

The Roman Army and the Economy

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**BAETICA AND GERMANIA.
NOTES ON THE CONCEPT OF 'PROVINCIAL INTERDEPENDENCE'
IN THE ROMAN EMPIRE**

By José Remesal Rodríguez

Introduction

Research into the relationship between provinces in the Roman Empire has been undertaken only sporadically and without establishing a criterion to assess the meaning and the scope of the term.¹ Historical research in the field of such bordering provinces of the Western Empire as *Germania*, had a basic aim of studying military aspects of provinces: the organisation and distribution of the army. Archaeological research led in the same direction. Among archaeological sources, in addition to epigraphy and numismatics, the study of *terra sigillata* rapidly grew to be essential because it was realised that this ceramic type was the main diagnostic type in all excavations carried out along the *limes*.

On the other hand, researchers did not pay too much attention to domestic pottery types as these were seen as local products. In consequence, numerous 'types' of domestic pottery were given numbers and names that related to the place where they were found. Also treated as domestic pottery, the amphorae were similarly given names and numbers.²

Something that does strike one's attention is the fact that amphorae were never the subject of study of German researchers, though Heinrich Dressel, a pupil of Mommsen, was the first to establish an amphorae typology based in the material found in Rome and published in CIL. XV. Dressel, who had published his articles in Italy, also published an article in German about his research.³ When

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¹ E.g. R. Syme, 'La richesse des aristocraties de Bétique et de Narbonnaise', *Ktema* 2 (1977) 373-380.

² See works like F. Oelmann, *Die Keramik des Kastell Niederbieber* (Frankfurt 1914) and S. Loeschcke, 'Keramik Funde in Haltern', *Mitteilungen des Altertums-Kommission für Westfalen* 5 (1943). Concerning amphorae typology, and the several names that a certain type has received: D.P.S. Peacock and D. F. Williams, *Amphorae and the Roman Economy* (London 1986).

³ H. Dressel, 'Eine Amphora aus Spanien mit lateinischen Inschriften', *Bonner Jahrbücher* 95 (1894) 66-79.

I first started my work on Germania in 1980 I came across colleagues who still had peculiar ideas about amphorae: for some of them, all amphorae types had only one purpose, which was, to carry wine from the Moselle River; for others, all amphorae may have contained any possible product.⁴ In honour of Prof. E. Birley, I must say that he was, amongst researchers of Roman military history, the first to be interested in adding an international dimension to the subject of the epigraphy of amphorae, by guiding the work of his pupil M.H. Callender in this direction.⁵ In 1946, E. Pélichet had already attempted to establish a typological table based in the rim profiles of the amphorae,⁶ but his work was not continued. B. Heukemes was the only researcher, as far as I know, that had any interest in the study of amphorae at that time,⁷ and actually, he was the one who encouraged me to focus my research on the study of amphorae found in *Germania*.⁸

⁴ I hope that my German colleagues will accept this criticism with humour. Although made humorously, it is the reality of the matter. It would be interesting to undertake a historiographic research into our comprehension of some archaeological phenomena. We should ask ourselves why amphorae did not attract the attention of researchers of the limes.

⁵ M.H. Callender, *Las ánforas del sur de de Esparia y sus sellos. Cuadernos de Historia primitiva del hombre* (1948) 139-142; *Idem, Roman Amphorae* (London 1965). My criticism of the limitations of the work by Callender can be found in: J. Remesal Rodríguez, 'Economía oleícola bética: nuevas formas de análisis', *Archivo Español Arqu.* 50/51 (1977/78) 87- 142 (there is a German version of this work in *Saalburg-Jahrbuch* 38 (1982) 30-71. Also in J. Remesal Rodríguez, *La annona militaris y la exportación de aceite bético a Germania* (Madrid 1986) 17; *idem, Heeresversorgung und die wirtschaftlichen Beziehungen zwischen der Baetica und Germanien* (Stuttgart 1997) 15.

⁶ E. Pélichet, 'A propos des amphores trouvées à Nyon', *Zeitschrift für Schweizerische Archäologie und Kunstgeschichte* 8 (1946) 189-202. Previously, O. Bohn had dealt with this subject: O. Bohn, 'Die ältesten römischen Amphoren in Gallien', *Germania* 7 (1923) 8-16; *Idem*, 'Amphorenschicksale', *Germania* 9 (1925) 78-85; *Idem*, 'Pinselschriften auf Amphoren aus Augst und Windisch', *Anzeiger für schweizerische Altertumskunde* 28 (1926) 197-212.

⁷ B. Heukemes, 'Datación de algunas marcas de ánforas españolas', *Archivo Español Arqu.* (1957) 197. E. Schallmayer, 'Römische Okkupationslinien in Obergermanischen und Raetien. Zur chronologischen Typologie der Amphoren', in: J. M^a Blázquez Martínez y J. Remesal Rodríguez (eds.), *Producción y comercio del aceite en la antigüedad. II Congreso Internacional Sevilla 1982* (Madrid 1983) 281-336.

⁸ My works in Germania have focused in the study of amphoric epigraphy and, basically, on the study of the inscriptions of Baetican olive oil amphorae, the well-known Dressel 20 that represent more than 90% of all amphoric epigraphy known in Germany: Remesal (n. 5 [1986 and 1997]).

