Direct documentary evidence for the organisation of the ancient Roman construction industry, and for the social and economic status of builders and their place in society, is very limited compared with what is available for the Renaissance and later periods (DeLaine 2000b, 120–21). Together with occasional and entirely incidental mentions in literary sources, there is a small body of legal precepts relating to building contracts (Martin 1989), and a slightly more substantial corpus of inscriptions relating to individuals engaged in the construction industry. Many of the latter are funerary epitaphs, but they also include documents relating to the collegium of the fabri tignarii (the association of builders), which give lists of names of members or are dedications to or by the main magistrates of the collegium. Attention has largely focused on the evidence from the city of Rome (e.g. Anderson 1997), but the study has been hampered by the difficulty we have in associating the collegium and its members with any specific projects. Even in the high imperial period, discussion is inevitably reduced to generalisations, as only the quite exceptional building projects of the emperors are at all well-preserved, while the documentary sources are too fragmentary to say anything useful about the social structure of the collegium.

At Ostia however the data is much more self-contained. This is partly due to the rebuilding of most of the city during the course of the second century AD (Figure 1), using a distinctive technique of rubble concrete faced with brick or brick and reticulate. For much of this it is possible to determine remarkably precise construction dates, based on the use of bricks stamped with a date which is most likely the year of their manufacture (Bloch 1953, Steinby 1974–75). The resulting micro-chronology allows us to think of these building projects as events in real time originating in individual human actions and choices, most evident in the details of construction and the materials employed. In addition the epigraphic evidence relates to a much smaller overall population and in this the fabri tignarii are proportionally much better represented than in Rome. This paper is a first attempt to combine these two bodies of evidence,
using this well-documented and closely dated body of constructional practice to flesh out the epigraphic record of the individual builders themselves over the second century AD.

**THE NATURE OF CONSTRUCTION**

The key to isolating individual building practices is the sheer quantity of structures built in concrete which survive at Ostia from this period, and the range of variation of detail possible within this sophisticated constructional system. The same basic materials and techniques were applied in a wide variety of different ways, and while some of the differences are chronological, many are clearly contemporary. Although some of the variety can be explained by structural and/or economic requirements, or by architectural and aesthetic considerations, part appears to be due to the individual builders, their level of skill and their particular ways of working. Careful consideration of these details therefore throws much light on the organisation of the building industry.

The variety of structural choices can be seen most clearly in the multi-storey residential and commercial insulae built of brick- and reticulate-faced concrete which form the majority of the urban fabric. In these, brick facing was often used selectively, at openings and corners where good straight edges were required, and at points of stress such as at the intersection of walls, while the rest was of reticulate (Figure 2). For extra reinforcement, some buildings had travertine blocks inserted in vulnerable doorways or on the street corners of insulae. These same buildings often show differences in materials and facing technique between exterior and interior walls, which have no structural significance but rather reflect a concern with balancing economics and status display. Generally, a less expensive technique was employed for interior walls compared with exterior ones, for example in the Casette Tipo (III.xii-xiii, c. AD 100–110) where the exterior is reticulate but the inside a coarse form of rubble concrete (DeLaine 2000a). Similarly, buildings in brick-and-reticulate often have the street façades just in brick, generally more carefully selected for colour and with narrower mortar joints than those of the interior walls, reflecting a greater investment in manpower and materials. Major entrances were often marked by the finest brickwork, with joints as small as a millimetre, and treated as miniature temple fronts exploiting the inherent polychromy of the material and sometimes with the finer details such as capitals and bases made out of white travertine for a distinctive decorative effect (cf. Kammerer-Grothaus 1974) (Figure 3).

