1993a: 46.

require about 90,000 to 120,000 hectoliters of grain per year.<sup>95</sup> Estimating ancient agricultural production figures is a guessing game with considerable problems, as ancient seed-to-yield and yield-per-land area ratios are not really known; and local variables such as soil fertility, labor intensity, and cropping, fallowing, and manuring practices would all be important sources of variation.<sup>96</sup> Nevertheless, with an emphatic caveat about the highly speculative nature of the house of cards being constructed here, it seems useful to at least attempt a crude estimate. Using an average yield figure of about 2 to 8 hectoliters per hectare, to feed the city would necessitate a minimum of about 11,250 to 45,000 hectares of good agricultural land for the lower population estimate, or 15,000 to 60,000 hectares for the higher population figure.<sup>97</sup> This amount should be doubled to account for biennial fallowing.<sup>98</sup> Hence, even employing the most productive figure for the smaller population would require 22,500 hectares of good agricultural land; and this would be in addition to the land devoted to olive and vine cultivation and grazing for livestock. The area of the small *chora* generally attributed to Massalia before the late third century BC would appear to be of clearly insufficient size to meet these demands. Moreover, Strabo (4.1.5) described the land of Massalia as being planted with vines and olive trees, but generally too poor for grain. Hence, the colony would have almost certainly been dependent upon external sources to maintain its grain supply, especially given the overwhelming importance of cereals in the diet of most ancient Mediterranean cities.<sup>99</sup> Most probably this was one of the main trade items sought from the surrounding indigenous societies, and especially from western Languedoc and Catalonia.

In contrast, the tiny Massaliote colony of Agde had a *chora* that could easily provide an adequate agrarian base for its small population of perhaps 1,500 people occupying a settlement of a little over four hectares in extent. This territory was demarcated by a cadastral system of uncertain date and is estimated to have contained about 20,000 hectares, with about half of that suited to grain production and arboriculture (an amount comparable to the much larger Greek city of Metapontum in southern Italy).<sup>100</sup> The *chora* was also well provisioned with water and pasturage, had lagoons for salt extraction, and easy access to fishing.<sup>101</sup> It also had basalt quarries that were used for olive presses and grindstones for both domestic consumption and export from the mid-fourth century BC on.<sup>102</sup> Agde imported its wine from Massalia, but was largely self-sufficient for the rest of its food needs.

<sup>95</sup> Gras 1995: 95.

<sup>96</sup> Araus et al. 2003; Halstead 2002; Isager and Skydsgaard 1992. <sup>97</sup> García 1995: 155.

<sup>98</sup> If one can assume this as standard practice: see Halstead 2002 for an alternative view.

<sup>99</sup> Garnsey 1999. <sup>100</sup> Clavel-Lévêque 1982; Guy 1995. <sup>101</sup> García 1993a; 1995.

<sup>102</sup> García 1995; Reille 1999a; 1999b.

This kind of agrarian autonomy is dubious for most other Greek colonies before the Roman period given that many appear to have controlled little or no agricultural land and may have been entirely dependent upon trade with neighboring indigenous settlements and sea links to provide basic subsistence. Emporion, for example, had a population of perhaps 500 when it was confined to the 2 hectare island of the *Palaiapolis* and perhaps 1,500 when it expanded to the 5 hectares of the *Neopolis* and *Palaiapolis*, yet Greek texts indicate that it was surrounded by a large indigenous population and had little room for a *chora* until after the Roman conquest.<sup>103</sup> Indeed, it has long been considered the classic case of a Phocaean commercial town without a territory, although this has recently been challenged.<sup>104</sup> Plana Mallart, for example, sees the gradual development of an Emporitan *chora* as something linked to the merging of Greek and indigenous populations in the town from the fourth century BC on, something that also involved the transformation of relations with surrounding native hillfort towns and the eventual establishment of a *chora* that she estimates at about 36,000 hectares, extending about 18 km. inland. However, the existence and size of a possible Emporitan *chora* proper, as opposed to a simple zone of economic influence, in the pre-Roman period remains a subject of debate.<sup>105</sup> Many Phoenician colonies appear to have had better possibilities for establishing a semi-autonomous subsistence base than their Greek counterparts. They appear to have been founded in areas with little or no indigenous population in the immediate vicinity which were also rich in agricultural potential and wild game; although, with the obvious exception of Ibiza, the territories were not large.<sup>106</sup>

Indigenous settlements in both Spain and France were roughly comparable in size to most of the Greek and Phoenician colonies (with the exception of Marseille). The vast majority of native sites were less than 10 hectares in extent, and many were as small as 1 or 2 hectares, although they were usually densely settled (at least from the sixth century BC on). The coastal site of Lattes, in Languedoc, is unusual among indigenous settlements in approaching perhaps 20–25 hectares at its maximum extent. Py has estimated that it may have had 4,000 inhabitants during the fourth century BC, and this should be considered a maximum figure for most indigenous towns in the pre-Roman Iron Age. These settlements were located frequently on hilltops, but are also found on the edges of lagoons and in river valleys.<sup>107</sup> They followed agro-pastoral subsistence strategies that varied according to location and region. In some cases (e.g., Enserune, Pontos), the large numbers of silos and other grain-storage facilities excavated inside or near

<sup>103</sup> Rouillard 1991: 257; Sanmartí-Greco 1992. <sup>104</sup> Vallet 1968.

<sup>105</sup> Cf. Plana Mallart 1994; Rouillard 1991: 263–76. <sup>106</sup> Aubet 1993.

<sup>107</sup> Belarte 1997; Py 1993a; Ruiz and Molinos 1998.

settlements indicate a capacity for significant surplus grain production, some of which may have been stimulated by the demand of Phocaeen and Phoenician colonies.