Whenever the problem of the Roman *limes* has been taken into consideration, relationships have been established amongst the different “military” provinces almost as if they formed part of a specific world isolated from the rest of the Roman world.⁹ In fact, this is not a particular feature of *Limes Forschung* but it can also be extended to studies made from other perspectives. Even if these studies seek to attain a global perspective of the provinces, they end up in studying each province individually and juxtaposing all of them but without defining the elements that made them inter-relate.¹⁰

What do we mean by ‘provincial interdependence’?

The Roman Empire created an economic system based upon the imperial necessity of supplying the *plebs* of Rome as well as the army; that is, the Roman state became the economic machine of a large and diverse world. The reason for this is that many economic activities could be carried out behind the trade developed on behalf of the state. The fact that the Roman state accepted payment in *natura*, in addition to the products obtained from the vast Imperial properties, left a large amount of goods in the hands of the Emperor. He could thus influence market prices, especially in Rome, where the Emperor had a particular interest in satisfying the needs of the urban *plebs*, and on the *limes*, where the Emperor had an interest in satisfying soldiers. To have control of these resources and to be in

Idem, ‘Die Stempel auf Amphoren des Typs Dressel 20 aus Worms’, *Archäologisches Korrespondenzblatt* 19/4 (1989) 351-360. J. Remesal Rodríguez und V. Revilla Calvo, ‘Weinamphoren aus Hispania citerior und Gallia narbonensis in Deutschland und Holland’, *Fundberichte Baden-Württemberg* 16 (1991) 389-349. J. Remesal Rodríguez und E. Schallmayer, ‘Römische Amphoren aus Baden-Württemberg’, *Fundberichte Baden-Württemberg* 13 (1988) 395-432. Progress in this direction consists of studying all amphorae material found in a city, whether it is inscribed or not: S. Martin Kilcher, *Die römischen Amphoren aus Augst und Kaiseraugst* 1 (Augst 1987), 2 (Augst 1994), 3 (Augst 1994); or from a region, like the works by J. Baudaux, *Les amphores du nord-est de la Gaule*. DAF 52 (Paris 1995) and P. Berni Millet, *Las ánforas de aceite de la Bética y su presencia en la Cataluña romana* (Barcelona 1998); and from a province, like the work by C. Carreras Monfort y P.P.A. Funari, *Britannia y el Mediterráneo. Estudios sobre el abastecimiento de aceite bético y africano en Britannia* (Barcelona 1998); C. Carreras Monfort, *Economía de la Britannia romana: la importación de alimentos* (Barcelona 2000).

⁹ Cf. the various indexes in “Limes Kongress”.

¹⁰ See in this respect the various volumes of the collection *L’Africa romana* edited by the University of Sassari.

charge their redistribution was, in my opinion, the duty of the *praefectura annonae*.¹¹

Augustus left in the hands of private merchants the job of transporting those products that were the property of the State, irrespective of where they came from, be it tax payments, imperial properties, payments on behalf of the State, or indictiones. In exchange for fulfilling this task they were given a payment, the so-called *vecturae*. However, in order to satisfy the public demand and to prevent high prices in Rome, other stimuli were also created. This included social privileges for those that carried products to Rome or wherever they were required, particularly for the men that were selling grain and olive oil in the Roman market, as these were staple products of the ancient Mediterranean diet.

I have provided enough evidence that the Roman state supplied each soldier with what he needed and that his basic diet cost the equivalent of two thirds of his salary. This means that the Roman state in practice only required to strike approximately one third of the coins that were theoretically required to maintain the Army. This has led us to define a system of compensations between the provinces and Rome and between each of the provinces.

Therefore, the basis for understanding provincial interdependence in the Roman world are, in my opinion, as follows: the creation of an administrative unit in charge of the distribution of state resources, the *praefectura annonae*; the placing of the transport of State resources in the hands of private entrepreneurs; the stimuli given to those that facilitated the task of the *praefectura annonae*; and the creation of a system of compensations that solved the problem of coin circulation. In consequence, my idea of provincial interdependence refers to the relationships that were motivated by the interests of Rome and that were established between Rome and each of the provinces, and between each of these in turn. These relationships influenced the role that each province played at certain moments in time and, in turn, the political and administrative development of the Roman Empire.¹²

¹¹ The traditional view of the *praefectura annonae* ascribed to it the task of transporting the necessary grain of frumentationes and, from the middle of the 2nd c.AD, olive oil: H. Pavis de H'Escurac, *La préfecture del' Annone. Service administratif imperial d'Auguste à Constantin* (Roma 1976). My view is wider since I believe that the *praefectura amnonae* had the function of transporting any required product to Rome and to the army.

