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## Ceramics and Atlantic connections AD 250-700: the African perspective

Michel Bonifay

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CONNECTIONS: LATE ROMAN AND  
EARLY MEDIEVAL IMPORTED POTTERY  
ON THE ATLANTIC SEABOARD

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# Ceramics and Atlantic connections AD 250-700: the African perspective

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Rarely in the field of archaeology and history was so much owed by so many scholars to so few sherds... Since the discovery of the first fragments at Tintagel at the end of the 1930s, a total of 350 (MNV) Mediterranean table wares and amphorae are now registered (Campbell 2011: Table 12), among them 32 African Red Slip Wares (ARS) and possibly 5 African amphorae (Duggan 2016: 72-73, figs 3.3 and 3.4), the rest being in vast majority of Eastern Mediterranean origin. Even if there are not many, these sherds evidence trade connections between the Mediterranean and the British Isles in a very late – as well very short– span of time, between c. 475 and 550 AD.

Sixty years after the first classification of these imported Late Antique Mediterranean wares (Radford 1956), the same three issues are debated again and again (well summarised both by Wooding 1996: 43, and Campbell 2007: 127; see also Reynolds 2010: 108-111, and note 392):

1. 'By which routes did these wares reach Britain?' 'Was this direct traffic from the Mediterranean' or 'were the wares transhipped at any point'?
2. 'Why did these voyages take place?' 'What cargoes did the imports represent and what was traded in return?' 'Who carried out the trade' and 'what was [its] scale'?
3. 'What was the chronological range of the maritime ventures which brought [these wares]'?

Provisionally concluding a multi-decennial baton change on this matter between – among others – Raleigh Radford, Charles Thomas, and Ewan Campbell, Maria Duggan recently (2016) proposed to update Campbell's model (2007) for explaining the arrival of Mediterranean wares in late Roman and post-Roman Britain. To achieve this, alongside a re-appraisal of the available documentation, she referred to recent publications in northern Portugal (Quaresma and Morais 2012) and in Galicia (Fernández 2014), as well as works in progress in the Atlantic French coastline (see David Guitton's and Joachim Le Bomin's papers in this volume).

In the short text that follows, we will consider the possible contribution of the African wares to this new model, even if this material is a very minority fringe of what is already a small assemblage of ceramics found in the British Isles.

## 1. Direct or indirect routes

After having constituted the 'doxa' for more than 55 years, 'the ceramic evidence for direct contact between early medieval Britain and the Byzantine world can finally be discounted' (Duggan 2016: 358). This new hypothesis of an indirect trade is due to the discovery at Vigo of huge amounts of Mediterranean wares, matching very well with the more reduced sample found in Britain. Therefore, Vigo was plausibly acting as an emporium or a hub for the redistribution of the Mediterranean cargoes northward, playing the same role as Cadiz or Seville did at earlier times. For the period 475-550 AD, no other place in the north-western Iberian Peninsula has provided the same quantity of Mediterranean imports, either in Portugal or elsewhere in Galicia – even if other rias, like A Coruna, deserve to be explored further.

Examining the African ware assemblage of this period from Vigo, it is obvious that the table wares and amphorae originate from different regions of Africa. This is particularly clear for the ARS which show some products from central Byzacena (ARS C5: Fernández 2014: 148-150) and the Sidi Khalifa workshop (Hayes 87A/88 and 88: Fernández 2014: 174 and 210), alongside a vast majority of products of the Carthage region workshops: El Mahrine forms EM 18 and 53 (Fernández 2014: fig. 99-100), Oudhna forms Hayes 91C and 96-99 (Fernández 2014: fig. 99, 104-106), and 'atelier X' forms Hayes 103 and 104 (Fernández 2014: fig. 108-114). As the circulation of the different ARS productions is relatively partitioned in northern Africa at this time, we can presume that different cargoes arrived at Vigo from different African ports, or from other – non African – western Mediterranean hub ports.