## V TRADE

### (a) *Trade goods and their production*

As noted earlier, we know far more about trade in the western Mediterranean than about any other feature of the economy. Many aspects of this issue have already been covered in previous sections. Phoenician trade in southern Spain is evident from the mid-eighth century BC, with Phoenician amphoras found on indigenous sites far to the interior. Gades, in particular, appears to have developed a very active trade with the rulers of Tartessus in the interior of the Guadalquivir valley who provided silver from the rich local mines, especially those in the mountains near Huelva and Seville. Discovery in recent years of mines and metallurgical complexes of the eighth and seventh centuries BC near the mines of Riotinto and Aznalcóllar, and the presence of silver and gold slag in furnaces, attest to a couple of centuries of intense industrial activity. The Phoenicians of Cadiz may have exported tons of metal in ingot form, much of it perhaps to the eastern Mediterranean and the Near East, and it is generally assumed that the rich metal resources of Spain were the primary attraction for Phoenician colonists.<sup>108</sup>

Near the end of the seventh century BC, a few objects from this Phoenico-Punic-Iberian domain began to appear in southern France as well. Initially, these consisted of a small number of finds (a few bronze belt hooks and some apparent local imitations of ceramics of Punic type) at a few scattered sites in western Languedoc and Roussillon.<sup>109</sup> But from the mid-sixth century BC on, the quantity of Iberian wine amphoras, in particular, became significant. East of the Hérault river, Phoenico-Punic and Iberian amphoras never constituted more than a tiny minority of the amphoric material. Although they are found on scattered settlements in Provence and Eastern Languedoc (including Marseille and its colony, Olbia), the imports of this area were always heavily dominated by vessels of Etruscan and Massaliote origin.<sup>110</sup> However, in western Languedoc and Roussillon (particularly west of the Orb river), Iberian amphoras became the numerically dominant type.<sup>111</sup>

The rubric “Phoenico-Punic” is used rather generally to indicate a series of amphoras that actually have diverse origins (the Levant, North Africa, Sicily, Sardinia, Spain) within the Phoenician and Carthaginian colonial world and that were produced from the eighth through the first centuries BC.

<sup>108</sup> Aubet 1993; Ruiz and Molinos 1998.

<sup>109</sup> Janin 2000; Nickels et al. 1989; Solier 1976–8; Taffanel et al. 1992.

<sup>110</sup> Dietler 1990b; Py 1990; 1993a. <sup>111</sup> Gailledrat 1997; Ugolini and Pezin 1993.

This term is used for convenience, but also to compensate for a degree of ambiguity in the classification of these amphoras and the lack of precise determination of the origin of some types. The works of Cintas, Mañá and Vuillemot form the basis of the typology of such amphoras from the central and eastern Mediterranean, and Ramón has developed separate classifications for those produced on the island of Ibiza and the region of Gibraltar.<sup>112</sup> “Iberian” amphoras (also called “Ibero-Punic”) are closely based on Phoenico-Punic forms, but were produced in indigenous Iberian contexts from Andalusia to Valencia to Catalonia. Not surprisingly, they exhibit a bewildering diversity of fabric types.<sup>113</sup> Iberian amphoras are presumed to have served primarily for the transport of wine, although olive oil and *garum* are also possible, and grain and beer have been identified in a few Iberian amphoras.<sup>114</sup>

An important unresolved question about these amphoras from Spain is how they arrived in southern France. Does their presence indicate that merchants from the Phoenico-Punic colonies in Spain (or elsewhere) actually traveled north and interacted with indigenous peoples of the region? Or did they come directly to the port of Emporion, after which the amphoras were traded further north by Greek merchants? Or did Emporitan merchants sail south and acquire these amphoras (along with metal and other goods), and subsequently redistribute them north of the Pyrenees? It has usually been assumed that Greek traders from Emporion were the main agents articulating and dominating this trade between the two colonial domains. However, there is no compelling evidence to support this. Indeed, although it is rarely considered, Iberian merchants may have participated as well. It is worth noting that, unlike the situation around Massalia, the inhabitants of Roussillon and Western Languedoc adopted the Iberian script rather than the Greek alphabet; and it is possible that Iberian may have served as a regional trade language (much like Kiswahili in East Africa). What is more, the trade that brought Iberian amphoras to the shores of southern France also resulted in the transport of Iberian painted pottery into the region and was implicated, in as yet poorly understood ways, in the process known as “Iberization” that became particularly marked among indigenous societies of western Languedoc and Roussillon during the fifth century BC.<sup>115</sup> In any case, as is suggested below by the discussion of shipwrecks and commercial inscriptions on lead tablets, perhaps the most likely scenario is a complex mixture of all of these strands of trading activity without clear ethnic limitations on trading.

The evidence for Etruscan trade activity in the region has already been discussed earlier. Here, I will simply reiterate that it consists overwhelmingly

<sup>112</sup> Cintas 1950; Mañá 1951; Vuillemot 1965; Ramón 1991; 1995.

<sup>113</sup> Castanyer et al. 1993; Mata Parreño and Bonet Rosaldo 1992; Ribera 1982; Solier 1968.