¹² These ideas have already been put forward in several of my works J. Remesal Rodríguez, 'Ölproduktion und Ölhaldel in der Baetica. Ein Beispiel für die Verbindung archaologischer und historischer Forschung. *Münstersche Beiträge zur antiken Handekgeschichte* 2 / 2 (1983) 91-111; Remesal (n. 5 [1986]); idem, 'Die Organisation des Nahrungsmittelimportes

In support of this view, I would like to point out the attempt by Augustus at achieving a balance between the interests of the *plebs*, the farmers and the merchants¹³ or the complaints made by *Columella* that the supply to Rome was carried out from the provinces.¹⁴ But, in addition to these and other documents already mentioned in my earlier works, I would like to add a commentary on two passages from the Panegyric to Trajan written by Pliny the Younger: chapter 29 is of particular significance to this discussion. In the first place, Pliny makes a comparison between the *cura annonae* of Pompey and the provident attitude of Trajan. I would like to point out that Pliny is referring to a political action that had taken

am Limes', *Studien zu den Militärgrenzen Roms III 13. Internationaler Limeskongress Aalen 1983* (Stuttgart 1986) 760-767; Idem, 'Die procuratores Augusti und die Versorgung des römischen Heere', *Akten des 14 internationalen Limeskongresses 1986 in Carnuntum* (Wien 1990) 55-65. Idem, 'Sextus Iulius possessor in Baetica', in: *Alimenta. Homenaje al Dr. Michel Ponsich. Anejos de Gerión III* (1991) 281-295; idem, 'Instrumentum Domesticum e storia economica: le anfore Dressel 20', *Opus* 11 (1992) 105-113; Idem (n.5 [1997]); Idem, 'Baetican olive oil and the Roman Economy', in: S.J. Keay, *The Archaeology of Early Roman Baetica* (Portsmouth 1998) 183-199; Idem, 'Politicae regimi alimentari nel principato di Augusto: il ruolo dello stato nella dieta di Roma de dell'esercito', in: D. Vera (ed.), *Demografia, sistemi agrari, regimi alimentari nel mondo antico* (Bari 1999) 247-271. Idem, 'L. Marius Phoebus mercator olei hispani ex provincia Baetica. Consideraciones en torno a los términos mercator, negotiator y diffusor olearius ex Baetica', in: G. Paci (ed.) ΕΠΙΓΡΑΦΑΙ. *Miscellanea epigrafica in onore di Lidio Gasperini* (Tivoli 2000) 781-797; Idem, 'Politik und Landwirtschaft im Imperium Romanum am Beispiel der Baetica', in: P. Herz, G. Waldherr (Hrsg.) *Landwirtschaft im Imperium Romanum* (St. Katharinen 2001) 235-255. Ideas that have influenced the works of numerous other colleagues, a.o. C.R. Whittaker, *Les Frontières de l'Empire Romaine* (Besançon 1989) and through him P. Garnsey and R. Saller, *The roman Empire. Economy, Society and Culture* (Berkeley and Los Angeles 1987) *uide* pp. 88-95. P. Herz, *Studien zur römischen Wirtschaftsgesetzgebung. Die Lebensmittelversorgung* (Stuttgart 1988) - through the work by Herz, in B. Sirks, *Food for Rome* (Amsterdam 1991). L. De Salvo, *Economia privata e pubblici servizi nell' Impero Romano. I Corpora naviculariorum* (Messina 1992). G. Jacobsen, *Primitiver Austausch oder Freier Markt? Untersuchungen zum Handel in den gallisch-germanischen Provinzen während der römischen Kaiserzeit* (St. Katharinen 1995). Th.K. Kissel, *Untersuchungen zur Logistik des römischen Heeres in den Provinzen des griechischen Ostens (27 u. Chr., -235 n. Chr.)* (St. Katharinen 1995) and through him, J.P. Roth, *The logistic of the Roman army at war (264 BC-AD 235)* (Leiden 1999) and in those works already mentioned of P.P. A. Funari, C. Carreras Monfort, P. Berni, S. Martin Kilcher, J. Boudaux.

¹³ Suet., *Aug.* 42, 3

¹⁴ *Columella, De Res Rust.* pr20.

place 150 years before his writing. The fact that Pliny still highlights the *cura annonae* of Pompey among all of his political actions a century and a half later, bears out, in my opinion, the importance that this had, for a political man like Pliny, in the comprehension of the *annona* phenomena.

In the same paragraph, Pliny states that there is such an abundance of everything everywhere that it seems as if everything grows everywhere.¹⁵ This sentence (as the abundance of amphorae from many places arriving at the most isolated areas of the Empire shows) will suffice to make clear to “primitivists” that the distribution of and trade in foodstuff and other products reached proportions far greater than they are willing to accept.¹⁶

Another sentence from the same paragraph, frequently referred to, *emit fiscus, quidquid uidetur emere*, locates in the Trajanic period the attempt by Augustus at achieving a balance between the interests of the State and those of the inhabitants of the Empire.

In the following chapters, 30-32, Pliny describes a dearth in Egypt and its political consequences. For Pliny, these actions are a way of demonstrating the predominance of Rome and the advantages for other countries to submit to her. But, when Trajan returns the grain to Egypt, this is not only due to his magnanimity but also in order to guarantee the next year's supply of grain from Egypt to Rome. Trajan returns the grain to Egypt to feed the population and to guarantee that sowing will be carried out.¹⁷

***Baetica* and the limes in Germania**

Baetica was a senatorial province, submitted to Rome since 206 BC, agriculturally rich, and forming part of the commercial orbit of the Mediterranean before Rome even existed.¹⁸ However, the conquest of

¹⁵ Pliny, *Paneg.* 29.

