The study of the Roman economy is still hampered by a limited body of evidence. In many aspects, archaeology has not been as helpful as one might hope or expect. Often archaeological material does not come from such well-defined datable contexts as to allow for economic patterns to really be discerned beyond just the general economic setting of a period. Since historical texts are dominated by the position of Rome, they are clearly sources of limited value outside of the confines of capital. Even localized texts seldom really treat economic matters with enough consciousness or clarity to permit much detailed information to be gleaned. One exception to this may be the easily recognizable material artifacts that played a role in trade throughout the Roman empire. The amphorae that carried oil were just such objects. The oil has long since vanished but the containers remain, usually in fragmentary state. They are a distinctive class of objects identifiable by shape, and their forms remained constant for decades permitting the patterns of their distribution and use to be plotted. It is the basic thesis of the authors, that the patterns revealed by the amphorae fragments in fact tell us something about the economics of the domestic oil trade in the Roman Empire of the first, second, and early third centuries A.D.

Amphorae have been a topic of study since the last century when the German scholar H. Dressel first identified the particular diagnostic shapes into
which they can be classified. These shapes can be associated with the contents of the vessels. Over the decades, they have also become associated with specific chronological arrangements and geographical locations. Thus, it is possible for the authors of this study to recognize the Dressel 20 amphora as a oil carrying type, largely used during the period of the high empire, and produced in the province of Baetica in southern Spain. The studies of the great mound of amphorae fragments in Rome, Monte Testaccio, have provided the chronological and typological frameworks on which all other studies of oil amphorae must be built. What makes these fragments so useful is that many are handles which carry stamps. These stamps record some basic information, though it is not all completely comprehended by modern scholars. At a minimum they record three letters, which may be the tria nomina of a free-born individual. It is debated exactly who this individual is, possibly the owner of the oil in the amphora at the time packaging, the owner of the orchard from which the oil came, the owner of the press on which the oil was produced, or even the owner of the kiln that made the amphora. More complex stamps provide the names of the potter, one assumes a slave, whose name appears in the genitive followed by F (fecit). In other instances there may be the names of the figlinae, the notation Portus, and some indication of the individual’s status C (clarisimus) V (vir). The stamps, it might be argued, provide information about the oil and its production and initial shipping.

Besides the stamped handles, the amphorae also carry other records. Some of these may be scratched into the surface of the pot. Some of these were placed on the pot prior to its firing and therefore may tell us something about the workshops that produced the amphorae. These graffiti probably record numbers in some manner. Those graffiti made after the pot had been fired (post cocturam) often seem to be initials and occasionally full names, written in the genitive. These graffiti relate to the shipping and transport of the oil rather than to its initial preparation. It has also been suggested that these graffiti may relate to the use of the amphora after its initial contents had been removed.

Finally there are painted inscriptions on amphorae, the tituli picti. These can be quite complicated records. Dressel argued that the first line of these inscriptions provided the vessel’s weight, its tare. The line below, when present, is usually a name in the genitive, perhaps the individual concerned with the commercialization or transport of the oil. Below was another weight, that of the vessel and contents. Completing the full inscription was information about district from which the amphora was exported, the consular date, the name of the ponderator or acceptor, and the name of the kiln. There could be some additional items whose meaning is not really clear.

It should be obvious that there is great potential for the study of a single, important industry from these amphorae fragments. In essence that is what the two authors of this present volume attempt to do, with quite impressive results. They have concentrated their study on the fragments of oil amphorae from Britain which contained oil that can be traced back to production centers in Roman Baetica. By focussing on one industry, one piece of evidence, albeit a rich one, about that industry, and one linkage they are able to make some rather important statements about the nature of domestic economy in the western Roman Empire of the first three centuries of the common era.

The authors, both with long bibliographies of scholarly studies on aspects of the oil trade, have chosen to look at the distribution of oil amphorae fragments (mostly Dressel 20) around Britain. These can be shown, by the means of the stamps, to have come from the oil producing region of Baetica, thus linking one Roman frontier province with another. They can do much better than this. Their study reveals that the Baetican oil was coming from a few select areas in the valley of the Guadalquivir (Baetis River) and in turn was shipped to an equally limited number of localities in Britain in the southeast, west, and north. While the arrangement of limited producers and receivers remained constant over the three centuries, the specifics of how much the producers sent out and to which place in Britain changed. These rises and falls in both production rates and receipts may reflect the changing nature of domestic trade patterns, as one exporter is replaced by a another, or one importer is dropped in favor of another. Though the connections may well have been on a somewhat personal basis, to judge from the appearance of names and specific places and potters in the inscriptions on the amphorae, the economy was subject to basic laws of supply and demand. A newer and more aggressive market could replace an older somewhat softer market, just as a new energetic supplier might oust an older one. The graphs that so amply illustrate this study help us to see these changing patterns in the economic linkages.