<sup>114</sup> Gailledrat 1997: 280. <sup>115</sup> Gailledrat 1997; 2000.

of Etruscan wine-transport amphoras, but also of much smaller quantities of Etruscan *bucchero nero* pottery and scattered examples of Greek ceramics. There is also a small number of Etruscan bronze basins found primarily in funerary contexts.<sup>116</sup> The forms of *bucchero nero* found on indigenous sites are a two-handled drinking cup called *kantharos* and, in minor quantities, a wine pitcher, or *oinochoai*.<sup>117</sup> Scattered examples of Etrusco-Corinthian pottery (primarily drinking cups) have also been found with the other imports, as have a few examples of various early Greek ceramics, primarily from central Italy (Ionian cups, Protocorinthian cups, “Rhodian” bowls, etc.).<sup>118</sup>

Among the various kinds of amphoras produced in Etruria, only a limited range was exported to France; and some of these may have been produced exclusively for export.<sup>119</sup> Although the typology and chronology of Etruscan wine amphoras have been established with some precision over the past couple of decades, the precise centers of production have not been definitively located.<sup>120</sup> However, various kinds of evidence point toward several cities of southern Etruria (Vulci, Cerveteri, Tarquinia, and Populonia) as the most likely sources of wine exports to France.<sup>121</sup> It has also been suggested that merchants from the Etruscan settlement at Aleria on Corsica may have been especially important in the resurgence (or extension) of trade in Etruscan wine amphoras during the late phase that lasted into the fourth century BC in Languedoc, long after *bucchero nero* ceramics had disappeared.<sup>122</sup>

As suggested earlier, the articulation of Massalia’s trade with native societies depended for centuries primarily upon two related products: wine and ceramics designed for its consumption. Over the centuries, Massalia used several types of amphoras to transport its wine.<sup>123</sup> These amphoras were made from local clays with the artificial addition of mica temper imported from a source about 90 km. east, along the coast of the Maures mountains.<sup>124</sup> Excavations at the site of Saint-Jean du Désert have further revealed traces of a vineyard in close proximity to the city dating probably to the third to first centuries BC.<sup>125</sup> The vast majority of the wine produced by Massalia was consumed in Mediterranean France, but small quantities of these amphoras have also been found at a few late Hallstatt and early La Tène sites (in temperate France, Switzerland, and southern Germany) as well as in other areas of the western Mediterranean.<sup>126</sup>

<sup>116</sup> Bouloumié and Lagrand 1977; Dedet 1995: 293–4.

<sup>117</sup> Jovino 1993; Lagrand 1979; Py 1979; Rasmussen 1979.

<sup>118</sup> Bouloumié 1980; 1987; 1992; Gras 2000; Py 1993a. <sup>119</sup> Gras 1985b.

<sup>120</sup> Carduner 1981; Gras 1985a; Marchand 1982; Py 1985; Py and Py 1974; Sourisseau 1997.

<sup>121</sup> Albore-Livadie 1978; Gras 1985b; Py 1995; Sourisseau 1997; Spivey and Stoddart 1990: 55.

<sup>122</sup> Gras 2000. <sup>123</sup> Bats 1990; Bertucchi 1992; Py 1978b.

<sup>124</sup> Picon 1985; Reille 1985; Reille and Abbas 1992. <sup>125</sup> Boissinot 1995.

<sup>126</sup> Bats 1990; Bertucchi 1992; Dietler 1990b: 194–229.



From the sixth through the fourth centuries BC, Massalia also imported fineware ceramics from Athens in large, but varying, quantities, and some of this (especially drinking cups) was traded to native peoples as well.<sup>127</sup> Beginning in the early third century BC, Campanian ceramics replaced Attic wares as the dominant imported tableware.<sup>128</sup> Massaliotes also began production of their own ceramic fineware within a generation after the founding of the colony. This initially involved two series of wheel-made tablewares, known as “*Céramique claire*” (also known previously as “pseudo-Ionian”) and “Gray-Monochrome,” that were simultaneously consumed at Massalia and its sub-colonies, traded to the native peoples of the region, and quickly imitated in indigenous workshops. A much larger repertoire of forms of these wares was consumed at Greek sites than at native settlements (where, initially, drinking-cups and wine-pitchers tended to be the only numerically significant Greek forms in demand). *Céramique claire* remained popular until the second century BC with forms derived from Ionian, then Attic, and finally Campanian models, whereas Gray-Monochrome enjoyed a much shorter existence (early sixth to the end of the fifth century BC).<sup>129</sup> From the beginning, Gray-Monochrome production at Massalia incorporated forms derived from the local native repertoire (especially a carenated bowl that became the most popular form on indigenous sites of the Rhône basin), indicating an obvious orientation toward the native market. Massalia also produced a series imitating Attic black gloss ceramics from the last quarter of the fifth through the last quarter of the fourth centuries BC.<sup>130</sup> A major portion of the common cooking ware used at Massalia and its sub-colonies was also presumably manufactured there; but, during the second and first centuries BC, Massaliote cooking ware was supplied by indigenous workshops in its nearby hinterland.<sup>131</sup> Pottery production apparently took place at several different locations within Marseille at different times, as kiln wasters and/or kilns have been identified at the rue Nègrel, the rue Leca, the Centre Bourse, and the Butte des Carmes.<sup>132</sup>

Despite its small size, Emporion is important in the context of a discussion of trade in the western Mediterranean because, as noted above, it has frequently been credited with a dominant role in controlling the trade in various kinds of imports to indigenous societies in western Languedoc, Roussillon, and Catalonia, and serving as a bridge between the Massaliote and Phoenico-Punic trade zones. Some scholars have seen a division of Mediterranean France into two large colonial spheres controlled by

<sup>127</sup> Dietler 1990a; Py 1993a. <sup>128</sup> Morel 1981a; Py 1993a.

<sup>129</sup> Ionian, Attic, Campanian: Bats 1988c; Lagrand 1963; Py 1979–80; Gray Monochrome: Arcelin-Pradelle 1984.

<sup>130</sup> Py 1978a; 1993b. <sup>131</sup> Bats 1988c; 1993; Arcelin 1993.