By comparing the structural and decorative detail in these residential and commercial buildings it is possible to detect the hands of several different groups of builders at work, while brickstamps provide information on their sources of building materials which can point to different contractors or clients (DeLaine 2002). The Case a Giardino (III.ix) and the
Caseggiato del Serapide (III.x.3), two residential complexes of roughly the same date (c. AD 124–126), show this clearly. The Case a Giardino have outer walls of a uniform, salmon-red brick and a distinctive string course of projecting brick running along the main street façades (Figure 4). The major entrances are framed by engaged columns or pilasters in fine brickwork and have travertine insets in the door frames and travertine supports for the wide flat door arches. The interior walls are of brick and reticulate, although the brick here is more mixed than on the façade, and where façade joins with interior brickwork the two meet in single alternating courses. The brick comes from a number of producers, with just three accounting for over 50% of the total. The nearby Caseggiato del Serapide is built entirely of uniform golden yellow to brown brick with a total absence of reticulate and no use of travertine (Figure 5). The brick also comes from different sources, with the Quintanensia, hardly present in the Case a Giardino, accounting for 66% of all the stamped bricks. These two buildings are also designed very differently, despite their similarity of basic function, making it clear that we are looking at the activity of two different architects or master builders, using different workmen and different suppliers of materials, and presumably working for different clients.

Many of the construction details found in the Case a Giardino also occur in other large construction projects of the early second century in Ostia. Most notable are the Piccolo Mercato (c. AD 114–118) and the whole zone of the Baths of Neptune including the residential insulae on the Via della Fontana (all c. AD 126–130). Although built entirely in brick, the latter have the same kind of string cornice detailing on the street façade as the Case a Giardino complex and share many similarities in plan as well as construction. Rough calculations suggest that the Case a Giardino may have needed at least 150 men working over 5 years to build, and the Piccolo Mercato at least 80. Although the evidence is very scanty, it is unlikely that any single building ‘firm’ at Ostia was this large. It is more likely that here we see evidence for a group of builders working under a major contractor (redemptor) who was wealthy and influential enough to be given public building contracts like the Baths of Neptune, funded by the emperor Hadrian, but also took on major residential and commercial construction projects, whether for the town itself, a private client looking for income from urban rental, or as a speculative development on his own account.

This contractor would have organised the workforce, taking on both skilled builders for piecwork and casual day-labourers as required (DeLaine, 2000b, 121–123; cf. Lancaster, 1998, 305–308). In projects of this size, neither the strong element of uniformity in overall technique, nor idiosyncratic but regular construction details such as the systematic use of travertine can be attributed to the individual workmen, but must depend on instructions from the contractor. Elements such as the alternation of face and interior brick noted in the Case a Giardino, on the other hand, could be due to either
contractor or workforce. That this detail is not merely 'normal' practice can be seen in the way the same transition is achieved in the piers of the Portico degli Archi Trionfali (V.xi.7), where the brick of the outer faces is keyed into that of the inner face in steps of 3–4 bricks rather than in alternate courses.

One of the implications is that individual workmen brought together for a one-off project could work to precise specifications given by the contractor, and this makes most sense if there was a basic body of common practice among the builders of Ostia. At the same time, the different ways of working apparent, for example, in different construction areas of the Piccolo Mercato, reveal different traditions either between contractors or within groups of builders. It could be argued that there were builders who specialised in the finework for pilastered façades, or in the piers and arches of porticoes such as those of the Piccolo Mercato. A contractor could therefore impose a set of detailed and uniform standards for the workforce, employ specialists for specific elements, or be content with more general instructions and leave the details for the actual builders to decide. In the latter case we would expect a large variety in minor details for large building projects.

At the same time there is evidence for individual small firms of builders, one of which can be identified in relation to a group of buildings which share construction details rather than materials (DeLaine 2002: III.i.6 on the Via degli Aurighi (c. AD 100, Figure 6); the Caseggiato del Larario (I.ix.3, c. AD 116); and the Horrea Epagathiana (I.viii.3, c. AD 137, Figure 7). Most significant are the distinctive L-shaped doors jambs, the use of decorative niches inside the buildings, and the extensive use of travertine as insets in doors and for the bases and sometimes capitals of the pedimented entrances. The buildings are also all very similar in concept, being small commercial markets with interior courts. The different patrons either provided the building materials, or constrained the builder in the choice of materials by setting a budget. In the case of the Horrea Epagathiana — the largest of these buildings and the most lavish in their use of materials — it appears that the clients were a pair of freedmen some of whose wealth was bound up in the trade of high-value goods (Pavolini, 1991, 103–104). The similarities are most likely due to a single master builder, who either selected the whole workforce