The question of whether Bordeaux could have played the same hub role alongside, or instead of, Vigo in late Antiquity must be considered in regard to the successive period AD 550-620/30. The distribution of E ware during this period, probably originating from the Bordeaux-Saintes region, is considered as evidence for contacts between this port and the British Isles. Nevertheless, Adolfo Fernández rightly observed that during this period the assemblages of ARS are not similar in Bordeaux and Vigo. While the classic late forms Hayes 90B, 105, and 109A are attested in both cities (Fernández 2014: figs 97-98, 115-116 and 118; Bonifay 2012: fig. 2), the difference is made by the marked presence at Vigo of very late products of the Sidi Khalifa workshops (Fernández 2014: fig. 119-121), which are completely absent in Bordeaux. So, even

if no Mediterranean ceramic imports are attested in the British Isles after the mid-6th century, Vigo remained attractive for the Mediterranean seafarers until at least the first third of the 7th century. Nevertheless, it was challenged by Bordeaux which perhaps benefited from the reopening of the traditional fluvial/terrestrial road of the 'Gaulish isthmus' and by the fact that from 536 onwards the whole of southern Gaul was under Frankish rule. In this case, we could even think of a more segmented transport linked with Marseille, the main Mediterranean door of the Merovingian kingdom.

## 2. Cargoes and return cargoes

'The link between the imported pottery in Britain and tin – as proposed in Radford's original publication – can be reaffirmed' (Duggan 2016: 346). Even if other commodities have been suggested, such as slaves or wood, it is credible that the main engine of this indirect trade was the need of the Mediterranean countries for tin. The main sources of this metal are located in Cornwall, alongside other minerals available in Wales (silver and lead) and in southern Ireland (copper). This need could explain why different trade flows converged on Vigo, well evidenced by the rich panorama of Mediterranean table wares and amphorae. The fact that only part of these assemblages is found in Britain forces us to consider the nature of the demand in the British Isles.

Amphora arrivals in Britain mainly comprise Eastern Mediterranean LR 1 (107 MNV) and LR 2 (72 MNV) types. With, potentially, as low as 5 examples, we do not have any clear traces of African oil, fish, and wine in post-Roman Britain. An alternative explanation could lead us to imagine that the African foodstuffs were packaged or transferred in barrels in order to facilitate their transportation. We can think to an earlier period and the example of Vindolanda, well evidenced by Elise Marlière and Josep Torres Costa (2005), where the ratio between the quantities of wine transported in amphorae and in barrels is of 1 to 122. Nevertheless, even if the barrel was not unknown in Africa, it is always dangerous to reason on absence, while on the other hand African amphorae are not numerous enough at Vigo for thinking about a change in packaging during a break in shipment. The lack of demand could be a better explanation. Demand could also simply explain the high proportion of LRA 2 within the total amphora assemblage in comparison with the Mediterranean ratios, if we admit that oil was the content (Karagiorgou 2001: 146-149); but in this case why not African oil?

As far as the tableware is concerned, even if the presence of ARS is half that of the Phocaeen Late Roman C wares, its typological range appears quite similar to Vigo. Large plates Hayes 103 and 104 are in the majority (7 MNV: Campbell 2007: fig. 7, A12-13, and Pl. 2) alongside Oudhna forms Hayes 91C-96-97 (8 MNV: Campbell 2007: fig. 7, A10, A9, A5) and some El Mahrine products (EM 18: Campbell

2007: fig. 7, A15 and 17); there is even one sherd of Sidi Khalifa Hayes 88 (Campbell 2007: fig. 7, A14). The only difference is the complete lack of ARS C5. Following – only in part – some of Radford's ideas about the Christian symbols on LRC dishes, one could suggest that a certain demand existed, among the very few Mediterranean tableware imported to Britain, for Carthage region products bearing cross decorations (see for example the cross with diamond ornament on the Hayes 103 dish from Cadbury Congresbury: Rahtz *et al.* 1992: fig. 116). However, the preference of post-Roman Britons for LRC tableware instead of better quality African products (think of ARS C5) remains unexplained. I am not sure that this has something to do with the chronology. I will hardly follow Evan Campbell's interpretation of a slightly later African import flow (Campbell 2007: 138; Bonifay 2008: 1123), because all of the ARS found in Britain seems contemporary with the other Mediterranean imports. On the other hand, one sherd could be later than the rest: a possible Hayes 87B/109 from Tintagel (Radford 1956: fig. 14.8: the direction of the sherd has to be corrected), this form was attested at Vigo (Fernández 2014: fig. 118) in 'Horizon C' of AD 560-620/30 (nevertheless this form is mostly late 6th century according to Reynolds 1987).