<sup>132</sup> Benoit 1965; Conche 2001; Bertucchi et al. 1995; Bertucchi 1982.



Massalia and Emporion, respectively, with the border between the two lying around the Hérault valley.<sup>133</sup> Although it had its own coinage (see below), produced its own ceramics (*Céramique Claire* and Gray-Monochrome) for local consumption and very limited export, and (according to Strabo 3.4.9) was known for its linen production, unlike Massalia, Emporion never developed a wine production of export capacity.<sup>134</sup> Rather, it was primarily an importer of wine of various origins and a large consumer of Attic ceramics, both of which features are also reflected on indigenous sites of the area, albeit with some important variations. Consideration of the relative quantities of imported ceramics at Emporion suggests that Massalia was not a major supplier, at least after the sixth century BC, and that trade at Emporion was independent of Massaliote influence. From the fifth century BC on, quantities of Massaliote amphoras at the site are relatively small (despite being much higher at nearby Rhode<sup>135</sup>), whereas the majority of amphoras were always of Iberian origin. However the mix of wines was quite heterogeneous, including those from Corinth, southern Italy, and Carthaginian Africa or Sicily.<sup>136</sup> It is also clear that when Massaliote imports of Attic pottery were in decline during the fifth century BC, they continued to be very strong at Emporion.<sup>137</sup>

As noted above, the central question to be resolved is whether the comparable mix of amphoras on native settlements of western Languedoc, Roussillon, and Catalonia (including particularly the quantitative dominance of Iberian amphoras) was a result of Emporion acting as a central clearing-house and controlling middleman or whether a heterogeneous mix of Emporitan, Iberian, Phoenician, Carthaginian and other traders were operating throughout the region. Evaluating the relative plausibility of these alternative hypotheses is difficult, given that the shipwreck evidence that is helpful in Provence (see below) is largely missing in these waters. Much argument tends to swirl around the isolated shipwreck of El Sec, found off the coast of Majorca and inscriptions found at different sites, possibly indicating Greek, Punic, and Iberian traders.<sup>138</sup> While the data are ambiguous, the idea of an Emporitan monopoly seems the least credible hypothesis: such a concept is an anachronism for the trading situations of the period. In any case, it is difficult to imagine how the tiny, precarious settlement of Emporion would have been capable of enforcing trade restrictions on the myriad small ships plying the coastal waters (or why it would have had an interest in doing so rather than simply trying to entice them to stop and trade at Emporion). One suspects that a lingering Hellenocentrism accounts for the fact that some have continued to credit the idea.

<sup>133</sup> Sanmartí-Grego 1992.

<sup>134</sup> Rouillard 1991: 261.

<sup>135</sup> Martin et al. 1979.

<sup>136</sup> Sanmartí-Grego 1995.

<sup>137</sup> Rouillard 1991.

<sup>138</sup> Arribas 1987.

(b) *Shipwrecks and the nature of maritime trade and traders*

Shipwrecks have furnished important complementary information about the nature of maritime trade in the western Mediterranean that is not available from terrestrial consumption sites. They offer crucial data about the size and cargo capacity of trading ships, the specific composition of cargoes, the possible origin of ships and the identity of traders, and the pattern of trading activity. In conjunction with the recent finds of well-preserved ships in the ancient port of Marseille, at the Place Jules-Verne and the Centre Bourse, they have also provided information about shipbuilding techniques and vessel performance characteristics. Nearly seventy shipwrecks have been investigated in the western Mediterranean with dates extending from the sixth century BC through the Roman period. Hence, they also allow the reconstruction of the historical development of all these features over many centuries. Of course the nature and quality of the evidence are highly variable, ranging from scatters of broken amphoras to well-preserved ships with cargo still in place.<sup>139</sup>

Because of preservation factors, the vast majority of all the shipwrecks found are located along the rocky Provençal coast, whereas the flat sandy coast of Languedoc and Roussillon, which actually would have presented more severe difficulties to navigation (scarcity of protected harbors, difficulty of navigation without prominent landmarks), has yielded relatively few. For whatever reason, there have been very few finds of shipwrecks off the Spanish coast.<sup>140</sup> The evidence is also skewed chronologically, with at least seventeen identifiable shipwrecks dating from the sixth through the third centuries BC and over fifty dating from the Roman period. Among all these, the bay of Marseille (which had a dangerous entry in antiquity) has yielded twenty-seven shipwrecks, of which four date to the sixth through the fourth centuries BC, six date to the late third and early second centuries BC, and seventeen date from the mid-second to mid-first centuries BC.<sup>141</sup>

Some ships show a relatively homogeneous cargo. For example, the sixth century BC wreck of the *Écueil de Miet*, interpreted as an Etruscan ship bound for Massalia, was loaded with perhaps around 100 Etruscan amphoras as well as *bucchero nero kantharoi*.<sup>142</sup> The very recent discovery near Hyères of the Grand Ribaud F shipwreck also showed a homogeneous cargo of Etruscan amphoras and Etruscan bronze basins, although in this case the number of amphoras is thought to number over 800.<sup>143</sup>

However, the majority of ships before the Roman period had much more mixed cargoes. For example, the late fifth century BC wreck of Plane 2 (near

<sup>139</sup> Cf. Bouloumié 1982a; Hesnard 1992; Long 2002; Long et al. 1992, 2002; Pomey and Long 1992; Tchernia et al. 1978.

<sup>140</sup> Phoenician shipwrecks are somewhat better represented in the Eastern and Central Mediterranean: Junqua-Naveau 2003.

<sup>141</sup> Hesnard 1992.

<sup>142</sup> Hesnard 1992; Pomey and Long 1992.

<sup>143</sup> Long 2002.