Figure 6
Ostia, horrea on the Via degli Aurighi, main entrance

Figure 7
Ostia, Horrea Epagathiana et Epaphroditiana, main entrance
depending on the materials, or had a permanent workforce which could either deal with all aspects of the project whatever materials were provided or were responsible mainly for the special details. As all were fairly small projects, which could have built quite quickly over 2 to 5 years with a team of 16–20 men, we may here have either a single master builder or a strong family business operating over several decades at Ostia, erecting small but refined commercial and residential structures for private patrons with moderate resources.

**The Fabri Tiguarii of Ostia**

The relatively small size of the projects discussed above suggests that the architect/builder responsible for the *Horrea Epigathiana* was a local figure, who is likely to have been a member of Ostia’s thriving *fabri tiguarii*. This *collegium*, one of the largest known at Ostia, had some 350 members by the end of the second century AD (Waltzing 1900, 4: 21–22; Wilson 1935, 52–65). This figure is derived from the most valuable surviving document relating to the *collegium* at Ostia, a statue base dedicated to the emperor Septimius Severus which bears a list of the names of 325 of the possible 350 members in AD 198 (*CIL* 14.4569). The *collegium* of the *fabri tiguarii* at Ostia appears to have been founded about AD 60 (Wilson 1932, 52) and was still active at the end of the third century AD (*CIL* 14.128; Waltzing 1899, 3: 609–610). Its wealth is evident from the main headquarters (I.xii.1) built near the Forum early in the second century and from the new temple (V.xi.1) they built near the theatre some 80 years later (Zevi 1971). Although it has been argued that their function was to ensure a place of burial, such *collegia* also provided feasts and other communal activities for the living. Since they needed an entrance fee to join, the members of the guild must have been of at least moderately good socio-economic status: successful small contractors or the heads of modest building ‘firms’ rather than individual building workers.

Exceptionally for Roman collegia, the *fabri tiguarii* had a quasi-military organisation. Its ordinary members were called the ‘body of booted soldiers’ (*numerus militum caligatum*) and divided into 16 cohorts (*decuriae*) of 22 men, each headed by a chief officer (*decurio*). This is one possible source of the uniformity of building practice, as it presumably encouraged close ties which carried over into working relationships, especially where several members needed to band together in order to take on larger contracts than any individual could manage. That the *decuria* was the basis of such ties is suggested by an inscription (*CIL* 6.9405), which records the donation of 32 cremation places for the 22 named members of the tenth *decuria* of the *fabri tiguarii* at Rome, while the remaining 10 places are explicitly set aside for future members of the *decuria* (cf. Patterson 1992). At the head of the *collegium* were three *magistri quinquennales*, officials elected for a five year period. These were the executive officers who were responsible among other things for overseeing membership of the *collegium*, and for making dedications to important officials in the town or to the imperial family. In AD 198, the *quinquennales* were T. Claudius Sosipolis, Cn. Sergius Mercurius, and M. Licinius Privatus (*CIL* 14.128), who all appear as *decuriones* at the head of the 6th, 15th and 16th *decuriae* respectively. There are also inscriptions referring to a secretary (*scriba*, *CIL* 14.347, 418) who would have helped keep the records. The *collegium* also appears to have had a patron, called a *praefectus* (which might equally be a civil or military title), who in all the three cases we know of also held high office in the Ostian town council.