¹⁶ The works of M. Rostovzeff are still significant to this aspect, *The Social and Economic History of the Roman Empire* (Oxford 1926) and M. Finley, *The Ancient Economy* (London 1973). See the introduction by J. Andreau to the French translation of the work of Rostovzeff

¹⁷ According to Flavius Josephus, *Bell. Jud.* 2,383 and 386, one third of the grain that arrived at Rome came from Egypt. G.E. Rickman, 'The Grain Trade under the Roman Empire', in *The seaborne Commerce of Ancient Rome. Memoirs of the American Academy in Rome* 36 (1980) 261-275.

¹⁸ For a general history of *Baetica*, it is still useful to consult the work of Thuvenot, *Essai sur la province romaine de la Bétique* (Paris 1940)^{2º} 1973. See also: J.F. Rodríguez Neila, *Sociedad y administración local en la Bética romana* (Córdoba 1981); C. González Román, *Imperialismo y romanización en la provincia Hirpania ulterior* (Granada 1981); C. González Román (ed.), *La Bética en su problemática histórica* (Granada 1981); C. González Román (ed.), *La sociedad de la Bética. Contribuciones para su estudio* (Granada 1994); M^a L. Cortijo Cerezo, *La administración territorial*

Hispania had taken a long time, from 218 to 19 BC, and it greatly influenced the economic and political development of Rome. In this respect, we only need to be reminded of the Civil Wars that came to an end in Hispania.¹⁹ Just after the pacification of Hispania, *Germania* (where Caesar had already set a foot in 57 BC) starts to effectively enter the Roman orbit. The province will be considered a military zone until the age of Domitian.²⁰

The conquest of the *Galliae* by Caesar created a particular strategic situation. Rome had control of the Atlantic coasts of *Lusitania* and *Galliae*, but the Spanish shoreline of Cantabria was still inaccessible. Rome's interest in the conquest of *Cantabria* and *Gallaecia* must be explained in strategic terms. In my opinion, Rome was seeking a sailing route along the Atlantic coast of Europe and thus to unite the Mediterranean with the distant German coasts. Evidence for this is the lighthouse of Coruña, the Augustean monument from *Gallaecia*.²¹ It is obvious that a lighthouse is generally built to guide sea travellers. This is clearly shown when Tacitus puts in the mouth of Arminius the words that Romans used their fleet for transport and for sailing among the solitude of the Ocean.²² This is, in my opinion, the first evidence of provincial interdependence between the conquest of *Germania* and its consequences in Hispania: to secure the conquest of *Germania* it was first necessary to conquer the Spanish *finis terrae*.

Hispania, and particularly Baetica, had contributed men for the army²³ together with products like olive oil, wine and fish sauces, as Spanish amphorae finds from Julio-Claudian forts show. However, it

de la Bética romana (Córdoba 1993); S. Keay (ed.) (n. 12) On the Roman Spanish economy: J.M.^a Blázquez Martínez, 'La economía de la Hispania romana', in: Ramon Menéndez Pidal, *Historia de España* II/ 1 (Madrid 1982) 294-607.

¹⁹ J.M. Roldán Hervás y F. Wulff Alonso, *Citerior y Ulterior. Las provincias romanas de Hispania en la era republicana* (Madrid 2001).

²⁰ H.von Petrikovits, *Das Rheinland in römischer Zeit* (Düsseldorf 1980). A short synthesis on the history of Germania but with a large bibliography can be found in T. Bechert, *Die Provinzen des Römischen Reiches* (Mainz 1999) 191-198.

²¹ T. Hauschild, 'Der römische Leuchtturm von La Coruña (Torre de Hércules)', *Madriider Mitteilungen* 17 (1976) 238-257.

²² Tac. *Ann.* 2,15, 2. For sources relatea to Atlantic navigation see Rernesal (n. 5 [1986]) 77-79; (n. 5 [1997]) 50-51. About the fleet in the Roman army see: Idem, 'Cátedra "Jorge Juan"' (Betanzos 1997) 131-145. M. Reddé, 'La navigation au large des côtes atlantiques de la Gaule a l' époque romaine', *Mélanges d'Archéologie et d'Histoire de l'École française de Rome* 91 (1979) 481-489.

²³ J.M. Roldán Hervás, *Hispania y el ejército romano. Contribución a la historia social de la España Antigua* (Salamanca 1974).

was only with the organisation of the *limes* during the Flavian period that both provinces were finally linked to each other.

Vespasian, while attempting to make up the deficiencies of the *agri decumates* by founding *Arae Flaviae*²⁴ and thus shortening the frontier between the Rhine and the Danube, gives the *ius latii minus* to *Hispania*.²⁵

The concession of the *ius latii* to *Hispania* has been justified in several ways: a recognition by Rome of the high level of romanization of the province; gratitude from Vespasian to the fidelity shown to his person during the Civil War; a need for increasing the number of citizens that could be recruited into the legions. Without discarding any of these explanations, I believe that the main reason for this concession has to be related to the creation of the German *limes*.