Marseille) had a cargo of about fifty mixed Italo-Greek, Massaliote, and especially Punic amphoras, an assortment of Attic fineware ceramics and at least sixty copper ingots.<sup>144</sup> The fourth century BC wreck of El Sec, off Majorca, carried (along with a *lebes* and other central Mediterranean bronze objects, several *pithoi*, and Attic ceramics) a cargo of twenty-nine different types of amphoras: Corinthian, Greco-Italic, Samian, Chian, Punic, Ibiza, and other types.<sup>145</sup>

It is important to emphasize that this pattern of heterogeneous cargoes on pre-Roman ships is not unusual: it is mirrored by other finds in the central Mediterranean.<sup>146</sup> Moreover, in addition to its mix of amphoras, the El Sec ship also had fifteen Punic graffiti and twenty-four Greek graffiti on Attic vases that make the “ethnic” identification of the vessel very difficult. Most probably, these features are an indication of the heterogeneous identity of ship crews and traders.<sup>147</sup> This complex heterogeneity of trading activity is also indicated by a lead tablet dating to roughly 475–450 BC found at the indigenous site of Pech Maho in Languedoc. On one side it has a Greek inscription recording the purchase of a ship at Emporion by a Greek merchant, with all the witnesses to the sale bearing Iberian names. On the other side is an older Etruscan inscription with the names of Etruscan and Latin merchants involved in some commercial transaction at Massalia.<sup>148</sup> This points toward the open nature of ports such as Massalia, Emporion, and Pech Maho, with a diverse mix of merchants and sailors of varied origins and allegiances engaging in trade.

This information about mixed cargoes and crew suggests something important about the general nature of trade in the pre-Roman period. It was, for the most part, probably a small-scale enterprise carried out by merchants of mixed origin, moving back and forth along the coasts of the western Mediterranean. These merchants carried heterogeneous lots of cargo that were either acquired piecemeal at successive ports along the way or at ports that were redistribution centers, where goods coming from various regions were reloaded for secondary export. They traded their goods and took on new materials at various ports and beachheads along their routes according to demand.<sup>149</sup>

The aggregate data from shipwrecks of the western Mediterranean certainly indicate that the cargo capacity of ships of the sixth to third centuries BC was generally quite small: it rarely exceeded 100 amphoras and was more often around fifty. However, the wreck of El Sec (near Majorca), with 474 amphoras, and the wreck of Grand Ribaud F (near Antibes), with over 800 amphoras, indicate that ships with a significantly larger capacity did exist as

<sup>144</sup> Hesnard 1992; Long 1990: 58–60.

<sup>145</sup> Arribas et al. 1987.

<sup>146</sup> Long et al. 1992.

<sup>147</sup> Hoz 1987; Rouillard 1991.

<sup>148</sup> Lejeune et al. 1988.

<sup>149</sup> See also Morel 1982: 487–8, 1983b: 565–70.

well by the fifth century BC. These ships may be evidence of the emergence of a parallel practice of a more direct form of trade between major ports at that time. However, while the Grand Ribaud cargo was quite homogeneous, the amphoras of El Sec were extremely diverse. Moreover, even the Grand Ribaud ship is quite small in comparison to the huge increase in scale during the Roman period, when ships carried cargoes of up to 10,000 amphoras of wine weighing 400–500 metric tons.<sup>150</sup>

The things sought by Phoenician, Greek, and Etruscan merchants in exchange for wine and ceramics, are generally more speculative because little physical evidence has been preserved. For this reason, another shipwreck worth noting is the Languedocian site of Rochelongue, near Agde.<sup>151</sup> What makes the site interesting is the nature of the cargo, which consists of a heterogeneous collection of about 1,700 bronze objects of various origins (Iberian, Atlantic, central European, Italic) that were presumably destined for recycling. This is undoubtedly connected to the phenomenon of “Launacian hoards,” a series of collections of bronze objects of diverse origins found between Montpellier and the Tarn river and dating to the seventh to fifth centuries BC.<sup>152</sup> A few other shipwrecks from the fourth century BC and later also provide information on the goods that were circulating in exchange for the wine and ceramics found on most ships. One, found about 18 km. west of Marseille, was filled with limestone blocks quarried from a coastal site nearby that were presumably destined for construction projects in the Greek city. Others have yielded ingots of copper, tin, and lead.<sup>153</sup>

What is important to remember in considering trade patterns in the ancient western Mediterranean is that, apart, perhaps, from matters of civic security and grain supply, one cannot conceptualize trade in terms of the direct collective needs or demand of city states or, even worse, of vague ethnic designations such as “Etruscans.” Rather, trade must be understood in terms of the complex micro-scale relations between human agents in the domains of production, distribution, and consumption. It involved the activities of thousands of heterogeneous traders plying the coastal waters, stopping at colonial emporiae and native ports alike, and taking on cargo according to what they believed would be desired at the particular ports they frequented. Moreover, those desires were the product of a variety of local tastes and perceived uses expressed in numerous different languages and determined by specific cultural logics and the social relations of consumers in those contexts. It was the knowledge and relational networks of traders, undoubtedly aided in many cases by the establishment of gift-sustained

<sup>150</sup> Pomey and Long 1992; Pomey and Tchernia 1978; Tchernia 1986; Tchernia et al. 1978.

<sup>151</sup> Bouscaras and Hugues 1967; García 2002.

<sup>152</sup> García 1987a; Soutou and Arnal 1963. <sup>153</sup> Long et al. 1992.

friendships and small diasporic communities resident at various ports, that provided the indirect linkages between disparate consumers and producers who had little knowledge of each other.

