

THE ORGANIZATION OF ROMAN BUILDING

DURING

THE LATE REPUBLIC AND EARLY EMPIRE

VOL. II

NOTES AND PLATES

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NOTES TO CHAPTER 1

1. Cf. Dio Cass., 6 (Zonaras 7.19); Livy, 42.3.7; on censors in general, see J. Suolahti, The Roman Censors: a Study on Social Structure (Annales Academiae Scientiarum Fennicae, B117) (Helsinki 1963), esp. pp. 57-66 on the censors and public contracts. A convenient list of censors is given by R.V. Cram, "The Roman Censors", HSCP, LI (1940), pp. 71-110.
2. All dates in this chapter are B.C. unless otherwise stated.
3. Livy, 6.32.1.
4. Livy, 4.22.7; R. M. Ogilvie, A Commentary on Livy Books 1-5 (Oxford 1965), makes no relevant comment; H. J. Müller and W. Weissenborn, T. Livii Ab Urbe Condita Libri (Leipzig 1896-1930), Book 4, pp. 50-1, assume that a contract was let.
5. Magistrates generally approved building work during the term of the magistracy in which they let the contract for it, but occasionally a magistracy was extended by the senate in order to allow the man concerned to derive full credit for his building work, cf. Frontin., Aq., 1.5, and Livy, 9.29.6-8. There are also numerous examples of men who, for example, let a contract while aedile and approved the final work as praetor, cf. Badian, p. 125, n. 18, as well as, for example, ILLRP 75; similar occurrences are suggested by Livy, 24.16.9 and 34.53.4-5 and 7.
6. Livy, 9.43.25 and 10.1.9 (307); Frontin., Aq., 1.6.1 (272). There are also a few references to censorial building activity in this period where contracts are not specifically mentioned: Festus, Gloss. Lat., 258 (318); Frontin., Aq., 1.5 (312); Livy, Per., 20 (220).
7. This was the view of Frank, ESAR, Vol. I, p. 102 (hereafter cited in this chapter as Frank).
8. Badian, pp. 15-16 and references there cited.
9. Badian, p. 31, cf. also pp. 27-9; as Badian noted, although Frank recorded the building work of, for example, the aediles, he seemed to consider that it was somehow extraordinary and not undertaken in the same way as that of the censors, see esp. Frank, pp. 149-50; Frank appears to contradict himself, however, on p. 260.
10. A list of them is conveniently given by Frank, p. 24; on temple building, see H. Bardon, "La naissance d'un temple", REL, XXXIII (1955), pp. 166-82.
11. Livy, 5.23.7; the phrase used is templum locavit, and Broughton, Magistrates, Vol. I, p. 88, in fact translates "marked the site of", but the omission of the gerundive can be paralleled, cf. Livy, 10.1.9, ILLRP 332 (= ILS 22) and 579 = ILS 5322; the passage is not mentioned by Gast.
12. Livy, 10.46.14.
13. Livy, 34.53.4; Frank, p. 183, gives the date as 195, but Livy's reference to the start of the work (33.42.10) is clearly dated in 196; Livy perhaps causes confusion by his use of the phrase biennio ante in 34.53.4, although it should be noted that the phrase sex annis ante in 34.53.7, also dated in 194, refers to the year 200 (31.21.12);

- J. Briscoe, A Commentary on Livy Books XXXI-XXXIII (Oxford 1973), makes no relevant comment.
14. Livy, 10.33.9 (307), 10.23.12 (296) and 10.31.9 (295), Per. 19, and 24.16.19 (246); Varro, Ling., 5.15.8; Pliny, NH, 18.286 (241).
  15. Livy, 33.42.10.
  16. Brunt, "Equites", p. 139; cf. R. M. Cook, "'Epoiesen' on Greek Vases", JHS, XCI (1971), pp. 137-8; Badian, p. 31, also assumes, probably correctly, that Livy's coverage of aedilician building work is not complete.
  17. Frontin., Aq., 1.7.
  18. ILLRP 75; cf. Broughton, Magistrates, Vol.I, pp. 320 and 322, n. 2.
  19. Most of the evidence, for both the early and late periods, is collected by de Ruggiero, Stato, pp. 46-67; the normality of the practice can be judged from its appearance in the Lex Iulia Municipalis (ILS 6085, 32-49) and in charters such as the Lex Ursonensis (ILS 6087, 69); cf. M. W. Frederiksen, "The Republican Municipal Laws: Errors and Drafts", JRS, LV (1965), pp. 183-98.
  20. There are some cases when the citizens were required to provide themselves as labour for public projects, both under the monarchy and in the early Republic, but the examples are almost all of defensive or rebuilding work, see de Ruggiero, Stato, pp. 168-9. Pliny, NH, 36.24.107, records that Tarquinius Priscus carried out the construction of the drains plebis manibus.
  21. See Burford, GTBE, pp. 145-58.
  22. Livy, 24.18.10-11.
  23. Livy, 23.48.10.
  24. Livy, 23.49.1-4.
  25. Frank, p. 102.
  26. Badian, p. 18.
  27. Nicolet, p. 322; he does not in fact deny that they were equites, as is stated by Badian, p. 121, n. 23.
  28. Livy, 25.3.9.
  29. Livy, 25.3.12.
  30. Livy, 23.49.3.
  31. The accuracy of Livy's terminology will be discussed below, Ch.1, pp.6-9, after a review of his evidence for the whole of this period.
  32. See the chronological list of Frank, p. 183 ff.
  33. Livy, 27.10.13, 29.37.3 and 32.7.3.
  34. Cf. Badian, pp. 28-9, on the mistaken view of Frank with regard to the organization of the grain supply.
  35. Livy, 34.9.12.
  36. Livy, 39.44.5-8; cf. Plut., Cato Maior, 19.
  37. Badian, pp. 36-7.
  38. Plut., Cato Maior, 19.
  39. Badian, p. 37.
  40. There may also be something of an exaggeration both in this phrase

and the comparable one of Livy; LSJ define συστάλλω as "contract", "reduce".

41. Livy, 39.44.1.
42. Livy, 43.16.12; Livy gives no reason why the contractors of 174 were debarred from the contracts in 169; the statement of Frank, p. 150, that it was because the contracts of 174 were badly executed is pure speculation; Strong, p. 98, believed that the censors of both 184 and 169 clamped down on excessive profits, but there is certainly no evidence for that for 169.
43. Badian, p. 16.
44. H. Hill, The Roman Middle Class in the Republican Period (Oxford 1952).
45. Frank, pp. 149-50.
46. Badian, p. 49.
47. A similar view is taken by Finley, Economy, pp. 49-50; cf. also Ürögdi, col.1196, l. 48 ff.
48. Brunt, "Equites", pp. 139-40.
49. Dion. Hal., 3.67.5 (quoting C. Acilius).
50. Livy, 40.46.16; 44.16.9.
51. Brunt, "Equites", p. 139.
52. Frank, p. 153.
53. Badian, pp. 21-3 and 29-30; cf. Brunt's review of Badian in JRS, LXIII (1973), p. 250.
54. Brunt, "Equites", p. 139.
55. See Livy, 34.6.17; cf. Plaut., Men., 1159.
56. This was certainly the system that prevailed in Greece, see Burford, GTBE, pp. 114-18, and we meet it again in the Lex Puteolana of 105 (ILLRP 518); it is possible, however, that its appearance there was due to Greek influence, cf. Th. Wiegand, "Die puteolanische Bauinschrift", Jahrb. f. Class. Phil., Suppl. XX (1894), p. 679. Badian, p. 71, says that "we may be sure that this [system of payment] was copied from Roman practice", but this is a dangerous assumption in view of the apparently conflicting evidence for the Roman practice. It is absent from both the municipal charters and from the contract recorded by Cicero, Verr., 2.1.56.146; on the other hand, cf. Festus' definition of redemptores, Gloss. Lat., 374, and Cic., QF, 2.4.2.
57. Cf. Cic., Verr., 2.1.57.150; IIS 6087, 93 and 6089, 63-5.
58. Livy, 23.48.11, and 24.18.11; cf. also Livy, 31.13.
59. Cf. Badian, pp. 22-3 and 29-30; I will show below, Ch. 1, pp. 11-16, that we should not necessarily assume that they were in fact all equites.
60. It is worth noting that some of the building work undertaken in the early second century was designed to facilitate the supply of materials etc., e.g. the Emporium on the Tiber (Livy, 35.10.12 (193)), and the portico outside the emporium for wood-dealers (Livy, 35.41.10 (192)).
61. Livy, 45.15.9; the two censors applied for a prolongation of their term of office, but without success.
62. Cf., for example, Frank, passim; he had earlier stated his view in

CAH, Vol. VIII, pp. 382-3.

63. On tax-farmers, see esp. S. J. de Laet, Portorium (Bruges 1949), as well as the bibliography cited by Ürögdi, col. 1184; a summary of the evidence on societates publicanorum is given by Ürögdi, col. 1203 ff.; the term publicanus came to have the meaning simply of tax-farmer, see Digest, 39.4.1.1 and 39.4.12.3 (Ulpian).
64. Badian, p. 37; cf. Brunt's review, loc. cit. (n. 53), p. 250.
65. See Badian, p. 70; cf. also Ürögdi, col. 1205.
66. A similar view was first put forward, I believe, by Frothingham, "Architect", pp. 187-9; cf. also Ürögdi, col. 1187.
67. Cf. Festus, Gloss. Lat., 374: redemptores proprie atque antiqua consuetudine dicebantur qui cum quid publice faciendum (ut praebendum) conduxerant effecerantque, tum demum pecunias accipiebant. Nam antiquitus emere pro accipere ponebatur. At hi nunc dicuntur redemptores qui quid conduxerunt praebendum utendumque. Something of the relationship between redemptores and workers is perhaps to be seen in the story narrated by Livy, 42.3, esp. section 11.
68. Frank, p. 148; on Polybius' claim to be describing here the situation as it was at the beginning of the Hannibalic War, see, for example, F. W. Walbank, A Historical Commentary on Polybius (Oxford 1957-67), Vol. I, p. 692 f.
69. On this translation of τῶν ἐργασίων, see Badian, p. 129, n. 61; he does not note that Frank, p. 149, gave a similar translation.
70. Livy, 40.51.2 (179) and 41.27.10-12 (174); on the latter, see esp. Bardon, loc. cit. (n. 10), p. 174.
71. Cf. Kornemann, "locatio", RE, XIII.1 (1926), col. 936.
72. Cf. Liebenam, p. 386; although the phrase faciendum locavit is found much less frequently on inscriptions than faciendum curavit, this is rather a reflection of terminological fashion than of the disappearance of locationes, cf. Gast, p. 64 ff. For a similar practice in pre-Roman Italy, see V. Pisani, Le lingue dell'Italia antica oltre il latino (Turin 1953).
73. Cf. Badian, p. 45 and n. 59 (p. 129).
74. Badian, pp. 45-7.
75. Cf. H. C. Boren, "The urban side of the Gracchan economic crisis", in Seager, Crisis, pp. 54-66; Boren's thesis that there was a sharp drop in the amount of money in circulation in the years immediately prior to the tribunate of Ti. Gracchus is to be challenged in M. C. Crawford's forthcoming Roman Republican Coinage, Vol. II, pp. 698-9.
76. Nicolet, p. 323.
77. There is surely little difference between the last two categories, cf. the translation of Badian, p. 45; but see contra Nicolet, p. 323.
78. Cf. Badian, pp. 45-6.
79. Plut., C. Gracchus, 6.3-4; App., BC, 1.23.
80. Most of it is collected chronologically by Frank, pp. 286-8; again there is no solid basis for Frank's supposition that the "knights" had no share in non-censorial contracts; who were the "independent contractors" to whom Sulla let his building contracts (p. 261)? And it is perhaps misleading to state that "the knights probably had

