LES SAVOIRS PROFESSIONNELS DES GENS DE MÉTIER

Études sur le monde du travail dans les sociétés urbaines de l'empire romain

SOUS LA DIRECTION DE NICOLAS MONTEIX ET DE NICOLAS TRAN

CNRS COLLECTION DU CENTRE JEAN BÉRARD, 37 ÉFR

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Exploring the limits of skilled craftsmanship
The *fullonicae* of Roman Italy

Miko Flohr*

A remarkable, and perhaps puzzling aspect of Pompeian epigraphy is the degree to which the painted election slogans on the city's façade feature references to crafts and occupations. There are electoral advises by, to name only a few examples, bakers, green-grocers, goldsmiths, wool-dyers, mule-drivers, and fullers[1]. Indeed, there are few stronger arguments against the traditional, Finleyan idea that Roman craftsmen were socially marginal people that spent their lives fighting against the disdain of their fellow citizens: here we have an urban community in the heart of the Roman empire, which was closely familiar with the normative preferences of the imperial elite, and yet there are large amounts of supposedly marginal and irrelevant people that actively decided or were encouraged to use their business as an asset in urban politics[2]. They could easily have left it away, had their occupation been inconvenient to the intended audience: as Henrik Mouritsen has shown, most of the recorded electoral advises were anonymous, and many others only mention the name of the *rogator*, without further specification of his or her background[3]. Yet, a not insignificant amount of craftsmen chose to add an explicit reference to their daily work, which suggests that either they themselves, or the people who encouraged them to have these slogans painted, suspected that their craftsmanship would add something to the credibility of their message.

However, what is even more remarkable is that one group of craftsmen clearly stands out compared to the others. Most occupations figure in only one or two slogans, and a few have three. Yet, not less than seven electoral advises can be related to *fullones*, and these were found on five different locations in the city, whereas none of the other occupations is found on more than two façades. This has nothing to do with the amount of *fullonicae* in the city: in the excavated area of Pompeii, 13 fulling workshops may be identified, but there were at least twenty-six bakeries[4]. Yet, for some reason or another, bakers used their occupation in only three slogans, two of which were found on the façade of one and the same bakery[5]. Similarly, there probably were many

* University of Oxford, Oxford Roman Economy Project.

[1] Bakers (*pistores*): *CIL* IV, 875 (IX 3, 4-5), 886 (IX 3, 8-9), 7273 (I 8, 6-7); green-grocers (*pomari*): *CIL* IV, 149, 180, 183, 202, 206 (all in the southern part of Via di Mercurio), 7261d (I 8, 1-2); goldsmiths (*aurifices*): *CIL* IV, 710 (IX 9, 1); wool-dyers (*infectores* and *offectores*): *CIL* IV, 864 (IX 7, 2-3); *CIL* IV, 7812 (IX 3, 2-3); mule-drivers (*muliones*): *CIL* IV, 97 (VI 1, 3-4), 113 (across the road, VI 17, 1-2), and 134 (VI 17, 31-32); *fullones*: *CIL* IV, 998 (I 4, 5-6), 2966 (I 4, 26-27), 3476 (VI 14, 21-22), 3529 (VI 15, 3-4), 7164 (I 6, 7), and 9128 (IX 13, 5-6).

[2] See for this traditional idea e.g. Finley 1973 [1985], p. 40.

[3] The advises with explicitly mentioned *rogatores* constitute only about 20% of all texts; only a few mention occupations. Cf. Mouritsen 1988, p. 60-63.

[4] For an overview of this evidence see Flohr 2007, p. 148. To the *fullonicae* mentioned in that list, two workshops, of which the identification only recently has been confirmed, need to be added: VI 3, 6 and VII 2, 41. For the latter see Flohr 2008, p. 10-12.

[5] *CIL* IV, 875 (IX 3, 4-5), 886 (IX 3, 8-9), both related to bakery IX 3, 8-9.

caupones in the city, but only two of them have *possibly* used their occupation to support a candidate for local office[6]. Why did the *fullones* of Pompeii stand out in their electoral credibility? The traditional explanation, advocated by Walter Moeller, has been that Pompeii was a centre of textile production and that the *fullones*, as main agents in the industry, were a socially prominent group whose electoral preferences counted[7]. This, however, is implausible – there is little reason to presume a Pompeian textile industry of any significance, as W. Moeller conjectured**:** this has been convincingly shown by Willem Jongman twenty years ago, and despite some recent statements to the contrary by Philippe Borgard, most of W. Jongman's arguments still stand[8].

A much more logical interpretation for the enhanced electoral credibility of *fullones* may be sought and found in analyzing what most of the *fullones* responsible for the electoral advises actually did in their daily work. Fullers, of course, worked with textiles, and, if we are to believe the Roman sources, with clothes rather than with cloth[9]. As is widely known, *fullones* dealt with new as well as with used garments. The aim of their work was not only to remove pollution, but also, and most prominently, to make the clothes comfortable to wear and good looking by raising, shearing and polishing a 'nap', a thin, interlaced layer of fibres on top of the textile[10]. Economically, fullers may be oriented towards private customers or, in the case of new clothes, towards people involved in the clothing trade. In this respect, it is worth noticing that the electoral advices of *fullones* without exception have been found in relation to fulling workshops which had or were situated in a shop and which thus were – at least partially – orientated towards private customers[11]. Without excluding the possibility that part of the fulling capacity in these establishments was used for new clothes that still needed to be sold on the market, it is rather likely that these *fullonicae* and the *fullones* working in them were known to the public for what they did in maintaining clothes belonging to the personal wardrobe of the individuals who brought them (or had them brought) to the workshop. The public profile and, hence, the credibility, of these *fullones* thus seems strongly related to the service they delivered to their fellow citizens.

In that respect, it is worth noting that the contact between a *fullo* and his customer is much more intense than that between most other craftsmen and their customers. This has a practical and an emotional aspect. On a practical level, it is likely that in many cases a *fullo* and his client needed to discuss, to some detail, the treatment of the garments that were delivered and negotiated what needed to be done for what price and when it needed to be ready. A client, in turn, had to make an active decision to bring the garment to the *fullo*, which involved leaving home for the specific purpose of going to the fullery, taking the garments with him, and choosing the right direction that would lead to the *fullonica* of choice. Unlike food and drink outlets, or indeed most other shops, *fullonicae* could not count on spontaneous sale. Going to the *fullo*, thus, was a much more conscious process than, for instance, buying fruit and legumes. Secondly, on an emotional level, it must be emphasized that these Pompeian *fullones* worked with the private property of other people, and that there was a considerable amount of trust involved in the fulling business. Clothes were highly valued personal belongings that were of vital importance to the social performance of their owner. Detailed descriptions of private wardrobes feature on inventories of the possessions of deceased people from Roman Egypt, and several of the curse tablets found in the sacred spring at Roman Bath were directed at the thieves of cloaks and garments[12]. Handing clothes over to someone else

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[6] *CIL* IV, 494 (between VII 5, 13 and VII 5, 14); *CIL* IV, 537 (between VII 5, 17 and VII 5, 18). In both cases, the reading is uncertain – *caupo* is a suggestion of the editor and has not been read by the excavators: *CIL* IV, 494 'officially' reads CAULO, while *CIL* IV, 537 reads ÆVPO. Two electoral notices certainly mentioning *caupones* (*CIL* IV, 336 and 3502) do not seem to be made by persons using the occupation as an explicit argument supporting the message. Whether CIL IV, 629 actually refers to a *caupo* is unclear as some letters are missing: the editor records '[...]COPO', which could be anything ending with these four letters.

[7] Moeller 1976, p. 90.

[8] Jongman 1988, p. 155-186; Ph. Borgard (*et al.* 2003, p. 22-23) mainly reiterates the claims of W. Moeller, but without really addressing W. Jongman's deconstruction. Particularly his argumentation concerning the function of Moeller's *lanifricariae* is weak. For an alternative interpretation of these workshops see Flohr 2007, p. 132.

[9] This also has to do with the shape of the ancient loom, which was unable to produce the broadcloth, and the nature of roman clothing, which was woven to piece and did not need extensive tailoring. Cf. Flohr 2010, p. 66.

[10] Flohr 2010, p. 71; Wild 2002, p. 22.

[11] Significantly, the only large *fullonica* without election notices is VI 8, 2.20-21, which also did not have a shop. The other Pompeian *fullonica* without a shop (VI 16, 3-4) neither had election notices referring to *fullones*.

[12] These inventories sometimes even specify whether clothes had been fulled or not. Cf. *P. Mich*. II, 123 (46 AD); *SB* XVI, 12314 (2nd c. AD); *P. Tebt.* II, 417 (3rd century AD). For a curse tablets from the sacred spring of Minerva Sulis at Bath see Tomlin 1988, no. 64.

to have them treated was a sensitive issue, as is emphasized by the extensive discussion of the legal responsibilities of *fullones* in their dealing with another person's property in the juridical corpora[13]. It is unlikely that people would easily bring their clothes to a *fullo* with a bad reputation in the handling them. As a consequence, a *fullo* working for private customers needed to have his craftsmanship, to some degree, publicly recognized in the community in which he operated, otherwise he would not have any business. This publicly recognized craftsmanship, in turn, could be a valuable asset in local elections: *fullones* were better known and probably had a more sharply delineated reputation than most bakers, green-grocers and shoemakers. Pompeian *fullones* were using their occupational title in electoral advises simply because it gave their recommendation more authority.

In a certain sense, this puts the *fullo* at the heart of the discussion about the meaning of craftsmanship and professional knowledge in the world of Roman manufacturing: while individual and group identities based on craftsmanship and professional knowledge obviously were rooted in real artisanal skills, the above example shows how the public recognition of these skills was not only vital to economic success, but also could play a role in social processes not directly related to business. Moreover, it emphasizes that the nature of what you did could matter in this respect. It is not hard to see *fullones* as highly appreciated artisans who were specialist carriers of the professional wisdom that they had inherited from the previous generation and were to pass on to the next; while there are no direct indications from the Roman period that the craftsmanship of a *fullo* was thought of in these terms, an interesting illustration of this may be found in a contract inscribed on the walls of the sanctuary of Apollo at Delphi around 150 BC[14]. This text records how a certain Dromokleidas buys a young slave boy, Sosas, and sends him, for a certain period, to a fuller, Artemidoros, to learn the skills necessary to perform this craft; the contract specifies that Sosas, after having learnt the trade, will have to work as a fuller for the household of Dromokleidas. Fulling, it seems, at least in late Hellenistic Greece could be seen as a craft that needed to be learnt from a specialist. There seems little reason to assume that this was fundamentally different in the Roman period: a decent Roman *fullo* probably was seen by his fellow citizens as someone who had trained professional skills that enabled him to do things that others could not do. Yet, it is the socioeconomic meaning of those skills – rather than the skills themselves – that is of relevance here.

In that respect, it may be argued that the material and written evidence for fulling from the Roman world also encourages us to explore the limits of the idea that skilled craftsmanship and professional knowledge are the key to our understanding of the daily world of people involved in artisanal activities. The focus of this paper is on these limits: what may be a useful way to look at the situation of certain fullers not necessarily constitutes the most suitable approach to all people involved in fulling in the Roman world. Indeed, it may be argued that, for understandable reasons, the literary record tends to be biased towards *fullones* working for private customers: this was what Roman literary authors and their elite audience used to see of fulling in the world in which they lived. Though there are no texts suggesting this, it seems safe to suggest that for fullers who did not usually work for private customers, the social mechanisms related to their profession and their occupational skills may have worked rather differently than for their colleagues. Moreover, the model of the *fullo* as a skilled artisan defined by his professional knowledge works particularly well in understanding the role of skills and craftsmanship in relatively small-scale workshops that functioned under the direct leadership of one experienced *fullo*, but it may be less apt to make sense of larger workshops with a large group of workers and more complex and hierarchical divisions of labour. Thus, to be able to understand the degree to which skilled craftsmanship and professional knowledge actually were important aspects of the world of people involved in fulling, it is necessary to take a closer look at the evidence.

Fullones and *fullonicae* in Roman Italy: the evidence

Compared to most other crafts, the activities of fullers in Roman Italy have left a significant body of both material and immaterial traces: immaterial in textual references by Roman authors, and material

[13] Cf. Robaye 1991.

[14] *SGDI* 2, 1904 (Baunack); Wescher – Foucart 1863, p. 289. Baunack dates the inscription between 156 and 151 BC.

Fig. 51. Painting with fullers at work from *fullonica* VI 8, 2.20-21 at Pompeii (MANN, Inv. n°9774; photograph N. Monteix).

through epigraphy, iconography, and archaeology[15]. Key to the interpretation of this evidence is an understanding of the fulling process. As I have argued elsewhere, it is most convenient to think of fulling as a procedure that consisted of three main phases: soaping, rinsing and finishing[16]. In the first phase, the garments were treated with alkaline chemicals by trampling them, scrubbing them and wringing them out, as has been depicted on the famous paintings from a Pompeian *fullonica* now in the museum of Naples (fig. 51). The chemicals used in this phase included certain natural clays, commonly known as fuller's earth (*creta fullonica*), and ammonia won from aged urine, though the role of the latter probably has been exaggerated by modern scholars[17]. Soaping was done in so-called fulling stalls, niches surrounded by low walls with a tub fixed in the ground. These fulling stalls play an indispensible role in identifying *fullonicae* in the archaeological record: without fulling stalls, the identification of *fullonicae* often is rather uncertain[18]. After the chemicals had done their work, they needed to be washed out. For this purpose, large *fullonicae* had complexes of several rinsing basins that were connected to the urban water system (fig. 52). These rinsing complexes were organized in a rather intelligent way: water went in one direction through the complex from the first basin, where the water-supply mouthed, to the last basin, where the drain was. Clothes ran the opposite direction, and thus gradually came in cleaner water. This design not only allowed for the reuse of water, it also streamlined the production process[19]. At Pompeii, some small *fullonicae* did not have rinsing facilities, and rinsing probably was done with water from the public fountains on the street[20]. After rinsing, and, perhaps, drying, it was time to raise the nap and

[15] The amount of evidence for fulling from outside Roman Italy is minimal and not easily compatible with the data from the peninsula. Hence, it makes sense to leave this out of the present analysis.

[16] Flohr 2006, p. 193-194.

[17] Flohr – Wilson in press.

[18] Flohr 2005, p. 59-60.

[19] See further Flohr 2010, p. 146-159; Flohr 2006.

[20] Rinsing is a necessary part of the fulling process, as it is impossible to wear clothes treated with alkaline chemicals that have not been washed out. Most small *fullonicae* did not have an internal water source. They may have used wooden basins filled with water from the street, but it may also have been economic to just wash clothes out at the nearest fountain with the aid of a bucket.

to trim it. This was done by brushing and shearing, and finally, by putting the garment under a textile press, so that the nap was pressed against the textile and ended up more stable (fig. 53). In this last phase, there also was room for some treatments that probably were optional, such as, most prominently, sulphuring and chalking, but it is unclear how commonly these were performed[21]. With respect to the theme at stake here, it may be noticed that the fact that fulling consisted of several phases means that there were different kinds of 'professional knowledge' to be obtained by people involved in the business, and that not all people involved in fulling necessarily obtained the complete range of fulling skills: this had to do with the division of labour and with the degree to which people working in a *fullonica* actually were involved in all activities. This issue will be further discussed below.

Overlooking the evidence for fulling, it becomes immediately clear that the activity was performed in a variety of contexts. There is epigraphic evidence for fullers working for some large elite households in Rome: in the funerary monuments of the Statilii Taurii, the Volusini and several imperial households, epitaphs of deceased *fullones* were found[22]. Rather than being seen as evidence for the involvement of such households in textile production, these inscriptions may be thought to suggest that these families were large and wealthy enough to have their own private fulling service[23]. There is also epigraphic evidence suggesting there was a fulling workshop associated with one of the *macella* at Rome, probably that of Livia[24]. If this workshop really was in the *macellum*, it is likely that it was situated in a shop, and thus of limited size and capacity, and oriented towards private customers. While it is possible that *macellum* here is used as a vaguer kind of toponym, referring to some place in the environment of the *macellum*, the emphasis on the location suggests that the deceased could be associated with it by others – and thus worked in an open, visible, and presumably commercial environment.

Yet, the most detailed information about the socioeconomic contexts for fulling is to be found in the material remains of fulling workshops. At this moment, there are 24 identifiable *fullonicae* in Roman Italy. Thirteen of these are at Pompeii, six at Ostia, three at Rome, one in Herculaneum and one in Florence. The scale and economic orientation of these workshops varied considerably. A large majority of fifteen *fullonicae* had a shop, but it is worth emphasizing that seven workshops certainly did not have a shop (fig. 54)[25]. As to the variation

Fig. 52. Complex of rinsing basins in *fullonica* VI 8, 2.20-21 at Pompeii (photograph M. Flohr).

Fig. 53. Cupid brushing textile from the frieze with fulling cupids in oecus q at the *Casa dei Vettii* at Pompeii (VI 15, 1.27; photograph M. Flohr).

[21] See Flohr 2010, p. 130-134.

[22] *Monumentum Neronis Drusi* (*CIL* VI, 4336); *Monumentum Marcellae* (*CIL* VI, 4445); *Monumentum Statiliorum Taurorum* (*CIL* VI, 6287-6290); *Monumentum Volusinorum* (*CIL* VI, 7281).