Vespasian was regularising the functioning of the *limes*. The creation of a line of forts and the appointment of a fixed number of soldiers to specific places facilitated the organisation of army logistics. Vespasian found himself with a low income due to the Civil War. The privilege given to Spaniards of forming part of the Empire meant that they had to abandon their peculiar ways of life and their particular relationship with the Roman administration. If for Spaniards this meant an honour and a way of promotion, for Vespasian it was only a way of regularising the administration of the province and a way of securing the loyalty of the local elite. Thus, Spaniards were tied to the interests of the State and, specifically what concern us, to the maintenance of the German *limes* and, consequently, to the whole of the western *limes* from *Britannia* to *Raetia*. The geographical situation of *Hispania*, the vastness of its coasts, its richness in mineral and food resources, made it the best logistic base to maintain a stable army.

Evidence in support of my view is to be seen in the predominance of Spanish products all around the western Empire, particularly the abundance of Baetican olive oil amphorae in contrast to the scarcity of African olive oil amphorae.

Baetican olive oil amphorae, the so-called Dressel 20, are found on almost every site in the Western Roman Empire. However, olive oil did not form part of the Central European diet. If olive oil was consumed in such quantities as can be deduced from the amphorae evidence, this can only be due to a specific reason: the State was

²⁴ D. Planck, *Arae Flaviae* 1 (Stuttgart 1975) particularly 201-219.

²⁵ Pliny, NH 3,3,30. The find of the *Lex Iritana* - J. González, 'The *Lex Iritana*: a new copy of the Flavian Municipal Law', *Journal of Roman Studies* 76 (1986) 147-243 - has attracted a lot of interest in the subject. See A. D'Ors y X. D'Ors, *Lex Iritana* (Santiago de Compostela 1988); P. Le Roux, 'La questione municipale nel I secolo d.C. l'esempio spagnolo', *Epigrafia e territorio* 3 (1994) 159-173.

supplying olive oil to its soldiers. In addition, olive oil became a sign of romanization because it was an essential element of Roman culture. This implies that consumption increased among the civil population.

It is certain that what was transported to satisfy the established and fixed necessities of the army cannot be considered trade in the normal sense, but trade organised by the State. However, it was this necessity on the part of the Roman State, which guaranteed a certain benefit to traders and merchants and which promoted trade. There is no doubt about the existence of this trade because, thanks to the study of Dressel 20 amphorae and their distribution to military bases and civilian centres, compared with the distribution of other types of amphorae, since there is evidence of different ways of distributing different products. The distribution of Dressel 20 amphorae shows that these containers were mainly traded for military consumption.²⁶

Maritime trade is the only trade in antiquity that could guarantee a certain benefit in transporting foodstuff over long distances.²⁷ A common error in archaeological studies is that, when analysing the distribution of archaeological evidence, a relationship between two different “dots” is established and from there it is easy “to create a route”. Thus, by uniting all sites along the Rhone valley where ‘Dr.20 amphorae have been found, a route can be created “from one dot to another and another...” until the route reaches *Germania* and from *Germania* to *Britannia*.²⁸ Without discarding the significance of the Rhone route, I believe that trade between Spain, *Germania* and *Britannia* was focussed mainly along the Atlantic route. In the first place, there is literary evidence to show this to be the case. Secondly, there is also archaeological evidence like the already mentioned lighthouse at Coruña. Third, the Atlantic route puts *Germania* and *Baetica* in contact and prevents breakage of the load that would most probably have occurred along the Rhone valley. Actually, when Claudius planned the conquest of Britannia, he did it by organising a fleet that departed from Rome.²⁹ In my opinion, the concession of the municipal rights in the Claudian period to the Baetican city of *Baelo* (Bologna, Tarifa, Cadis) and to *Olissipo* (Lisboa) in *Lusitania*, two harbours along the Atlantic route, was due to the

²⁶ Carreras Monfort y Funari (n.8). The case of Britannia was, until now, been the best studied. Carreras Monfort (n, 8).

²⁷ C. Carreras Monfort, *Una reconstrucción del comercio en cerámicas: la red de transporte en Britannia* (Barcelona 1994).

²⁸ This was proposed by Callender, which was followed by European researchers. The consideration that Romans were afraid of sailing the Atlantic helps to maintain this prejudice.

²⁹ Suet., *Claud.* 17, 2.

fact that both were harbours from where to supply and reinforce the campaign.

The 'commercial' links between *Baetica* and *Germania*

It is time now to ask ourselves what were the commercial links that were established between Baetians and Germans through trade in food, and particularly olive oil. The study of Baetican olive oil will be used as a reference for a number of reasons:

- The olive oil amphorae are the most frequently found on archaeological sites in Central Europe.
- In addition, they are the most frequently stamped.
- We know the production sites of many of the stamps.³⁰
- We have at our disposal the data gathered from Monte Testaccio (Rome), the place where most of these amphorae were thrown away and where, in addition to stamps, the *tituli picti* written on them have also been preserved.³¹

I have defended the thesis that Dr. 20 amphorae stamps, whenever they include *tria nomina*, refer to the owner of the oil before, its bottling. It is not possible to decide if the owner of the oil is also the producer of the olives or of the oil. These activities do not have to relate to the same person. It could be the case of someone rich enough to be the owner of the fields, the presses and the kilns. Alternatively, the owner of a small piece of land had to sell the olives to someone else. Or someone gave the olives to be pressed in exchange of a canon and would have later traded his own olive oil. We could also imagine someone who did not own lands nor presses nor kilns, but who would have bought the olive oil for the purpose of selling it at his own risk. Besides, I have already discussed in earlier publications that it is very rare to find abbreviations of names known from stamps that match the abbreviations of names (known to us through the *tituli picti* β of Monte Testaccio) of *mercatores*, *negotiatores*, *diffusores* and *navicularii*. This proves that the activity of bottling oil and trading it were independent activities.