no share in building the long provincial roads, since the military organization conducted the work" (p. 258). We certainly should not assume that they were deliberately excluded from them; there is no evidence that the building entrepreneurs of Rome ever tried to extend such organization as they had to embrace provincial work.

81. Cic., Verr., 2.1.49.127-8.
82. On Q. Tadius, cf. Nicolet, p. 342.
83. Cic., Verr., 2.1.50.130.
84. Cic., Verr., 2.1.52.137; one of them is also described as a publicanus; see also T. P. Wiseman, New Men in the Roman Senate 139 B.C.-A.D.14 (Oxford 1971), p. 80, n. 4.
85. Cic., Verr., 2.1.58.151.
86. On the reading of this name, see Nicolet, p. 342.
87. Cic., Verr., 2.1.57.150.
88. Cic., Verr., 2.1.54.140 and 55.144-56.147.
89. ILLRP 465 (= ILS 5799) and references there cited; on road-building in general, see T. Pekary, Untersuchungen zu den römischen Reichstrassen (Antiquitas, Reihe 1 Band 17) (Bonn 1968) and T. P. Wiseman, "Roman Republican Road-Building", PBSR, XXXVIII (1970) pp. 122-52.
90. Cf. Mommsen, R. St., p. 668 ff.
91. On this term, see Festus, Gloss. Lat., 268, and the comment of Badian, p. 136, n. 7.
92. This restoration is tempting in view of the nature of the cognomen and of the undoubted presence of a Q before it, but it takes no account of the preceding S (an Q would be needed there if it were the final letter of the nomen) and perhaps does not allow enough room for the necessary restoration of the value of the contract. The explanation of Henzen and Bormann, however, is even less acceptable.
93. De Ruggiero, Stato, p. 189, produced a joint contractor here by making what he thought was a certain Q the abbreviation of a praenomen; unfortunately the part of the inscription which contained the title mancupi or mancupibus is not extant, but we should perhaps hesitate to advocate the presence of joint contractors in view of their absence from the other three contracts.
94. On these and other comparable costs, see R. D. Duncan-Jones, The Economy of the Roman Empire: Quantitative Studies (Cambridge 1974), pp. 124-6.
95. FIRA, Vol. III, p. 471, n. 4.
96. Nicolet, p. 324; one might also restore [exactori]; on exactores operum, see below, Ch. 2, p. 46.
97. Cf. Schulze, p. 221.
98. Nicolet, p. 324; there are no Sepunii in Broughton, Magistrates, nor in Wiseman, op. cit. (n. 84).
99. On the location of tribes, see W. Kubitschek, De Romanarum Tribuum Origine ac Propagatione (Vienna 1882).
100. ILLRP 518 = ILS 5317.

101. This led Wiegand, loc. cit. (n. 56), p. 688, to think that the material was supplied by the town-council without further expense to the contractor; cf. Arangio-Ruiz, FIRA, Vol. III, p. 475, n. 1.
102. His title is not specified, but cf. qui redemerit (1. 6).
103. Cf. Festus, Gloss. Lat., 268; Festus' definition does not seem to me to be as wrong as Badian, p. 137, n. 6, says; cf. also ILS 6086, 9 (Lex Tarentina).
104. Cf. Badian, p. 136, n. 8, and, for example, E.G. Hardy, Three Spanish Charters and other Documents (Oxford 1912), Vol. II, pp. 77-82.
105. Cf. J. H. D'Arms, AJA, 77 (1973), p. 160 ff., no. 11, and esp. p. 162, n. 6, and refs. there cited; see also Wiegand, loc. cit. (n. 56), pp. 687-8, Schulze, p. 323 and E. Klebs, "Blossius", RE, III.1 (1897), col. 571, nos. 1 and 2; Nicolet, pp. 324-5, tries to show that he was not an equus, but the point seems to me to be academic.
106. So Badian, p. 68.
107. So, among others, Wiegand, loc. cit., p. 679.
108. Not C. Crassicius, as Wiegand, loc. cit., p. 688, nor T. Crassicius, as Nicolet, p. 324.
109. Cf. Wiegand, loc. cit., p. 688.
110. Pliny, NH, 35.14.4.
111. One might compare the contract for the feeding of the geese on the Capitol, which was one of the contracts that the censors in the late Republic were traditionally bound to let first, cf. Pliny, NH, 10.26.51.
112. See Broughton, Magistrates, Vol. II, p. 535.
113. ILLRP 773 = ILS 9040; the variant readings, which are not significant, are found in NS, BCAR and ILS.
114. Gummerus, "Cognomen", pp. 55-6, believed that since Perperna bore a cognomen, we should regard Redemptor also as a cognomen, but he had no doubt that it was also an indication of the occupation of Hostius. A lack of cognomen would not, however, be surprising at this period, see, for example, Thylander, p. 100 ff. On the various uses of redemptor, see for example R. Leonhard, "Redemptor", RE (2), 1.1 (1914), cols. 447-8.
115. Cf. Taylor, Voting Districts, pp. 11-12.
116. For the latest interpretation, see E. J. Jory, "Associations of Actors in Rome", Hermes, 98 (1970), pp. 235-6; Jory, who gives some slight misreadings, seems to place the inscription in the first century A.D.; see also A. Degraffi, BCAR, LXVII (1939), p. 179.
117. Most editors read his cognomen as Quadra(tus?), but Quadra is found as a cognomen in its own right once elsewhere in epigraphy and once in the literary sources, cf. Kajanto, p. 348; Lewis and Short, "Quadra", make the amusing statement "A Roman surname, e.g. Hostius Quadratus, Sen., Q.N., 1.16.1"; that passage in fact refers to a Hostius Quadra. There can surely be no connection between that man and the two men on this inscription, cf. PIR<sup>2</sup> IV, H, no. 230.
118. Vitr., 3.4.5.

119. Cf. Kajanto, p. 91.
120. ILLRP 805 = ILS 7460a-c.
121. On the meaning of apparet, see Mommsen, R. St., I, p. 332 f.; Degrassi rejected Mommsen's explanation, comparing ILLRP 947; on apparitores, see also de Ruggiero, DE, s.v., pp. 522-3, and A. H. M. Jones, Studies in Roman Government and Law (Oxford 1960) pp. 153-8.
122. For photographs of the monument see Nash, Vol. II, p. 330, figs. 1097-8.
123. CIL VI 37821; Bang described the letters as being of the Sullan period.
124. Gatti, BCAR, XXXI (1903), p. 283.
125. Cf. B. Hansen, Rückläufiges Wörterbuch der griechischen Eigennamen (Berlin 1957), p. 245, for the very few Greek possibilities.
126. On the absence of cognomina at this period, see Thylander, p. 100 ff.
127. See ILS 6085, 49; cf. also Cic., Phil., 9.7.16 and 14.14.38.
128. Frontin., Aq., 2.96.
129. Frontin., Aq., 2.119 ff.
130. Badian, p. 127, n. 33.
131. Although the main interest here lies in the contractors, it will be convenient at this point to discuss all the types of men connected with the building trade who were employed by the Cicero brothers, and especially the architects, a title which has been bestowed on a wide range of men mentioned in the Letters. In this section, unspecified references to Tyrrell-Purser and Shackleton Bailey are to their notes on the relevant letter; references to Cicero's Letters are abbreviated by the name of the collection and number of the letter alone. By "Cicero", I always intend the elder brother; their praenomina are used where I need to distinguish the two.
132. Fam., 7.14.1; he is also described as an architectus in Cic., Mil., 17.46.
133. Att., 14.3.1.
134. Att., 2.3.2; Park, p. 75, gives the date as 61 and the place as definitely Arpinum, but Shackleton Bailey dates the letter to late 60, while the place is not specified.
135. QF, 2.2.2.
136. Cic., Mil. 17.46.
137. Park, p. 75; Treggiari, p. 134, n. 1; Münzer, "Kyros", RE, XII (1925), no. 7, col. 188.
138. Att., 4.10.2.
139. Fam., 7.14.1.
140. Treggiari, p. 134; Broughton, Magistrates, Vol. II, p. 633, reveals only a T. Vettius Sabinus, who was praetor in 59.
141. Cf. Pape-Benseler, Wörterbuch, s.v.; see also below, Appendix A. T. Frank, Roman Buildings of the Republic (Papers and Monographs of the American Academy in Rome, Vol. III (1924)), p. 3, n. 2, describes Cyrus as a Neapolitan Greek, for which there is no evidence at all.