It is possible from the names on the list of AD 198 to say something about the background of the members, despite problems created by abbreviation and orthography (cf. Meiggs, 1973, 214–229). All the members appear to be freedmen or free born, not slaves, with at least two-thirds having last names (*cognomina*) which suggest that they were freedmen or of recent freed descent. Of these, many carry the clan names (*nomina*) of past emperors or important senatorial families of long standing at Rome, whose descendants or freedmen are well-known and common at Ostia. On the other hand, a number are clearly freedmen of old Ostian families such as the Egrili or the Otacilii, or freedmen of their freedmen. There are some however whose *cognomina* suggest that they have come from further afield and/or arrived recently: for example, the *cognomen* of Faenius Latinus suggests that he comes from the area of Latium, on the fringes of Rome, where inscriptions of several other Faenii were found. Equally, Brittius...
Oriens (?from ‘the East’), Claudius Ptolemaeus (?from Ptolemaeus in Egypt), and Iulius Corinthianus (?from Corinth) have cognomina suggestive of origins elsewhere in the empire, although such names could equally be the whim of a slave’s former owner.

Other names suggest adoption. It was common in the Roman world for a man to take his adoptive father’s name, but to keep his own family name in adjectival form as a last name (e.g. Vettiarius, could be the son of a Mucius adopted by a Vettius). Although there are only about 20 of these in the list of AD 198, they may throw some light on the way that the trade was passed on. We know from the legal codes of a builder (faber) who bought and trained a slave acting on the express instructions of a friend (Digest 17.1.26.8). A successful trainee might then be taken into the ‘family business’, and ultimately be adopted as the builder’s heir. It was also not uncommon for either a promising slave or a junior member of a family to be handed over for training in the same way. In the list under discussion, there are several cases where the adopted name and the original name suggest the adoptee was from the same extended family as the adopter (e.g. Valerius Valerianus). Given the rareness of the family name, Fulcinius Fulcianius and Fulcinius Ostiensis, both members of the same decuria, are likely to be from the same firm, one a junior member of the family adopted by a builder called Fulcinius, the other possibly a former public slave (hence the name ‘Ostiensis’) trained and freed by the same man or by a close relative.

For a very small number of the members of the collegium in AD 198 it is possible to fill out further details of their lives from other inscriptions. The more unusual the name, the more likely the attribution, and any reference to the fabri tignuarii makes the identification fairly certain. Thus Egrilius Ision of the 14th decuria is most likely the man of the same name recorded (CIL 14.347) as building a tomb to Aulus Egrilius Secundus Theptianus, a freeborn man who had risen to the position of town councillor at the nearby small settlement of Vicus Augustanus Laurentinus, and who had at one time been secretary to the fabri tignuarii and to the Ostian town council. Egrilius Ision appears to be a freedman rather than a son, and here again it is easy to see how his former owner might have used his position in the collegium to obtain training for a promising slave in a lucrative trade. In other cases we can infer that the former owners of freedmen fabri tignuarii may have had some considerable economic and/or social standing from the number of other freedmen of the same nomen appearing in contemporary membership lists for other collegia. Such links are especially common with the fabri navales (ship builders, CIL 14.256), some of the ferrymen (CIL 14.251, 252, 254), and the priests of the imperial cult (augustales). It can be argued that it was the political pressure, financial support, and/or access to wealthy clients due to the status and position of their former owners in Ostian society which allowed some individual freedmen builders the wherewithal to become members of the collegium.

Other individuals on the list of AD 198 appear to themselves to have been of some standing outside the guild. Arrenus Appianus, second in the list of the first decuria, has been identified as the same man who was a local magistrate (magister vici) at Rome (CIL 6.766), while Cerelius Ieronimus of the third decuria also appears at Ostia as a priest (pater and sacerdos) in the collegium of the dendrophores, who served the cult of Magna Mater and Attis. Domitius Aterianus, second in the list of the twelfth decuria, was also a pater in the cult of Magna Mater, and gave a statue of Attis to another collegium associated with the cult, the cannophori (CIL 14.37). Gargilius Felix, member of the seventh decuria, provides another link with the cannophori, as he appears in a contemporary list of members whose birthdays are to be celebrated by the collegium (CIL 14.326). More tenuously, Metilius Ias, officer of the fifth decuria, and Matilus (almost certainly for Metilus) Hylas of the eighth may well be freedmen of Metilia Acte, public priestess of Magna Mater whose husband Iunius Euhodus was a chief magistrate of the fabri tignuarii in the 160s AD. The name is otherwise rare at Ostia, and it would not be surprising to find freedmen of Metilia Acte as the priesthood was an exceptionally important position for a woman. The other major priesthood in which we find members of the fabri tignuarii is the augustales. Four members of the AD 198 collegium have Augustalis as a cognomen, which should indicate that they, or their fathers, held that priesthood. From other inscriptions covering the period from the late 60s to the 240s AD, we can identify a further seven fabri tignuarii who were also augustales, all but one of whom were also quinquennales of the fabri tignuarii (CIL 14.296, 297,
All of these positions—magister vici, priests in the religious collegia attached to the Magna Mater, and augustales—were either limited to, or particularly attractive to, freed slaves whose legal status prevented them from holding magistracies in their local town council.