Finally, another point, very distinctive of the post-Roman Mediterranean imports in the British Isles, is the lack of lamps, neither the *lampes galets* from Syria found at Vigo (Fernández 2014: fig. 194), nor the ARS lamps also present at Vigo (Fernández 2014: fig. 193) and very popular everywhere in the Mediterranean. Perhaps the reason is that people had no need for these ceramic lamps, because they had glass lamps (Campbell 2007: 72-73 and fig. 41) or other means of lighting.

## 3. Changes through times

The trade of Mediterranean goods towards Britain probably never ceased during the Roman period but I am quite convinced, with M. Duggan, 'that the western British 'post-Roman' imports do represent a separate dynamic, and that there was some break in the supply of pottery to Britain after the early-fifth century' (Duggan 2016). Seeking to go further when considering the African imports, two main points deserve to be highlighted.

Firstly, the arrival of African wares seem to have been very scarce from the 1st to mid 3rd century AD. Checking the list published by D. Williams and C. Carreras (1995), it is difficult to find good examples of early and mid-Roman African amphorae in Britain. A few sherds of neo-Punic amphorae are noted (Williams and Carreras 1995: 242), of unspecified types (Arthur 1986: fig. 6.49, a handle). The four examples of 'Mauretanian' Dressel 30 found in Holborough are in fact 4th century Keay 1B amphorae (Jessup 1954: fig. 13, right). A Tripolitanian I sherd is noted from Lincoln, but not published. The presence of oil amphora type Africana I is difficult to assert: the presumed example from London Bishopsgate (Tyers

1984: fig. 2.3) is perhaps rather a variant of Ostia LIX (?), and the Southampton example is misidentified, being in reality an Eastern Mediterranean amphora Knossos 18 (Aylwin Cotton and Gathercole 1958: fig. 26.8). Africana II examples are late in date (mid-3rd century and beyond). The same can be observed when considering the vessels: only a few sherds of ARS A1 (Hayes 2, 3B-C, 6A, 8A, 9A) are attested, all 2nd century forms, and only one sherd of African Cooking ware (Bird 1977). On the other hand, a series of Coarse Ware imitations of late ARS A and African Cooking Ware are known from York, Carlisle, and Cramond during the Severan period, probably linked with the African garrisons of Hadrian's Wall (Swan 1992; Bonifay 2014).

Second observation, Britain does not seem to have been included in the mid-4th to early 5th century *floruit* of African trade in the Mediterranean. No discoveries of African amphora Keay 25.2 and *spatheion* type 1 are reported, which is very significant as these types are ubiquitous in the Mediterranean in the late 4th century and the beginning of the 5th century. It is also very significant that the sole example of 'Keay 25' amphora securely attested in Britain is a probable Spanish imitation of this type, found in the county of Kent (Callender 1965: Pl. IId), and close to the products of the El Mojon workshop near Cartagena (Berrocal 2012). ARS of the same date are also very rare: only one sherd of ARS D Hayes 67, and one or two fragments of ARS lamps are recorded by J. Bird (1977).