[23] Flohr 2010, p. 81-82; *contra* Dixon 2001, p. 9-10.

[24] *AE* 1958, 273; cf. Ferrua 1957, p. 609.

[25] Flohr 2010, p. 83-85.

Site	*Fullonicae*	With 'shop'	Unclear	No 'shop'
Pompeii	13	11	-	2
Ostia	6	3	-	3
Rome	4	2	1	1
Herculaneum	1	1	-	-
Florence	1	-	-	1
Fréjus	1	1	-	-
Total	26	15	1	7

Fig. 54. Overview of *fullonicae* with and without a shop.

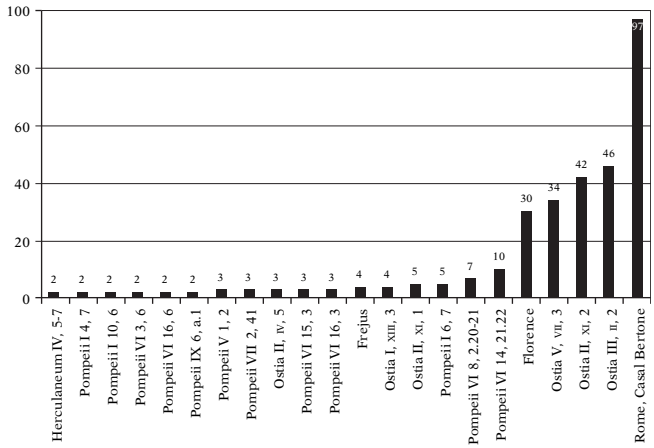

Fig. 55. Fulling capacity of the *fullonicae* of Roman Italy.

in scale, most workshops have two or three fulling stalls, a few have between five and ten, and four *fullonicae* were of exceptional size, having thirty or more stalls (fig. 55)[26]. The largest fulling establishment discovered so far counts an amazing amount of 97 stalls, which makes it almost fifty times as large as the median excavated *fullonica*[27]. For the present purpose, it seems most useful to subdivide this data set into three groups based on the architectural context in which the workshops were found: *fullonicae* in *tabernae*, *fullonicae*, in Pompeian *atrium* houses, and *fullonicae* situated in purpose-built production halls.

Thirteen of the *fullonicae* were situated in *tabernae*, small units organized around a shop. These workshops were, by nature, oriented towards private customers, and were rather small: most had only two or three fulling stalls, though two had four. At Pompeii, most *tabernae* were directly associated with living space behind or above the shop, but at Ostia, this seems less often to have been the case. The four *fullonicae* in *atrium* houses were all situated in Pompeii and Herculaneum, and apart from the Herculaneum workshop, they were considerably larger in size: the three examples at Pompeii have five, six and ten fulling stalls respectively, and each had a complex of three interconnected rinsing basins. Three of these workshops had a shop, but one does not seem to have had a space for interaction with private customers. It may be pointed out that the houses in which these *fullonicae* were situated were not 'converted' into workshops: there is clear evidence that during or even after the construction of these workshops the residential qualities of these complexes were improved[28]. For example, the presence of piped water was used to embellish the *atrium* or the peristyle with decorative fountains, and fourth style decorations contemporary to or postdating the *fullonica* cover the wall of more than one room in each of the Pompeian houses (fig. 56). Moreover, finds of glass pastry beads and other objects suggest that these houses were inhabited by both men and women, and the paintings from one of the *fullonicae* suggest that children were involved, too[29]. In other words: the world of these workshops seems to have been one of private households, the core of which probably was constituted by a family of men, women and children. The third group consists of the five exceptionally large *fullonicae*. Three of these were situated in Ostia, one in Florence, and one in Rome[30]. What is striking about these workshops is their staggering scale: in number they constitute about a fifth of all *fullonicae*, but their aggregate capacity (measured in the amount of fulling stalls) constitutes no less than 81% of the excavated fulling capacity of Roman Italy[31]. Typically, none of these workshops had a shop: they thus seem to have worked for clothing traders rather than private cus-

[26] I take the number of fulling stalls as an indicator of scale because other facilities, particularly rinsing complexes, are less easily measurable and not generally quantifiable. Cf. Flohr 2010, p. 86-91.

[27] This *fullonica* has recently been excavated at Casal Bertone, some two miles outside the Aurelian walls at Rome. For a short preliminary report of the excavations see Musco *et al.* 2008.

[28] Flohr 2007, p. 135-137; Flohr in press.

[29] Flohr in press; *NSA* 1912, p. 286.

[30] Ostia: *fullonica* II, XI, 2, III, II, 2, and V, VII, 3; cf. De Ruyt 2001; De Ruyt 1996; De Ruyt 1995; Pietrogrande 1976. Florence: Piazza della Signora; De Marinis 1997. Rome: Casal Bertone; Musco *et al.* 2008.

[31] That is, 251 of all 311 fulling stalls were found in these five workshops. Cf. fig 55.

tomers, which is also logical given their industrial scale and the risk of garments getting lost or confused[32]. The location of the establishments in Rome and Ostia suggests that they served the metropolitan clothing market and dealt with imported goods[33]. Moreover, it is relevant to note that these fulling factories were, essentially, little more than production halls: there is no living space attached, nor is there any space that could be used for administrative purposes or, indeed, storage. Significantly, and remarkably, given the number of people at work, there was not even a toilet. The absence of living space suggests that these workshops were not operated by slaves belonging all to the same household, but by a variety of people living in a variety of places[34]. This also may be thought to suggest that these people, or some of them, were working for wage[35].

The scholarly significance of all this variety should not be underestimated: the context in which fulling took place, of course, could have consequences for the working lives of the people involved, and could have a profound influence both their occupational identity and their actual professional skills. Whether a worker fulled clothes in a *taberna* or in a full scale fulling factory made a difference in how he (or she) related to his daily work and profession, and may have considerable impact on the degree to which he saw himself and was seen by one's fellow citizens as a skilled craftsman: like all identities, an occupational identity is to a considerable extent degree socially constructed in that it is usually negotiated and maintained in the social arena of daily life by the persons involved in the occupation and the people surrounding them. Indeed, an occupational identity is embedded in social interaction: you are not a *fullo* because you are involved in the craft, but because you and your environment decide, at some point, to attach that label to you on the basis of your involvement in the craft and because of your mutual personal relationships. Not all fullers also were *fullones*: not everybody who was involved in fulling necessarily thought of himself as a *fullo* or was perceived as such by the people around him or her. Moreover, besides these potential differences in the public perception and recognition of craftsmanship, the differences between the scale and functioning of workshops may also have led to real differences in the craftsmanship itself: the nature of the division of labour on the shop floor may have a considerable impact on the degree to which a worker in a *fullonica* actually was able to develop and practise all or most of the professional skills related to his craft.

Fig. 56. Fourth style wall-decorations in *fullonica* I 6, 7 at Pompeii (photograph M. Flohr).

The daily work environment and the development of occupational identities

One of the keys to our understanding of the differences between fullers in occupational identity and craftsmanship is our interpretation of the social landscape in which fullers operated. In what kind of environment did they live and work? Several factors may be thought to have played a role in this respect, and they may be broadly divided into two categories: on the one hand, there are factors related to the daily life on the shop floor – that is, to the atmosphere among the staff of one *fullonica* and the nature of the social ties between the workers of that workshop[36]. Secondly, there are factors related to the daily interaction with outsiders. As to the first category, we may think of the way in which people actually could communicate during the working day, how they were related to each other outside working hours, how tasks were allocated and to which degree there was a fixed hierarchy within the work force.

[32] Cf. Flohr 2010, p. 90.

[33] The *fullonica* of Casal Bertone was situated just east of Rome, near the point where the major routes that connected the metropolis with the mountainous hinterland of the Apennines converged. Cf. Flohr 2010, p. 96-99.

[34] It should not be excluded at forehand that the workers in these *fullonicae* were actually paid for what they did, though clear evidence in favour or against this is lacking.

[35] For a more elaborate discussion of this problem see Flohr 2010, p. 300-303.

[36] Cf. Flohr 2009.

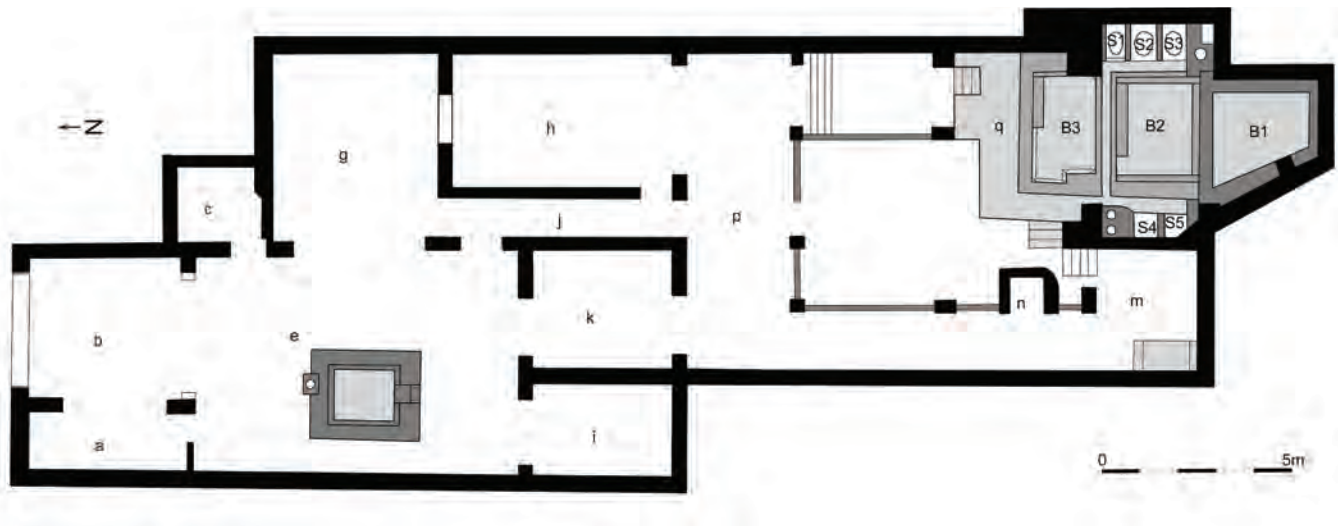

Fig. 57. Plan of *fullonica* I 6, 7 at Pompeii (drawing M. Flohr).

As to the second category of factors, we may think of the way in which people, during the work day interacted with the outside world, through contact with the neighbourhood and interaction with customers coming to bring or collect their garments.

The communicative landscape of *fullonicae*

Few, if any, *fullones* seem to have worked completely alone. While there obviously were workshops with a larger and a smaller work force, even the smallest workshops had a production capacity that seems to have been designed for two or three people to work[37]. People who spend the day working in the same building obviously are likely to communicate. Part of this is necessary for the progress of the production process, but it is of course entirely human to go beyond what is strictly necessary and to develop, at least to some degree, more social forms of interaction – either verbal or non-verbal. Yet, the nature of such interaction is of course dependent on several factors. For example, communicative patterns in smaller groups often tend to be much more integrated than in larger groups: it is easier to have one central conversation in a small room with four people than it is in a large hall with fifty people – especially if they are spread over the entire area. In that respect, *fullonicae* in *tabernae* must have had a distinctly more intimate atmosphere than the larger *fullonicae* in *atrium* houses, which were split into two separate parts – a shop in front and a work area in the back – between which direct communication was impossible, though the work areas themselves were still rather intimate and integrated (fig. 57). Yet, the most spectacular difference is between the industrial *fullonicae* of Ostia, Rome and Florence and all the other establishments: these large workshops had a work force of thirty to more than a hundred people. The communicative landscape of such establishments is much more dispersed: workers are also positioned in long rows, which makes verbal communication harder, and non-verbal communication impossible, and the central position of the rinsing complex does not help either: it would have been impossible for fullers to reach someone at the other side of the area without seriously raising the voice or actually going there (fig. 58). In these workshops, many conversations could be going on at the same time, and participation in such conversations was more voluntary than obligatory: people could easily have spent the day relatively unnoticed. This made the atmosphere in these workshops distinctly more dispersed and anonymous than in the small and medium-sized *fullonicae* in shops and *atrium* houses.

The nature of ties within the staff network

The differences between the industrial *fullonicae* and the other fulling workshops can even be made more substantial by analyzing the differences in

[37] No *fullonica*, for instance, has less than two fulling stalls (see fig. 55).

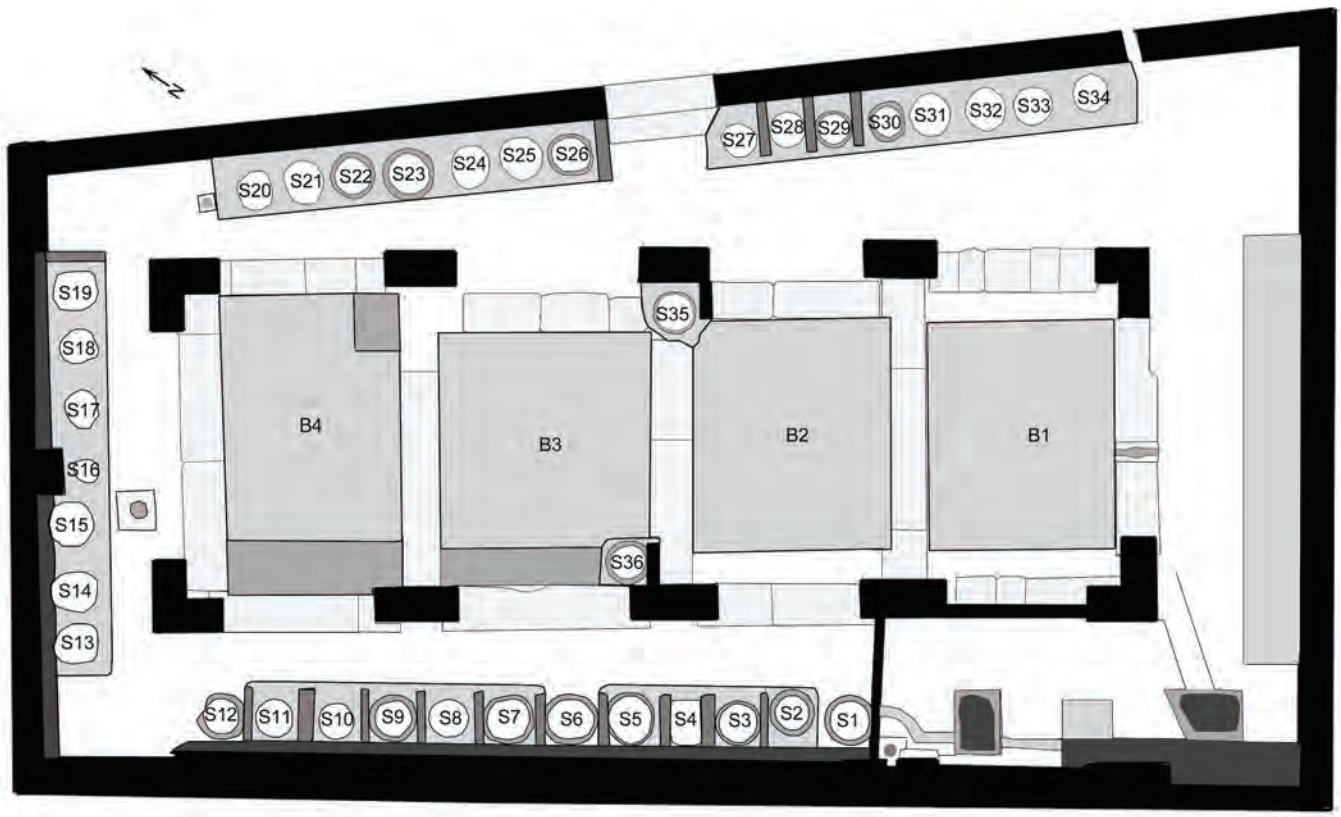

Fig. 58. Plan of *fullonica* V, VII, 3 at Ostia (drawing M. Flohr).

the social context of these workshops: whereas the *fullonicae* of Pompeii were all related to domestic space and thus, probably, were staffed from a household, perhaps sometimes with a few outsiders, such a clear and intimate social basis was lacking in the industrial *fullonicae* of Ostia, Rome and Florence: as mentioned above, the people that made up the staff network are likely to have lived in different places, which means that they generally were not saddled with each other outside working hours. The impact of this is in fact rather important, because people may be thought to develop a different, more personal relation with colleagues with whom they also live than with those with whom they only work. Thus, the workers in the large *fullonicae* of Ostia, Rome and Florence did not only work in a more anonymous atmosphere, they also shared less outside working hours. As a consequence, it is likely that new workers integrated much less easily in these large and anonymous staff networks than in the small and medium-sized establishments at Pompeii. Besides this, it is relevant to point out that the composition of the work force also differed in terms of age and gender: the household-based establishments of Pompeii included men, women and children, but the industrial fulling factories are likely to have been populated mainly by people hired for their qualities – and as the qualities required resemble each other, it is likely that the people resemble each other too. Many of these people may have been adult males[38].