142. Cf. H. L. Axtell, "Men's Names in the Writings of Cicero", CP, X (1915), pp. 386-404.
143. Promis, pp. 175-6.
144. Cic., Verr., 2.3.71.166.
145. See above, Ch. 1, n. 140.
146. CIL X 8093 = ILS 5539.
147. Att., 2.4.7; the verb used (adhibeas) is translated by Shackleton Bailey as "consult", but the TLI, Lewis and Short, and the OLD suggest that the sense which I have given is at least as, and probably more, likely.
148. Park, p. 75.
149. Treggiari, p. 148, n. 2 and p. 254, n. 4.
150. Münzer, loc. cit. (n. 137), does not note this reference, but H. Gundel, "Vettius", RE(2), VIIIA.2 (1958), col. 1844, no. 5, says that this Vettius was probably Cyrus. It seems very unlikely that this Vettius is to be identified with the only other Vettius mentioned in the Letters, who plotted against Curio on Caesar's behalf in 59 (Att., 2.24.2-4).
151. Att., 8.11b.4; Fam., 5.20.1.
152. Att., 5.4.1 and 13.22.4; Fam., 5.20.9; Axtell, loc. cit. (n. 142), does not make this observation, but none of the evidence cited by him conflicts with it.
153. Fam., 5.20.2; on the application of the word servus to a freedman, see Treggiari, pp. 265-6.
154. It is also noteworthy, but of course not conclusive, that Cicero never uses the nomen in the several passages where he refers to Cyrus, and that Chrysippus, who is given his nomen only in the earliest of the other letters in which he might be mentioned (Fam., 7.14), is not known to have been employed by Cicero on building work until the early 40's, several years after the murder of Cyrus (see below, Ch. 1, pp. 21-2). Calabi Limentani, "architetto", p. 577, makes Cyrus, whose nomen she does not note, a peregrinus, but this seems to me to be unlikely; de Ruggiero, "architectus", p. 645, lists him under liberti.
155. Att., 14.3.1.
156. Park, p. 76; Münzer, "Korymbos", RE, XI (1922), col. 1459, no. 1; Corumbus is allowed the special honour of two articles in the same volume of RE - Fabricius also writes one (ibid., no. 2), but does not comment on his status; on the other hand, he is absent from Calabi Limentani, "architetto".
157. Tyrrell-Purser, Vol. V, p. 252; Treggiari, p. 133, n. 9 (p. 134); Frothingham, "Architect", p. 295; de Ruggiero, "architectus", p. 645.
158. See Promis, p. 175; Münzer and Fabricius, locc. citt.; and Shackleton Bailey, Vol. VII (indices), p. 18.
159. Although he is often mentioned in the Letters, he is only twice given his nomen in letters to Atticus, once in the earliest letter in which he is named (2.3.3) and once where his nomen seems to have been added as an after-thought, in order to identify him exactly (8.15.3); cf. Axtell, loc. cit. (n. 142), p. 397, and Fam., 8.11.2.
160. Cf. Axtell, loc. cit., p. 401; Cicero also records that a Balbus was building at Rome in 46 (Att., 12.2.2); it is probable that this

man was the master of Corumbus.

161. On contracts to which a slave was one of the parties, see W. W. Buckland, The Roman Law of Slavery (Cambridge 1908), pp. 155-66, and R. H. Barrow, Slavery in the Roman Empire (London 1928), p. 101.
162. Att., 14.3.1.
163. Park, p. 73, n. 4, says that "if they had gone to Rome to receive corn doles they must have been at least of freedman status", but it is by no means certain that they had gone to receive the dole.
164. QF, 2.2.1.
165. Cf. in Cicero's Letters Fam., 2.8.1, and QF, 2.5.4; see also OLD, s.v., 15.
166. Fabricius, "Numisius", RE, XVII (1937), col. 1399, no. 1, states that the plan probably concerned Quintus' house on the Palatine, but it seems that Cyrus was already engaged on that work in 56 (cf. QF, 2.2.2).
167. Cf. above, Ch. 1, p. 17.
168. Treggiari, p. 133 and n. 7, places him "among the many ingenuous architects active in the last century of the Republic".
169. Cf. Schulze, pp. 164 and 198; there is no record of any other Numisius in the Letters.
170. CIL X 1443. (= ILS 5637) and 1446 = ILS 5637b; the Herculaneum Numisius has also been identified with the P. Numisius who was one of Vitruvius' colleagues in charge of producing tormenta etc. during the Civil War (Vitr., 1.praef.2), see Promis, p. 87, but most editors now favour at that point reading Minidius; cf. Münzer, "Mindius", RE, XV.2 (1932), col. 1772, no. 5.
171. Numisius is not found in either de Ruggiero, "architectus", or Calabi Limentani, "architetto".
172. QF, 3.1.1.
173. QF, 3.1.2.
174. Loane, p. 86, describes Caesius as an architect who "also served as redemptor, acting as a go-between for his master [sic] and the builder Diphilus"; there is neither any evidence nor any necessity for assigning Caesius a professional function, cf. the note of Tyrrell-Purser.
175. Calabi Limentani, "architetto", p. 577, describes him as an "architetto o capomastro", while G. A. Mansuelli, "Diphilos", EAA, Vol. III, p. 134, is content to make him an architect; Mansuelli rightly rejects his identification with the Greek writer on symmetry recorded by Vitruvius, 7.praef.14, which has been made by, among others, F. Granger in the Loeb edition of Vitruvius, ad loc.
176. Fabricius, "Diphilos", RE, V (1905), col. 1156, no. 20.
177. Park, p. 73.
178. We should not overstretch the import of Columella, 5.1.3, where he states that architects consider it beneath them to make measurements of buildings.
179. QF, 3.9.7.
180. Att., 6.4.3.

181. Att., 2.4.7 and 4.10.2; on Philotimus, see Treggiari, pp. 263-4.
182. H. Gummerus, "Industrie", RE, IX (1916), col. 1503, refers to him as a slave, but there is no proof one way or the other.
183. Att., 12.18.1.
184. Cf. the shop-sign of one such man, CIL VI 9556 = ILS 7679 (Plate XII, fig. 1), although admittedly he advertised mainly that he carved tituli.
185. Att., 12.36.2.
186. Shackleton Bailey translates it with the neutral "services".
187. Cf. the third century A.D. responsum in Dig., 17.2.52.7, which refers to monumenta erected pecunia Victoris ... et opera et peritia Asiani; J. A. Crook, Law and Life of Rome (London 1967) p. 230, describes this as a societas between a land-agent and an architect.
188. Gummerus, loc. cit. (n. 182), col. 1502; cf. "Cloatius", RE, IV (1901), col. 61, and Schulze, p. 483.
189. De Ruggiero, "architectus", p. 645, lists him under liberti; he also gives his name erroneously as Cluattius; Calabi Limentani, "architetto", p. 576, gives his name as Chiattus or Cluatius, but does not assign him any status.
190. There is no record of any other Cluatius in the Letters.
191. Fam., 7.20.1.
192. Treggiari, p. 133, n. 9 (p. 134), Tyrrell-Purser and Williams in the Loeb edition; he is not listed in de Ruggiero, "architectus", or Calabi Limentani, "architetto".
193. Treggiari, p. 133, n. 9 (p. 134), Tyrrell-Purser and Münzer, "Trebatius", RE(2), VIa (1937), col. 2251, no. 6.
194. CIL I<sup>2</sup> 1238.
195. See above, Ch. 1, pp. 16-17.
196. Fam., 7.14.
197. Park, pp. 75-6.
198. Treggiari, p. 134.
199. Quint., Inst., 6.3.61; H. Gundel, "Vettius", RE(2). VIIIA.2 (1958), col. 1851, no. 12, notes this passage but draws no conclusion from it.
200. Treggiari, p. 134.
201. Treggiari surely means Chrysippus; Cyrus is not known to have had any contact with Caesar and was in any case murdered in 52 (Cic., Mil., 17.46); Frank, Roman Buildings, (see n. 141), p. 3, n. 2, takes Chrysippus' visit to Trebatius as an indication that Cyrus was employed by Caesar, possibly on his plans for the forum, but both this and his description of Chrysippus as Cyrus' agent are far removed from the evidence of the text; Frank's suggestion is repeated by Mansuelli, "Kyros", EAA, Vol. IV, p. 432.
202. See Att., 13.35.1 and Shackleton Bailey's note; this was also noticed by Calabi Limentani, "architetto", p. 577.
203. Att., 13.29.1.
204. Att., 14.9.1; Z. Yavetz, "The Living Conditions of the Urban Plebs in Republican Rome", Latomus, 17 (1958), p. 510 = Seager, Crisis, p. 172, believes that tabernae here means 'tenement houses' and not

'shops' as it is usually translated.

205. Att., 11.2.3; the fact that he was free to be employed by Cicero in 48 and 45, as well as to be sent to Epirus, is perhaps another indication that he was not working on any plans of Caesar.
206. So Treggiari, p. 148, n. 2.
207. QF, 2.2.2 and 2.5.4.
208. Att., 14.3.1.
209. QF, 2.5.3.
210. See above, Ch. 1, p. 17.
211. QF, 2.4.2.
212. Cf. the scene on one of the frescoes in the tomb of Trebius Iustus, illustrated in MacDonald, Architecture, Plate 130b.
213. Although neither that nor the fact that he is not found either in the work of Treggiari or in the notes or index of Tyrrell-Purser necessarily reflects on his ability.
214. QF, 3.3.1 and 3.2.3; in March 56, Cicero had written that he hoped that the house would be completed by the winter (QF, 2.4.2), but it is possible that there had been delays.
215. M. L. Clarke, "The Architects of Greece and Rome", Architectural History, 6 (1963), p. 19, states that in private building at Rome it was usual for a single contractor to undertake the whole work, but we cannot be sure of this; Clarke also seems to underestimate the role played by Cicero's architects while building was in progress.
216. QF, 2.5.4.
217. Cf. QF, 2.2.1 and 2.
218. QF, 3.1.1.
219. QF, 3.1.3; on the location of this estate, see Tyrrell-Purser.
220. To my knowledge, it is found on only one inscription, CIL IX 3869 (Supinum), which records the funerary monument of a Roman citizen; cf. Schulze, p. 193.
221. Williams in the Loeb edition, Tyrrell-Purser, and Park, p. 73; Treggiari does not mention them.
222. Park, p. 73.
223. QF, 3.1.3.
224. Park, p. 72.
225. Treggiari, p. 99.
226. Cf. the recall of Rufio by Trebatius Testa (Fam., 7.20.1).
227. QF, 3.1.5.
228. Park, p. 72.
229. Treggiari, p. 107.
230. Cf. above, n. 153; Loane, p. 86, describes him as a slave and also gives his name as Nicephor.
231. Fam., 7.23; Att., 4.2.7 and 4.10.2; QF, 2.4.2 and 2.10.3.
232. Treggiari, p. 255.