As a matter of fact, most of the evidence of African imports in Roman Britain dates to a very short span of time, from the second half of the 3rd century to the first third of the 4th century. For example, Africana II D amphorae from coastal Byzacena are attested at Bedale, from *Hadrumetum* (Capelli and Bonifay forthcoming), and at Holborough (Jessup 1954: fig. 13 left: not the first half of the 3rd century because associated with four examples of 4th century Keay 1B amphorae), as well as at several other sites (Williams and Carreras 1995). Africana II C2/3 amphorae from Nabeul are present in London (Richardson 1986: 102, fig. 1.8), and Exeter (Holbrook and Bidwell 1991: fig. 89.7-8; Williams 1992: fig. 9.20). Keay 25.1/Africana III amphorae, early variant, possibly from Nabeul, were discovered in London (Richardson 1986: 102, fig. 1.9), and Exeter (Holbrook and Bidwell 1991: fig. 89.9, associated with a transitional variant of Africana IID/IIIA: fig. 89.11). The assemblages of London New Fresh Wharf and of Exeter, quite similar, have to be dated to the beginning of the 4th century, and can be compared with the cargoes of the Mediterranean shipwrecks of Pampelonne and Marausa (Bonifay and Tchernia 2012: 322 and Table 16.2).

#### 4. Towards a single key for interpretation?

In the Mediterranean, this date range – between c. 250 and 330 AD – coincides with changes in the distribution

of African amphorae. It is the period when Africana II B-D amphorae are associated with Spanish amphorae in several sunken cargoes scattered in the western part of the Mediterranean (Balearics, Corsica, Sicily), implying that these African containers were first transported to a port in Southern Baetica, before being loaded together with the Spanish containers on the way to – probably – Rome (Bonifay and Tchernia 2012: 320). I recently suggested that this segmented route could have been linked with the necessity for African traders to get merchandise that, at this time, was available only on the Atlantic coastline of Hispania. Furthermore, as in the pre-Roman past, before the opening of the Gaulish route through the Rhone valley and the *via Agrippa*, this merchandise could have been tin. Perhaps during the troubled second half of the 3rd century, this inland road was not practicable anymore, and the Atlantic route became active again. Following this hypothesis, African amphorae could be a sort of ballast for the African ships sailing to Spain in order to get the precious metal.

However, trying to link both these phenomena – the slightly higher proportion of African amphorae in Britain during the second half of the 3rd century and the frequent association of African amphorae and southern Baetican amphorae in some shipwrecks of the western Mediterranean – is highly hazardous, even if in the Mediterranean, as in the British Isles, the chronology of these facts extends well into the first third of the 4th century. Discoveries of shipwrecks in the English Channel suitable to support this hypothesis are not numerous. However, two wrecks found along the northern coastline of French Brittany were loaded with metal ingots. The first one, sunken in the Sept Isles archipelago, contained 271 lead ingots, with inscriptions mentioning two Celtic tribes of Roman Britain, the *Brigantes* and the *Icenes*; unfortunately the wreck is not precisely dated, even if probably pertaining to the late Roman period (L'Hour 1987). The second one was explored in 2014-2015 close to Batz Island, near Roscoff, and delivered 5.5 tons of tin ingots, with pottery sherds dating back to the 3rd-4th century (Olivia Hulot, DRASSM, personal communication, and press information). Last but not least, the Guernsey wreck, dated to the end of the 3rd century, was loaded with a very diversified cargo including Spanish amphorae of types Dressel 30 and Tejarillo 1 (Rule and Monaghan 1993: fig. 61.1-2 and fig. 61.3) perhaps associated – the provenience from the wreck is not sure – with at least one African amphora of transitional type Africana IID/IIIA (Rule and Monaghan 1993: fig. 61.4: the graphic reconstruction is erroneous; the 'hard orange-buff fabric' could refer to a Nabeul production). It is as if the two first wrecks (Sept-Isles and Batz) evidenced outward trips, the British metal being transported southwards, and if the last one (Guernsey) evidenced a return trip, some Mediterranean goods being – by implication – transported northwards...

Thus, in the current state of our knowledge, the two main periods of (relative) affluence of African ceramics in Britain could well be explained by the same mechanisms: the reopening of the Atlantic route for the trade of tin and other precious metals. The southern port of transit could have changed over time – Cadiz or Seville in the 250-330s and Vigo in the 475-550s – as well as the goods transported to Britain as return cargoes: wine (Keay 25.1 amphorae) and fish sauces (Africana II C and D? amphorae) in the first period, tableware (mainly with Christian decoration?) in the second period. During the rest of the Roman period, African imports remained at a quite low level, and probably mainly used the inland routes through Gaul (Campbell 2007: 125-126, with bibliography), or the alternative, partly Atlantic route from Bordeaux and Narbonne, through the Gaulish isthmus (where Spanish imitations of Keay 25, as the one found in Kent, are abundant: see Le Bomin in this volume).