A hierarchy of tasks

A third major difference between the *fullonicae* of Pompeii and the industrial *fullonicae* of Ostia, Rome and Florence concerns the nature of differences between workers. Arguably, not all workers in a *fullonica* had a similar position in the social network made up by the members of the staff: some had a more marginal role, while others were able to develop a more central position. In a certain sense, the position of workers within the staff network may have been related to the division of labour within a *fullonica*: not all tasks were equally desirable, and

[38] For the exhausting character of fulling see Sen., *Ep.* 15, 4.

workers with better skills – technically or socially – may end up doing the more desirable tasks more often, which, in turn, also may have brought them some prestige or certain other social advantages. It seems that there was a rather clear hierarchy of tasks that is similar to the order of treatments outlined above: it is likely that the lowest position, in terms of desirability, was taken up by the work in the stalls[39]. This was not only relatively easy, as it required muscular power rather than trained skills, it was also less responsible, as the results could be checked by workers involved in later stages, and, as workers stood with the feet in alkaline chemicals, relatively dirty. The work in the basins was not difficult either, but brought some responsibility with it in the sense that the results of the first phase could be checked, and it was considerably less dirty, as it only involved water instead of chemicals. Finishing, however, was not dirty at all, and one arguably needed concentration and a sharp eye to check the result, also because there were no subsequent phases. Moreover, some finishing tasks also bore a relatively large risk of inflicting damage on the garment through brushing and shearing without caution. Yet, besides this hierarchy intrinsic to the process, it also seems that workers in later phases had a better communicative position: in the large Pompeian *fullonicae*, basin workers have a central place in the communicative network and were thus much more prominent in the social landscape than the stall workers around them. For example, in the *fullonica* of Stephanus (I 6, 7), the people in the basins stood in the middle of those working in the stalls, could easily control them, and also controlled the communication with the shop in front of the house, as they could see people approaching the working area, and were the first to be seen by them of the workers in the back yard (fig. 56). Finishing was often done in the shops, which brought finishers informational and communicative advantages over the workers in the work area in the back part of the house: they interacted with customers and thus were the ones to give orders to the others.

Task allocation and social differentiation

While these status differences are interesting enough in themselves, what makes them of relevance here is the probable differences between *fullonicae* in the way in which tasks were allocated: in small workshops there may be considerable room for variation: at quiet moments, or in cases of absence or illness, or just naturally, as part of the direct and intimate way in which these workshops were managed. In large workshops, on the other hand, and especially in the industrial establishments, such variation was much less likely to occur: to keep such workshops functioning, it was much more efficient to give each worker standard tasks, so that fewer decisions needed to be taken about who did what. Moreover, the fulling factories of Rome and Ostia specialized in the first two phases of the fulling process – that is: in soaping and rinsing. It seems that the parts of the fulling process that required most skill – the raising and trimming of the nap – were not done in these establishments at all. This not only meant that there was considerably less variation for workers and a lot more monotony, but it also implies that there were fewer chances for workers for personal development in terms of skill mastery: most of the workers in these industrial establishments were hard-working muscles rather than skilled artisans, and they functioned within a probably rather fixed hierarchy which was not easily breached. There simply was no occasion for these people to fully master the craft in all its aspects.

Fulling and the urban community

The staff networks of the large *fullonicae* of Ostia, Rome and Florence were thus not so coherent, the atmosphere was rather anonymous, and there were fewer chances for skill development for individual workers. The workshops in *tabernae* and *atrium* houses, on the other hand, were integrated, had an intimate atmosphere, and probably a much more fluid task allocation with much higher chances of skill development. Besides that, however, there were also significant differences between the workshops in terms of integration into the wider urban community.

Living and working in a neighbourhood

Tabernae, obviously, by nature had an open relationship with the urban environment: the shop had a wide opening which not only invited customers in, but also provided the workers inside with a clear view on the street and the shops surrounding it. For example, workers in the fulling stalls in the small commercial *fullonica* VII 2, 41 at Pompeii could potentially see a great deal of what was hap-

[39] For a more elaborate discussion of the social hierarchy of tasks within the fulling process, see Flohr 2009.

Fig. 59. View from fulling stalls in *fullonica* VII 2, 41 at Pompeii (photograph M. Flohr).

pening on the *Via degli Augustali*, which was in the busy commercial core of the city (fig. 59)[40]. At the same time, most of the people out there could see the fullers at work and, thus continuously associate him with his occupation. It may be imagined that it was not hard for these fullers to become publicly known as *fullones* – just like the man next door may have been known as a *caupo*, and some people on the opposite side of the road may have been referred to as *pistores*[41]. This scenario may also be applied to most of the other *fullonicae* at Pompeii and Herculaneum: most of these, too, had shops, and while the workers in the back area were not visible for outsiders, they were integrated into the neighbourhood through their colleagues and housemates at work in the shop[42].

Yet, if a *fullonica* did not have a shop, workers were not visible for outsiders and could not be publicly associated with the craft they performed. Again, this made the situation of the workers in the large industrial *fullonicae* fundamentally different from that of people in the smaller establishments. These workshops were surrounded by heavy walls, and most were not even directly accessible from the street, or were situated in a quiet alley or along a dead end road[43]. Generally, thus, these workshops were almost completely invisible to the outside world, and it is not unlikely that many people in the Roman world did not even know that such

[40] Cf. Laurence 2007, p. 102-116. For the identification of this *taberna* as a *fullonica* see Flohr 2008, p. 10-12.

[41] VII 12, 7, VII 12, 9 and VII 12, 13 were all bakeries. Cf. Flohr 2007, p. 148.

[42] The only exceptions are VI 8, 20-21.2 and VI 16, 3-4.

[43] At Ostia, *fullonicae* II, XI, 2 and III, II, 2 were only accessible through another building, whereas *fullonica* V, VII, 3 was situated in a presumably rather quiet road with little traffic. The *fullonica* at Florence was situated at a dead end road. Cf. Flohr 2010, p. 346-347.

workshops existed, or how the circumstances on the shop floor were. People working in these fulling factories could thus not easily be associated by outsiders with their craft and they probably were not publicly known as fullers.

The social impact of having a shop

Yet, it must be emphasized that the influence of having a shop went beyond sheer visibility: negotiating the maintenance of valuable garments was something distinctly different simply buying everyday commodities. As has been pointed out above, fulling involved a considerable amount of trust and the delivery of garments necessitated some negotiations, which made the contact between fullers and their customers rather intense and personal. Besides this, it may also be worth noting that also the average socio-economic background of the customers of *fullones* may have been a factor of relevance: demand for fulling was closely related to dress culture, and there is reason to assume that those groups in society that spent most on display dress were also the most frequent visitors of fulling workshops[44]. Demand for fulling was unequally divided over Roman urban communities, and *fullones* thus, more than bakers or green-grocers, had access to potentially significant social networks, such as elite households. Even if it was not necessarily always the male head of the elite household himself who came to the *fullonica*, his clothes – and those of his family – arrived with considerable frequency, and probably with his consent.

Workers in *fullonicae* without a shop lacked such contacts. Of course, there will have been business contacts that visited the workshop to bring or collect parties of garments, or just to inspect the production process, but such visits are likely to have been brief and incidental compared to the potentially continuous arrival of private customers in shops. Moreover, given the size of the work force, there is unlikely to have been much interaction between these visitors and the plodding infantry in the stalls: while some frequent visitors may have become, to some degree, known to the workers of the fullery, this was probably not the case the other way around, as it is likely that such people would mainly spend most of their time in the *fullonica* with the persons that stood at the head of these establishments.

Being a *fullo*

Based on the above discussion, it is becoming clear that the starting point for developing a strong attachment to the job and a public occupational identity could sharply differ from situation to situation. Yet, it must be mentioned that for those who actually developed a strong occupational identity, there was a ready and rather clearly defined cultural image that could be embraced. There was a clear set of symbols that could be used, and there were several occasions during which the occupational identity could perform an explicit role in public ritual and ceremony. Most of all, epigraphic evidence suggests that there was not something like a social stigma encouraging *fullones* to hide their occupational background, as has often been suggested by modern commentators[45]. Instead, it seems like *fullones* were relatively well-off: compared to most everyday occupations, they seem to have been more frequently commemorated with durable inscriptions[46]. Indeed, most occupations with more evidence for commemoration are luxury trades that made their money by serving the demands of the Roman elite, such as pearl-sellers, *purpurarii*, architects and the like[47]. Collegia of *fullones* also seem to have been relatively successful in producing epigraphy, especially outside Rome[48]. The frequent occurrence of *fullones* in Pompeian electoral advises must also be seen in this light: being a *fullo* thus was no disgrace. Instead, as argued above, involvement in fulling could present considerable and significant social advantages that may have encouraged rather than discouraged those involved in the trade to embrace the occupational identity.

As to the symbols related to the professional identity of *fullones*, one very clear element of the occupational identity of *fullones* was the *ulula*, Minerva's holy owl, which is related to *fullones* by Varro[49]. The owl figures a couple of times at Pompeii – both in painting and in epigraphy, and the way in which it is used is very suggestive of the way in which occu-

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[44] Cf. Flohr 2010, p. 65-82.

[45] For the most explicit explorations of the cultural tensions related to fulling see Bradley 2002, p. 36-37; Kudlien 2002, p. 56-58.

[46] There are 18 inscriptions from Roman Italy commemorating deceased *fullones*, and less than five for probably equally common craftsmen such as tanners, butchers, fishermen and inn-keepers. Cf. Flohr 2010, p. 361-362; for an overview of the inscriptions on which this argument is based see http://research.mikoflohr.nl/epigraphy/index.php.

[47] For example, pearl-sellers (*margaritari*) have left 18 commemorative inscriptions; *purpurarii* 22, and architects 23. Cf. Flohr 2010, p. 359, table 5.

[48] Flohr 2010, p. 365-366.

[49] Varr, *Men.*, 86, 4.

pational identities were construed both among the fullers themselves and towards the outside world[50]. There was a *fullo* who was publicly known as *Fabius Ululitremulus* ('Fabius the Owl-fearer') and who used his full name in electoral advertising, using the symbol related to his trade as an asset in political discourse[51]. At the same time, there were paintings of a bird-catching ritual in the work area of *fullonica* VI 14, 21-22 which also involved the *ulula*. Applied to the wall of the workshop, these paintings were made to be viewed by the workers of the *fullonica* during the workday, which is likely to have enhanced their personal attachment to their occupation and may have stimulated the development of an occupational identity[52]. That the owner of a *fullonica* was not always the only person who could be seen as a *fullo* is also suggested by several graffiti and election notices related to fulling workshops which do not use the singular *fullo*, but the plural *fullones*[53]. Thus, rather than to the skilled artisan at the head of the workshop, the term '*fullo*' might just as easily refer to one or more of his workers[54].

Fullers, *fullones* and craftsmanship

Analyzing the evidence for the construction of occupational identities, it becomes clear that a great deal of it comes from Pompeii. Besides the abovementioned paintings and the graffiti referring to the *ulula*, there are also the election notices, and there is the famous statue of Eumachia that was erected on behalf of the *fullones* in the cryptoporticus of the large public building which she had constructed on the forum of the city, and which on the basis of this statue often, wrongly, has been identified as a clothing market[55]. Of course, most of this abundance of evidence can be directly ascribed to the exceptional circumstances that created the archaeological record at Pompeii: similar types of data simply do not exist in other Italian sites. While this makes it hard to understand the full significance of the Pompeian evidence, it may be suggested that the 'Pompeian model' of self-confident artisans with well-developed occupational identities may, in some way or another, be valid for many medium-sized cities of Roman Italy: there were enough *fullones* around, and they were well-integrated enough in the community to make '*fullo*' a relevant social label, both for fullers themselves and for their fellow citizens. The relative small scale of most workshops and their strong integration with private households created ideal circumstances for the development of coherent and intimate work groups, which further enhanced identity awareness. In such cities, *fullones* typically organized themselves in professional organizations: there is a remarkable similarity between the honorific inscription that Pompeian *fullones* dedicated to Eumachia, and the dedicatory inscription for Minerva produced by the *fullones* of Spoletium[56]. In very small cities, with one or perhaps two small *fullonicae*, such as, for example, Saepinum, things may have been slightly different, and the emphasis in the identity of fullers may have shifted from their specific craft to the fact that they were craftsmen: in such cases, *fullones* may not even have had their own organization, but may have participated in a *collegium fabrum* or a *collegium centonariorum* instead[57].

Yet, there is likely to have been a world of difference between these urban communities and the metropolitan world of Ostia and Rome. The extreme urbanization in Rome and its surroundings led to an urban society on a scale that in the ancient world hitherto had been unknown. The large industrial *fullonicae* were the result of these developments and present us with a picture that is not easily reconcilable with our traditional ideas about urban manufacturing in preindustrial societies: these workshops are large-scale, rationally organized fulling factories that worked with an extremely large work force in an almost industrial manner. Indeed, the strict division of labour, and the clear separation between working and living were rather uncommon in Europe before the industrial revolution. While we do not have any direct evidence concerning the ideas of the workers in these establishments about their job, the above analysis of the social landscape of these workshops suggests that these people

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[50] *CIL* IV, 4112, 4118 and, most famously, 9131: *fullones ululamque cano, non arma virumque*.

[51] *CIL* IV, 7963; cf. Moeller 1976, p. 89-90.

[52] *PPM* VII, 329-331.

[53] E.g. *CIL* IV, 7163, 9125, 9128.

[54] Though not the legal responsibility attached to it, which always rests with the formal owner of the workshop. Cf. *Dig.*, 14, 3, 5, 10 (Ulp.).

[55] Especially Moeller 1972; Moeller 1976, p. 57-71; for a critique see Jongman 1988, p. 182-183.

[56] Pompeii: *CIL* X, 813; Spoleto: *CIL* XI, 4771.

[57] Both *faber* and *centonarius* may have been container terms referring to craftsmen in general or craftsmen involved in textile economy respectively. For a recent study on the *collegia centonariorum* and the broad character of the term *centonarius* see Liu 2009, esp. p. 57-83.

were unlikely to have associated themselves with their work, and that many were probably not very skilled either. These people were perhaps, to some extent, fullers, but by no means must they be seen as *fullones*.

Arguably, while the *fullones* of Pompeii can be used to highlight the possibilities of an approach to the world of Roman manufacturing that puts a strong emphasis on the professional knowledge of skilled artisans, it is clear that the situation in the industrial *fullonicae* of Rome, Ostia and Florence points to the limits of such an approach: the material remains of these workshops leave little room for romantic ideas about skilled artisans and occupational pride. It is also relevant to point out that fulling was not unique in this respect: evidence for other large-scale production facilities point to similar developments in other branches of the economy. The most straightforward example of this may be found in the mills-bakeries of Ostia, but one may also think of the enormous fish-salting facilities along the coastlines of the Maghreb and the Iberic Peninsula[58]. In a slightly different way, the emergence of water-powered milling installations such as the one at Barbegal, and the rise of the use of moulds in pottery production also suggest that in the imperial era, more and more alternatives to the skilled artisan emerged in the Roman world[59]. This may simply have been a matter of efficiency and economies of scale: traditional craftsmen may have been skilled and proud of their professional knowledge, but they also may have been relatively inefficient and expensive because they worked on a small scale. This is not to say that skilled artisans disappeared altogether: in Rome and Ostia, too, we find evidence for small-scale, consumer-oriented *fullonicae* in *tabernae*[60]. The point is that alongside the skilled artisan, a parallel universe seems to have emerged that has much more in common with modern industrial mass production than it has with traditional craftsmanship, and to fully understand manufacturing in the Roman world, the differences between these modes of organization should be at the heart of our analysis.

[58] For the bakeries of Ostia see Bakker 1999; for the fish-salting factories of Roman Africa and Spain see Wilson 2006b.

[59] See esp. Wilson 2008.

[60] Rome: besides the abovementioned *fullonica* in the *Macellum Liviae*, small *fullonicae* were discovered on the Celian and Oppian hills. Cf. Astolfi *et al.* 1990; Pavolini *et al.* 1993. At Ostia, small *fullonicae* were identified by Pietrogrande at I, XIII, 3 and II, IX, 1 (*Caseggiato della Fullonica*). Cf. Pietrogrande 1976, p. 9-13, 51-54. To these, a third workshop may be added at II, IV, 5 [12] on the basis of epigraphy referring to a *corpus fontanorum* (*CIL* XIV, 4573) and the discovery of three fulling tubs during the excavation. Cf. *NSA* 1909, p. 90. For *fullones* and *fontani* see Tran 2007, esp. p. 598-601.

Références

Abréviations courantes

MANN : Museo Archeologico Nazionale di Napoli
SNI : Sans numéro d'inventaire

***CIL* :** *Corpus inscriptionum Latinarum*. Berlin, 1863-.
ILS : Dessau (H.), *Inscriptiones Latinae Selectae* (3 vol.). Berolino, 1892-1916.
***PPM* :** *Pompei: pitture e mosaici* (11 vol.). Roma, 1990-2003.
***TLL* :** *Thesaurus Linguae Latinae*. Leipzig, 1900-.
***NSA* :** *Atti della (reale) Accademia (nazionale) dei Lincei. Notizie degli Scavi di Antichità*, 1876 -.