233. See Treggiari, pp. 253-5.
234. Although this is commonly stated of Cyrus and Chrysippus, for example by Treggiari, p. 254, the former is known to have been employed probably once by Marcus and once by Quintus, the latter only twice by Marcus on building work.
235. Cic., Mil., 18.48.
236. Briggs, p. 34.
237. For example, Corumbus at Tusculum and Chrysippus at Puteoli in 44; cf. Cicero's comment in 56 (QF, 2.4.3): etiam nunc tribus locis aedifico.
238. We should not, I think, press too far Marcus' complaint about the lack of painters and the surplus of operarii and baiuli (Cic., Brut., 73.257).
239. Att., 12.18.1.
240. Cf. his discussion on points of detail with Cyrus (Att., 2.3.2); he also seems to have known a man to consult about the purchase of columns (Att., 12.19.1).
241. Cic., Nat. D., 2.56.141.
242. For example, Att., 4.3.2 and 14.3.1; QF, 2.10.3.
243. Fam., 9.15.5; Paetus was a wealthy, apolitical Epicurean, but it is not known whether or not he had reason to maintain a building labour force; cf. R. Hanslik, "Papirius", RE, XVIII.3 (1949), no. 69, cols. 1071-3.
244. Cf. Varro, Rust., 1.17.3, and K. D. White, Roman Farming (London 1970), pp. 349-50 and 372; cf. also Dig., 33.7.12.5, a passage of Ulpian about (probably) C. Trebatius Testa's view on the organization of large estates.
245. Cf. Burford, Craftsmen, pp. 59-60 and n. 118.
246. Pliny, NH, 9.79.168.
247. He also made profits out of the oyster fishing-grounds at Baiae, see Pliny, ibid.; see also Münzer, "Sergius", RE(2), II.2 (1923), no. 33, cols. 1713-4.
248. Plut., Crass., 2.4; this passage is examined by H. Gummerus, "Die Bauspekulation des Crassus", Klio, XVI (1920), pp. 190-2, who concluded that Crassus did not rent out his gang to building contractors; the text surely allows no other conclusion.
249. Cic., Nat. D., 1.26.72.
250. On the functions of architects, see below, Ch. 4, pp. 100-2.
251. For refs., see Appendix B, p. 184, nos. 96-8; on Hermodorus, see P. Gros, "Hermodorus et Vitruve", MEFRA, 85 (1973), pp. 137-61; on C. Mucius, see Platner-Ashby, pp. 259-60 and refs. there cited.
252. See Burford, GTBE, pp. 138-45.
253. IG II<sup>2</sup> 1678a.A.7, and VII 3073.160; cf. BCH, LXVI-LXVII (1942-3), p. 86, ll. 43-7.
254. See Appendix B, p. 180, no. 14; the editors of AE allocate the inscription to Italy, regio I, presumably because it was found 9.6 kms. from Rome on the via Prenestina, but it is surely a titulus urbanus, as the original editor described it in the summary of his article.

- 255. See Jones, Greek City, p. 238, and refs. there cited.
- 256. For a full discussion of this subject, see below, Ch. 3.
- 257. Strabo, 5.2.5 (C 222) and 5.3.7 (C 235).
- 258. Cf. Pliny, NH, 35.46.158.

NOTES TO CHAPTER 2

1. T. Frank, ESAR, Vol. V, pp. 235-6.
2. T. S. R. Broughton, ESAR, Vol. IV, p. 837.
3. Throughout this work, I use Imperial as a personal adjective, to describe the activities etc. of the Emperors and their immediate families, and imperial as an adjective of time and place.
4. CIL VI 607, cf. 30801b, 9034, 9794 (= ILS 7672), 9851-4, 33873; IX 3650, 4694; X 1549, 3707, 3821 (= ILS 3662); XI 4127 (= ILS 6027); XIV 2091, 3530 (= ILS 3512 = I. It. IV.1.611); XV 7150; IRT 275; AE 1925, 87 and 1940, 16; NS 1923, pp. 19-20.
5. For example, CIL VI 9854 (redemptor a laco Fundani) and NS 1923, pp. 19-20 (a fragmentary inscription from Rome).
6. CIL VI 9794 = ILS 7672.
7. A. de Marchi, Le antiche epigrafi di Milano (Milan 1917), p. 42, suggests that he might even have undertaken the construction of the theatre, but that seems to me to be most unlikely; cf. also Calabi Limentani, Lavoro, p. 67. It is worth noting that Vitruvius, 9.praef.9 and 12, uses redemptor of a goldsmith who took a contract from Hiero to make a gold crown, although in that case the goldsmith probably carried out the whole work by himself.
8. See Lewis and Short, s.v.
9. It is not impossible that this man is to be identified with the [re]demptor ...ius Philomusus, who erected something in honour of his patron and himself at Rome, CIL VI 9851, on which the trace of a C in the nomen immediately before ...ius, which was read by Henzen, is certainly not visible now (see Plate VII, fig. 1), but the cognomen is common.
10. CIL VI 33873; the restoration redemptoris mar[morarii] is surely the most likely; there is no parallel for a suitable alternative such as mar[garitarii].
11. CIL X 1549; all dates in this and subsequent chapters will be A.D. unless otherwise specified.
12. IRT 275, where the evidence for the approximate date is given.
13. This will be discussed fully below, Ch. 3, pp. 82-8.
14. CIL VI 33886 = ILS 7539, IGUR 413 and IG XIV 2247; see below, Ch. 3, pp. 90-3.
15. There is evidence at Lepcis Magna, and perhaps elsewhere also, that skilled labour was despatched together with the shipment of marble from the quarry, see below, Ch. 3, p. 89.
16. Cf. DE, s.v. contubernium, pp. 1188-9.
17. See Appendix A, pp. 169-70.
18. If that were so, it would be interesting to know whether any other members of his family had connections with the building trade which could be traced back to Agrippa.
19. NS 1924, p. 348 = AE 1925, 87.

20. See TLL and the OLD, s.vv.; E. R. Graser's translation of "cabinet maker", ESAR, Vol. V, p. 338, does not fit any of these texts.
21. Loane, p. 83, n. 84, states that he was "a former slave in the imperial household", but he is not so recorded, and the silence perhaps tells against it; on the uncommon omission of a man's Imperial freedman status, see Weaver, pp. 81-2; Mancini, NS, loc. cit., dated the inscription to the middle of the first century, but was probably over-influenced by the presence of a Ti. Claudius.
22. That title is found on CIL VI 8173 and 9401, cf. 9415a; X 1922 and 3957 = ILS 7625.
23. AE 1940, 16 = ILTunisie 732.
24. CIL X 3821 = ILS 3662 (Plate VII, fig. 5); the dedication is now in the Museo Campano. The suggestion of C. Pietrangeli, Museo della civiltà romana: Catalogo (Rome 1958), p. 216, that we translate redemptor as "restauratore" is surely to be rejected, since redemptor was used with that kind of meaning in pagan literature only in the sense of 'ransomer' or 'deliverer' (for example, Sen., Controv., 9.1.2 and 12; Quint., Decl., 257 (Ritter p. 52)) and in Christian literature in the sense of 'redeemer' (for example, Cypr., 55.22; Augustin., Ep., 199.7.21). (I am grateful to Dr. Bader for sending me a copy of the TLL file on redemptor.) Gummerus, "Handwerk", pp. 97-8, regarded him as a Bauunternehmer.
25. CIL X 3907 = ILS 6313.
26. CIL IX 3650; the inscription is now in the Museo Comunale at Avezzano.
27. Hor., Epist., 2.2.72-3; cf. id., Carm., 3.1.33-7.
28. CIL XI 4127 = ILS 6027.
29. CIL X 3707.
30. CIL X 1614, cf. p. 1009 = ILS 7731a; cf. "Cocceius", RE, IV.1 (1900), cols. 129-30, nos. 2 and 12, and PIR<sup>2</sup>, Vol. II, no. 1223.
31. Strabo, 5.4.5 (C 245).
32. De Ruggiero, "architetto", p. 645, cites the two inscriptions as "proof" that the contractor (appaltatore) was frequently the architect; this is another case in which he takes as a certainty what is only a possibility. It is also worth noting that an inscription from Antium, CIL X 6697, records a L. Coc(ceius?) in the reign of Hadrian who is also connected with building.
33. CIL XV 7150.
34. Loane, p. 83, n. 84.
35. Tac., Ann., 13.22.
36. On the identity of Stella, see PIR<sup>2</sup>, Vol. II, no. 1150; cf. also A. E. Gordon, "Quintus Veranius, consul A.D. 49", Univ. California Publ. Class. Arch., II.5 (1952), p. 263.
37. CIL XIV 2091; the inscription, which is now in the Museo Nazionale at Naples, is perhaps to be dated to the early first century.
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1887, pp. 223-4, in fact compares CIL VI 30985 = ILS 5414.