### (c) *Coinage*

Coinage, meaning standardized metal tokens of value with impressed symbolic devices, was an innovation of the eastern Mediterranean, attributed to Ionian Greeks or their Lydian neighbors, at the end of the seventh century BC.<sup>154</sup> This should not be confused with the invention of specialized (or “primitive”) monies, in general, which had been a feature of many economies for a much longer period of time.<sup>155</sup> During the sixth century BC, the practice of coinage quickly spread to the Greek colonies in southern Italy.<sup>156</sup> Massalia was the first source of coinage in the western Mediterranean, and it began to mint coins only during the last quarter of the sixth century BC. It was followed in this practice by a few other Greek colonies in Spain (Emporion, Rhode) and by various native societies, but generally not for several centuries in the latter case. Among the Etruscan cities, Vulci and Populonia began to mint limited series of coins in the late sixth and early fifth centuries BC, and other cities adopted the practice in later centuries.<sup>157</sup> These coins are very rare outside the Etruscan region in the western Mediterranean, but a few early Populonian examples have been identified on native sites in Provence.<sup>158</sup> It was not until after the mid-fifth century BC that coinage was adopted in the Phoenician cities of the eastern Mediterranean and at Carthage (based upon quite different Persian and Sicilian-Greek models, respectively), and generally not until the late third century BC that Punic colonies in Spain (Cadiz, Ibiza, Almuñécar, Carthago Nova) began to produce coins.<sup>159</sup> The earliest indigenous coins of the western Mediterranean were actually fifth century BC imitations of Massaliote obols by the neighboring Saluvii.<sup>160</sup> However, these were very few and sporadic in their production. Most indigenous series of the Mediterranean region began only in the second and first centuries BC, although several Iberian coinages began during the late third century BC. The earliest on the eastern coast of Spain were of silver and based largely on the coinage of Emporion and Rhode, while those in the Punic zone were of bronze and based on Punic models, although the iconography was often quite original.<sup>161</sup>

The first Massaliote issues were small silver coins with a diverse range of raised relief motifs on one face only.<sup>162</sup> From the mid-fifth century BC,

<sup>154</sup> Grierson 1978.      <sup>155</sup> Dalton 1965.      <sup>156</sup> Stazio 1995.      <sup>157</sup> Catalli 1984; 2000.

<sup>158</sup> Martos 2000.      <sup>159</sup> Acquaro 1988.      <sup>160</sup> Martos 2000.

<sup>161</sup> García-Bellido and Ripollès 1997.      <sup>162</sup> Furtwängler 1978.

Massalia began to issue new types of silver coins (*oboles*) with representational motifs on both faces and with weights aligned according to the system of Syracuse.<sup>163</sup> Obols continued to be minted into the first century BC, but these were also augmented by additional new coin types in subsequent centuries, including the first bronze coins, in four denominations, from around 240–220 BC. From the late third century BC, weights conformed to the Roman system.<sup>164</sup> Production of the “petit bronze” with a charging bull on one face increased dramatically during the early first century BC, when they also began to circulate in large quantities on indigenous sites of Provence and eastern Languedoc. Recent excavations at the Place Villeneuve-Bargemon at Marseille have revealed a rare *in situ* coin production workshop, dating to the Hellenistic period.<sup>165</sup> Unlike the situations at Athens and Pella, where coin production occurred near the *agora*, the Massaliote workshop was located adjacent to the port.

In Spain, Emporion and Rhode also began minting coins in the fifth and third centuries BC, respectively.<sup>166</sup> As noted above, minting coins was a relatively late phenomenon in the Phoenico-Punic sphere in Spain. Production began around 325 BC at Ibiza and Ibiza coins have been found not only along the coast from Languedoc to Andalusia, but as far away as north Africa, Campania, Sicily, and Sardinia.<sup>167</sup> Coin production began at Cadiz around the time of the Barcid takeover of the regional silver mines, at roughly the same time as at Almuñécar and Carthago Nova.<sup>168</sup>

In indigenous contexts in southern France, isolated hoards of Massaliote and other alien coins are found on scattered sites of the lower Rhône basin from the fifth century BC on.<sup>169</sup> However, the distribution of Massaliote coins was largely confined to the lower Rhône Basin until the end of the third century BC, and there is no quantitatively significant evidence of monetary circulation in Mediterranean France until the second century BC. What is more, it is only on settlements dating to the first century BC, when the region had been under Roman administration for at least a generation, that coinage (then mostly bronze) is found distributed widely enough and in quantities large enough to begin considering the possible development of a monetary economy in the indigenous domain.

All of the early coinage throughout the Mediterranean was in high value precious metals: especially silver, but also some gold and electrum. Bronze coinage appeared in the third century BC. Coins were not made originally for purposes of trade, and in the western Mediterranean generally they could not have played a significant role in ordinary, small-scale commercial activities until the first century BC (for centuries after its first development,

<sup>163</sup> Brenot 1992. <sup>164</sup> Brenot 1990. <sup>165</sup> Hermay et al. 1999.

<sup>166</sup> Richard and Villaronga 1973. <sup>167</sup> Campo 1976.