The holding of high office within these collegia required quite substantial levels of wealth (Duncan-Jones 1982, 146–155), and it was by the expenditure of that wealth men not of free birth could gain status and exercise power in the community. One Ostian inscription records gifts by an Augustalis of 50,000 sestertes, for which he was honoured by a public statue (CIL 14.367). Although we do not know precisely why, Julius Tyrannus, quinquennalis in the 170s AD, was similarly honoured by a statue set up in the theatre precinct by decree of the town council ‘for his merits’ (CIL 14.370). The wealth of such men in the fabri tignarii can be demonstrated independently. Domitius Aterianus was not only wealthy enough to donate a statue to the canephori, but also to build a tomb for his wife Sallustia Crispina (CIL 14.912) (cf. Duncan-Jones 1982, 162–171). Several quinquennales of the fabri tignarii purchased expensive marble sarcophagi for themselves and their wives, some decorated with bespoke mythological scenes, like that of Metilia Acte and her husband Iunius Euhodus portrayed as Alcestis and Admetus (Figure 8).

Some few office holders in the fabri tignarii clearly were able to rise further in rank, or at least their children could do so. The step might be slight, like the son of Livius Anteros, quinquennalis, who was wealthy and influential enough to act as patron to either the fabri tignarii or to the fabri navales (CIL 14.4656). The son of Fabius Eutychus, quinquennalis of the fabri tignarii and himself possibly a freedman’s son, gained election to the town council and rose even higher to the rank of Roman knight, which required a fortune of at least 400,000 sestertes (CIL 14.367, 4642). When the young man died, he was honoured with a public funeral and a magnificent tomb on the road leading in from Rome set up by his father Fabius, and an equestrian statue set up by the town council in the forum, the most prestigious position possible. In response, Fabius gave the town council a further 50,000 sestertes, to be distributed in his son’s memory. A similarly spectacular career for an active member of the fabri tignarii was that of M. Licinius Privatus, officer of the sixteenth decuria and quinquennalis in AD 198. Presumably a freedman, he was made an honorary member of the town council in return for his gift to them of 50,000 sestertes (CIL 14.374, Figure 9). His political and economic standing was sufficient for his sons and grandsons to become both town councilors at Ostia and Roman knights.

One of the questions which arises from such careers is how these men at the upper levels of Ostian society made their money. The only member of the guild who clearly appears to have started life as someone of high social and economic standing is Carminius Parthenopeus, a member of the town council and Roman knight in his own right, as well as quinquennalis of the fabri tignarii (CIL 14.314). In the case of M. Licinius Privatus, his statue was set up by the whole collegium for his ‘affection and good offices’ towards them. The distinction of being granted both a special seat at the theatre and a place for his statue in the theatre precinct by decree of the town council, suggests that Privatus might have been involved in organising contracts for the substantial rebuilding and enlargement of the theatre, dedicated in AD 196 about the time that he was quinquennalis. That contractors (redemptores) who organised public building could also be magistrates in the fabri tignarii is shown by T. Claudius Onesimus from Rome, who was a contractor on imperial building projects and a quinquennalis (CIL 6.9034).