40. CIL VI 19148; the most recent discussion of this monument known to me is that of A. Giuliano, "Documenti per servire allo studio del monumento degli Haterii", Mem. Acc. Naz. Linc., XIII (1967-8), pp. 449-82 and tavv. I-XX, who gives at pp. 468-72 a chronological bibliography of relevant works; the monument is now in the new "Lateran wing" of the Musei Vaticani.
41. See F. Castagnoli, "Gli edifici rappresentati in un rilievo del sepolcro degli Haterii", BCAR, LXIX (1941), pp. 58-69; for a photograph of the relief on this tomb of a builder's hoist and pulley, see Plate IX.
42. One might also note that a Q. Haterius Evagogus was a decurio of the collegium fabrum tignariorum of Rome, possibly in the late first or early second century, see CIL VI 9408.
43. CIL VI 9852a and b.
44. See F. Millar, "The Aerarium and its Officials under the Empire", JRS, LIV (1964), pp. 33-40.
45. De Ruggiero, Stato, p. 183.
46. See Millar, loc. cit., p. 39; Suet., Claud., 25.5, records that Claudius restored the temple of Venus Erycina in Sicily at the expense of the aerarium.
47. CIL VI 9034; on the date, see Pearse, "Altar", pp. 11-16.
48. CIL IX 4694; it is interesting, but perhaps coincidental, that Reate was the native city of the Flavian dynasty, see Suet., Vesp., 1-2.
49. Cf. Cagnat, Cours, p. 73 f.; Thylander, p. 89 f.
50. I. It. IV.1, 611 = ILS 3512; the original find-spot of the inscription is discussed by Dessau, CIL XIV, p. 364, but he omits to mention that the aqua Claudia passed very close to monte S. Angelo, from where the first editor of the inscription claimed that it originally came.
51. See for example Frank, ESAR, Vol. V, pp. 235-6, and Loane, p. 83; it should be noted, however, that he held that office only for a period towards the end of a college lustrum, when he replaced a man who had been 'excused', see AE 1941, 71, ll. 76-7. This scarcely supports the suggestion of Loane, that his "privileged position" (as an Imperial freedman) "had forced his colleagues to recognize him as a valuable member of their organization." See also below, Ch. 2, pp. 70-1.
52. See below, Ch. 5, passim, esp. p. 121.
53. A modern equivalent might be the expression "by appointment to her Majesty the Queen".
54. Strong, p. 105; see below Ch. 2, pp. 47-8 and 71-2. It is perhaps significant that Nedymus uses the plural Caesarum, which suggests that he had taken contracts for Imperial projects in the reign of more than one Emperor.
55. Frontin., Aq., 2.119.3; on the organization of the Maintenance Departments, see below, Ch. 2, pp. 40-2.
56. On the scarcity of epigraphic examples of the term redemptor outside Italy, see below, Ch. 2, pp. 79-80.
57. Dio Cass., 49.43.1.

58. Dio Cass., 53.22.1-2; Suet., Aug., 29.4-30.1.
59. Dio Cass., 53.22.2.
60. See Suet., Aug., 37; on the curatores operum publicorum, see Gordon, loc. cit. (n. 36), pp. 279-304; on the 'Tiber Board', see J. Le Gall, Le Tibre, fleuve de Rome, dans l'Antiquité (Paris 1953), p. 135 f., who dates its establishment to 15.
61. Cf. CIL VI 8468/9 (=ILS 1471/2) and 31338; Tac., Ann., 3.31.5; Dio Cass., 59.15.4.
62. Frontin., Aq., 2.100.1.
63. Ashby, p. 17, appears to have believed that the personnel listed in Frontin., Aq., 2.100, was attached only to the curator and that there was therefore only one official architectus, but the Latin surely favours the interpretation given in the text; cf. also Homo, p. 199, and Halkin, p. 76; de Montauzan, p. 116, strangely states that there were only two architecti attached to the cura aquarum.
64. It depends upon the reading of the text. The Budé edition gives at 2.100.1: ... lictos binos et servos publicos ternos: architectos singulos et scribas et librarios, accensos praeconesque totidem ... , which clearly implies that the architecti were slaves. But F. Bücheler in his Teubner edition (Leipzig 1858) noted ad loc.: "'et' deleri iussit Mommsenus Mus. Rhen. nov. VI p. 5." In fact the deletion of the second et was a suggestion of Borghese to Mommsen which the latter noted, without comment, in Rheinisches Museum für Philologie, n.s. VI (1848), p. 5 (note). If accepted, the architecti would no longer be included among the servi publici terni, so that their status would be uncertain. The deletion is tempting since numerous inscriptions attest the distinctive position of scriba librarius while librarius is only rarely found as an independent substantive, cf. R. F. Rossi, "librarius", DE, esp. pp. 956-9. We should note, however, that two scribae and one librarius were to be assigned to each of the duoviri at Urso, see ILS 6037, LXII. C. Kunderewicz in the new Teubner edition (Leipzig 1973) gives the same reading as the Budé edition; he does not note the suggested deletion of Borghese, but merely compares as a parallel to scribas et librarios the passage in the Lex Ursonensis.
65. Frontin., Aq., 2.119.3.
66. ibid., 2.98-99.1.
67. ibid., 2.116.4.
68. ibid., 2.117.1; it is possible that plumbarii and libratores were also in these familiae, cf. Frontin., Aq., 1.25.1 and 2.105.4, but the official architecti were clearly allocated to the curatores separately, despite the implication of Ashby, p. 24; cf. Homo, pp. 199-200.
69. Frontin., Aq., 2.96.
70. ibid., 2.119.4.
71. ibid., 2.124.4.
72. The statement of Hirschfeld, p. 275, n. 4, that, despite the large staff available to the curator, "werden die grösseren Arbeiten an Unternehmer verdungen und nur die kleineren durch die domestici artifices ausgeführt", is based only on the evidence of the two passages cited and, however likely, is no more than a conjecture; it is echoed in Ashby, p. 24; cf. also Homo, pp. 203-4 and Halkin, p. 89.

73. I. It. IV.1, 611; see above, Ch. 2, p. 33.
74. Cf. Frontin., Aq., 2.119-130.
75. CIL VI 2336 and 2337 = 5558 = ILS 1968; a photograph of the latter appears in Nash, Vol. II, p. 347, fig. 1121; the presence of D.M. suggests that neither is to be dated before the middle of the first century; see also de Ruggiero, Stato, p. 142, Halkin, pp. 76 and 89-90, and Hirschfeld, p. 267, n. 2; on the Civil Service staff available to the curatores, see below, Ch. 2, pp. 48-57.
76. For example, the theatre of Pompey in 55 B.C.
77. Cf. Cic., Phil., 9.7.16 and 14.14.38.
78. Dio Cass., 53.22-23.2 and 54.18.2; Suet., Aug., 29.4-5; Vell. Pat., 2.89.4; cf. Tac., Ann., 3.72.1.
79. See F. W. Shipley, Agrippa's Building Activities in Rome (Washington Univ. Studies, n.s., Language and Literature, No. 4, St. Louis 1933).
80. Suet., Aug., 29.5.
81. Cf. Dio Cass., 53.22.2.
82. Dio Cass., 54.24.3.
83. Tac., Ann., 3.72.1.
84. See de Ruggiero, Stato, pp. 112-21; a third century text in Dig., 50.10.3, shows that then the Emperor's permission for private expenditure on new public works was only required si ad aemulationem alterius civitatis pertineat vel materiam seditionis praebeat vel circum theatrum vel amphitheatrum sit. The clause of exception was probably aimed at checking the excessive building activities of cities in Asia Minor in the second century rather than at private individuals at Rome.
85. CIL VI 896, cf. p. 3777, = ILS 129.
86. CIL VI 1384-5, cf. p. 3141; cf. F. W. Shipley, "Chronology of the Building Operations in Rome from the death of Caesar to the death of Augustus", MAAR, IX (1931), pp. 7-60.
87. Dig., 50.10.3 (Macer), shows that a private individual was entitled to have his name inscribed on any public building which he had financed.
88. CIL VI 89 (= ILS 3781) and 937, cf. p. 3777, = ILS 3326; both are probably to be dated to the first century.
89. CIL VI 31578 (reign of Trajan or Hadrian?).
90. CIL VI 878, cf. p. 3070.
91. For example, Dio Cass., 56.46.3; CIL VI 931 (= ILS 245) and 1005, cf. 31224, = ILS 348; cf. also Dio Cass., 71.31.1.
92. Suet., Tib., 30.
93. See CIL VI, p. 3109; cf. M. P. Charlesworth, "The Virtues of a Roman Emperor: Propaganda and the Creation of Belief", PBA, XXIII (1937), pp. 105-33, esp. 109-11.
94. Loane, p. 83, n. 83.
95. MacMullen, "Building", p. 226, n. 29.
96. Tac., Hist., 4.53.1; on Iulius Vestinus, see PIR<sup>2</sup>, Vol. IV, I, no. 622; the row in the senate which preceded his appointment, when several senators demanded that the temple should be restored at public expense,

with the assistance (adiuvare) of Vespasian (Tac., Hist., 4.9), was probably an expression of the resentment of a section of the senate at the loss of their real power which was again briefly voiced after the wars of 69.

97. Suet., Titus, 8.4.
98. Malalas, 243, 14 ff. and 22 ff.; the men concerned also spent their own money on buildings there; on the value of Malalas' evidence, see G. Downey, "Imperial Building Records in Malalas", ByzZ, XXXVIII (1938), pp. 1-15 and 299-311.
99. Tac., Ann., 12.57 (minister operis); Dio Cass., 60.33.5 (ἐπιστάτης τοῦ ἔργου). The curatores operum publicorum sent out to certain cities in Italy by various Emperors did not necessarily have responsibility for Imperial projects, as is assumed by Hirschfeld, p. 271, n. 3, see below, Ch. 2, p. 73 and n. 349.
100. Tac., Ann., 15.42, where they are described as magistri et machinatores; de Montauzan, p. 116, regarded this not as their 'title' but as a quasi-ablative absolute expressing their direction of the work.
101. Severus usually, and Celer often, are described in reference books and elsewhere as 'architects', which is acceptable if that word is understood in its broad ancient sense; but although they may have been the 'architects' of the Domus Aurea itself - which Tacitus does not in fact state - it seems to me a gratuitous extension of the evidence to describe Severus as "the chief designer of the urbs nova" (MacDonald, Architecture, p. 126); for similar statements about Severus, Celer, Rabirius and Apollodorus, see, among many others, Frothingham, "Architect", pp. 182-3. On Celer, cf. also CIL VI 34085 (Plate II, figs. 1 and 2); I am not convinced of the restoration there of a[rchitect]o, although the A at least seems almost certain; on the genuineness of the inscription, see MacDonald, Architecture, p. 126, n. 12.
102. Mart., 7.56.
103. Dio Cass., 69.4.1.
104. S.H.A., Comm., 17.5.
105. Calabi Limentani, "architetto", p. 576; see contra Brunn, Künstler, Vol. II, p. 235.
106. P. Oxy. III, 412, ll. 63-8.
107. Macrobi., Sat., 2.4.9.
108. Tac., Hist., 1.27.
109. Suet., Otho, 6.2.
110. See TLL and the OLD, s.vv.; one might also note that Cicero, Verr., 2.1.49.130, uses the verb exigere to describe part of the subsequent duties of magistrates who had let public works contracts, where it seems to have a connotation similar to probare.
111. CIL VI 8677 = ILS 1628 (an Imperial libertus).
112. CIL VI 8481.
113. CIL XII 3070 = ILS 4844; the inscription is not readily dateable.
114. S.H.A., Had., 12.2.
115. CIL VI 8480 = ILS 1601; cf. CIL VI 1535b = ILS 5920; cf. also Hirschfeld, p. 269.