<sup>168</sup> Acquaro 1988. <sup>169</sup> Gentric 1981; Richard 1992.

there was no “small change” suitable for small-scale exchange and there was relatively little coinage in circulation). Coins were a form of special-purpose valuable produced for a limited range of (largely political) practical and symbolic functions, including making state payments (e.g., for military operations and building projects), collecting taxes and tribute, and affirming the power of a polity to define standards of value. The range of uses to which they were put once in circulation was undoubtedly much larger than the specialized functions that motivated their production, and this eventually included trade (at least for large transactions). For example, the lead tablet from the settlement of Pech Maho (in Languedoc) mentions a transaction in which coins constituted part of a large payment for a ship.<sup>170</sup> However, as the small quantities and limited distributions of coins suggest, during most of the Iron Age, most exchanges in the western Mediterranean were transacted through barter (i.e., direct exchange of goods and services). This means that trade generally occurred without the intervention of coinage, except perhaps as an indirect abstract scale of relative value used increasingly in negotiating transactions. Moreover, coinage was clearly not essential to the development of extensive trade relations. The Phoenician colonies in Spain, for example, carried on a major trans-Mediterranean metal trade without minting coins, and indigenous societies of France and Spain were aware of the idea of coinage without seeing any need to mint coins for centuries. This is not to negate the significance of coinage for the functioning of Greek and, eventually, Punic colonial city states – it clearly had a major role in the political life of these polities and the economic domains in which the state intervened. But, before the Roman conquest, the western Mediterranean was never an integrated monetized economy in anything like the modern sense.

## VI CONSUMPTION AND ITS CONSEQUENCES

### (a) *Indigenous consumption*

Consumption is a feature of the ancient west Mediterranean economy that has received much less attention than either trade or production. Often, it has been treated simply as an epiphenomenon of production and considered as a “natural” response to the availability of goods. This has been especially true in the case of Greek goods, where native demand was seen as part of a process of “Hellenization” in which an inevitable desire to imitate Greek culture played a central role. However, recent research on the initial phase of the colonial encounter in France, in particular, has challenged the assumptions underlying this perspective and focused on identifying and

<sup>170</sup> Lejeune et al. 1988.



attempting to understand the limited, highly specific, and socially situated nature of indigenous demand for alien goods and practices. A contextually sensitive study of the phenomenon of consumption has been proposed as an effective means of exploring the issue of agency in the encounter and understanding the process of entanglement by which native societies were drawn into increasingly complex and asymmetrical relations with wider Mediterranean structures of power.<sup>171</sup>

Given that a trade in wine and drinking ceramics was the primary feature articulating indigenous and colonial societies for several centuries and was always a major component of colonial relations, theoretical exploration of the social dimensions of alcohol and feasting has provided new insights into the social and cultural logic of demand for this product in different societies and the ramifications of its adoption in different contexts.<sup>172</sup> Appreciating the important role of feasts in articulating the regional cultural economy and the place of alcohol in feasting has enabled a better understanding of the desire for wine and the links between the wine trade and the adoption of alien ceramic production techniques (the wheel and controlled-draft kiln) for new series of tablewares in the lower Rhône basin. The changing nature of the wine trade in the Late Iron Age has also been pursued, and locally specific resistance to, and subsequent demand for, other alien goods and practices (such as writing, coinage, elements of cuisine, architecture, agrarian practices) have also been analyzed.<sup>173</sup>

#### (b) *Greek and Phoenico-Punic consumption*

Although the goods and services sought by colonial agents and received in return for wine and other items has been a subject of some discussion, this has not generally led to a nuanced conceptualization of the logic of consumption in colonial contexts.<sup>174</sup> In fact, demand for different products would have been highly specific in nature and volume according to the traders involved and the consumption markets they were serving. For example, it is highly unlikely that residents of the Etruscan city states from the rich metalliferous zone of Tuscany would have been interested in importing iron, while Massaliote smiths may well have had such a demand. It is evident that metal resources (especially silver, but also gold, copper, tin, lead, and iron) were a primary attraction for Phoenician and Greek merchants in southern Spain and, to a lesser extent, in western Languedoc.<sup>175</sup> Indeed, Greek texts are quite explicit in describing the Phoenician interest in Tartessus and its rich silver resources, and their own interest in Spanish

<sup>171</sup> Dietler 1990a; 1998; 1999. <sup>172</sup> Dietler 1990b; 1996.

<sup>173</sup> Tchernia 1983; 1986; Amouretti 1992a; Bats 1988a; 1988c; Morel 1995a; 1995b.

<sup>174</sup> Barruol 1975: 91–100; Benoit 1965: 191–213; Bouloumié 1989; Dietler 1990a.

<sup>175</sup> Aubet 1993; Rouillard 1991; Domergue 1994; Garcia 1995.



metals. Recycled bronze objects, of the kind represented by the Launacian hoards noted earlier may also have been sought, including by Etruscan metal workshops. As noted earlier, grain would also have been a major import commodity for Massalia and other Greek colonies. Evidence for major grain production for export in indigenous contexts is most obvious in Catalonia and western Languedoc beginning in the fifth century BC, but suggestive evidence of surplus storage exists in the lower Rhône basin as well.<sup>176</sup> In fact, although the Rhône basin was very poor in metal resources, it would have been a rich potential source of grain and livestock products for Massalia. Moreover, Massaliote shipbuilders would have seen several products of the nearby forests and garrigues of the Rhône basin (e.g., timber and pitch) as an invaluable resource. Residents of the city would also have sought timber for house construction and wood for fuel. Vintners would have needed pitch for coating their wine amphoras; and individuals would have desired various medicinal and culinary herbs of the region. Salt and fish from the coastal lagoons would also have been desirable. The same kinds of resources would have been sought by Phoenician shipbuilders and other colonists in Spain, and timber may even have been a potential export product to more heavily deforested regions.<sup>177</sup> Recent finds of stone olive-presses at a number of indigenous sites in the lower Rhône basin (primarily in Provence near Marseille) suggest that, by the fourth century BC, Massalia may have begun to rely at least partly on indigenous production of olive oil as well.<sup>178</sup> During the second century BC, Massalia also began to import cooking ceramics from native workshops.<sup>179</sup> Labor was also an important potential commodity for Phoenician and Greek colonists, especially at Massalia; and indigenous labor (both hired and slave) may have helped Massaliote wine and olive production, construction projects, and urban services. Labor as an export item in the form of slaves may also have been a feature of the economy, although it is probable that the demand for slaves from local native societies was far lower before the advent of Roman trade in the region.<sup>180</sup>