Privatus seems however not just to have been involved in building. As well as his position in the fabri tignarii he was later treasurer and quinquennalis in the collegium of the millers and bakers at Ostia and Portus. Although we know less about him, Valerius Threptus, quinquennalis of the fabri tignarii at an
Close links between high-ranking members of the 
*fabri tignarii* and other guilds connected with Ostia's 
broader economic role as the harbour city for Rome is 
seen also in their *praefecti*. Most revealing is P. 
Aufidius Fortis, who by AD 146 was the patron of the 
whole town (*CIL* 14.4621). Earlier he had been 
*praefectus* of the *fabri tignarii*, patron of the grain 
measurers and salvage divers, and permanent 
president of the grain merchants. This latter position 
and his membership of the town council at Hippo 
Regius in North Africa suggests that he may have 
come to Ostia himself as a grain merchant and 
decided to stay (Meiggs 1973, 203), possibly 
importing grain for the Roman state. He appears also 
to have been a man of sound financial sense, as he was 
ultimately treasurer of the colony on five 
ocasions. Although the precise detail is missing, his 
activity roughly coincides with the period of great 
building projects at Ostia, some of which had 
 imperial funding and even more may have been built 
by the town itself (DeLaine 2002).

The large-scale projects such as the *Piccolo 
Mercato* and the Baths of Neptune and associated 
*insulae* discussed above would have needed sound 
financial management and an efficient and organised 
building industry to be successful. Also important for this 
period of intensive building in the 120s and 130s AD 
would have been the continued viability of 
individual ‘firms’, the maintenance of a sustainable 
cash flow allowing the builders to be paid and thus 
discouraging them from moving their business 
elsewhere, particularly to Rome, and some control 
over priorities to allow public building projects to 
take precedence over private. That this in fact 
happened is suggested by evidence from the *Case a 
Giardino*, where excavation has shown that there was 
a gap of several years between laying the foundations 
of the development and beginning the superstructure 
(Zevi and Pohl, 1970, 73–74). The intervening period 
saw a major, probably civic, project involving the 
reorganisation of the northern end of the Forum and 
the building of a grand approach to it from the Tiber, 
the *Portico di Pio IX*, and the building or rebuilding 
of several commercial buildings including the 
*Piccolo Mercato*, whose builders may have worked 
later on the *Case a Giardino*. Whatever the reason for 
construction to be concentrated in this area of Ostia in 
the second decade of the second century — and some 
form of natural disaster such as flood or fire is the
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most likely explanation — the concurrent temporary abandonment of the Case a Giardino suggests some active control or constraint over the activities of building ‘firms’. By the end of the second century, the legal sources make it clear that the collegium of the fabri tignarii was believed to exist for the benefit of public building works (Digest 50.6.5.12). Although proof is lacking, it is possible to imagine how the involvement of someone like Aufidius Fortis, who had a substantial control over public finances at Ostia, could use his position to negotiate with the members of the collegium by offering them lucrative public contracts with assured financial backing.

CONCLUSIONS

The builders known to be active in the collegium of the fabri tignarii of Ostia have been shown to be fully integrated into Ostian society in so far as their legal status allowed. The obvious wealth of some members, especially the quinquennales, their presence in other religious and commercial collegia, and their connections with the Ostia town council and members of important new or established Ostian families, all suggest that individual builders had considerable status within the community, which in a few cases led to their descendants rising to high position locally and within wider Roman society. At the same time, the quasi-military organisation of the collegium created a mechanism whereby large civic building projects could be prioritised, organised, and implemented to a high and uniform standard, through the mediation of these same individuals. The same network of connections appears also to have been instrumental in bringing new blood into the industry through the training of slaves or junior members of these families in the building trade, and is one likely source of private contracts for building firms. If by the end of the second century it was believed that the collegia existed for the benefit of the state and its building projects, there is little doubt that at Ostia the benefits were mutual.

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NOTES

1. All original photographs are by the author.
2. Ostian buildings are identified by region, block and unit number as indicated on the 1:500 plans in Calza 1953.

ABBREVIATIONS:

CIL - Corpus Inscriptionum Latinarum

REFERENCE LIST