116. His subordinate position is especially shown by a comparison of the differing manner in which he and the curatores operum publicorum are addressed by the rationales on CIL VI 1585b = ILS 5920.
117. Other exactores connected with building work are found at CIL VI 33932 (= ILS 5167) and 37422 (= ILS 9051) and X 3907 = ILS 6313 (Capua); on exactores in general, see the article in DE, s.v., pp. 2176-9.
118. CIL VIII 23948 and 23963 = ILS 1347.
119. Cf. Pflaum, Carrières, no. 327, followed by M. G. Jarrett, "An Album of the Equestrians from North Africa in the Emperor's Service", Epig. Stud., 9 (1972), p. 161, no. 26.
120. De Ruggiero, "curator", DE, p. 1337, believed that the amphitheatre was built in Turca, but this seems most unlikely; Homo, p. 242, astonishingly puts Felicianus in charge of the work on the Colosseum in 80!
121. CIL XIV 154 (= ILS 1431); VIII 15255 = ILS 1430.
122. Cf. Pflaum, Carrières, no. 291, and Jarrett, loc. cit., p. 148, no. 1.
123. The evidence for the building work of the first century Emperors is collected by F. C. Bourne, The Public Works of the Julio-Claudians and Flavians (Princeton 1946); in the case of Tiberius, however, we should remember that he was very active in the sphere of rebuilding and restoration, cf. Dio Cass., 57.10.3.
124. Cf. Bourne, op. cit., p. 12.
125. Frontin., Aq., 2.119.4.
126. CIL XV 7793 and 7826 = ILS 8692.
127. CIL VI 8489; cf. also CIL VI 8505: optio tabellariorum sta[t.] patrimonii, and see below, Ch. 2, p. 54.
128. CIL VI 455; it should be noted that in the fifth line of this inscription, which is now in the church of S. Paolo fuori le mure in Rome, we should read a rationibus Augg. n[n.]; the extant N is omitted in CIL.
129. This restoration, made by Hirschfeld, p. 270, is preferable to Mommsen's statio v[icens].
130. Hirschfeld, p. 270.
131. CIL VI 1585a = Gordon, Album, Vol. II, no. 255.
132. CIL VI 8479 = ILS 1602.
133. This inscription was published by P. Cavuoto, "Il sepolchrum familiare di Ulpia Felicitas", Miscellanea Greca e Romana, III (Rome 1971), pp. 225-40; Cavuoto reasonably suggests that Vitalis was the father-in-law of Abascantus.
134. CIL XI 3860 = ILS 1603.
135. CIL VI 8478 = ILS 1604.
136. CIL X 529 = ILS 1605.
137. Weaver, p. 241; on their functions and title, see also below, Ch. 2, n. 145. Loane, p. 83, n. 83, states that the tabularius and a commentariis were 'administrators' of the opera publica and were entrusted with building commissions, but this is plainly incorrect.
138. Cf. Weaver, p. 239.

139. Cf. DE, s.v. acta, pp. 53-4.
140. Cf. Weaver, p. 241.
141. Weaver, p. 240.
142. Weaver, pp. 50-1; cf. Chantraine, pp. 180-8.
143. See Weaver, pp. 54-5; Boulvert, p. 233, n. 189, cites both dispensatores in his Flavian section, although together with some freedmen of Trajan; cf. also Chantraine, pp. 206-15, who reaches a similar conclusion to Weaver.
144. Boulvert, p. 233, n. 183.
145. See Hirschfeld, p. 283 with n. 2; the title of two of these officials - tab(ularius) rat(ionis) aquarior(um) (= aquarum?) (CIL X 1743 = VI 33731) and tabul(arius) aquarum (CIL VI 8488 = ILS 1607) - and a comparison with the common abbreviation curator operum locorumque publicorum of the full title curator aedium sacrarum et operum publicorum indicates that all except Impetratus of the officials connected with the opera publica abbreviated their titles and that the two tabularii were financial rather than simply clerical officers. Neither Boulvert, p. 149, n. 371, nor Chantraine, p. 79 with n. 81, notes that CIL VI 33731 is the same inscription as CIL X 1743, cf. p. 971 = ILS 1608; cf. Weaver, p. 36, n. 2.
146. CIL VI 8687.
147. Vulić, "Dispensator", DE, p. 1921; Hirschfeld, p. 269, n. 4.
148. See Platner-Ashby, p. 300, for references.
149. Weaver, pp. 39-40, cf. also p. 122.
150. Weaver, p. 51.
151. See Platner-Ashby, p. 300, for references; we are not informed of any second century restoration. Boulvert, p. 55, n. 277, suggested that Sabinus was a slave of Vespasian (and hence, presumably, connected with the restoration of 70), although in the text he couples him with the restoration undertaken by Augustus; Chantraine, p. 178, group 1, declines to date him beyond the indications of Dis Manibus.
152. Hirschfeld, p. 269, n. 4; the phrase is exactly repeated by Vulić, loc. cit. (n. 147), p. 1921.
153. Cf. DE, "fiscus", pp. 129-33; on the nature of the fiscus, see most recently Millar, loc. cit. (n. 44) and P. A. Brunt, "The 'fiscus' and its development", JRS, LVI (1966), pp. 75-91.
154. Frontin., Aq., 2.118.2-4.
155. De Ruggiero, Stato, pp. 223-4, concluded that both the fiscus and aerarium financed new works but that the cost of maintenance work was met by the aerarium, with fiscal subventions for the maintenance of Imperial works, but he overestimated the role of the senate in building (cf. above, Ch. 2, pp. 42-4) and overlooked the fact that Emperors had at least the de facto right to draw from the aerarium (see above, Ch. 2, p. 37). The evidence seems to me to be too limited and imprecise for definite conclusions.
156. Stat., Silv., 3.3.99 ff.
157. CIL VI 455 and 1535 (1535b = ILS 5920); on the former, see above, Ch. 2, n. 128, as well as P. Merlat, Répertoire des inscriptions et monuments figurés du culte de Jupiter Dolichenus (Paris 1951),

- p.164, no.182, and Boulvert, p. 271, n. 55; on the financial officials mentioned in these two inscriptions, see Pflaum, *Carrières*, pp. 516 f. and 758-9, Weaver, pp. 236-8 and 264-5, and Boulvert, pp. 303-4 with nn. 263-8 (with later remarks of Pflaum).
158. Homo, p. 245, mistranslates this phrase as "le matériel pour petites maisons, cabanes et constructions appropriées"; although the adjective *idoneis* is difficult, the whole phrase must refer to stocks of material.
  159. Homo, p. 245, again mistranslates: "car il a été nécessaire de jeter une passerelle"; so does Gordon, *loc. cit.* (n. 36), p. 303: "since it has been necessary to construct a *pons* [scaffolding?]." Although one should perhaps not insist that in a late second century inscription *cum* with the indicative must be translated by 'when' or 'whenever', the run of the whole sentence suggests that the translation which I give in the text is correct, cf. de Ruggiero, *Stato*, p. 153. Gordon's suggestion that *pons* might here mean "scaffolding" is ingenious but without comparative support, as well as being irrelevant to the context.
  160. See above, Ch. 2, p. 46.
  161. The title is not specified on *CIL* VI 1585, but is found on two inscriptions recording the same man, *CIL* X 6657 = *ILS* 1387 and *AE* 1945,80; cf. also *BGU* 156.
  162. See Pflaum, *Carrières*, p. 600, no. 225; cf. also H. Nesselhauf, "*Patrimonium und res privata des römischen Kaisers*", *Historia Augusta Colloquium*, Band 2 (ed. A. Alföldi, Bonn 1963; *Antiquitas*, 4), pp. 85-9, for a discussion of the elements and dating of his career.
  163. See Weaver, pp. 265-6.
  164. *CIL* VI 455; Hirschfeld, p. 270, was the first to suggest the restoration [*procur*]atorem in place of Mommsen's simple [*cur*]atorem, and to my knowledge he has been followed by all except Boulvert, p. 233, n. 194, though the latter appears to contradict himself at p. 112, n. 126 (p. 113); it is by no means as certain as Hirschfeld assumed, however, that the relevant part of this inscription refers to the provision of material rather than the allocation of land.
  165. *CIL* VI 9078.
  166. Bruzza, "Marmigrezzi", nos. 258 and 259 = *ILS* 8716a-b; they are dated in 137.
  167. Cf. Hirschfeld, p. 177, n. 2.
  168. So Boulvert, p. 233 with n. 193.
  169. *CIL* XI 3860 = *ILS* 1603.
  170. Boulvert, p. 232, even states that new Imperial works were always financed by the *patrimonium*.
  171. *AE* 1945, 80; cf. Nesselhauf, *loc. cit.* (n. 162), pp. 85-7 and esp. n. 20.
  172. *CIL* VI 8506 and XI 3885 = *ILS* 1643; *CIL* VI 3962 is perhaps even earlier.
  173. See above, Ch. 2, p. 37 with n. 46.
  174. *CIL* VI 8665.

