

LES AMPHORES DU SADO, PORTUGAL: PROSPECTION DES FOURS ET ANALYSE DU MATÉRIEL, by *Françoise Mayet*, *Anne Schmitt*, and *Carlos Tavares da Silva*. Pp. 230, color pls. 14, pls. 40, figs. 32, plans 9, maps 16, tables 3. De Boccard, Paris 1996.

The study of amphorae has been developing fast in the last thirty years, including the growth of several specialized branches of investigation: amphora types; production or consumption centres; typological, epigraphic and petrographic analyses. Archaeological surveys of amphora-producing areas are a particularly important research avenue, of which the four-volume survey by Michel Ponsich of the Guadalquivir valley in southern Spain is probably the most comprehensive catalogue of sites, amphorae, inscriptions and other artefacts.

This book, by French and Portuguese archaeologists, follows this lead, being the result of a long-standing research mission and forming part of a series of books on the archaeological exploration of the River Sado basin in southern Portugal. The book is divided in five main parts, beginning with an overall introduction to the aims of the project — the study of fish-sauce production in the lower valley of the Sado, around seven sites close to the river. There is also a brief introduction to the amphora types produced in the area, namely Dressel 14, Almagro 50, Beltrán 72, Almagro 51a-b, Almagro 51c, Keay LXXVIII, and to its geographic setting. The authors emphasize that warm waters, an abundance of fish, and the presence of salt mines led to an environment favouring the installation of an “industrial district” (p 27).

The bulk of the book presents the results of the archaeological survey of the seven sites (pp. 29-119). Good maps, kiln plans and stratigraphic sections, lists of artefacts and a comprehensive publication of amphora drawings enable the reader to become well acquainted with the whole area. Abul (Alcácer do Sal), originally a Phoenician site, witnessed the earliest amphora production in the Sado valley. This should probably be dated to the period of Augustus and Tiberius, for mass production is already in place by the time of Claudius (p. 57) and would continue actively up to the mid-fifth century AD. The mass production implied that there were kilns solely for Dressel 14 lids at Pinheiro, although some sites, like Barrosinha, produced amphorae in family units (p.38), whilst others, like Enchurrasqueira, produced a number of graffiti indicating that several workers were active at the same time (p. 50). At the conclusion of the survey, the authors suggest that, since the kilns were located on river banks, it was possible to send empty vessels to be used in the fish-sauce workshops at Tróia and Setúbal. The

explored are smaller than those known in Baetica but they continued exporting fish-sauce for hundreds of years (mid-first to mid-fifth centuries AD). It is interesting to note that the differences in settlement pattern between the Baetis and Sado valleys are explained by several factors, not least the fact that olive oil and fish-sauce production are subject to different constraints. What is remarkable, however, is that both settlement patterns can be related to large-scale export activities. Finally, petrographic analysis was carried out with a sample of at least ten artefacts per **site** (pp. 121-165).

The authors also studied a consumption site, São Cucufate, a rural settlement with many amphora sherds and Samian pottery, and thus clearly linked to an urban market economy (p. 167). Lusitanian amphorae are in the clear majority, with the most important imported amphora being the well-known Dressel 20 olive-oil vessel from Baetica. It needs to be emphasised that the investigators found 994 sherds of fish-sauce amphorae, and only 45 sherds of wine and olive-oil vessels, implying that a “villa in the hinterland could thus have as varied a diet as a villa on the coast or on a river bank. These sea products came from different provinces” (p. 169) – mostly from Raetica and from North Africa. As might be expected, Lusitanian amphorae chiefly came from the Tagus and Sado valleys, areas not far from São Cucufate. Concluding this section, the authors propose that in the late period, that is from the third century onwards, amphorae continued to be produced in Baetica and exported as empty vessels to be used in the fish-sauce industries of Lusitania. This is an interesting suggestion, but its acceptance would depend on a better understanding of Baetica and the dynamics of exchanges in the late Empire.

The general conclusions of the volume touch upon three main issues. The first one refers to the typology of so-called Lusitanian amphorae, as the authors are keen to emphasize that they are not necessarily copies of amphorae produced elsewhere, notably in Baetica. The authors warn against typological classification grounded solely on criteria relating to shape, as they can be misleading, and reject the use of the adjective “Lusitanian” to describe these amphorae (p. 194). However, the common use of provincial names as adjectives applied to these vessels should not be discarded, as it is a useful way of indicating areas of production, although the possible proviso could be made that such names add a specific referent to the precise region such as, in this case, the Sado valley.

The second issue is also a terminological one as the authors do not accept the use of “kiln” as a referent to the place of production, preferring to call it *atelier* (workshop) in its general meaning of “producing place” (p. 195). A strategy

may be appropriate to amphora-producing areas which lack stamps, but it should not be used when dealing with those areas where epigraphic evidence is available. When there are stamps, it is possible to study the exchange between consuming and producing areas, from specific kilns to specific consumer sites, producing social, economic and cultural data with which to interpret Roman society as a whole. José Remesal's *La annona militaris y la exportación de aceite bético a Germania* (Madrid 1986) led to the adoption of this approach, and such studies are now used as primary sources for discussing the character of Roman society and economy. The third issue refers to the development of the area of the Sado valley.

In summary, this book provides useful and accessible data on the settlement of the Sado valley, thus serving an invaluable purpose since the publication of archaeological evidence is an important task in itself. The reader might perhaps have gained from a more anthropological stress on the overall context of fish-sauce production, as there are several issues relating to social habits (fishing, workshop activities, consumption of sauces and so on) which would also interest a general reader. As it is, this book, as with most archaeological reports, is probably too descriptive to be read by non-specialists. But the purpose of the book was first and foremost the publication of the evidence and it is successful in this, furnishing data to be used by scholars interested in Roman economy and society.

PEDRO PAULO A. FUNARI

**DEPARTAMENTO DE HISTÓRIA
INSTITUTO DE FILOSOFIA E CIENCIAS HUMANAS
UNIVERSIDADE ESTADUAL DE CAMPINAS
SAO PAULO, BRAZIL
C. POSTAL 6110, CAMPINAS 13081-0, SP**