Les références aux papyrus sont données d'après le système usuel d'abréviation, consultable en ligne sur le site de l'Université de Duke (checklist des éditions) : http://scriptorium.lib.duke.edu/papyrus/texts/clist_papyri.html

Les abréviations des revues sont celles de l'*Année Philologique* au moment de la parution du fascicule concerné ou, en cas d'absence, celles de l'*Archäologische Bibliographie*.

Ouvrages cités

Adam 1983 : J.-P. Adam, *Dégradation et restauration de l'architecture pompéienne*. Paris, 1983.

Adam 1984 : J.-P. Adam, *La construction romaine. Matériaux et techniques*. Paris, 1984 (*Grands manuels Picard*).

Adam 1986 : J.-P. Adam, Observations techniques sur les suites du séisme de 62 à Pompéi, *in* : *Tremblements de terre 1986*, p. 67-87.

Adamo Muscettola 1992 : S. Adamo Muscettola, I Nigidi Mai di Pompei. Far politica tra l'età neroniana e l'età flavia, *RIA*, 14-15, 1992-1993, p. 193-218.

Adamo Muscettola 2005 : S. Adamo Muscettola, Per un'interpretazione degli affreschi dell'agro Murecine, *in* : *Storie da un'eruzione. In margine alla mostra* (P.G. Guzzo, cur.). Pompei, 2005, p. 75-98.

Adamski – Pernot 2008 : F. Adamski, M. Pernot, Étude technique de vestiges du travail d'alliages cuivreux, *in* : *La Cité Judiciaire : un quartier suburbain de Bordeaux antique* (C. Sireix dir.). Bordeaux, 2008 (Aquitania *supplément* 15), p. 207-224.

Allison 1991 : P. M. Allison, Workshops and Pattern-books, *KJ*, 24, 1991, p. 79-84.

Allison 1995 : P. M. Allison, "Painter-Workshops" or "Decorators' Teams"?, *MNIR*, 54, 1995, p. 98-109.

Allison 2006 : P. M. Allison, *The insula of the Menander at Pompeii*, III: *the finds, a contextual study*. Oxford, 2006.

Andersen 1985 : F.G. Andersen, Pompeian Painting – Some Practical Aspects of Creation, *ARID*, 1985, p. 113-128.

Anderson 1997 : J.C. Anderson, *Architecture and Society*. Baltimore – London, 1997.

Anderson *et al.* 2003 : T.J. Anderson, C. Augustoni, A. Duvauchelle, V. Serneels, D. Castella, *Des artisans à la campagne. Carrière de meule, forge et voie gallo-romaine à Châbles (FR)*. Fribourg, 2003 (*Archéologie fribourgeoise / Freiburger Archäologie*, 19).

André 1981 : J. André, R. Bloch, A. Rouveret, *Pline l'Ancien.* Naturalis Historia *XXXVI*. Paris, 1981 (*Collection des Universités de France*).

Andreau 1973 : J. Andreau, Histoire des séismes et histoire économique ; le tremblement de terre de Pompéi (62 ap. J.-C.), *Annales (ESC)*, 28, 1973, p. 369-395.

Andreau 1995 : J. Andreau, Vingt ans après *L'économie antique* de Moses I. Finley, *Annales (HSS)*, 50, 5, 1995, p. 947-960.

Aoyagi – Pappalardo 2006 : *Pompei (*Regiones *VI - VII)* Insula Occidentalis (M. Aoyagi, U. Pappalardo, cur.). Napoli, 2006.

Araguas 2003 : P. Araguas, *Brique et architecture dans l'Espagne médiévale*. Madrid, 2003 (*Bibliothèque de la Casa de Velázquez*, 25).

Archäologie und Seismologie 1995 : *Archäologie und Seismologie: la regione vesuviana dal 62 al 79 d.C.: problemi archeologici e sismologici*. München, 1995.

Armbruster 2000 : B.R. Armbruster, *Goldschmiedekunst und Bronzetechnik*. Montagnac, 2000 (*Monographies* Instrumentum, 15).

Armbruster 2004 : B. Armbruster, Le tournage dans l'orfèvrerie de l'Âge du Bronze et du premier Âge du Fer en Europe Atlantique, *in* : *Feugère – Gérold 2004*, p. 53-70.

Arqueología de la construcción II : *Arqueología de la construcción, II. Los procesos constructivos en Italia y en las provincias romanas : Italia y provincias orientales (Università Siena, 13-15 novembre 2008)* (S. Camporeale, H. Dessales, A. Pizzo, ed.). Madrid, 2010 (*Anejos de AEA,* 57).

Astolfi *et al.* 1990 : F. Astolfi, L. Cordischi, L. Attilia, Via del Monte Oppio - via delle Terme di Traiano. Comunicazioni preliminari, *BCAR*, 93, 1990, p. 59-67.

Aubert 1994 : J.-J. Aubert, *Business managers in ancient Rome. A social and economic study of* institores. *200 BC – AD 250,* Leiden – New York – Köln, 1994 (*Columbia studies in the classical tradition*, 21).

Aubert 2003 : J.-J. Aubert, En guise d'introduction. Contrats publics et cahiers des charges, *in* : *Tâches publiques et entreprises privées dans le monde romain* (J.-J. Aubert dir.). Genève, 2003, p. 1-26.

Bagnall – Frier 1994 : R. Bagnall, B. Frier, *The Demography of Roman Egypt*. Cambridge, 1994 (*Cambridge studies in population, economy and society in past time*, 23).

Baïlon – Dorlot 2000 : J.-P. Baïlon, J.-M. Dorlot, *Des matériaux*. Montréal, 2000 (3e éd.).

Bakker 1999 : J. T. Bakker, *The mills-bakeries of Ostia: description and interpretation*. Amsterdam, 1999 (*Dutch monographs on ancient history and archaeology*, 21).

Barattolo – Romaldi 2007 : A. Barattolo, F. Romaldi, Pompei, Insula VII, 5. Una rilettura ragionata dei documenti grafici, *Quaderni di studi pompeiani*, 1, 2007, p. 127-146.

Barbet – Miniero 1999 : *La Villa di S. Marco a Stabia* (A. Barbet, P. Miniero, cur. ; 3 vol.). Napoli – Roma – Pompei, 1999, (*Collection du Centre Jean-Bérard*, 18 ; *Collection de l'École française de Rome*, 258).

Barker 2010 : S. Barker, Roman builders: pillagers or salvagers? The economics of deconstruction and reuse, *in* : *Arqueología de la construcción II*, p. 127-142.

Barresi 2003 : P. Barresi, *Province dell'Asia Minore. Costo dei marmi, architettura pubblica e committenza*. Roma, 2003 (Studia Archaeologica, 125).

Béal 2000 : J.-Cl. Béal, La dignité d'artisans : les images des artisans sur les monuments funéraires de Gaule romaine, *DHA*, 2000, p. 149-182.

Bérenger-Badel 2005 : A. Bérenger-Badel, Les séismes dans la documentation épigraphique et numismatique sous le Haut-Empire : entre élaboration de la mémoire et reconstruction de l'événement, *in* : *Récits et représentations des catastrophes depuis l'Antiquité. Actes du colloque, MSH Grenoble 10-12 avril 2003* (R. Favier, A.-M. Granet-Abisset, dir.). Grenoble, 2005, p. 161-174.

Bergamasco 1995 : M. Bergamasco, Le διδασκαλικαὶ nella ricerca attuale, *Aegyptus* 75, 1995, p. 95-167.

Bergamasco 1997 : M. Bergamasco, Una petizione per violazione di un contratto di tirocinio: *P. Kell. G.* 19a, *Aegyptus*, 77, 1997, p. 7-26.

Bergamasco 1998 : M. Bergamasco, *P. Kell. G.* 19a, Appendix, *ZPE*, 121, 1998, p. 193-196.

Bergamasco 2004a : M. Bergamasco, Ancora su *P.Osl.* III, 141, *PapLup*, 13, 2004, p. 27-36.

Bergamasco 2004b : M. Bergamasco, Tre note a tre *didaskalikai*, *SEP*, 1, 2004, p. 31-41.

Bergamasco 2006 : M. Bergamasco, Orfani e *didaskalikai*. Il caso di *SB* XIV, 11588, *SEP*, 3, 2006, p. 55-59.

Bertoletti *et al.* 2006 : M. Bertoletti, M. Cima, E. Talamo, *Centrale Montemartini Musei Capitolini*. Roma, 2006.

Bertrand 2008a : *Le travail de l'os, du bois de cerf et de la corne à l'époque moderne : un artisanat en marge ? Actes de la table ronde* Instrumentum*, Chauvigny (Vienne-F), 8-9 décembre 2005* (I. Bertrand dir.). Montagnac, 2008 (*Monographies* Instrumentum, 34).

Bertrand 2008b : I. Bertrand, Le travail de l'os et du bois de cerf à l'époque romaine : bilan et perspectives de la recherche sur un artisanat « mineur », *in* : *Bertrand 2008a*, p. 3-13.

Bessac 1986 : J.-Cl. Bessac, *L'outillage traditionnel du tailleur de pierre de l'Antiquité à nos jours*. Paris, 1986 (*Revue Archéologique de Narbonnaise - Suppléments*, 14).

Bessac 1999 : J.-Cl. Bessac, Pierres de taille : archéologie et technique, *in* : J.-Cl. Bessac, J. Burnouf, F. Journot, D. Prigent, Ch. Sapin, J. Seigne, *La construction en pierre*. Paris, 1999, p. 9-52 (*Archéologiques*).

Bianchi 2002 : E. Bianchi, R. Meneghini, Il cantiere costruttivo del foro di Traiano, *MDAI(R)*, 109, 2002, p. 395-417.

Biežunska-Małowist 1974-1977: I. Biežunska-Małowist, *L'esclavage dans l'Égypte gréco-romaine* (2 vol.). Kracow-Wrocław, Warszawa-Gdansk, 1974-1977 (*Archiwum Filol.*, 35).

Bisconti 2004 : F. Bisconti, « V. Il programma decorativo dell'ipogeo di Trebio Giusto tra attitudine e autorappresentazione », *in* : *Rea 2004*, p. 133-147

Biscottini 1966 : M.V. Biscottini, L'archivio di Tryphon, tessitore di Oxyrhynchos, *Aegyptus*, 46, 1966, p. 60-90 et p. 186-292.

Blagg 1976 : T.F.C. Blagg, Tools and techniques of the Roman stonemason in Britain, *Britannia*, 7, 1976, p. 152-172.

Blake 1947 : M.E. Blake, *Ancient Roman Construction in Italy from the Prehistoric Period to Augustus*. Washington, 1947.

Blanc – Eristov – Fincker 2000 : N. Blanc, H. Eristov, M. Fincker, *A fundamento restituit?* Réfections dans le temple d'Isis à Pompéi, *RA*, n.s. 2, 2000, p. 227-304.

Blanc 1983 : N. Blanc, Les stucateurs romains : témoignages littéraires, épigraphiques et juridiques, *MEFRA,* 95, 2, 1983, p. 859-907.

Blanc 1995 : N. Blanc, Hommes et chantiers : à la recherche des stucateurs romains, *MNIR*, 54, 1995, p. 81-97.

Blondé – Muller 1998 : F. Blondé, A. Muller, Artisanat, artisans, ateliers en Grèce ancienne. Définitions, esquisse de bilan, *Topoi*, 8, 2, 1998, p. 831-845.

Blondé – Muller 2000 : *L'artisanat en Grèce ancienne : les productions, les diffusions. Actes du Colloque de Lyon, décembre 1998* (F. Blondé, A. Muller, éd.). Villeneuve d'Ascq, 2000 (*Travaux et recherches*).

Blümner 1875-1886 : H. Blümner, *Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern* (4 vol.). Leipzig, 1875-1886.

Bögli 1996 : H. Bögli, *Aventicum. La ville romaine et le musée*. Avenches, 1996 (*Guides archéologiques de la Suisse*, 19).

Borgard *et al.* 2003 : Ph. Borgard, J.-P. Brun, M. Tuffreau, M. Leguilloux, Le produzioni artigianali a Pompei. Ricerche condotte dal Centre Jean-Bérard, *RSP*, 14, 2003, p. 9-29.

Borgard *et al.* 2005 : Ph. Borgard, J.-P. Brun, M. Leguilloux, N. Monteix, M. Cullin-Mingaud, M. Tuffreau-Libre, Recherches sur les productions artisanales à Pompéi et à Herculanum, *in* : *Nuove ricerche archeologiche a Pompei ed Ercolano* (P.G. Guzzo, M.P. Guidobaldi, cur.). Roma, 2005 (*Studi della Soprintendenza Archeologica di Pompei*, 10), p. 295-317.

Boucher 1964 : S. Boucher, Les grands dauphins de bronze doré du musée municipal de Vienne (Isère), *Gallia*, 22, 1964, p. 23-35.

Boucheron – Broise – Thébert 1997 : *La brique antique et médiévale : production et commercialisation d'un matériau. Actes du colloque (Saint-Cloud, 16-18 nov. 1995)* (P. Boucheron, H. Broise, Y. Thébert, dir.). Rome, 1997 (*Collection de l'École française de Rome*, 272).

Bradley 1991 : K.R. Bradley, Child Labour in the Roman World, *Historical Reflections/Réflexions historiques*, 12, 1985, p. 311-330 [repris dans *Discovering the Roman family. Studies in Roman social History* (K.R. Bradley ed.). New York, 1991, p. 103-124].

Bradley 2002 : M. Bradley, 'It all comes out in the wash': Looking harder at the Roman *fullonica*, *JRA*, 15, 2002, p. 21-44.

Bragantini 2004 : I. Bragantini, Una pittura senza maestri: la produzione della pittura parietale romana, *JRA*, 17, 2004, p. 131-145.

Bragantini – Pirelli 2007 : I. Bragantini, R. Pirelli, Osservazioni sul fregio della Villa romana della Farnesina, *AION(archeol)*, n.s. 13-14, 2006-2007, p. 221-231.

Bragantini – Sampaolo 2009 : *La pittura pompeiana* (I. Bragantini, V. Sampaolo, cur.). Milano 2009.

Bronzes antiques de Paris : *Les bronzes antiques de Paris*. Paris, 1989 (*Catalogues d'art et d'histoire du Musée Carnavalet*, 6).

Brun 2004 : J.-P. Brun, *Archéologie de l'huile et du vin dans l'Empire romain*. Paris, 2004 (*Collection des Hespérides*).

Brun 2008 : J.-P. Brun, La production du vin dans Pompéi : installation vinicole et taverne en V 4, 6, *MEFRA*, 2008, 1, p. 236-241.

Brun *et al.* 2002 : J.-P. Brun, Ph. Borgard, M. Leguilloux, Pompéi : Recherches sur les productions artisanales, *MEFRA*, 114, 1, 2002, p. 470-481.

Brun *et al.* 2006 : J.-P. Brun, Ph. Borgard, M. Leguilloux, N. Monteix, Pompéi, Herculanum (Campanie), Saepinum (Molise) : recherches sur l'artisanat antique, *MEFRA*, 118, 1, 2006, p. 362-375.

Brunt 1958 : P.A. Brunt, Review of W.L. Westermann, *The Slave Systems of Greek and Roman Antiquity*; D. Tudor, *Istoria sclavajaliu in Dacia Romana* and J. Vogt, *Struktur der antiken Sklavenkriege*, *JRS* 48, 1958, p. 164-170.

Buffone *et al.* 1999 : L. Buffone, S. Lorenzoni, M. Pallara, E. Zanttin, Le macine rotatorie in rocce vulcaniche di Pompei, *RSP*, 10, 1999, p. 117-130.

Bukowiecki 2010 : É. Bukowiecki, La taille des briques de parement dans l'*opus testaceum* à Rome, *in* : *Arqueología de la construcción II*, p. 143-151.

Bukowiecki *et al.* 2008 : É. Bukowiecki, H. Dessales, J. Dubouloz, *Ostie. L'eau dans la ville. Châteaux d'eau et réseau d'adduction*. Rome, 2008 (*Collection de l'École française de Rome*, 402).

Bülow-Jacobsen 1989 : A. Bülow-Jacobsen, Two Greek Papyri Carlsberg from Tebtunis, *ZPE*, 78, 1989, p. 125-131.

Burford 1972 : A. Burford, *Craftsmen in Greek and Roman society*. London, 1972 (*Aspects of Greek and Roman life*).

***CAG 13/5* :** *Carte archéologique de la Gaule : 13/5, Arles, Crau, Camargue* (M. Rothé, M. Heijmans, dir.). Paris, 2008.

Calabi Limentani 1958 : I. Calabi Limentani, *Studi sulla società romana: il lavoro artistico*. Milano, 1958.

Caley – Richards 1956 : E.R. Caley, J.F.C. Richards, *Theophrastus on stones. Introduction. Greek text. English translation and commentary*. Colombus, 1956.

Callebat 2003 : L. Callebat, Les matériaux de l'architecte, *in* : *Vitruvio nella cultura architettonica antica, medievale e moderna. Atti del convegno (Genova, 5-8 nov. 2001)* (G. Ciotta cur. ; vol. 1). Genova, 2003 (Athenaeum), p. 88-94.

Callebat *et al.* 1999 : L. Callebat, P. Gros, C. Jacquemard, *Vitruve*. De architectura *II*. Paris, 1999 (*Collection des Universités de France*).