The question of when the Atlantic connection ended is widely discussed in this volume and cannot be resolved by a survey of the African imports alone. Nevertheless, it must be repeated that African imports are present at the possible transit ports of Vigo and Bordeaux until the first half of the 7th century. However, from the mid-6th century onwards, the former inland route perhaps benefited from an increase in frequentation due to the *Pax Francorum*, with first Marseille and later Arles, perhaps in the late 7th-beginning 8th century, being the main gateways for the African products. The Corbie charter tells us about the amount of oil, wine, and *liquamen*, perhaps of African origin, being transported toward Amiens after having passed the tolls of Marseille or Fos (Loseby 2000: 178-179). Recent discoveries of abundant African amphorae of type Keay 8A in a context of the first quarter of the 8th century in Arles (Mukai *et al.* forthcoming) could be traces of these movements of goods through the Rhone valley at this time. It must be stressed that this latest type of African amphora is, for now, completely absent at Vigo and Bordeaux.

## 5. Conclusion

It might be objected that syntheses on African amphorae and tableware written at the end of the last century (Williams and Carreras 1995; Bird 1977), on which this note is based, cannot account for the real situation of African imports in Roman and post-Roman Britain. Nevertheless, even if a full review of the evidence could be crucial in the future, the most recent additions do not seem to fundamentally change the panorama (Campbell 2011: Table 12; Duggan 2016: Appendix C).

At least, the African ware evidence suggests that the rhythms of trade in Britain are quite different from those of the Mediterranean, except only when the Atlantic route is in a position to supply the Mediterranean with tin. In other words, the African imports in Britain were

closely linked to the rhythms of demand not so much from the consumers in Britain, but from the Mediterranean traders in charge of supplying the Mediterranean cities with tin and other metals.

As a matter of fact, it is not clear whether the Empire or the post-Roman kingdoms and/or Church were involved in the commercialisation of the metal extracted from the British mines, or if the metal was part of the normal circuits of exchange (Andreau 1989: 112; Campbell 2007: 136-137). Perhaps the much diversified return cargoes would better support the second hypothesis.

It is probable that people in Roman Britain had no specific need for African foodstuffs, except when the African garrisons of Hadrian's Wall demanded their usual cooking wares, soon locally imitated. Other required foodstuffs, like olive oil, could have been supplied through imports from other Mediterranean provinces, for example Spain, as is well attested by the amphora evidence (Carreras and Funari 1998). It seems that African imports reached Britain only when it was easy to make them arrive (due to more profitable shipments going southwards and generating return cargoes), but also in this case local demand played a major role. For example, African olive oil never benefited from local demand and/or was not chosen by the merchants for the supply of Roman and post-Roman Britain (Spanish oil, and then Greek oil, was preferred).

Of course, African imports remained peripheral to the phenomenon of post-Roman Mediterranean trade towards the British Isles between c.475-550. But, considering the huge distribution of African ceramics at the same time throughout the Mediterranean, I think it was useful to adopt this perspective in this note, if only to mark some differences with the rest of the Ancient World. Obviously, even if it is a common assumption, we never have to forget that our few sherds cannot account for all Ancient trade, that probably a lot of liquid foodstuffs were transported in barrels, and that the most valuable cargos (spices, silk, and papyri?), of which the Mediterranean wares are a simple and imperfect proxy, did not leave traces.

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## Bibliography

- Andreau, J. 1989. Recherches récentes sur les mines romaines. I. Propriété et mode d'exploitation. *Revue numismatique*, 6e série - 31: 86-112.
- Aylwin Cotton, M. and Gathercole, P. W. 1958. *Excavations at Clausentum, Southampton 1951-1954* (Archaeological Reports 2). London: Ministry of Works.