175. On the office, cf. esp. Hirschfeld, p. 295, n. 3, and Poulvert, p. 183, n. 643; on maternus, see Chantraine, pp. 324-5, no. 232.
176. Cf. Tac., Ann., 13.29; see also Millar, loc. cit. (n. 44), pp. 33-4.
177. Cf. Tac., Hist., 4.9.
178. Livy, 40.46.16 and 44.16.9.
179. Cf. Cic., Phil., 9.7.16 and 14.14.38; ILS 6085, 46-9.
180. CIL VI 301, cf. 30731; on the agnomen, see Chantraine, p. 320, no. 197.
181. CIL XI 3199 = ILS 3481.
182. CIL VI 8483 = ILS 1598.
183. CIL VI 30760 = ILS 1707; Merlat, op. cit. (n. 157), p. 174 ff., no. 191, stated that the lapicide cut tabellariorum mistakenly for tabulariorum, but there are no comparable instances of an optio tabulariorum - senior tabularii were usually termed proximi, see Weaver, p. 242 - whereas there are two other Imperial optiones tabellariorum, CIL VI 8424a = ILS 1706 (Hadrianic) and AE 1930, 93 = C. B. Welles, "The Inscriptions", in C. H. Kraeling (ed.), Gerasa: City of the Decapolis (New Haven 1938), no. 202 (Trajanic), the first of whom was also attached to a statio; cf. also CIL VI 9915 = ILS 1708.
184. CIL VI 8484 = ILS 1599.
185. CIL VI 8485.
186. Such was the assumption, in the case of the tabularius a marmoribus, of, among others, R. Schilling, "L'Hercule romain en face de la réforme religieuse d'Auguste", Rev. Phil., 68 (3rd. ser. XVI) (1942), p. 48, and the examples of tabularii given by Weaver, pp. 241-52, make it not unlikely; Loane, p. 40, however, suggested that they checked the markers attached to the blocks of marble at the quarries.
187. Bruzza, "Marmi grezzi", pp. 123-4.
188. Boulvert, p. 163, cf. Homo, p. 250; Loane, p. 40, states that the tabularii checked the markers on blocks of marble on their arrival at Rome.
189. See below, Ch. 3, p. 85.
190. This does not imply that private enterprise did not continue to operate; it clearly did, but within the Imperial organization, cf. the redemptores marmorarii (see above, Ch. 2, pp. 33-4) and the negotiator marmorarius (CIL VI 33886 = ILS 7539) and Λ.Θενπόροι (IGUR 413 and IG XIV 2247).
191. Bruzza, "Marmi grezzi", p. 125, suggested that they probably worked at the quarry rather than in Rome, but this need not be so, not least because the relevant inscriptions come from Rome and not Luna.
192. See Ward Perkins, "Marmo", esp. p. 866.
193. The relevant evidence is cited by Robert, "Lettres", p. 36, nn. 73-5; cf. also below, Ch. 3, pp. 85-7.
194. See above, Ch. 2, pp. 48-9; cf. also IGUR 413.
195. CIL VI 8933 = ILS 1689.
196. CIL VI 37759.

197. Bang, ad CIL VI 37759.
198. Chantraine, p. 316, nos. 169-70, and p. 340, no. 333, cf. p. 300, no. 44, and p. 314 no. 147.
199. Thus Hirschfeld, p. 267, n. 1, Pasqui, NS 1909, p. 437, and Gatti, BCAR, XXXVII (1909), p. 310. Weaver, p. 50, n. 2, seems to accept the identification, but he himself has shown that one reason for the omission of the nomen by an Imperial freedman was its presence in extended form in another part of the inscription (Weaver, p. 38); in this case, Patiens and Ascanius, another Aug. l. without a nomen, erected a tombstone to Ti. Claudius Ianuarius Gratianus, nomenclat(or) Aug(usti), and it seems reasonable to conclude that all three were freedmen of Claudius or Nero. Boulvert, p. 133, n. 303 and p. 181, n. 633, follows Chantraine's identifications, but at p. 163, n. 472 and p. 233, n. 189 is non-committal in his specific references to the tabularii.
200. Hirschfeld, p. 267.
201. Loane, p. 83, n. 83.
202. Apart from Loane, cf. Pasqui, Gatti and Boulvert, locc. citt. (n. 199), and Frothingham, "Architect", p. 290.
203. To the two inscriptions recording the tabularii, I can add CIL III 2129 and, possibly, 3585; VI 1975, cf. p. 3233 (= ILS 7737), 9622-5 and 36868; IX 1612; XIV 3032 and 3713 = I. It. IV.1, 252.
204. To my knowledge, this view was first and solely proposed by Frothingham, "Architect", p. 290.
205. See Dig., 19.2 passim, and esp. 19.2.35, 36, 51.1 and 60.4; cf. also Pliny, Ep., 10.17-18. Frothingham, "Architect", p. 290, erroneously states that payment by measurement was called per aversionem.
206. It is true that Pliny, Ep., 10.17b, asked Trajan to send a ensor to determine how much excess profit had been made by contractors, but we should scarcely expect complete terminological accuracy in such a case.
207. Such an assumption is made by almost every scholar who notes these inscriptions; to those already cited, add E. Fabricius, "ensor", RE, XV.1 (1931), col. 959, and MacMullen, "Building", p. 230, n. 66.
208. Loane, p. 83, n. 83.
209. For refs., see above, Ch. 2, n. 203.
210. CIL VI 9624; there is a minor inaccuracy in the CIL text, which gives in line 3 AN instead of ANN, see Plate XII, fig. 4; the fine letter-forms do not necessarily imply an Augustan date.
211. See Appendix C, pp. 188-9.
212. Slaves: CIL III 2128; VI 3938 = 4244; X 6638c 2, 1.2 = I. It. XIII.1, 31; AE 1942-3, 35; liberti: CIL VI 8912-3; XI 1737; XII 4490; cf. also CIL VIII = ILS 9337.
213. Macrobius, Sat., 2.4.9.
214. Dio Cass., 57.21.5-7.
215. Dio Cass., 60.11.3.
216. Dio Cass., 69.4.1; Procop., Aed., 4.6; cf. also S.H.A., Hadr., 19.13.
217. S.H.A., Hadr., 19.12.
218. P. Oxy. III, 412, ll. 63-8.

219. See above, Ch. 2, p. 45 with nn. 100-1.
220. Cf. R. Paribeni, Optimus Princeps; saggio sulla storia e sui tempi dell'imperatore Traiano (Messina 1926-7), Vol. II, pp. 246-7.
221. The practice is so common as to need no exemplification; MacDonald, Architecture, pp. 122-42, discusses and quotes much relevant material.
222. References to named architecti, ἀρχιτέκτονες etc. will be to the relevant number in my list in Appendix B, pp. 174-86; material cited in full there will be referred to in these notes in the form, for example, Degrassi, I. It. (cited).
223. No. 10; Degrassi, I. It. (cited) showed that the burial collegium was probably made up of members of the Imperial familia; on his agnomen, see Chantraine, p. 326, no. 247, whose reason for rejecting him as a former slave of the Nicanor noted by Suet., Aug., 89, is not convincing; cf. W. Kroll, "Nikanor", RE, XVII.1 (1936), no. 18, cols. 270-2.
224. No. 5; he was possibly the former slave of Calvia Crispinilla, see Chantraine, p. 309, no. 106, for references.
225. No. 7.
226. No. 4; the date is suggested by the presence of D.M. (See Appendix A, p. 169) and by the fact that his status is abbreviated in the form Aug. lib., on the dating value of which see Weaver, p. 51.
227. No. 2; the name of his wife, Aurelia Fortunata, confirms that as an Augg. lib. he was a freedman of joint Emperors.
228. No. 53; the editors of IRT (cited) reject the earlier theory that the inscription is to be dated to the first century on the basis of the material and letter-forms.
229. The site of the sepulchrum suggests that Claudius Eutychus may have had some connection with the aqueduct of Nero, see Panciera, Rend. Pont. Acc. (cited); Narcissus lived at too late a date (see n. 228) to have been the architect of the Augustan theatre, as was stated by A. Frova, L'arte di Roma e del mondo romano (Storia universale dell'arte, II) (Turin 1961), p. 674; Frova also erroneously states that the inscription is bilingual, in Latin and neo-Punic.
230. Cf. Chantraine, p. 166.
231. Unless one accepts that those architecti were servi publici, see above, Ch. 2, p. 40 with n. 64.
232. Nos. 3, 11, 12, 119 and 121.
233. For example, Domaszewski, "architectus", RE, II.1 (1893) cols. 551-2, mentions only the two military examples, while Promis, p. 125 ff., and de Ruggiero, "architectus", p. 646, suggest that it was the more general title for military architecti; de Ruggiero, Stato, p. 254, n. 4 (p. 255), refers to five non-military examples from Rome, but only one of them in fact bore the title, the rest were Imperial slaves or freedmen; in my opinion, there is an important difference. There is also a misprint (?) in de Ruggiero, Stato, p. 254, n. 4; emend CIL VI 5730 to CIL VI 5738.
234. No. 12; the transcription given in BCAR (see AE cited) contains two errors, corrected in AE.
235. Cf. Weaver, p. 82 and n. 6; a long shot might also connect him with C. Octavius Laenas, who was curator aquarum in 34.

236. No. 3.
237. Cf. Appendix B., p. 176; de Montauzan, p. 115, n. 3, also makes Posphorus an Augusti libertus.
238. See I. Calabi Limentani, Epigrafia Latina (Milan 1968), pp. 161-2; cf. for example CIL VI 9151-2.
239. Weaver, pp. 81-2, cites examples of the omission of status indication of otherwise known Imperial slaves and freedmen, but they are comparatively very rare.
240. So Weaver, p. 82 and n. 5; cf. also Gummerus, "Industrie", RE, IX.2 (1916), col. 1503.
241. Cf. Appendix A, p. 169.
242. No. 11; it is difficult to determine on the grounds of symmetry whether [A]villia or [Aq]uillia is the more acceptable; both nomina are found commonly in the index of CIL VI, but the praenomen Titus is found only with Aquillius (9973, 12262, 12266, 37196).
243. Calabi Limentani, "architetto", p. 576; Boulvert, p. 163, n. 471, writes: "esclave?"; Gummerus, loc. cit. (n. 240), however, makes him an ingenuus.
244. Weaver, p. 52, but cf. ibid., n. 9.
245. Chantraine, pp. 187-8.
246. This inscription is (significantly?) not cited by either Weaver or Chantraine, even in their indices; we should also note that none of the occupations noted in this context by Chantraine, pp. 187-8, is found in the form, for example, aquarius Augusti, where the Imperial reference is undoubtedly dependent on the occupation. It is also worth comparing the two definitely freeborn ab epistulis Augustorum and ab epistulis Latinis Augustorum, CIL III 5215 (= ILS 1362b) and V 3336 = ILS 1453, as well as the architectus Augustorum who was a praetorian veteran (no. 119), on whom see below, Ch. 2, pp. 61-2.
247. Weaver, p. 82, n. 7.
248. Cf. the redemptores operum Caesaris/um, two of whom had no status connection with the Imperial familia, see above, Ch. 2, pp. 37-8.
249. No. 119; see also Appendix B, p. 174.
250. No. 121.
251. Domaszewski, Rangordnung, p. 25.
252. No. 122.
253. Durry, pp. 114-15.
254. See below, Ch. 7, p. 153.
255. For example, CIL VI 2545 (= ILS 2064) and 32747 = ILS 2134; cf. R. Paribeni, "Gli statores Augusti", BCAR, ser. 6, XXIX (1901), pp. 286-99.
256. For example, CIL III 327 = ILS 2775.
257. CIL II 1970 = ILS 1341.
258. On medici in general, see the doctoral thesis of V. Nutton, The Medical Profession in the Roman Empire from Augustus to Justinian (Cambridge 1970).
259. Nos. 107, 108, 112, 113, 115a and 117.