Camardo c.s. : D. Camardo, La Casa dei Vetti a Pompei (VI,15,1) dall'analisi delle strutture murarie allo studio delle trasformazioni della domus*, BRest*, n.s., 2010, in corso di stampa.

Camodeca 1999 : G. Camodeca, *Tabulae Pompeianae Sulpiciorum. Edizione critica dell'archivio puteolano dei Sulpicii*. Roma, 1999.

Camporeale 2008 : S. Camporeale, Materiali e tecniche delle costruzioni, *in* : *Sidi Ali Ben Ahmed* – Thamusida*, 1. I contesti* (A. Akerraz, E. Papi, cur.). Roma, 2008 (*Ricerche archeologiche italo-marocchine*), p. 62-78.

Cardon 1999 : D. Cardon, *La draperie au Moyen-âge. Essor d'une grande industrie européenne*. Paris, 1999.

Carrié 2004 : J.-M. Carrié, Vitalité de l'industrie textile à la fin de l'Antiquité : considérations économiques et technologiques, *AntTard*, 12, 2004, p. 13-43.

Carrington 1933 : R.C. Carrington, Notes on the building materials of Pompeii, *JRS*, 23, 1933, p. 125-138.

Carrol – Godden 2000 : M. Carrol, D. Godden, The Sanctuary of Apollo at Pompeii: Reconsidering Chronologies and Excavation History, *AJA*, 104, 4, 2000, p. 743-754.

Cavalieri-Manasse 1995 : G. Cavalieri-Manasse, L'*imago clipeata* di Iulium Carnicum, *in* : *Splendida civica nostra. Studi archeologici in onore di Antonio Frova* (G. Cavalieri-Manasse, E. Roffia, cur.). Roma, 1995 (*Studi e ricerche sulla Gallia Cisalpina*, 8), p. 293-310.

Cavalieri-Manasse 2001 : G. Cavalieri-Manasse, L'*imago clipeata* di Iulium Carnicum. Aggiornamento, *in* : *Iulium Carnicum. Centro alpino tra Italia e Norico dalla protostoria all'età imperiale*. Roma, 2001 (*Studi e ricerche sulla Gallia Cisalpina*, 13), p. 319-348.

Chamonard 1924 : J. Chamonard, *Le quartier du théâtre : étude sur l'habitation délienne à l'époque hellénistique*. Paris, 1922-1924 (*Exploration archéologique de Délos*, 8).

Chardron-Picault 2010 : *Aspects de l'artisanat en milieu urbain : Gaule et Occident romain, Actes du colloque international d'Autun, 20-22 sept. 2007* (P. Chardron-Picault dir.). Dijon, 2010 (*Suppléments de la RAE, 28).*

Chardron-Picault – Pernot 1999 : *Un quartier antique d'artisanat métallurgique à Autun (Saône-et-Loire) – Le site du Lycée militaire* (P. Chardron-Picault, M. Pernot, dir.). Paris, 1999 (*Documents d'Archéologie française*, 76).

Chew 1996 : H. Chew, Objets en bronze d'époque romaine provenant de Roches-de-Condrieu (Isère), *Revue du Louvre*, 5/6, 1996, p. 27-47.

Choisy 1873 : A. Choisy, *L'art de bâtir chez les Romains*. Paris, 1873.

Ciszuk 2000 : M. Ciszuk, Taquetés from Mons Claudianus: analyses and reconstruction, *in* : *Archéologie des textiles des origines au V^e^ s., Actes du colloque de Lattes (oct. 1999)* (D. Cardon, M. Feugère, dir.). Montagnac, 2000 (*Monographies* Instrumentum, 14), p. 265-282.

Ciszuk – Hammarlund 2008 : M. Ciszuk, L. Hammarlund, Roman looms – A study of craftsmanship and technology in the *Mons Claudianus* textile project, *in* : *Purpureae vestes II*, p. 119-133.

Coarelli 1977 : F. Coarelli, Public building in Rome between the second Punic war and Sulla, *PBSR*, 45, p. 1-19.

Coarelli 2000 : F. Coarelli, L'inizio dell'*opus testaceum* a Roma e nell'Italia romana, *in* : *Boucheron – Broise – Thébert 1997*, p. 87-95.

Cochet 2000 : A. Cochet, *Le plomb en Gaule romaine. Techniques de fabrication et produits*. Montagnac, 2000 (*Monographies* Instrumentum, 13).

Cockle 1981 : H. Cockle, Pottery Manufacture in Roman Egypt. A New Papyrus, *JRS*, 71, 1981, p. 87-97.

Coletti *et al.* 2010 : F. Coletti, C. Prascina, G. Sterpa, N. Witte, *Venus Pompeiana*. Scelte progettuali e procedimenti tecnici per la realizzazione di un edificio sacro tra tarda repubblica e primo impero, *in* : *Arqueología de la construcción II*, p. 189-211.

Conti 2008 : S. Conti, Provvedimenti imperiali per comunità colpite da terremoti nel I-II sec. D.C., *Klio* 90, 2008, p. 374-386.

Corbier 1999 : M. Corbier, Adoptés et nourris, *in* : *Adoption et fosterage* (M. Corbier dir.). Paris, 1999, p. 5-41.

Coutelas 2009 : *Le mortier de chaux* (A. Coutelas dir.). Paris, 2009 (*Archéologiques*).

Cuma 2008 : *Museo archeologico dei Campi Flegrei. Catalogo generale 1. Cuma* (F. Zevi, F. Demma, E. Nuzzo, C. Rescigno, C. Valeri, cur.). Napoli, 2008.

D'Arms 1981 : J. H. D'Arms, *Commerce and social standing in ancient Rome*. Cambridge – London, 1981.

Darré 1985 : J.-P. Darré, *La parole et la technique : l'univers conceptuel d'éleveurs du Ternois*. Paris, 1985.

De Caro 1994 : S. De Caro, La scoperta, il santuario, la fortuna, *PP*, 49, 1994, p. 3-22.

De Franciscis 1975 : A. De Franciscis, La villa romana di Oplontis, *in* : *Neue Forschungen in Pompeji und den anderen vom Vesuvausbruch 79 n. Chr. verschütteten Städten* (B. Andreae, H. Kyrieleis, hrsg.). Recklinghausen, 1975, p. 9-38.

De Haan – Wallat 2008 : N. De Haan, K. Wallat, Le terme centrali a Pompei. Ricerche e scavi 2003-2006, *in* : *Guzzo – Guidobaldi 2008*, p. 15-24.

De Kind 1991 : R.E.L.B. De Kind, *Two tondo-heads in the Casa dell'atrio a mosaico (IV 1-2) at Herculaneum. Some remarks on portraits in Campanian wall-paintings*, *KJ*, 24, 1991, p. 165-169.

De Maria 1997 : S. De Maria, Pittura celebrativa in case private romane d'età imperiale, *in* : *I temi figurativi nella pittura parietale antica (IV sec. a.C. - IV sec. d.C.)* (D. Scagliarini Corlaìta cur.). Bologna, 1997 (*Studi e scavi*), p. 47-52.

De Marinis 1997 : G. De Marinis, Archeologia Urbana a Firenze: Piazza della Signoria, *in* : *Alle origini di Firenze – dalla preistoria alla città romana* (P. Agostini, cur.). Firenze, 1997, p. 49-53.

De Robertis 1963 : F.M. De Robertis, *Lavoro e lavoratori nel mondo romano*. Bari, 1963.

De Ruyt 1995 : C. De Ruyt, Richerche archeologiche nel Tempio dei Fabri Navales a Ostia, *Archeologia laziale*, 12, 2, 1995, p. 401-406.

De Ruyt 1996 : C. De Ruyt, Un exemple de discontinuité des fonctions monumentales dans un quartier de la ville romaine d'Ostie (reg. III, ins. II), *RBAH* 65, 1996, p. 5-16.

De Ruyt 2001 : C. De Ruyt, Les foulons, artisans des textiles et blanchisseurs, *in* : *Ostia, Port et porte de la Rome antique* (J.-P. Descoeudres dir.). Genève, 2001, p. 186-191.

De Simone 2000 : A. De Simone, L'indagine archeologica in località Murecine a Pompei, *in* : *Mitis Sarni Opes* (A. De Simone, S. C. Nappo, cur.). Napoli, 2000, p. 49-78.

De Vos 1981 : M. De Vos, La bottega di pittori di Via di Castricio, in : *Pompei 1748-1980. I tempi della documentazione*. Roma, 1981, p. 119-130.

Defgnée *et al.* 2008 : A. Defgnée, D. Henrotay, O. Collette, Un atelier de foulons gallo-romains à Arlon (province du Luxembourg, Belgique). Analyses chimiques et archéobotaniques du contenu de cuves, *Les nouvelles de l'archéologie*, 114, 2008, p. 47-52.

DeLaine 1997 : J. Delaine, *The Baths of Caracalla. A Study in the Design, Construction, and Economics of Large-Scale Building Projects in Imperial Rome*. Portsmouth, 1997 (*JRA supplementary serie*, 25).

DeLaine 2002 : J. Delaine, Building activity in Ostia in the second century A.D., p. 41-101, *in* : *Ostia e Portus nelle loro relazioni con Roma* (Ch. Bruun, A. Gallina Zevi, eds.). Rome, 2002 (Acta Instituti Romani Finlandiae, 27), p. 41-101.

DeLaine 2006 : J. DeLaine, The cost of creation. Technology at the service of construction, *in* : *Lo Cascio 2006*, p. 237-252.

Della Corte 1936 : M. Della Corte, Pompei. Nuove scoperte epigrafiche, *NSA*, 14, 1936, p. 299-352.

Della Corte 1939 : M. Della Corte, *Catalogo sistematico descrittivo delle fotografie dei monumenti pompeiani esistenti nell'Archivio fotografico della R. Soprintendenza alle Antichità della Campania*. Roma, 1939.

Demma 2007 : F. Demma, *Monumenti pubblici di Puteoli: per un archeologia dell'architettura*. Roma, 2007 (*Monografie della rivista Archeologia Classica*, 3).

Desbat 2003 : A. Desbat, La céramique romaine en Gaule et en Occident, *in* : *La céramique. La poterie du Néolithique aux Temps modernes* (A. D'Anna dir.). Paris, 2003 (*Archéologiques*), p. 115-181.

Desbat 2004 : A. Desbat, Les tours de potiers antiques, *in* : *Feugère – Gérold 2004*, p. 137-154.

Desrosiers 1997 : S. Desrosiers, Logicas textiles et logicas culturales en los Andes, *in* : *Saberes y memorias en los Andes:* in memoriam *Thierry Saignes* (Th. Bouysse-Cassagne, éd.). Paris, 1997 (*Travaux et mémoires de l'Institut des hautes études de l'Amérique latine*, 63 ; *Travaux de l'Institut français d'études andines*, 97), p. 325-349.

Dessales 2007 : H. Dessales, La distribution de l'eau à Pompéi : un cas hors norme ?, *in* : *Contributi di archeologia vesuviana III*. Roma, 2007 (*Monografie della Soprintendenza Archeologica di Pompei*, 21), p. 129-138.

Dessales 2010 : H. Dessales, Les usages de l'*opus reticulatum* dans la construction romaine : le cas des enceintes et des aqueducs, *in* : Edifices Artifices. *Premier congrès francophone d'histoire de la construction, Paris, 19-21 juin 2008* (R. Carvais, A. Guillerme, V. Nègre., P. Potié, J. Sakarovitch, dir.). Paris, 2010, p. 460-469.

Di Pasquale 2004 : G. di Pasquale, *Tecnologia e meccanica: trasmissione dei saperi tecnici dall'età ellenistica al mondo romano*. Firenze, 2004 (Nuncius *Studi e testi*, 55).

Dib 1957 : M. Dib, *Le Métier à tisser*. Paris, 1957.

Diderot 1775 : D. Diderot, J. Le Rond d'Alembert, *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers, tome neuvième*. Neuchâtel, 1775 [nouvelle impression en facsimilé de la première édition, vol. 9. Stuttgart – Bad Cannstatt, 1988].

Dixon 2001 : S. Dixon, How do you count them if they're not there. New perspectives on Roman Clothing Industry, *ORom*, 25-26, 2001, p. 7-17.

Dobbins 1994 : J.J. Dobbins, Problems of chronology, decoration and urban design in the Forum of Pompeii, *AJA*, 98, 4, 1994, p. 629-694.

Drexhage – Konen – Ruffing 2002 : H.-J. Drexhage, H. Konen, K. Ruffing, *Die Wirtschaft des römischen Reiches (1.-3. Jahrhundert). Eine Einführung*. Berlin, 2002.

Drilhon – Pernot 1989 : F. Drilhon, M. Pernot, Étude de quelques pièces de vaisselle gallo-romaine en bronze, *in* : *Bronzes antiques de Paris*, p. 450-453.

Dubos 1989 : J. Dubos, Le travail du bronze à l'époque gallo-romaine, *in* : *Bronzes antiques de Paris*, p. 431-434.

Dunbabin 1999 : K.M.D. Dunbabin, *Mosaics of the Greek and Roman world*. Cambridge, 1999.

Ehrhardt 2005 : W. Ehrhardt, *Casa delle Nozze d'Argento, (V 2, i)*. Berlin, 2005 (*Häuser in Pompeji*, 12).

Eichholz 1965 : D. E. Eichholz, *Theophrastus de Lapidibus. Edited with introduction, translation and commentary*. Oxford, 1965.

Elia 1961 : O. Elia, Il portico dei Triclini del Pagus Maritimus di Pompei, *BA*, 46, 1961, p. 200-211.

Epigrafia della produzione e della distribuzione 1994 : *Epigrafia della produzione e della distribuzione, Actes de la VII^e^ Rencontre franco-italienne sur l'épigraphie du monde romain, Rome 5 - 6 juin 1992*. Rome, 1994 (*Collection de l'École française de Rome*, 193).

Eschebach 1979 : H. Eschebach, *Die Stabianer Thermen in Pompeji*. Berlin, 1979 (*Denkmäler antiker Architektur*, 13).

Esposito 1999 : D. Esposito, La Bottega dei Vettii: vecchi dati e nuove acquisizioni, *RSP*, 10, 1999, p. 23-62.

Esposito 2004 : D. Esposito, Un curioso esempio di II Stile nella Casa di C. Iulius Polybius, *RSP*, 15, 2004, p. 51-62.

Esposito 2006 : D. Esposito, Appunti per lo studio della pittura di Ercolano, *CErc*, 36, 2006, p. 247-255.

Esposito 2007 : D. Esposito, I Pittori della Casa dei Vettii a Pompei. Considerazioni sui meccanismi di produzione della pittura parietale romana, *BABesch*, 82, 2007, p. 159-174.

Esposito 2009 : D. Esposito, *Le officine pittoriche di IV Stile a Pompei. Dinamiche produttive ed economico sociali*. Roma, 2009 (*Studi della Soprintendenza Archeologica di Pompei*, 28).

Esposito 2010 : D. Esposito, Disegno e creazione delle immagini nella pittura romana, *in* : *Atti del X Congresso Internazionale dell'AIPMA (Association Internationale pour la peinture murale antique), Napoli, 17-21 settembre 2007* (I. Bragantini cur.). Napoli, 2010 (*Annali di Archeologia e Storia Antica - Quaderni*, 18, 1), p. 215-226.

Evans 1998 : J.D. Evans, Recent research in Roman Crafts (1985-1995), *CW*, 91, 4, 1997-1998, p. 235-272.

Faedo 1976 : L. Faedo, Un ritratto su vetro da Pompei, *Prospettiva*, 7, 1976, p. 42-44.

Falzone 1999 : S. Falzone, Alcune riflessioni sulla decorazione della Casa di Diana, *MNIR*, 58, 1999, p. 149-163.

Falzone 2004 : S. Falzone, *Le pitture delle Insulae (180-250 circa d.C.)*. Roma, 2004 (*Scavi di Ostia*, 14).

Falzone 2007 : S. Falzone, Ornata aedificia*: pitture parietali dalle case Ostiensi*. Roma, 2007.

Fèbvre 1935 : L. Fèbvre, Réflexions sur l'histoire des techniques, *AHE*, t. 7, n°36, 1935, p. 531-535.

Fellmann 1999 : R. Fellmann, Das Zink-Täfelchen vom Thormebodewald auf der Engehalbinsel bei Bern und seine keltische Inschrift, *Archäologie im Kanton Bern*, 4B, 1999, p. 133-175.

Ferdière 1984 : A. Ferdière, Le travail du textile en région Centre de l'Âge du Fer au Haut Moyen-Âge, *RACF*, 23, 2, 1984, p. 209-275

Ferdière 1999 : A. Ferdière, L'artisanat gallo-romain entre ville et campagne. Histoire et archéologie. Position historique du problème, méthodologie, historiographie, *in* : *Polfer 1999*, p. 9-24.

Ferdière 2001 : A. Ferdière, La « distance critique » : artisans et artisanat dans l'Antiquité romaine et en particulier en Gaule, *Les petits cahiers d'Anatole*, 1, 2001, 31 p. (http://citeres.univ-tours.fr/doc/lat/pecada/F2_1.pdf)

Ferdière 2005 : A. Ferdière, L'artisanat en Gaule romaine, *in* : *Société française d'étude de la céramique antique en Gaule. Actes du congrès de Blois (5-8 mai 2005)* (L. Rivet éd.). Marseille, 2005, p. 7-14.