- Arthur, P. 1986. Roman amphorae from Canterbury. *Britannia* 17: 239-258.
- Berrocal Caparros, M.d. C. 2012. Producciones anfóricas en la costa meridional de Carthago-Spartaria, in D. Bernal Casasola and A. Ribera i Lacomba (eds), *Cerámicas hispanorromanas II. Producciones regionales: 255-278*. Cadiz: Universidad de Cádiz.
- Bird, J. 1977. African Red Slip ware in Roman Britain. In J. Dore and K. Greene (eds), *Roman Pottery Studies in Britain and Beyond. Papers presented to John Gillam, July 1977: 269-277* (British Archaeological Reports Supplementary Series 30). Oxford: BAR.
- Bonifay, M. 2008. Post-Roman imports in the British Isles: material and place. *Compte-rendu de: Campbell (E.) - Continental and Mediterranean imports to Atlantic Britain and Ireland, AD 400-800*. York, Council for British Archaeology, 2007 (CBA Research Report 157), et de: Barrowman (R.C.), Batey (C.E) and Morris (C.D.) - *Excavations at Tintagel Castle, Cornwall, 1990-1999*. Londres, Society of Antiquaries of London, 2007 (Reports of the Research Committee of the Society of Antiquaries of London 74). *Antiquity* 82: 1122-1124.
- Bonifay, M. 2012. Les céramiques sigillées africaines et phocéennes tardives. In L. Maurin (ed.), *Un quartier de Bordeaux du Ier au VIIIe siècle. Les fouilles de la place Camille Jullian 1989-1990: 251-258* (Documents Archéologiques du Grand Sud-Ouest 3). Bordeaux: Ausonius.
- Bonifay, M. 2014. Céramique africaine et imitations : où, quand, pourquoi? In R. Morais, A. Fernández and M. J. Sousa (eds), *As produções cerâmicas de imitação na Hispania, II Congresso internacional da SECAH (Braga, 3-6 de abril 2013): 75-91* (Monografias Ex Officina Hispana 2). Porto/Madrid: FLUP/SECAH.
- Bonifay M. and Tchernia, A. 2012. Les réseaux de la céramique africaine (Ier - Ve s.). In S.J. Keay (ed.), *Rome, Portus and the Mediterranean: 315-336* (Archaeological Monographs 21). London: The British School at Rome.
- Callender, M. H. 1965. *Roman Amphorae. With an index of stamps*. London: Oxford University Press.
- Campbell, E. 2007. *Continental and Mediterranean imports to Atlantic Britain and Ireland, AD 400-800* (CBA Research Report 157). York: Council for British Archaeology.
- Campbell, E. 2011. *Early Medieval Imported Pottery and Glass in the Atlantic Province AD 400-800, Digital Archive*. University of Glasgow, School of Humanities. Available at: <http://www.gla.ac.uk/schools/humanities/research/archaeologyresearch/projects/earlymedievalimports/> [accessed 09.17]
- Capelli C. and Bonifay, M. forthcoming. Analysis of an Africana II D amphora from Bedale.
- Carreras Monfort, C. and Funari, P. P. A. 1998. *Britannia y el Mediterraneo: Estudios sobre el abastecimiento de aceite bético y africano en Britannia* (Corpus International des Timbres Amphoriques 5). Barcelona: Universitat de Barcelona.
- Duggan, M. C. 2016. Links to Late Antiquity: understanding contacts on the Atlantic Seaboard in the 5th to 7th centuries AD. Unpublished PhD of the University of Newcastle.
- Fernández Fernández, A. 2014. *El comercio tardoantiguo (ss. IV-VII) en el Noroeste Peninsular a través del registro cerámico de la Ría de Vigo* (Roman and Late Antique Mediterranean Pottery 5). Oxford: Archaeopress.
- Holbrook, N. and Bidwell, P. T. 1991. *Roman finds from Exeter* (Exeter Archaeology Report 4). Exeter: Exeter City Council and the University of Exeter.