The study of the Baetican production has been done by others and shows that this was a large scale industry employing a number of different economic elements, from the small scale producer of olives, to owner of the presses, to the owner of the pottery
workshop that made the amphorae, to the various transporters involved in moving the oil throughout the Empire. The oil industry engaged both big players who could do all the these aspects of the trade and little players who could offer only a single feature in the production chain. Carreras and Funari have now looked at the role of the importer. They have recognized two quite different economic forces at work, the civil importer and the military importer. In the frontier zones, the latter played the bigger role. The oil was imported to specific military centers from which it could then be redistributed to meet the needs of the occupying and pacifying forces on the island. The civil importers were of much less significance as revealed by the actual volume of amphora fragments found in civilian rather than military settlements.

The authors develop this last point quite well, and take the study far beyond the level of mere data presentation. Britain had a long, but limited, interest in the importation of olive oil. The product was not part of the indigenous diet and clearly represented a foreign introduction and implantation. Roman soldiers came from all over the Empire to serve in Britain, and thus olive oil was a necessary item for soldiers from the Mediterranean region, hence the military dominance in this trade. The civil importers were largely feeding a limited market of retired Mediterranean types who elected to remaining Britain or the population of Romanized natives. However, there may have been a more important role for the oil, to help foster a sense of Romanness among the soldiers stationed so far from their homes in a climate and typography quite different from what they knew. The authors suggest that olive oil, and the food prepared with olive oil, offered a subliminal but significant message to the soldiers. For some it appealed to a diet they already knew, but for others it would have been new.

Exactly why, in trying to implement this policy, the military forces on the island would have been changing where in the region of Baetica they went for their oil, is not possible to determine from the evidence. Some of the changes in import patterns may also be the result of the changes in which sites in Britain dominate the trade at any given moment. Just as the centers for the production change so too do the centers for receipt. This latter change may well reflect the reality that the first century marks a period of active pacification followed in the second century by a period of local response. Of course, the native population never used olive oil, and so its presence outside of the military setting might well suggest a growing sense of Roman identity among some of the local population who now sought to eat in manner like that of their Roman conquerors.

The evidence for the third century shows a real change. There is clear break-up of the Baetica Britain monopoly as North African olive oil producers begin to show up in greater numbers. They do not establish themselves as the successors of the Baetican, but they are evidence of a decline in this industry and economic activity. This agrees with our general understanding that the iberial peninsula did suffer an economic and cultural decline during the third century. The concomitant lack of prestige building on the peninsula during these decades may reflect the fact that the economy had collapsed as witnessed by the end of the Baetican oil monopoly with Britain. What is not clear is whether this had been founded, maintained, and funded by the military in Britain or by policies established in Rome.

This last point is of great interest to any one concerned with the Roman frontier. The real question is how much did the provinces control of their economic life? Were the Baetican oil producers obliged to enter into this trade network with Britain at the direction of a central authority or did this relationship take shape between the two provinces? Are we looking at center — periphery control issues in which the needs of the center dominate and direct the actions at the periphery or are we better off seeing this as the result of entrepreneurship on the periphery which totally side-stepped the control or even the interest of the center.

The volume is well presented. The opening section, one, provides the basic information about the surviving fragments and our general state of knowledge about how to read the epigraphic evidence from the stamps. Section 2 offers a good study of the distribution of the stamps and an interpretation of the nature of the economic linkages between Iberia and Britain. The third section considers the evidence from the *tituli peicti* and the graffiti, and section 4 presents the most novel essay on the possible use of oil within the context of forming a Roman identity within the army and the conquered territory. Throughout, the volume is well illustrated with good line drawings. The charts and
maps are particularly helpful for they provide visual clarity to points being made in the text. The raw material is grouped together in the catalogue which includes drawings of the stamps, the *tituli picti*, and the graffiti. There are also photographs of several of the stamps. The statistical analyses are relegated to the appendix. This is a model volume for how to present a body of specific and related material. The authors have a clear purpose, and their presentation is straightforward. However, they have made certain that all needed information about the material itself is here so that other scholars can take the raw data and use them as needed for different types of analyses and studies.

The Roman Empire may well have operated with a primitive economy, but the researches of Carreras and Funari and other scholars like them, are showing us that the economy was dynamic and not static. Local forces as well as Imperial forces may well have determined decisions. For any of us who study these regions, we must open our eyes more to the interactions between the provinces and understand how ideas as well as items moved around the periphery and not always through the center. This is an excellent volume to help us look at the material in a new way.

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