Ferrua 1957 : A. Ferrua, Alcune iscrizioni romane con dati topografici, *in* : *Studi in onore di Aristide Calderini e Roberto Paribeni* (3 vol.). Milano, 1956-1957, p. 607-619.

Feugère – Forest – Prévot 2008 : M. Feugère, V. Forest, Ph. Prévot, Une grille d'analyse pour décrire et comparer des ateliers de tabletiers ?, *in* : *Bertrand 2008a*, p. 25-33.

Feugère – Gérold 2004 : *Le tournage des origines à l'an Mil* (M. Feugère, J.-C. Gérold, dir.). Montagnac, 2004, (*Monographies* Instrumentum, 27).

Fikhmann 1994 : I.F. Fikhmann, Sur quelques aspects socio-économiques de l'activité des corporations professionnelles de l'Égypte byzantine, *ZPE*, 104, 1994, p. 19-40.

Fincker 1998 : M. Fincker, Le choix du matériau dans l'architecture gallo-romaine : à propos des édifices de spectacle, *in* : *Harmony in stone: shaping, building, and decoration techniques through history*. *International archeological symposium, Pola, 27-30 november 1996*. Pola, 1998 (Histria antiqua, 3), p. 29-36.

Finley 1977 : M.I. Finley, The ancient city. From Fustel de Coulanges to Max Weber and beyond, *CSSH*, 19, 1977, p. 305-327.

Flohr 2005 : M. Flohr, Ars Fullonia. Interpreting and Contextualising Roman Fulling, *in* : *SOMA 2003. Symposium On Mediterranean Archaeology* (C. Briault, J. Green, A. Kaldelis, A. Stellatou eds.). London, 2005, p. 59-63.

Flohr 2006 : M. Flohr, Organizing the Workshop. Water Management in Roman Fullonicae, *in* : Cura Aquarum *in Ephesus. Proceedings of the 12th International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region, Ephesus/Selçuk, October 2-10, 2004* (G. Wiplinger ed.). Leuven, 2006, p. 193-200 (*BABesch supplement*, 12).

Flohr 2007 : M. Flohr, *Nec quicquam ingenuum habere potest officina*? Spatial contexts of urban production at Pompeii, AD 79, *BABesch*, 82, 1, 2007, p. 129-148.

Flohr 2008 : M. Flohr, Cleaning the laundries II. Report of the 2007 campaign, *FOLD&R*, 111, 2008 (www.fastionline.it).

Flohr 2009 : M. Flohr, The social world of Roman *fullonicae*, *in*: *TRAC 2008. Proceedings of the Eighteenth Annual Theoretical Roman Archaeology Conference* (J. Hendriks ed.). Oxford, 2009, p. 173-186.

Flohr 2010 : M. Flohr, *The World of the* fullo. *Work, economy, and society in Roman Italy*, Unpublished Dissertation, Faculty of Arts, Radboud University. Nijmegen, 2010.

Flohr in press : M. Flohr, Reconsidering the *atrium* house: domestic *fullonicae* at Pompeii, *in* : *Art, industry and infrastructure in Roman Pompeii* (E. Poehler, M. Flohr, K. Cole, eds.). Oxford, in press.

Flohr – Wilson in press : M. Flohr, A. Wilson, The economy of ordure, *in* : *Handbook of ancient toilets* (G. Jansen, A. Koloski-Ostrow, E. Moormann, eds.), Leuven, in press.

Fontaine – Satre – Tekki sous presse : *La ville au quotidien. Regards croisés sur l'habitat et l'artisanat (Afrique du Nord, Gaule et Italie)* (S. Fontaine, S. Satre, A. Tekki, dir.). Aix-en-Provence, sous presse.

Forbes 1956 : R. Forbes, *Studies in Ancient Technology* (8 vol.). Leiden, 1955-1964.

Formigli 1999 : *I grandi bronzi antichi* (E. Formigli cur.). Siena, 1999.

Frank 1938 : T. Frank, A new advertisement at Pompeii, *AJPh*, 59, p. 224-225.

Frasca 1994 : R. Frasca, *Mestieri e professioni a Roma: una storia dell'educazione*. Firenze, 1994 (*Educatori antichi e moderni*, 512).

Frasca 1996 : R. Frasca, *Educazione e formazione a Roma: storia, testi, immagini*. Bari, 1996 (*Storia e civiltà*).

Freu sous presse : Chr. Freu, L'identité sociale des membres des collèges professionnels égyptiens, *in* : Collegia*, Les associations dans l'Occident romain,* (M. Dondin-Payre, N. Tran, dir.). Bordeaux, sous presse.

Fröhlich 2010 : T. Fröhlich, Le pitture del Colombario di C. Scribonius Menophilus a Roma, *in* : *Vesuviana Archeologie a confronto, Atti del convegno internazionale (Bologna 14-16 gennaio 2008)* (A. Coralini cur.). Bologna, 2010, p. 381-402.

Fuchs 1957 : G. Fuchs, *Fragmenta Saeptorum*, *MDAI(R)*, 64, 1957, p. 154-197.

Fulford – Wallace-Hadrill 1998 : M. Fulford, A. Wallace-Hadrill, Unpeeling Pompeii, *Antiquity*, 72, 275, 1998, p. 128-145.

Gabriel 1952 : M.M. Gabriel, *Masters of Campanian Painting*. New York, 1952.

Garçon 1997 : A.-F. Garçon, L'innovation au regard du complexe technique minéro-métallurgique armoricain, *Annales de Bretagne et des Pays de l'Ouest*, 104, 3, 1997, p. 23-38.

Garçon *et al.* 2006 : *Vents et fours en paléométallurgie du fer. Du minerai à l'objet* (A.-F. Garçon, dir.). Rennes, 2006 (http://halshs.archives-ouvertes.fr).

Gavoille 2003 : É. Gavoille, « Ars » et τέχνη : étude sémantique comparée, *in* : « Ars et ratio » *: sciences, art et métiers dans la philosophie hellénistique et romaine* (C. Lévy, B. Besnier, A. Gigandet, éd.). Bruxelles, 2003 (*Collection* Latomus, 273), p. 49-60.

Gille 1978 : B. Gille, Prolégomènes à une histoire des techniques, *in* : *Histoire des techniques. Technique et civilisation. Technique et science* (B. Gille, dir.). Paris, 1978 (*Encyclopédie de la Pléiade*, 41), p. 1-118.

Gille 1979 : B. Gille, La notion de « système technique » (essai d'épistémologie technique), *Culture et Technique*, 1, 1979, p. 8-18.

Ginouvès 1992 : *Dictionnaire méthodique de l'architecture grecque et romaine, 2 : Éléments constructifs : supports, couvertures, aménagements intérieurs* (R. Ginouvès, dir.). Rome, 1992 (*Collection de l'École française de Rome*, 84, 2).

Ginouvès – Martin 1985 : *Dictionnaire méthodique de l'architecture grecque et romaine*, 1 : *Matériaux, techniques de construction, techniques et formes du décor* (R. Ginouvès, R. Martin, dir.). Rome, 1985 (*Collection de l'École française de Rome*, 84, 1).

Giuliani 1998 : C.F. Giuliani, *L'edilizia nell'antichità* (2ª ed.). Roma, 1998 (*Studi Superiori*, NIS, 92).

Gorgues 2010 : A. Gorgues, *Économie et société dans le nord-est du domaine ibérique (IIIe - Ier s. av. J. C.)*. Madrid, 2010 (*Anejos de AEA*, 52).

Greene 1990 : K. Greene, Perspectives on Roman technology, *OJA*, 9, 2, 1990, p. 209-219.

Gros 1994 : P. Gros, *Munus non ingratum* : le traité vitruvien et la notion de service, *in* : *Le projet de Vitruve : objets, destinataires et réception du De architectura, Actes du colloque international organisé par l'École française de Rome, l'Institut de recherche sur l'architecture antique du CNRS et la Scuola normale de Pise (Rome, 26-27 mars 1993)*. Rome, 1994 (*Collection de l'École française de Rome*, 192), p. 75- 90.

Gros 2003 : P. Gros, L'*opus signinum* selon Vitruve et dans la terminologie archéologique contemporaine, *in* : *Vitruvio nella cultura architettonica antica, medievale e moderna. Atti del convegno (Genova, 5-8 nov. 2001)* (G. Ciotta cur. ; vol. 1). Genova, 2003 (Athenaeum), p. 142-152.

Gros 2008 : P. Gros, *La Gaule Narbonnaise. De la conquête romaine au IIIe siècle apr. J.-C.* Paris, 2008.

Guadagno 1978 : G. Guadagno, Supplemento epigrafico ercolanese, *CErc*, 8, 1978, p. 132-155.

Guadagno 1995 : G. Guadagno, Documenti epigrafici ercolanesi relativi ad un terremoto, *in* : *Archäologie und Seismologie 1995*, p. 119-128.

Guéguen – Palciauskas 1992 : Y. Guégen, V. Palciauskas, *Introduction à la physique des roches*. Paris, 1992.

Guidobaldi – Esposito 2009 : M.P. Guidobaldi, D. Esposito, Le nuove ricerche archeologiche nella Villa dei Papiri di Ercolano, *CErc*, 39, 2009, p. 333-372.

Guidobaldi – Esposito – Formisano 2009 : M.P. Guidobaldi, D. Esposito, E. Formisano, L'Insula I, l'Insula nord-occidentale e la Villa dei Papiri di Ercolano: una sintesi delle conoscenze alla luce delle recenti indagini archeologiche, *Vesuviana*, 1, 2009, p. 43-180.

Guzzo – Guidobaldi 2008 : *Nuove ricerche archeologiche nell'area vesuviana (scavi 2003-2006). Atti del convegno internazionale, Roma 1-3 febbraio 2007* (P.G. Guzzo, M.P. Guidobaldi, cur.). Roma, 2008 (*Studi della Soprintendenza Archeologica di Pompei*, 25).

Halleux – Schamp 1985 : R. Halleux, J. Schamp, *Les lapidaires grecs*. Paris, 1985 (*Collection des Universités de France*).

Inscribed economy 1993 : *The inscribed economy. Production and distribution in the Roman Empire in the light of* instrumentum domesticum (W. V. Harris ed.). Ann Arbor, 1993 (*JRA supplementary serie*, 6).

Haselberger 1994 : L. Haselberger, Ein Giebelriss der Vorhalle des Pantheon. Die Werkrisse vor dem Augustusmausoleum, *MDAI(R)*, 101, 1994, p. 279-308.

Haudricourt 1987 [1971] : A.-G. Haudricourt, Recherche et méthode. Un dialogue avec Mariel Jean-Brunhes Delamarre, *in* : A.-G. Haudricourt, *La technologie science humaine. Recherches d'histoire et d'ethnologie des techniques*. Paris, 1987, p. 307-319.

Helly 2000 : B. Helly, Histoire des séismes ou histoire des hommes ? Les tâches de l'historien, *in* : *Histoire et mémoire des risques naturels. Actes du séminaire Musée Dauphinois de Grenoble, 25-26 novembre 1999* (R. Favier, A.-M. Granet-Abisset, dir.). Grenoble, 2000, p. 85-116.

Henrotay 2006a : D. Henrotay, Arlon/Arlon : une foulerie-teinturerie gallo-romaine au bord de la Semois, *Chronique de l'archéologie wallonne*, 13, 2006, p. 202-205.

Henrotay 2006b : D. Henrotay, Un atelier de foulons et de teinturiers à Arlon, *DossAParis*, 315, 2006, p. 108-111.

Herrmann 1958 : J. Herrmann, Vertragsinhalt und Rechtsnatur der ΔΙΔΑΣΚΑΛΙΚΑΙ, *JJP*, 11/12, 1958, p. 119-139.

Homo Faber 1999 : Homo faber*: natura, scienza e tecnica nell'antica Pompei (Napoli, Mostra, Museo Archeologico Nazionale, 27/3 - 18/7/1999)* (A.M. Ciarallo, E. De Carolis, cur.). Milano, 1999.

Jacobelli 1991 : L. Jacobelli, Le pitture e gli stucchi delle terme suburbane di Pompei, *KJ*, 24, 1991, p. 147-152.

Jacobelli 1995 : L. Jacobelli, Vicende edilizie ed interventi pittorici nelle terme suburbane a Pompei, *MNIR*, 54, 1995, p. 154-166.

Jahn 1861 : O. Jahn, Ueber Darstellung antiker Reliefs, welche sich auf Handwerk und Handelsverkehr beziehen, *Berichte über die Verhandlungen der Sächsischen Akademie der Wissenschaft zu Leipzig*, 13, 1861, p. 291-374.

Jashemski 1973 : W.F. Jashemski, The Discovery of a Large Vineyard at Pompeii : University of Maryland Excavations, 1970, *AJA*, 77, 1973, p. 27-41.

Johannowsky 1986 : W. Johannowsky, *Terrae motus* : un'iscrizione nucerina relativa al restauro del teatro, *in* : *Tremblements de terre 1986*, p. 91-93.

Joncheray – Joncheray 2004 : A. Joncheray, J.-P. Joncheray, Épaves de tuiles romaines en Provence-Côte d'Azur, *CahASubaqua*, 15, 2004, p. 5-134.

Jongman 1988 : W. Jongman, *The Economy and Society of Pompeii*. Amsterdam, 1988 (*Dutch monographs on ancient history and archaeology*, 4).

Joshel 1992 : S.R. Joshel, *Work, identity and legal status at Rome: a study of the occupational inscriptions*. Norman – London, 1992 (*Oklahoma series in classical culture*, 11).

Jullian 1920 : C. Jullian, *Histoire de la Gaule. Vol. V. La civilisation gallo-romaine. État matériel*. Paris, 1920.

Kloft 2005 : H. Kloft, *Die Wirtschaft des* Imperium Romanum. Mainz am Rhein, 2006 (*Antike Welt*, *Sonderband*).

Kudlien 2002 : F. Kudlien, P. Patulcius L.f., Walker und Probulos um späthellenistischen Magnesia, *Laverna*, 13, 2002, p. 56-68.

Labarre – Le Dinahet 1996 : G. Labarre, M.-Th. Le Dinahet, Les métiers du textile en Asie Mineure de l'époque hellénistique à l'époque impériale, *in* : *Aspects de l'artisanat du textile dans le monde méditerranéen (Égypte, Grèce, monde romain*). Lyon, 1996 (*Collection de l'Institut d'archéologie et d'histoire de l'Antiquité, Université Lumière – Lyon-2*, 2), p. 49-117.

Laes 2008 : Chr. Laes, Child Slave at Work in Roman Antiquity, *AncSoc*, 38, 2008, p. 235-283.

Lancaster 2005 : L.C. Lancaster, *Concrete Vaulted Construction in Imperial Rome: Innovations in Context*. Cambridge, 2005.

Langner 2001 : M. Langner, Szenen aus Handwerk und Handel auf gallo-römischen Grabmälern, *JDAI*, 116, 2001, p. 299-356.

Lassère 2005 : J.-M. Lassère, *Manuel d'épigraphie romaine*. Paris, 2005 (*Antiquité – Synthèses*, 8).

Laubry 2009 : N. Laubry, *Tombeaux et épitaphes de Lyonnaise. Contribution à l'étude de la romanisation des pratiques funéraires dans les provinces gauloises sous le Haut Empire*, Thèse de l'Université Jean-Moulin – Lyon-3. Lyon, 2009.

Laurence 2007 : R. Laurence, *Roman Pompeii. Space and Society* (2nd ed.). London, 2007.

Lawton 2004 : B. Lawton, *Various and Ingenious Machines. Power Generation and Transport – Volume One*. Leiden, 2004 (*Technology and Change in History*, 6).

Leach 2004 : E. W. Leach, *The Social Life of Painting in ancient Rome and on the Bay of Naples*. Cambridge, 2004.

Legendre 1996 : N. Legendre, Technique de formage des chaudrons gallo-romains en alliage cuivreux : les découvertes d'Alspach (Haut-Rhin) et d'Hettange-Grande (Moselle), *RAE*, 47, 1996, p. 67-77.

Leroi-Gourhan 1970 : A. Leroi-Gourhan, *Le geste et la parole* (2 vol.). Paris, 1970 (*Science d'aujourd'hui*).

Leroi-Gourhan 1971 : A. Leroi-Gourhan, *L'homme et la matière* (2e éd.). Paris, 1971 (*Science d'aujourd'hui*).

Lewis 1997 : N. Lewis, *The Compulsory public services of Roman Egypt* (2a ed.). Firenze, 1997 (Papyrologica florentina, 28).

Ling 1997 : R. Ling, *The Insula of the Menander at Pompeii. Vol. 1: the structures*. Oxford, 1997.

Liu 2009 : J. Liu, *"Collegia Centonariorum": The Guilds of Textile Dealers in the Roman West*. Leiden – Boston, 2009 (*Columbia studies in the classical tradition*, 34).

Lo Cascio 2006 : *Innovazione tecnica e progresso economico nel mondo romano: atti degli incontri capresi di storia dell'economia antica (Capri 13-16 aprile 2003)* (E. Lo Cascio cur.). Bari, 2006 (Pragmateiai).