The Greek and Phoenician colonies also had a compelling need to maintain security through political alliances (quite probably fueled with lavish gifts) and mercenary services. This feature is best documented for Massalia, for which written records suggest a checkered history of relations with the surrounding natives (e.g., Just. *Epit.* 43.4; Strabo 4.1.5). It is clear that Massalia had military allies among the native peoples. Caesar (*B Civ.* 1.34) mentions the Massalioes calling upon the local Albici people to help them defend the city against his troops in the first century BC, and Polybius (3.41) noted somewhat earlier that the Massalioes used Celtic mercenaries

<sup>176</sup> Garcia 1997.

<sup>177</sup> Treuman 1997.

<sup>178</sup> Brun 1993.

<sup>179</sup> Arcelin 1993.

<sup>180</sup> Daubigny 1983.

for their own defense. Such protection could have been arranged either by establishing political alliances with selected local tribes (and perhaps inserting themselves in native politics by helping certain groups in their struggles against others) or rewarding the services of groups of mercenary warriors. This kind of arrangement for peace and protection could also easily take on the character of a “protection racket,” where native groups extracted a continual stream of goods from Massalia in exchange for promises not to attack the settlement.

(c) *Consequences: Hellenization to postcolonial approaches*

For many years, a concept known as “Hellenization” served as the primary explanatory framework for understanding the consequences of trade and cross-cultural consumption that constituted the essence of the pre-Roman colonial encounter in Mediterranean France. Initially, this concept conflated both a description of the process of social and cultural change in the colonial situation and its explanation.<sup>181</sup> It was axiomatically assumed that, even in the absence of a coercive imperial domination of the Roman kind, imitation or absorption of Greek culture (or that of other Mediterranean “civilizations”) by “barbarian” societies would have been a natural and inevitable result of contact. Hence, the focus of analysis was to chart the gradual clumsy progress of this self-evident phenomenon. An identical logic underlies much of the older literature on the “Orientalizing” phenomenon among native societies in Spain, in which Iberian ethnogenesis was provoked by the absorption of “civilized” Phoenician and Greek objects and practices (such as writing, wine-drinking, and stone sculpture). The roots of this flawed interpretive paradigm and the untenable assumptions of the inherent superiority and attractiveness of Greek and Phoenician culture and the one-way flow of transformative influences, can be traced to a tradition of Hellenophilia that had a powerful influence on the structure of cultural capital in modern European societies. This was a product of the “invented tradition” of ancestral cultural links to the ancient Greco-Roman world that developed during the European Renaissance and was greatly elaborated during the Victorian period.<sup>182</sup>

Although the influence of this perspective lingers on, since the 1980s there has been a growing dissatisfaction with the concept of Hellenization, and there has been an increasing effort to try to reconceptualize interpretive models. World systems models, which have become popular among some scholars researching relations between the Mediterranean and Iron Age temperate Europe, have had considerably less impact in the western

<sup>181</sup> E.g. Benoit 1965; Jacobsthal and Neuffer 1933.

<sup>182</sup> See Dietler 1995; 2005; in preparation; Morris 1994a.

Mediterranean.<sup>183</sup> This is both because such macro-scale analyses have virtually ignored developments in the zone of direct encounter in the south and because they are seen as structurally overdetermined and too crudely mechanistic to provide real insight into the complex nature of colonial relations and social and cultural transformations in this much better documented region.<sup>184</sup> Seeking to understand the broader economic and political structures of these encounters in more subtle ways, the search for alternative approaches has involved, particularly, efforts to understand cultural borrowing as an active, selective process by indigenous peoples and to explore the complex ramifications of trade and colonial interaction as a contingent historical process.<sup>185</sup> Increasingly, as theoretical insights from the historical anthropology of colonialism and postcolonial studies have begun to make inroads, there has been an attempt to break down the somewhat monolithic dichotomies that informed earlier conceptions of colonists and natives, and to examine the transformative cultural and social effects of the colonial process on Greek and Phoenician settlers and traders as well as on native peoples.

## VII CONCLUSION

This chapter has presented a highly compressed, and inherently partial, synthesis of the current state of research on the economic history of the western Mediterranean during the Iron Age. The past decade has been extremely productive in terms of generating new research questions, strategies, and data. This has led to much improved understanding of such things as the nature and volume of trade, changes in agricultural and craft production, the logic and consequences of consumption, and transformations of the regional political economy. However, quantitative measures that would constitute standard categories of formal economic analysis (growth, per capita output, income distribution, productivity, etc.), to the extent that they may even be relevant, remain largely beyond our capacity to estimate in any meaningful way. Our understanding of economic performance remains, for the most part, at an impressionistic qualitative level, although there has been much improvement in this regard. Comprehension of the structures and institutional contexts of economic activity and the historical trajectories of economic processes have seen more progress, and research on economic issues remains a major focus of current activity throughout the region.

<sup>183</sup> E.g. P. Brun 1987; 1992; Cunliffe 1988; Frankenstein and Rowlands 1978; Sherratt 1993; although, see Frankenstein 1979a.

<sup>184</sup> Dietler 1989; 1995.

<sup>185</sup> E.g. Bats 1988a; 1992; Dietler 1989; 1990a; 1998; in preparation; Domínguez 2002; Gailledrat 1997; Morel 1983a; 1983b; 1995a; 1995b; Py 1990; 1993a.