- Jessup, R. F. 1954. Excavation of a Roman Barrow at Holborough, Snodland. *Archaeologia Cantiana* 68: 1-61.
- Karagiorgou, O. 2001. LR2: a Container for the Military annona on the Danubian Border? In S. Kingsley and M. Decker (eds), *Economy and Exchange in the East Mediterranean during Late Antiquity. Proceedings of a Conference at Somerville College (Oxford, 29th May 1999): 129-166*. Oxford: Oxbow.
- L'Hour, M. 1987. Un site sous-marin sur la côte de l'Armorique. L'épave antique de Ploumanac'h. *Revue Archéologique de l'Ouest* 4: 113-131.
- Loseby S. T., 2000. Marseille and the Pirenne thesis, II: 'ville morte'. In C. Wickham and I. L. Hansen (eds.), *The long eighth century. Production, distribution and demand: 167-193*. Leiden/Boston/Cologne: Brill.
- Marlière, E. and Torres Costa, J. 2005. Tonneaux et amphores à Vindolanda: contribution à la connaissance de l'approvisionnement des troupes stationnées sur le mur d'Hadrien (II). In A. Birley and J. Blake (eds), *Vindolanda, The Excavations of 2003/2004: 214-236*. Hexham: Vindolanda Trust.
- Mukai, T., Trégliá, J.-C., Heijmans, M., and Dantec, E. 2017. Arles, enclos Saint-Césaire. La céramique d'un dépotoir urbain du Haut Moyen-âge. Milieu du VIIIe-début du VIIIe siècle apr. J.-C.. In *LRCW 5, Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and Archaeometry: 171-200* (Études Alexandrines 42). Alexandria: Centre d'Études Alexandrines.
- Quaresma, J.C. and Morais, R. 2012. Eastern late Roman fine ware imports in *Bracara Augusta. Rei Cretariae Romanae Fautorum, Acta* 42: 373-83.
- Radford, C. A. R. 1956. Imported pottery found at Tintagel, Cornwall. In D. B. Harden (ed.), *Dark Age Britain. Studies Presented to E.T. Leeds: 59-70*. London: Methuen.
- Rahitz, P. A., Woodward, A., Burrow, I., Everton, A., Watts, L., Leach, P., Hirst, S., Fowler, P. and Gardner, K. 1992. *Cadbury Congresbury 1968-73: A Late/Post-Roman Hilltop Settlement in Somerset* (British Archaeological Reports British Series 223). Oxford: Tempvs Reparatvm.
- Reynolds, P. 1987. *El yacimiento tardorromano de Lucentum (Benalúa-Alicante): las cerámicas finas* (Catálogo de fondos del Museo Arqueológico (II)). Alicante.
- Reynolds, P. 2010. *Hispania and the Roman Mediterranean, AD 100-700. Ceramics and Trade*. London: Duckworth.
- Richardson, B. 1986. Pottery. In L. Miller, J. Schofield and M. Rhodes (eds), *The Roman Quay at St Magnus House, London. Excavations at new Fresh Wharf, Lower Thames Street, London 1974-78: 96-138* (London and Middlesex Archaeological Society Special Paper 8). London: The Museum of London.
- Rule, M. and Monaghan, J. 1993. *A Gallo-Roman Trading*

*Vessel from Guernsey. The Excavation and Recovery of a Third Century Shipwreck* (Guernsey Museum Monograph 5). Guernsey: Guernsey Museums and Galleries.

Swan, V. G. 1992. Legio VI and its Men: African Legionaries in Britain. *Journal of Roman Pottery Studies* 5: 1-34.

Tyers, P. 1984. An assemblage of Roman ceramics from London. *London Archaeologist* 04:14: 367-374.

Williams, D. 1992. Amphorae. In N. Holbrook and P. T. Bidwell, Roman Pottery from Exeter 1980-1990. *Journal of Roman Pottery Studies* 5: 56-62.

Williams, D. F. and Carreras, C. 1995. North African amphorae in Roman Britain: a Re-appraisal. *Britannia* 26: 231-252.

Wooding, J. M. 1996. *Communication and Commerce along the Western Sealand AD 400-800* (British Archaeological Reports International Series 654). Oxford: Tempvs Reparatum.