Loane 1938 : H. J. Loane, *Industry and commerce of the city of Rome (50 B. C.-200 A. D.)*. Baltimore, 1938 (*The John Hopkins University studies in historical and political science*, 56/2).

Lugli 1957 : G. Lugli, *La tecnica edilizia romana con particolare riguardo a Roma e Lazio* (2 vol.). Roma, 1957.

Magalhaes 2006 : M.M. Magalhaes, *Stabiae romana. La prosopografia e la documentazione epigrafica. Iscrizioni lapidarie e bronzee, bolli laterizi e sigilli*. Castellammare di Stabia, 2006.

Maiuri 1938 : A. Maiuri, Note su di un nuovo dipinto ercolanese, *BA*, 11, 1938, p. 481-489.

Maiuri 1940 : A. Maiuri, *Picturae ligneis formis inclusae*, *RAL*, 7, 1940, p. 138-160.

Maiuri 1942 : A. Maiuri, *L'ultima fase edilizia di Pompei*. Spoleto, 1942 (*Campania romana*, 2 ; Ristampa anastatica. Napoli, 2002).

Maiuri 1961 : A. Maiuri, A proposito di una recente scoperta pompeiana, *RAAN*, 36, 1961, p. 151-153.

Malacrino 2010 : C.G. Malacrino, Il cantiere di costruzione della grande *porticus* semicircolare di Copia, *in* : *Arqueología de la construcción II*, p. 247-261.

Mannoni 2005 : T. Mannoni, Archeologia della produzione architettonica. Le tecniche costruttive, *Arqueología de la arquitectura*, 4, 2005, p. 11-19.

Mannoni – Boato 2002 : T. Mannoni, A. Boato, Archeologia e storia del cantiere di costruzione, *Arqueología de la arquitectura*, 1, 2002, p. 39-53.

Martin 1989 : S. Martin, *The Roman jurists and the organization of private building in the late Republic and early Empire*. Bruxelles, 1989 (*Collection* Latomus, 204).

Marrou 1948 : H.-I. Marrou, *Histoire de l'éducation dans l'Antiquité*. Paris, 1948 (*Collection Esprit*).

Mastroroberto 2002 : M. Mastroroberto, Una visita di Nerone a Pompei: le *deversoriae tabernae* di Moregine, *in* : *Pompei: le stanze dipinte* (P.G. Guzzo, M. Mastroroberto, cur.). Milano 2002, p. 33-87.

Mastroroberto 2003 : M. Mastroroberto, Una visita di Nerone a Pompei: le deversoriae tabernae di Moregine, *in* : *Storie da un'eruzione. Pompei, Ercolano, Oplontis* (A. d'Ambrosio, P. G. Guzzo, M. Mastroroberto, cur.). Milano, 2003, p. 479-523.

Mazois 1824 : F. Mazois, *Les ruines de Pompéi dessinées et mesurées par F. Mazois... 2e partie*. Paris, 1822-1824.

Meylan-Krause 2008 : M.-F. Meylan-Krause, L'artisanat romain : aux limites de l'archéologie, *RSAA*, 65, 1, 2008, p. 5-9.

Migliardi Zingale 2007 : L. Migliardi Zingale, Riflessioni in tema di apprendistato femminile e arte della tessitura: in margine a *P. Oxy*. LXVII, 4596, *Aegytpus*, 87, 2007, p. 199-208.

Minaud 2006 : G. Minaud, Des doigts pour le dire. Le comput digital et ses symboles dans l'iconographie romaine, *Histoire et mesure*, 21, 2006, p. 3-34.

Miniero 1999 : P. Miniero, L'architettura, 4. Produzione laterizia, *in* : *Barbet – Miniero 1999*, vol. 1, p. 63-71.

Mitis Sarni Opes 2000 : *Mitis Sarni Opes* (A. De Simone, S.C. Nappo, cur.). Napoli, 2000.

Moda a Pompei 2004 : *Moda, costume e bellezza a Pompei e dintorni. Antiquarium di Boscoreale, 12 marzo – 30 maggio 2004*. Pompei, 2004.

Moeller 1972 : W.O. Moeller, The Building of Eumachia: A Reconsideration, *AJA*, 76, 3, 1972, p. 323-327.

Moeller 1976 : W.O. Moeller, *The Wool Trade of Ancient Pompeii*. Leiden, 1976 (*Studies of the Dutch Archaeological and Historical Society*, 3).

Mols 1999a : S.T.A.M. Mols, *Wooden furniture in Herculaneum. Form, technique and function*. Amsterdam, 1999 (*Circumvesuviana*, 2).

Mols 1999b : S.T.A.M. Mols, Decorazione ed uso dello spazio ad Ostia. Il caso dell'Insula III x (Caseggiato del Serapide, Terme dei Sette Sapienti e Caseggiato degli Aurighi), *MNIR*, 58, 1999, p. 247-385.

Mols 2002 : S.T.A.M. Mols, Ricerche sulla pittura di Ostia. *Status quaestionis* e prospettive, *BABEsch*, 77, 2002, p. 151-174.

Monteix 2007 : N. Monteix, Du couteau au boucher : remarques préliminaires sur la préparation et le commerce de la viande à Pompéi, *Food & History*, 5, 1, 2007, p. 167-193.

Monteix 2010 : N. Monteix, L'*Insula Orientalis II*[a] d'Herculanum entre construction publique et transformations privées, *in* : *Arqueología de la construcción II*, p. 213-232.

Monteix *et al.* 2008 : N. Monteix, M. Pernot, A. Coutelas, La metallurgia del piombo fra archeometria ed approcci classici, *in* : *Guzzo – Guidobaldi 2008*, p. 439-447.

Monteix – Rosso 2008 : N. Monteix, E. Rosso, Pompéi : étude sur la métallurgie du plomb, *MEFRA*, 120, 1, 2008, p. 241-247.

Morel 1976 : J.-P. Morel, Aspects de l'artisanat dans la Grande-Grèce romaine, *in* : *La magna Grecia nell'età romana. Atti del XV° convegno di studi sulla Magna Grecia (Taranto, 5-10 Ottobre 1975)*. Napoli, 1976, p. 263-323.

Morel 1996 : J.-P. Morel, Élites municipales et manufacture en Italie, *in* : *Les élites municipales de l'Italie péninsulaire des Gracques à Néron* (M. Cébeillac-Gervasoni dir.). Naples – Rome, 1996 (*Collection du Centre Jean-Bérard*, 13 ; *Collection de l'École française de Rome*, 215), p. 181-198.

Morel *et al.* 2001 : J. Morel, C. Chevalley, D. Castella, La fabrication de grands bronzes à Aventicum : une fosse de coulée dans l'*insula* 12, *Pro Aventico*, 43, 2001, p. 141-162.

Mothes – Pernot 2008 : C. Mothes, M. Pernot, Étude technologique d'un échantillon de mobiliers issus des ateliers de travail des métaux et alliages non ferreux, *in* : *Rennes antique* (D. Pouille dir.). Rennes, 2008 (*Archéologie et culture*), p. 399-419.

Mouritsen 1988 : H. Mouritsen, *Elections, Magistrates and Municipal Elite. Studies in Pompeian Epigraphy*. Rome, 1988 (Analecta Romana Instituti Danici. Supplementum, 15).

Musco *et al.* 2008 : S. Musco, P. Catalano, A. Caspio, W. Pantano, K. Killgrove, Le complexe archéologique de Casal Bertone, *DossAParis*, 330, 2008, p. 32-39.

Nappo 2000 : S.C. Nappo, La *porticus triplex* e gli apparati decorativi, *in* : Mitis Sarni Opes *2000*, p. 79-117.

Nappo 2001 : S.C. Nappo, La decorazione dell'hospitium del Sulpici a Pompei, *MEFRA*, 113, 2, 2001, p. 838-895.

Negri 2007 : R. Negri, VI. Alla ricerca del "saper fare" degli antichi della Domus del Centenario, *in* : *Santoro 2007*, p. 129-136.

Nicolet 1996 : Cl. Nicolet, Introduction. Les littératures techniques dans le monde romain, in *Les littératures techniques dans l'antiquité romaine. Statut, public et destination, tradition* (Cl. Nicolet prés.). Genève – Vandœuvres, 1996 (*Entretiens sur l'Antiquité classique*, 42), p. 1-17.

Noblet 1981 : J. de Noblet, Manifeste pour le développement de la culture technique, *Culture et Technique*, 6, 4e trimestre 1981, p. 11-47.

Nowicka 1993 : M. Nowicka, *Le portrait dans la peinture antique*. Varsovie, 1993 (Bibliotheca Antiqua, 22).

Öhr 1991 : K. Öhr, *Die Basilika in Pompeji*. Berlin – New York, 1991 (*Denkmäler antiker Architektur*, 17).

Oleson 2008 : *The Oxford Handbook of engineering and technology in the Roman world* (J.P. Oleson ed.). New York, 2008.

Pagano 1986 : M. Pagano, L'edificio dell'agro Murecine a Pompei, *RAAN*, 58, 1986, p. 325-361.

Pagano 1990 : M. Pagano, *Tegulae campanae* ad Ercolano, *CronErc*, 20, 1990, p. 157-176.

Panei – Dell'Orso 2008 : L. Panei, M. Dell'Orso, I tufi delle mura Serviane. Origini e caratterizzazione chimico-mineralogica, *in* : *Archeologia a Roma Termini. Le Mura Serviane e l'area della stazione. Scoperte, distruzioni e restauri* (M. Barbera, M. Magnani Cianetti, cur.). Milano, 2008, p. 96-107.

Pappalardo 1987 : U. Pappalardo, Pitture rubate a Pompei: Regio I, Insula 3, n. 25, *RSP*, 1, 1987, p. 37-50.

Pappalardo 1991 : U. Pappalardo, Il ritratto romano dipinto, *in* : *Storia del Mezzogiorno. I.2 Il Mezzogiorno antico* (G. Galasso, G. Vallet, cur.). Napoli, 1991, p. 112-113.

Pappalardo 2008 : U. Pappalardo, Il ritratto romano dipinto, *Quaderni di studi pompeiani*, 1, 2007, p. 11-18.

Pavolini *et al.* 1993 : C. Pavolini, A. Carignani, F. Pacetti, G. Spinola, M. Vitti, La topografia antica della sommità del Celio. Gli scavi nell'Ospedale Militare (1987-1992), *MDAI(R)*, 100, 1993, p. 443-505.

Pearl 1985 : O.M. Pearl, Apprentice Contract, *BASP*, 22, 1985, p. 255-259.

Pernot 1994 : M. Pernot, Le bronze, ce n'est pas vert !, *BPeintRom*, 11, 1994, p. 149-161.

Pernot 1998 : M. Pernot, L'organisation de l'atelier du bronzier, *in* : *L'atelier du bronzier en Europe du XXe au VIIIe siècle avant notre ère, t. II, Du minerai au métal, du métal à l'objet*, (C. Mordant, M. Pernot, V. Rychner, éd.). Paris, 1998, p. 107-116.

Pernot 1999a : M. Pernot, Mise en forme et utilisation des alliages métalliques dans les cultures anciennes du monde occidental, *in* : *À la recherche du métal perdu. Les nouvelles technologies dans la restauration des métaux archéologiques* (H. Meyer-Roudet coord.). Paris – Guiry-en-Vexin, 1999, p. 31-38.

Pernot 1999b : M. Pernot, Les moules permanents en calcaire, *in* : *Chardron-Picault – Pernot 1999*, p. 169-176.

Pernot 2004 : M. Pernot, Des bronziers au travail dans leur atelier…, *in* : *L'artisanat métallurgique dans les sociétés anciennes en Méditerranée occidentale. Techniques, lieux et formes de production* (A. Lehoërff dir.). Rome, 2004 **(***Collection de l'École française de Rome*, 332), p. 171-191.

Pernot 2006 : M. Pernot, La place de la technique dans les sociétés anciennes, *Cahiers d'Épistémé*, 1, 2006, p. 7-25.

Pernot *et al.* 1993 : M. Pernot, J. Dubos, D. Lacoste, A. Le Fèvre-Lehöerff, Expérimentation sur la fonderie artisanale des alliages base cuivre, *RAE*, 44, 1993, p. 338-341.

Pernot *et al.* 2007 : M. Pernot, C. Sireix, F. Adamski, Première étude archéométrique des vestiges de l'atelier gallo-romain de production de grands bronzes du *Grand Hôtel de Bordeaux*, *in* : *La mesure du passé : contributions à la recherche en archéométrie (2000-2006)* (A. Bain, J. Chabot, M. Mousette, eds). Oxford, 2007 (*British Archaeological Reports – International Series*, 1700), p. 119-127.

Pernot *et al.* sous presse : M. Pernot, F. Adamski, C. Sireix, Un atelier de production de grands bronzes au Ier siècle à *Burdigala*, *in* : *Fontaine – Satre – Tekki sous presse*.

Pesando 2002 : F. Pesando, L'ultima fase edilizia di Pompei, sessanta anni dopo, *in* : *Maiuri 1942* (Ristampa anastatica 2002), p. IX-XLI.

Pesando – Guidobaldi 2006 : F. Pesando, M.P. Guidobaldi, *Pompei, Oplontis, Ercolano, Stabiae*. Bari, 2006 (*Guide archeologiche Laterza*).

Peters 1993: W.J.Th. Peters, *La casa di Marcus Lucretius Fronto a Pompei e le sue pitture*. Amsterdam, 1993 (Scrinium, 5).

Petersen 2006 : L.H. Petersen, *The freedman in Roman art and history*. Cambridge, 2006.

Pietrogrande 1976 : A. Pietrogrande, *Le Fulloniche*. Roma, 1976 (*Scavi di Ostia*, 8).

Pittura di un Impero 2009 : *Roma. La pittura di un impero* (E. La Rocca, S. Ensoli, S. Tortorella, M. Papini, cur.). Milano 2009.

Polfer 1999 : *Artisanat et productions artisanales en milieu rural dans les provinces du nord-ouest de l'empire romain. Actes du colloque, Erpeldange (Luxembourg) les 4 et 5 mars 1999* (M. Polfer dir.). Montagnac, 1999 (*Monographies* Instrumentum, 9).

Polfer 2001 : *L'artisanat romain: évolutions, continuités et ruptures (Italie et provinces occidentales). Actes du 2e colloque d'Erpeldange, 26-28 octobre 2001* (M. Polfer dir.). Montagnac, 2001 (*Monographies* Instrumentum, 20).

Pozzuoli 2008 : *Museo archeologico dei Campi Flegrei. Catalogo generale 2. Pozzuoli* (F. Zevi, F. Demma, E. Nuzzo, C. Rescigno, C. Valeri, cur.). Napoli, 2008.

Prévot 2005 : Ph. Prévot, Les éléments de charnières en os et la question de l'excentration des goupilles, Instrumentum. *Bulletin du Groupe de travail européen sur l'artisanat et les productions manufacturées dans l'Antiquité*, 22, décembre 2005, p. 19-21.

Purpureae vestes I : Purpureae vestes. *Actes del I symposium Internacional sobre Textiles y Tintes del Mediterráneo en época romana* (C. Alfaro, J.P. Wild, B. Costa, eds.). València, 2004.

Purpureae vestes II : Purpureae vestes. *Textiles and dyes in Antiquity. II. Vestidos, textiles y tintes: Estudios sobre la producción de bienes de consumo en la Antiguedäd: actas des II Symposium internacional sobre textiles y tintes del Mediterraneo en el mundo antiguo* (C. Alfaro, L. Karali, eds.). València, 2008.

Quatremère de Quincy 1825 : A.-C. Quatremère de Quincy, *Encyclopédie méthodique. Architecture*, tome 3. Paris, 1825.

Rathbone 2001 : D. Rathbone, *PSI* XI 1183: Record of a Roman Census Declaration of A.D. 47/8, *in* : *Essays and Texts in Honor of J. David Thomas* (T. Gagos, R. S. Bagnall, eds.). Exeter, 2001 (*American Studies in Papyrology*, 42), p. 99-113.

Rea 2004 : *L'ipogeo di Trebio Giusto sulla Via Latina : scavi e restauri* (R. Rea, cur.). Città del Vaticano, 2004 (*Scavi e restauri pubblicati a cura della Pontificia commissione di archeologia sacra*, 5).

Reil 1913 : Th. Reil, *Beiträge zur Kenntis des Gewerbes im hellenistischen Ägypten*. Leipzig, 1913.

Richardson 1955 : L. Richardson, *The Casa dei Dioscuri and Its Painters*. Roma, 1955 (*MAAR*, 23).

Richardson 2000 : L. Richardson, *A Catalogue of Identifiable Figure Painters of Ancient Pompeii, Herculaneum, and Stabiae*. Baltimore – London, 2000.

Robaye 1991 : R. Robaye, Le foulon et le bijoutier à Rome : les risques du métier, *RBPH*, 69, 1, 1991, p. 131-136.

Rodgers 2004 : R.H. Rodgers, *Frontinus*. De aquaeductu urbis Romae*: edited with introduction and commentaries*. Cambridge, 2004 (*Cambridge classical texts and commentaries*, 42).