³⁰ M. Ponsich, *Implantation rurale antique sur le Bas-Guadalquivir I* (Paris 1974); II (Madrid 1979); III (Madrid 1987); IV (Madrid 1991). Remesal Rodríguez (n. 5 [1977/78]) 87-142. Idem, 'Tres nuevos centros productores de ánforas Dressel 20 y 23. Los sellos de Lucius Fabius Cilo', *Ariadna* 6 (1989) 121-153. G. Chic, *Epigrafía anfórica de la Bética I* (Écija 1985).

³¹ E. Rodríguez Almeida, *Il monte Testaccio. Ambiente. Storia. Materiali* (Roma 1985); Idem, *Los tituli picti de las ánforas olearias de la Bética I* (Madrid 1989); J.M^a Blázquez Martínez, J. Remesal Rodríguez y E. Rodríguez Almeida, *Excavaciones Arqueológicas en el monte Testaccio (Roma)* (Madrid 1994); J.M^a Blázquez Martínez, J. Remesal Rodríguez (eds.), *Estudios sobre el Monte Testaccio I* (Barcelona 1999); II (Barcelona 2001).

According to this proposal, stamps will not make any sense to those that received the oil in Germany. It would be very useful to know the names of the merchants that carried the Baetican olive oil to *Germania*. In general, the number of merchants that we know from amphorae in the neighbouring provinces of the Empire is very scanty. For Dr. 20 amphorae, we only know of three significant cases in *Germania*: one comes from Bonn,³² with the name of the merchants *C. Consi Carici et filiorum*, and although the *titulus pictus* δ associated with this amphora has been preserved, there is no consular date. However, it is possible to date this *titulus* to the first half of the third century AD because the well-known stamp PNN is preserved in the handle of the amphora.³³

There is a *C. Consius Hermerotis* among the *tituli picti* at Testaccio, with consular dates of AD 149 (CIL.XV. 3823; 3824), AD 154 (CIL.XV. 3825) and AD 161 (CIL.XV. 3826), and one *C. Consius Eucarpus* (CIL.XV. 3822), for which there is no exact date but which may be dated to the second half of the second century AD if we take into account its position in the Testaccio deposit. The names that appear in the *titulus* found in Bonn must be dated, as already mentioned, to the first half of the third century AD. Overall, we know of several members of a family that, during more than half a century, participated in the trade of olive oil to Rome as well as to *Germania*.

There is a *titulus pictus* from Mainz, which attests a *mercator M. Iulius Hermes Frontinianus*, also associated with the stamp PNN³⁴, but with no consular date for this *titulus*.³⁵ There is yet another *titulus* β which mentions the *Fisci rationis patrimonii provinciae*

³² Dressel (n. 3) 66-79.

³³ This stamp had already been well dated by Dressel's research at Testaccio (CIL. XV 3041) and by recent research: Blázquez, Remesal y Rodríguez (n. 31). Blázquez Martínez y Remesal (ed.), (n. 31 [2001]). The exact dates for the stamp PNN range from 217 to 260 AD. The last date is known thanks to J. P. Bost et al., *L'épave Cabrera III* (Majorque) (Paris 1992).

³⁴ U. Emig, 'Pinselaufschrift und Stempel auf einer südspanischen Olamphore aus Mogontiacum-Mainz. Who is who in familia M. Iulii Hermes Frontiniani?', *Pyrenae* 29 (1998) 237-248.

³⁵ This man belongs to a family that is well-known from monumental inscriptions. A. Tchernia, 'D. Caecilius Hospitalis et M. Iulius Hermesianus', in: J. M^a. Blázquez Martínez (ed.), *Producción y comercio del aceite en la antigüedad*. Madrid 1978 (Madrid 1980) 155-160. E. Rodríguez Alneida, 'Anforasolearias béticas: cuestiones varias', *Alimenta. Estudios en homenaje al Dr. Michel Ponsich. Gerión. Anejos III* (Madrid 1991) 243-259, in particular 248-251; G. Chic Garcia et alli, 'Una nueva inscripción annonaria de Sevilla: M. Iulius Hermesianus, diffusor Olei ad annonam urbis', *Habis* 32 (2001) 353-374.

Baeticae, which can be dated later than the death of Septimius Severus.³⁶

By coincidence, the three *tituli* mentioned above belong to the third century AD, and they show that the same people and institutions that were carrying the oil to Rome were also taking it to *Germania*. This shows that the transport of the product to *Germania* was organised from the Mediterranean; that is, the groups of merchants that were serving the *annona* (whose names are found among the inscriptions at Monte Testaccio) were the same as the ones that were in charge of taking the product to the frontiers of the Empire.

