Funari, Pedro Paulo A. *Dressel 20 Inscriptions from Britain and the Consumption of Spanish Olive Oil with a Catalogue of Stamps*. BAR British Series 250, Oxford, 1996.

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nedro Funari's new volume in the BAR series is a study of a body of epigraphic material important for I our understanding of the economic interrelationships of the provinces of the Roman Empire during the first three centuries of the common era. It was during the first century A.D. that the Baetis valley (Gaudalquivir Valley) of the Iberian Peninsula became the major supplier of olive oil through the Roman world. The olives were raised on estates in the valley, were processed in the industrial quarters of the estates, and the oil was shipped via a series of transhipment points down the Baetis River until it was loaded aboard large merchant boats and carried to various ports. The oil was transported in a distinctive type of vessel, a large globular amphora known from Dressel's classifications as a Dressel 20. It is an easily recognizable type of pot, and its presence testifies to a connection with the large scale olive oil trade that was such an important feature of the economy of southern Spain for almost three centuries. Most of these amphorae were labeled by means of stamps impressed in the clay of the vessel before firing and inscriptions painted on the finished pot. While these epigraphic testimonia appear abbreviated format, they do provide information about the locality of the estate, the names of the owners, the quantity and quality of the oil, the locality of the pottery factory, and the names of the various shippers. The significance of the Spanish olive oil trade has been known for many decades, ever since the great pile of amphorae fragments located in Rome at Monte Testaccio was recognized to come from Dressel 20 amphorae produced in Iberian potters's workshops and intended to carry Iberian oil.

Professor Funari has collected the stamps and inscriptions from the Dressel 20 amphorae that have been unearthed in Britain. Many of these have been considered in earlier studies, but the full corpus of 272 items has never before been brought together for consideration. The arrangement of the volume is straight forward and clear. After a short introduction which presents the general nature of the evidence and significance of the study for the history of ancient economics, the stamps and inscriptions are presented in catalogue form. The final section of work presents several analyses considering the evidence of economic ebb and flow in the oil trade, the specific distribution of oil producing regions in the Baetis Valley, and the nature of the micro-economic aspects of the trade on a region to region basis within the two provincial areas.

The dynamics of the Roman Imperial economy have been difficult to trace. Most studies have concentrated on what can be said about the economic health of the Empire as revealed in numismatic analyses. Such investigations have by their nature, tended to consider the economy from the centerest point of view, looking at economic decisions as something largely the concern of the central government and revealed through the fiscal policy of the mints. However, the Roman Empire was far too large to have an economy solely directed from Rome itself. Certainly with the peace brought about during the first century A.D. long distance trade allowed for different units within the Empire to establish econo-

mic linkages. Many of these did not need to pass through the central authority of Rome. This began as early as the first century B.C. with the large scale trade in wine dominated by regions in Italy. By the first century A.D. this too had come to be dominated by the Iberian producers. The olive oil trade developed slightly later and was substantially larger and more lucrative. Granted, many of the amphorae fragments of Dressel 20 found in Britain, northern France, and Germany were the result of oil transported there to satisfy the demands of the Roman troops quartered in these regions, and hence the result of Imperial decisions, it is still also true that Baetic oil traveled north to suit the needs of a Roman and Romanized population that now lived in the north climes and wanted Mediterranean foods. The fragments and complete pots come from many none military sites.

Funari has collected, grouped, and analyzed the significant features of the amphorae stamps and inscriptions. The importance of the stamps and inscriptions treated in combination is that they allow us to know the place for the manufacture of the pot, the quality and quantity of the product shipped, the name or names of those who shipped the item, the region from which the product originated, and the date of production and shipment (via the consul's name). The stamps on the vessels therefore connect us with the production of the oil since they were stamped on the to pots before these were fired. The painted information is the record of the movement of the oil. The publication of the stamps from the producing areas in southern Spain now allows us to relate some finds of stamped fragments elsewhere in the Roman world with specific sites of production, at least for the pot if not for the product. The internal dating of the inscriptions permits us to arrange the material into a chronological sequence and posit some idea of the pattern of olive oil export and import.

Funari makes interesting and important observations in his analyses of the evidence. First he notices significant shifts in the patterns of oil shipments across the English landscape during the three centuries. Where the southeast represents the destination for 100% of the oil imported during the first part of the first century A.D., by the third century A.D. it accounts for only slightly more than half the total imports, indicating the growing presence of a Romanized population (much of it military) throughout the province. In a similar way, Funari can show that the pottery works associated with Hispalis (Seville) were producing substantially more of the amphorae than either the those from Astigi and Cordoba. This remains the case throughout the three centuries, perhaps putting to doubt Will's notion that as demand for olive oil increased, the development of the oil production and exportation moved more and more to the east. Funari's discovery does not agree with the actual remains of the pottery kilns, for the Cordoba region has produced good archaeological evidence of many operating kilns. It does suggest that as demand increased, there was some focusing of export markets. The areas of Hispalis and Astigi shipped more of their oil to the British province than did Cordoba. At present we do not know where the Cordoban oil was going.

Funari's work can be related to other archaeological findings on the Iberian Peninsula. We can actually see the result of this concentration of wealth produced from the olive oil trade. During the Flavian period and the first half of the second century A.D. the region associated with Hispalis saw two great building programs. At Munigua (Mulva) in the mountains north of Hispalis a major sanctuary complex modeled on the Republican sanctuaries of the central Italy was constructed. This was an expensive commission, and while a portion of it may have been paid for by the wealth generated from the

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nearby mines, excess wealth resulting from the olive oil trade must have paid for some of this monument. More telling is the expansion undertaken at Italica, a city neighboring Hispalis. This old, colonial outpost founded during the first period of Romanization, was redesigned with a new residential quarter, bath complexes, and massive temple ensemble. The richness of the interior decorations of the houses as seen in the floor mosaics, as well as the grandeur of the temple ensemble must be seen as the physical manifestation of the wealth generated by this export trade. It is just when this trade dies, a result of North African producers taking the market away from their Iberian competitors, that the archaeological record begins to show the decline in the standard of urban life on the Iberian Peninsula and in the Baetis valley in particular.

Funari's volume is a valuable addition to the growing body of primary evidence and analyses that is allowing us to understand better the dynamics of the economic system that controlled the Mediterranean and western Europe for five hundred years. Moreover, it gives us compelling evidence of the importance of the economic linkages that were established between provinces. The money generated from these associations helped to pay for the massive building projects of the first, second, and third centuries A.D. that can be found as the physical vestiges of the Roman Empire.