Rolley [2003a] : C. Rolley, Analyse stylistique d'Éros, *in* : *Mystère des bronzes antiques. Catalogue d'exposition du 6 juin au 31 décembre 2003, Musée de l'Éphèbe*. Le Cap d'Agde [s.d.], p. 28-29.

Rolley [2003b] : C. Rolley, Cupidon, Analyse stylistique de l'Enfant romain, *in* : *Mystère des bronzes antiques. Catalogue d'exposition du 6 juin au 31 décembre 2003, Musée de l'Éphèbe*. Le Cap d'Agde [s.d.], p. 56-59.

Romizzi 2006a : L. Romizzi, *Programmi decorativi di III e IV Stile a Pompei. Un'analisi sociologica e iconologica*. Napoli, 2006.

Romizzi 2006b : L. Romizzi, La Casa dei Dioscuri di Pompei (VI 9, 6.7): una nuova lettura, *in* : *Contributi di archeologia vesuviana II*. Roma, 2006 (*Studi della Soprintendenza Archeologica di Pompei*, 18), p. 77-160.

Romizzi 2007 : L. Romizzi, Evergetismo pubblico e magnificenza privata nella Pompei neroniano-flavia: un percorso per immagini, *Ostraka*, 15, 2006, p. 97-131.

Rossiter – Haldenby 1989 : J.J. Rossiter, E. Haldenby, A wine-making plant in Pompeii insula II.5, *EMC*, 33, n.s. 8, 1989, p. 229-239.

Rostovtseff 1988 : M. Rostovtseff, *Histoire économique et sociale de l'Empire romain*. Paris, 1988 [trad. fr. de M. Rostovtzeff, *The Social and Economic history of the Roman Empire*, 2nd ed. (2 vol.). Oxford, 1957].

Rostovtseff 2003 : M.I. Rostovtseff, *La peinture décorative antique en Russie méridionale, Saint-Pétersbourg 1913-1914*. Paris, 2003 (*Mémoires de l'Académie des Inscriptions et Belles-Lettres*, n.s. 28).

Ruffing 2008 : K. Ruffing, *Die berufliche Spezialisierung in Handel und Handwerk. Untersuchungen zu ihrer Entwicklung und zur ihren Bedingungen in der römischen Kaiserzeit im östlichen Mittelmeerraum auf der Grundlage griechischer Inschriften und* Papyri (2 vol.). Rahden, 2008.

Saliou à paraître : C. Saliou, Le déroulement du chantier à Rome et dans le monde romain durant la période républicaine et le Haut Empire : une approche juridique, *in* : *Arqueología de la construcción III. Los procesos constructivos en Italia y en las provincias romanas : la economía de las obras (École Normale Supérieure, 11-12 diciembre 2009)* (S. Camporeale, H. Dessales, A. Pizzo eds.). Madrid, à paraître, (*Anejos de AEA*).

Salvaterra 2006 : C. Salvaterra, Labour and Identity in the Roman World. Italian Historiography during the Last Two Decades, *in* : *Professions and Social Identity. New European Historical Research on Work, Gender and Society* (B. Waaldijk ed.). Pisa, 2006, p. 15-38.

Sampaolo 1992: V. Sampaolo, La decorazione pittorica*, in* : *Alla ricerca di Iside. Analisi studi e restauri dell'Iseo pompeiano nel Museo di Napoli*. Napoli 1992, p. 23-39.

Sampaolo 1994 : V. Sampaolo, I decoratori del Tempio di Iside, *PP*, 49, 1994, p. 57-82.

Sampaolo 1995 : V. Sampaolo, I decoratori del tempio di Iside a Pompei, *MNIR*, 54, 1995, p. 200-213.

San Nicolò 1913-1915 : M. San Nicolò, *Ägyptisches Vereinwesen zur Zeit der Ptolemäer und Römer,* (2 vol.). München, 1913-1915 (*Münchener Beiträge zur Papyrusforschung und antiken Rechtsgeschichte*, 2) [Nachdr. 1972].

Sannibale 1999 : M. Sannibale, Le colonne in bronzo dorato di San Giovanni in Laterano: osservazioni sulle tecniche antiche e sugli interventi rinascimentali, *in* : *Formigli 1999*, p. 275-298.

Santoro 2004a : *Artigianato e produzione nella Cisalpina, 1. Proposte di metodo e prime applicazioni*, 2ª ed. rivista (S. Santoro, cur.). Firenze, 2004 (Flos Italiae - *Documenti di archeologia della Cisalpina Romana*, 3).

Santoro 2004b : S. Santoro, Artigianato e produzione nella Cisalpina romana. Proposte di metodo e prime applicazioni, *in* : *Santoro 2004a*, p. 19-69.

Santoro 2007 : *Pompei. Insula del centenario (IX, 8). I. Indagini diagnostiche geofisiche e analisi archeometriche* (S. Santoro cur.). Bologna, 2007 (*Studi e scavi*, n.s. 16).

Sassi 2007 : B. Sassi, Le tecniche edilizie nell'Insula dell centenario: il problema archeologico, *in* : *Santoro 2007*, p. 129-136.

Schneider 2007 : H. Schneider, Technology, in : *The Cambridge Economic History of the Greco-Roman World* (W. Scheidel, I. Morris, R.P. Saller eds.). Cambridge, 2007, p. 144-171.

Settis 2006 : S. Settis, Il papiro di Artemidoro: un libro di bottega e la storia dell'arte antica, *in* : *Le tre vite del papiro di Artemidoro. Voci e sguardi dall'Egitto greco Romano* (C. Gallazzi, S. Settis, cur.). Torino, 2006. p. 20-65.

Shepherd 2007 : J. Shepherd, Considerazioni sulla tipologia e diffusione dei laterizi da copertura nell'Italia tardo-repubblicana, *BCAR*, 108, 2007, p. 55-88.

Shinn 1998 : T. Shinn, L'effet pervers des commémorations en sciences, *in* : *La Mise en mémoire de la science. Pour une ethnographie historique des rites commémoratifs* (P.G. Abir-Am dir.). Amsterdam [Paris] (*Histoire des sciences, des techniques et de la médecine*), 1998, p. 225-247.

Stefani – di Maio 2003 : G. Stefani, G. di Maio, Considerazioni sulla linea di costa del 79 d.C. e sul porto dell'antica Pompei, *RSP*, 14, 2003, p. 141-195.

Steinby 1979 : E.M. Steinby, La produzione laterizia, *in* : *Pompei 79. raccolta di studi per il decimonono centenario dell'eruzione vesuviana* (F. Zevi cur.). Napoli, 1979, p. 265-271.

Strocka 1984 : V.M. Strocka, Ein missverstandener Terminus des vierten Stils: die Casa del Sacello iliaco in Pompeji (I,6,4), *MDAI(R)*, 91, 1984, p. 125-140.

Strocka 1991 : V.M. Strocka, *Casa del Labirinto (VI 11, 8–10)*. München, 1991 (*Häuser in Pompeji*, 4).

Strong – Brown 1976 : *Roman crafts* (D. Strong, D. Brown, eds.). London, 1976.

Swiderek 1957 : A. Swiderek, Deux papyrus de la Sorbonne relatifs à des travaux effectués dans des temples de l'Heracléopolite, *JJP*, 11, 1957, p. 59-91.

Tassinari 1993 : S. Tassinari, *Il vasellame bronzeo di Pompei*. Roma, 1993 (*Cataloghi della Soprintendenza Archeologica di Pompei*, 5).

Temin 2006 : P. Temin, Estimating GDP in the Early Roman Empire, *in* : *Lo Cascio 2006*, p. 31-54.

Thébert 2000 : Y. Thébert, Transport à grande distance et magasinage de briques dans l'Empire romain : quelques remarques sur les relations entre production et consommation, *in* : *Boucheron – Broise –Thébert 1997*, p. 341-356.

Thomas 2009 : N. Thomas, *Les ateliers urbains de travail du cuivre et de ses alliages au bas Moyen Âge : archéologie et histoire d'un site parisien du XIVe siècle dans la Villeneuve du Temple (1325-1350)*, Thèse de l'Université Paris-I. Paris, 2009.

Thompson 1979 : D.L. Thompson, Painted Portraiture at Pompeii, *in* : *Pompeii and the Vesuvian Landscape*. Washington, 1979, p. 78-85.

Tomlin 1988 : R. Tomlin, The Curse Tablets, *in*: *The Temple of Sulis Minerva at Bath. The Finds from the Sacred Spring* (B. Cunliffe ed.). Oxford, 1988, p. 59-277.

Toner 2009 : J. Toner, *Popular Culture in Ancient Rome*. Cambridge, 2009.

Torelli 1980 : M. Torelli, Innovazioni nelle tecniche edilizie romane tra il I sec. a.C. e il I sec. d.C., *in* : *Tecnologia, economia e società nel mondo romano. Atti del convegno (Como, 27-29 sett. 1979)*. Como, p. 139-162.

Tran 2006 : N. Tran, *Les membres des associations romaines. Le rang social des* collegiati *en Italie et en Gaules sous le Haut-Empire*. Rome, 2006 (*Collection de l'École française de Rome*, 367).

Tran 2007 : N. Tran, Le « procès des foulons » : l'occupation litigieuse d'un espace vicinal par des artisans romains, *MEFRA*, 119, 2, 2007, p. 597-611.

Tran Tam Tinh 1972 : V. Tran Tam Tinh, *Le culte des divinités orientales en Campanie*. Leiden, 1972 (*Études préliminaires aux religions orientales dans l'Empire Romain*, 27).

Tremblements de terre 1986 : *Tremblements de terre, éruptions volcaniques et vie des hommes dans la Campanie antique* (Cl. Albore-Livadie dir.). Naples, 1986 (*Collection du Centre Jean-Bérard*, 7).

Tybout 2001 : R.A. Tybout. Roman wall-painting and social significance, *JRA*, 14, 2001, p. 33-56.

Uffler 1971 : A.M. Uffler, Fresquistes gallo-romains : le bas-relief du Musée de Sens, *RAE*, 22, 1971, p. 393-401.

Van Deman 1912 : E. Van Deman, Methods of determining the date of Roman concrete monuments, *AJA*, 16, 1912, p. 230-251, 387-432.

Van Deman 1934 : E. Van Deman, *The buildings of the Roman aqueducts*. Washington DC, 1934.

Van Minnen 1987 : P. Van Minnen, Urban Craftsmen in Roman Egypt, *MBAH*, 6, 1, 1987, p. 31-88.

Varène 1974 : P. Varène, *Sur la taille de la pierre antique, médiévale et moderne*. Dijon, 1974 (*Centre de recherches sur les techniques gréco-romaines*, 3).

Varone – Béarat 1997 : A. Varone, H. Béarat, Pittori romani al lavoro. Materiali, strumenti, tecniche: evidenze archeologiche e dati analitici di un recente scavo pompeiano lungo Via dell'Abbondanza (Reg. IX Ins.12), *in* : *Roman Wall Painting Materials, Techniques, Analysis and Conservation*. Fribourg 1997, p. 199-214.

Varone 1989 : A. Varone, Saggi nel Tempio d'Iside, *RSP*, 3, 1989, p. 226-231.

Varone 1995 : A. Varone, L'organizzazione del lavoro di una bottega di decoratori: le evidenze dal recente scavo pompeiano lungo via dell'Abbondanza, *MNIR*, 54, 1995, p. 124-136.

Varone 1996 : A. Varone, Un nuovo pavimento musivo pompeiano in corso di restauro al momento dell'eruzione vesuviana del 79 d.C., *in* : *Atti del V Convegno AISCOM (Bordighera, 6-10 dicembre 1995)*. Bordighera, 1996, p. 681-694.

Varone 1998 : A. Varone, Un pittore al lavoro a Pompei, *in* : *Romana Pictura. La pittura romana dalle origini all'età bizantina* (A. Donati, cur.). Milano, 1998, p. 302-303.

Veyne 2000 : P. Veyne, La « plèbe moyenne » sous le Haut-Empire, *Annales (HSS)*, 55, 6, 2000, p. 1169-1199.

Waddell 2008 : G. Waddell, *Creating the Pantheon: design, materials and construction*. Rome, 2008 (Bibliotheca Archaeologica, 42).

Wallace 1969 : S.L.R. Wallace, *Taxation in Egypt from Augustus to Diocletian* (2nd ed.). New York, 1969.

Wallace-Hadrill 1994 : A. Wallace-Hadrill, *House and Society in Pompeii and Herculaneum*. Princeton, 1994.

Wallace-Hadrill 2004 : A. Wallace-Hadrill, Imaginary feasts. Pictures of success on the Bay of Naples, *in* : *Ostia, Cicero, Gamala, feasts, & the economy: papers in memory of John H. D'Arms* (A. Gallina Zevi, J. H. Humphrey, eds.). Portsmouth, 2004 (*JRA supplementary serie*, 57), p. 109-126.

Wallat 1993 : K. Wallat, *Opus Testaceum* in Pompeji, *MDAI(R)*, 100, 1993, p. 353-382.

Wescher – Foucart 1863 : C. Wescher, P. Foucart, *Inscriptions recueillies à Delphes et publiées pour la première fois*. Paris, 1863.

Westermann 1914 : W.L. Westermann, Apprentice Contracts and the Apprentice System in Roman Egypt, *CPh*, 9, 1914, p. 294-315.

Whitehorne 1988 : J.E.G. Whitehorne, More about L. Pompeius Niger, Legionary Veteran, *in* : *Proceedings of the XVIIIth International Congress of Papyrology* (B. G. Mandilaras, ed.). Athènes, 1988, vol. II, p. 445-450.

Wiedemann 1989 : T. Wiedemann, *Adults and children in the Roman Empire*. London, 1989.

Wikander 1984 : Ö. Wikander, *Exploitation of waterpower or technological stagnation? A Reappraisal of the productive forces in the Roman empire*. Lund, 1984 (Scripta Minora, 111).

Wikander 2008 : Ö. Wikander, Sources of Energy and Exploitation of Power, *in* : *Oleson 2008*, p. 136-157.

Wild 1970 : J.P. Wild, *Textile Manufacture in the Northern Roman Provinces*. Cambridge, 1970 (*Cambridge Classical Studies*).

Wild 1987 : J.P. Wild, The Roman horizontal loom, *AJA*, 91, 1987, p. 459-471.

Wild 2002 : J.P. Wild, The Textile Industries of Roman Britain, *Britannia*, 33, 2002, p. 1-42.

Wilson 2002 : A. Wilson, Urban production in the Roman world: the view from North Africa, *PBSR*, 70, 2002, p. 231-273.

Wilson 2006a : A. Wilson, The economic impact of technological advances in the Roman construction industry, *in* : *Lo Cascio 2006*, p. 225-236.

Wilson 2006b : A. Wilson, Fishy Business: Roman exploitation of marine resources, *JRA*, 19, 2006, p. 525-537.

Wilson 2008 : A. Wilson, Large-scale manufacturing, standardization, and trade, *in* : *Oleson 2008*, p. 393-417.

Wipszycka 1965 : E. Wipszycka, *L'industrie textile dans Égypte romaine*. Wrocław – Warszawa – Krakow, 1965.

Zahn 1828-1859 : W. Zahn, *Die schönsten Ornamente und merkwürdigsten Gemälde aus Pompeji, Herculaneum und Stabiae nedst einigen Grundrissen und Ansichten nach den an Ort und Stelle gemachten Originalzeichnungen von Wilhelm Zahn* (3 vol.). Berlin, 1828-1859.

Zambon 1935 : A. Zambon, ΔΙΔΑΣΚΑΛΙΚΑΙ, *Aegyptus* 15, 1935, p. 3-66.

Zambon 1939 : A. Zambon, Ancora sulle ΔΙΔΑΣΚΑΛΙΚΑΙ, *Aegyptus* 19, 1939, p. 100-102.

Zanker 2002 : P. Zanker, *Un'arte per l'impero. Funzione e intenzione delle immagini nel mondo romano*. Milano 2002.

Zevi 1994 : F. Zevi, Sul tempio di Iside a Pompei, *PP*, 49, 1994, p. 37-56.

Zevi 2005 : F. Zevi, Alla mostra, da spettatore, con ammirazione, *in* : *Storie da un'eruzione. In margine alla mostra* (P.G. Guzzo cur.). Pompei, 2005, p. 99-112.

Zimmer 1982 : G. Zimmer, *Römische Berufsdarstellungen*. Berlin, 1982 (*DAI – Archäologische Forschungen*, 12).

Table des matières

« Les grands artisans l'appelèrent toujours maître, il n'en fut aucun de plus savant », affirme l'épitaphe célèbre d'un charpentier arlésien (*CIL* XII, 722). Reconnues par ses pairs, ses connaissances techniques devaient également transparaître dans ses réalisations disparues.

Si toute production – matérielle et immatérielle – est le fruit de la mise en œuvre d'un savoir, acquis par apprentissage et constitutif de l'identité sociale de ses détenteurs, il est possible d'éclairer l'artisanat romain sous un jour nouveau.

Croisant les approches, confrontant l'archéologie des techniques et l'histoire du travail, les contributions rassemblées dans cet ouvrage pluridisciplinaire ambitionnent de procéder à une redéfinition des notions d'artisanat et d'artisans moins fondées sur les types de productions que sur la connaissance et la maîtrise de gestes spécifiques à chaque métier.

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