In this sense, we need to distinguish between the products for military supply that, once in the hands of the military, were distributed among the various units by military agents; and the products not included in the *annona* transported for civil or military consumption. What was the relationship between the merchants that were trading from Rome and those that were distributing the products in the province? We have a lack of information on this subject. Among the names of merchants known from the German area, none can be related to any of the merchants that we know from Rome or the Mediterranean. We do not know if the products that arrived at the German harbours were auctioned and sold to the best buyer, who must have distributed them at his own behest, or if there existed a network of agents whereby merchants had a relation to the final distribution of the product.³⁷

I have already commented on the situation whereby stamps in amphorae did not have any meaning for the consumers in *Germania* or in any other corner of the Empire, but are still meaningful for us. The presence of a stamp on a certain site means that an amphora, whose origin is known to us in most cases, reached that cite. For the Baetican olive oil; as I have already pointed out, we know the origin of most of the stamps and their chronology. This means that we are able to establish a relationship between several different sites and

³⁶ Remesal Rodríguez und Schallmayer (n. 8) 395-432, in particular p. 420. About the peculiarities of *tituli picti* of Severan date see: Rodríguez Almeida (n. 31 [1989]); Blázquez Martínez, Remesal Rodríguez and Rodríguez Almeida (n. 31); Blázquez Martínez y Remesal Rodríguez (n. 31). For a recent review of the issue of the trade in oil in the Severan age see: J. Remesal Rodríguez, 'Mummius Secundinus. El Kalendarium Vegetianum y las confiscaciones de Severo en la Bética (H.A. Severus 12-13)', *Gerión* 14 (1996) 195-221.

³⁷ C. Carreras Monfort, 'The nature of the Roman trade: an archeological perspective', *Münstersche Beiträge zur Antiken Handelsgeschichte* 18/2 (1999) 87-114.

people from *Baetica* and specific sites in *Germania*, even if we ignore the vectors that made possible such contacts.

Studies in ancient history are always limited by a lack of information. For the study of Baetican olive oil trade this is not the case. But, unfortunately, due to the character of our epigraphic sources, it is extremely difficult to determine the circumstances. We know, for instance, that, by the middle of the second century AD, in modern Malpica,³⁸ amphorae were produced for several people, while in *Germania*, virtually only stamps with the family name *Iuventii* arrived.³⁹ Why only this family and not others? Did this family have a particular contact with imperial agents that were concentrating upon *Baetica* for most of the oil that reached the German frontier? Did this family have a particular relationship with the merchants that were in charge of the transport of oil from *Baetica* to the *limes*? Did this family have a particular relationship with a German merchant that acquired their products? Did this family have agents in *Germania* in charge of distributing their oil? Presently, we do not have answers to these questions but the possibility of asking these questions is already a progress in itself. The possibility of stating that by the middle of the second century AD a family from a place in *Baetica* had a relationship with places in *Germania* is already a progress, even if there are still have more questions than answers.

By the middle of the second century AD, there is a decrease in the quantity of stamps found in *Germania*. We still do not know if this is due to a change in stamping in *Baetica*,⁴⁰ or to other reasons, for instance the Marcomannic wars that caused men and resources to go to *Pannonia*. An inscription to *Valerius Maximianus*, who built a fleet to navigate the Danube with the help of sailors from Misenum and Ravenna, is evidence that the western regions contributed products to sustain this war.⁴¹ The action of *Cominius Bonus Agricola* who sent products from Arelate to the mouth of the Danube

³⁸ Ponsich (n. 30 [1979]) 123 no 140.

³⁹ Remesal Rodríguez (n. 5 [1997]), see tables in pages 242-245. J. Remesal Rodríguez, 'Catrocientos años de historia e historiografía a través de la inscripción de C. Iuventius Albinus (CIL. II 1054). La labor de Tomás Andrés de Gussem en Lora del Río (Sevilla)', *Gerión* 16 (1998) 223-253.

⁴⁰ My opinion is that we are in a position to discard this hypothesis thanks to the results of the recent excavations in Monte Testaccio, as yet unpublished.

⁴¹ *Valerius Maximinus* was "...*missus in procintu Germanicae expeditionis ad deducenda per Danuvium quae in annonam Pannoniae utnsque exersitus denavigarent*". H.G. Pflaum, 'Deux carrières équestres de Lambese et de Zana (*Diana Veteranomm*)', *Lybica* 3 (1955) 123-154. Idem, *Les carrières procuratoriennes équestres sous le Haut-Empire romain* (Paris 1960/61) n° 181. Remesal Rodríguez (n. 5 [1986]) 100

(products that arrived at *Arelate* (Arles) via the *naucularii marini arelatenses*) must be similarly interpreted. They dedicated an inscription to him as their *patronus innocentissimus*.⁴² All this shows that the war in the area of the eastern Danube had direct repercussions upon the relationships between *Hispania* (*Baetica* in particular) and *Germania*. Products that were currently sent to *Germania* were now being sent to *Pannonia*, a province where Baetican olive oil had not previously been despatched.⁴³

The rise to power of Septimius Severus meant big changes in *Baetica*. According to the *Historia Augusta* (*Vita Seueri* 12) many leading men and distinguished women were put to death in *Gallia* and *Hispania* and the Emperor confiscated many goods; some of which were later auctioned.⁴⁴ These changes did not have a negative effect on the relationships between *Baetica* and *Germania*. Septimius Severus treated his army with care and its supply was working well as the amphoric epigraphy from *Baetica* found in *Germania* shows.⁴⁵

The fall of the German limes in AD 260 as well as the instability created with the appearance of the Gallic Empire of *Postumus*, must have had many repercussions upon *Baetica*. We are not yet able to evaluate these repercussions. Archaeologically, we are able to point out that in this period new containers came to be used for Baetican olive oil: Dressel 23 amphorae, Tejarillo 1, 11 and 111 types.⁴⁶ These containers have a much smaller capacity than Dressel 20 amphorae. What does this decrease in the volume of oil in each container mean? Does it mean that production decreased? Was the transport and distribution of oil different than before? The lack of epigraphy on these new containers (yet another change) means that our analysis is limited. In addition, these new amphora types have only been recently identified and their recognition by archaeologists is still limited. However, Baetican olive oil still reached *Germania* as the evidence of the use of more than a thousand Dr. 23 amphorae in the

⁴² Concerning the function of this man in *Arelate*, see Remesal Rodríguez (n. 5 [1986]) 102.

⁴³ D. Gabler y M. Kellemen, 'Oliobetico in Pannonia', *Archivo Español Arqueol.* 57 (1984) 153-161.

⁴⁴ Recent research in: Remesal Rodríguez (n. 36) 195-221, including bibliography).

⁴⁵ A. Birley, *The African Emperor Septimius Severus* (London 1988).

⁴⁶ J. Remesal Rodríguez, 'Transformaciones en la exportación del aceite bético a mediados del siglo III d.C.', in: J. M^a Blázquez Martínez y J. Remesal Rodríguez (eds.), *Producción y comercio del aceite en la antigüedad. 2. Congreso internacional Sevilla 1982* (Madrid 1983) 115-131; Idem, 'El aceite bético durante el Bajo Imperio', in: A. González Blanco et alii (eds.), *Arte, Sociedad, Economía y Religión durante el Bajo Imperio y la Antigüedad Tardía. Antigüedad y Cristianismo* 8 (1991) 355-361.

building of the cupola of the church of Saint Gereon in Cologne shows.

Conclusions

In this paper, I have not attempted to point out the relationships between *Baetica* and *Germania*, but to stress that these relations were predetermined by reasons of state and that they had a series of political and economic consequences that were under the control of Rome; all of these influenced in their turn the general development of the Roman Empire. The conquest of *Asturia* and *Gallaecia*, not only allowed Romans to conquer and dominate all the Atlantic coast from Cadiz to the Rhine, in order to have an easy and comfortable supply of products to these regions and to support the conquest of *Britannia*, but also added to the Empire a region from which recruits for the auxiliary units of the army could be obtained, together with rich gold mines. The concession of the *ius latii minus* to Hispania, not only permitted Vespasian to secure the organisation and supply of the north-western frontier, but also meant that few men were enriching themselves thanks to their contacts with economic interests of the State. It also meant that a small group of men reached the peak of power in Rome by means of integrating themselves into the Senate. Among these was elected the first emperor of provincial origin, M. Ulpus Trajanus.

From this perspective, I believe that the relation of the provinces with Rome must be reassessed and the relations of the provinces with each other. The Roman Empire must be seen as an organic and interdependent world where the activities that were undertaken in a province had a direct influence in the development of the rest of the provinces and the Empire as a whole. It would be necessary to study what were the surpluses of each province and how the State made use of them, how they were distributed (especially food and mineral resources) and what was the level of intervention of the state in this distribution. It would also be required to study how the State took part in the social development of each of the provinces in order to make use of the resources and how provincials made use of these opportunities to integrate themselves into the political elite of the Empire. A good example of what I mean is the intervention of Trajan and Hadrian in Africa proconsulans with the purpose of developing urban communities and the agricultural exploitation of the province, and the benefit that some men acquired when they started to fill up the Senate by the middle of the second century AD.

In this sense, the study of the distribution and commercialisation of Baetican olive oil is a model for analysis due to the enormous quantity of evidence that we have at our disposal. We now know that the Roman State decided that olive oil (a staple

ingredient in the Mediterranean diet and which the State obtained as part of its tax) should be abundant in Rome and for this reason, it created a number of stimuli to merchants from the Claudian period onwards.⁴⁷ In addition, the men responsible for the logistics of the Roman army also considered that oil should be supplied to soldiers, independently of their personal tastes. Soldiers in Britannia, *Germania* and *Raetia* received oil regularly from Baetica, and this stimulated a series of exchanges between the provinces. The benefit obtained by the Baetican elite by means of olive oil exchange made it possible for some of them to form part of the *ordo senatorius* and to actively intervene in the development of Roman politics. Among the benefits that the Roman State gave to the men in charge of transporting resources on its behalf were those of freeing them from municipal duties. This greatly influenced the income of many Roman cities. However, increasingly cities saw some of their rich citizens replace the duties to their own city with the task of satisfying the requirements of Rome and its army. In my opinion, this was the reason for the decline of the urban model that the Roman Empire itself had created.

⁴⁷ Suet., Claud. 18, 2.