260. Nos. 115b and 118.
261. No. 124 and possibly 125; I would suggest, however, that on no. 125 Vitruvius --io was an arch[is]ybernus], as was the man who erected his tombstone; in the latter case, the CIL reading should be emended since the cross-bar of the H is visible (Plate V, fig. 3).
262. No. 123.
263. No. 120; on the meaning of the title, see below, Ch. 7, p. 154 with n. 21.
264. It is worth noting that neither of the two men claimed any other military or civilian distinction on their tombstone; is this another indication that the 'title' was honorific rather than official?
265. For a full discussion of this subject, see below, Ch. 4, pp. 100-2.
266. See Ch. 2, pp. 56-7 with n. 212.
267. Cf. Frontin., Aq., 2.105.
268. CIL VI 2454 (= ILS 2060) and 2754 (= ILS 2059); VIII 2728 (= ILS 5795), 2934 (= ILS 2422), 2564, 1.20 (= ILS 470) and 2900 (idem?); AE 1942-43, 93.
269. Pliny, Ep., 10.41-42, cf. 61-62.
270. Suet., Calig., 21.
271. Frontin., Aq., 2.105; cf. above, Ch. 2, n. 68.
272. Pliny, Ep., 10.42.
273. See above, Ch. 2, p. 41.
274. See, for example, MacDonald, Architectus, p. 141.
275. Frank, ESAR, Vol. V, p. 235; cf. Loane, p. 80, much of which is almost literally copied from Frank; she also adds marmorarii, but the majority of her examples (n. 72) refer not to marble workers but to the Imperial civil servants, some of whom (e.g. CIL VI 410 (= ILS 1707) and 8486 = ILS 1600) she also describes incorrectly. When she states that "there can be no doubt that imperial slaves were constantly employed in state projects at Rome", she is, I believe, forgetting two vital distinctions, between civil servants and 'builders' and, among the latter, between 'technicians' and 'workers'.
276. Loane, p. 80; note also her important comment on Hadrian's 'legion' of building workers.
277. Frank, ESAR, Vol. V, p. 235.
278. On the irregularity of new Imperial building work, see above, Ch. 2, p. 46 with nn. 123-4.
279. 2 aquarii (CIL VI 3935-6), 1 faber (3969), 1 ensor (3988 = 4244) and 1 structor (4034); on the term structor, see below, Ch. 2, pp. 65-6.
280. CIL VI 4443, 4446 and 4460 respectively.
281. Although the Statilii were closely connected with the Imperial house, it is surely legitimate to treat their familia separately.
282. Respectively CIL VI 6233-5; 6354 (= ILS 7623); 6363-5; 6318; 6321; and 6353; on the term marmorarius, see below, Ch. 2, n. 294.
283. See below, Ch. 2, pp. 68-71; see also Ch. 5, passim.

284. (a) CIL VI 6283-5, 7405, 9102, b.12 and c.7-9, 9385 (= ILS 7713), 9386-9 and 9462a, I.12 = 13402, I.12; (b) CIL VI 3969, 4443, 4446 and 5866; (c) CIL VIII 12915; fabri were not necessarily simply 'builders', as is commonly assumed; 'labourer' seems to be a better general translation, cf. TLL and the OLD s.v.
285. CIL VI 8173 and 9401.
286. CIL VI 6363-5, 9409 (= ILS 7239), 9410, 9411 (bis) and 9413 = ILS 7622.
287. AE 1969-70, 64.
288. SEG IV 105; this man was not necessarily an architect, as is stated by Loane, p. 84, n. 89; the Greek is a straight translation of the Latin faber tignuarius, on which see below, Ch. 5, pp. 135-6.
289. (a) CIL VI 6353, 9102, c.10, 9903 (Plate X, fig. 2) and 9904-9; (b) CIL VI 4034, 5091 (= AE 1949, 211 (?)), 8795 (= ILS 1809), 8911, 9046, 9047 (= ILS 1810), 9048 (Plate X, fig. 3), 33235 and 33470 = ILS 9033; (c) CIL X 708, AE 1929, 154, and I. It. XIII.1, 32.I.3 (uncertain); on this term, see below Ch. 2, pp. 65-6.
290. CIL VI 6354 = ILS 7623.
291. CIL VI 9910 = ILS 7624.
292. An unpublished fragment now in the Palazzo dell'Esposizione in Rome (cassa 229) (Plate X, fig. 1); the restoration constructo[r] seems to be the only possible one.
293. (a) CIL VI 5205, 5985, 9462a, I.2 = 13402, I.2 and 34478 (Plate X, fig. 4) and AE 1926, 54; (c) I. It. XIII.2, 26, pagina II.III.10 and 31 and pag. III.6; Loane, p. 80, n. 72, writes of tectores in the Imperial columbaria without citing references, but the two examples which I have found in columbaria are both of private liberti.
294. (a) CIL VI 6318, 9102, b.11 (cited as an Imperial example by Loane, p. 80, n. 72), 9551-3, 9554 (Plate XI, fig. 2), 9555, 9462a, I.10 = 13402, I.10(?), 33874 (?), 35168 (= H. Lehner, Die antiken Steindenkmäler des Provinzialmuseums in Bonn (Bonn 1918), p. 434, no. 1409) (?) and 37577; (b) CIL VI 5866 and 8893; (c) CIL II 133 = ILS 4513b; marmorarii were not necessarily employed on building work, since the word is used of a wide range of men, including sculptors, cf. TLL, s.v., and below, Ch. 6, p. 140.
295. CIL VI 7814 = 33293 = ILS 7678.
296. IGRR I 211 = IGUR 1860 (forthcoming).
297. (a) CIL VI 8871, 33908 (= ILS 7675) and 37798; (c) I. It. XIII.2, 26, pag. III.12; like marmorarii, these men were not necessarily employed on building work.
298. CIL VI 9502.
299. CIL VI 9139 = ILS 7666 (Plate XII, fig. 3).
300. CIL VI 9561 and AE 1923, 74.
301. CIL VI 9647 = ILS 7670.
302. I. It. XIII.2, 26, pag. III.14.
303. CIL VI 4460.
304. (a) CIL VI 9462a, I.5 = 13402, I.5, 9820 and 37818; (c) I. It. XIII.2, 26, pag. II.III.13 and 17; M. Maxey, Occupations of the Lower Classes

in Roman Society (Chicago 1938), pp. 77-8, suggested that the latter two at least were concerned with crop-raising, comparing Dig., 17.2.52.2 and Cato, Rust., 5.4, but their "service outside the house" might have been connected with dressing stones, cf. Firm. Mat., 4.14.20.

305. CIL VI 9887.

306. (a) CIL VI 7615; (c) I. It. XIII.1, 32, I.2 and XIII.2, 26, pag. III.21.

307. Cf. Serv., ad Aen., 1.704; I am grateful to Dr. B. Bader for sending me a list of the texts in the TLL file on structor; the earliest literary text in which the word certainly occurs in the sense of 'carver' etc. is Petron., Sat., 35.2, although that does not preclude the possibility that the word has that meaning on inscriptions of an earlier period.

308. CIL VI 33470 = ILS 9033.

309. CIL VI 33795; the terminus post quem is suggested by the use of Caesaris n(ostri), cf. Weaver, pp. 51 and 54-6; cf. also the collegium Aesculapi et Hygiae structorum Caes. n. (AE 1937, 161), and the p(rae)p(ositus) structorum who was a freedman of Hadrian (CIL VI 9045).

310. I. It. XIII.2, 26 and 1.32; the number should possibly be reduced to 8, cf. above, Ch. 2, n. 304.

311. Suet., Calig., 8.5, cf. Nero, 6.1.

312. A valid comparison can be made here with the 'building' staff at Trinity College, Cambridge. The largest university college in Great Britain maintains a permanent staff of 3 carpenters, 2 electricians, 1 plumber, 1 bricklayer, 1 fitter and 1 mate, under a Clerk of the Works, who are employed on routine daily maintenance and repair jobs. For large maintenance and repair jobs and all new works, the college employs outside contractors. (Statistics by courtesy of the Junior Bursar, Trinity College.)

313. See above, Ch. 2, p. 41.

314. See above, Ch. 2, pp. 31-40.

315. CIL VI 9034; the exact date of this inscription is disputed, see above, Ch. 2, n. 47.

316. On this and other colleges, at Rome and elsewhere, see below, Ch. 5, passim.

317. AE 1941, 71, ll. 6 and 12 (see Pearse, "Altar", n. 31); CIL VI 996 (cf. 31220a), l. 10; 9405, a.6, b.6, c.7; 1060 = 33858, b.I.2-3 and c.II.15.

318. CIL VI 9034 and AE 1941, ll. 15 (? - see Pearse, "Altar", pp. 8-9), 36, 62 and 67.

319. See below, Ch. 5, p. 131 with n. 118.

320. See below, Ch. 5, pp. 126-8; on the spelling of the name of this college, see below, Ch. 5, n. 86.

321. Dig., 50.16.235.

322. Such was the suggestion of Frank, ESAR, Vol. V, p. 251, rejected by Meiggs, Ostia, p. 319, n. 2.

323. Cf. Meiggs, Ostia, pp. 196-211.

324. An early proponent of this was A. Choisy, L'art de bâtir chez les romains (Paris 1873), esp. pp. 187-206, but the idea still finds modern currency, see, for example, Packer, p. 42.
325. MacMullen, "Building", p. 213, adds dendrophori ("woodworkers"), but that translation is by no means accurate; on the professional and religious activities of this college, see Waltzing, Vol. I, pp. 240-53, and S. Aurigemma, "Dendrophori", DE, pp. 1681-5; Brewster, pp. 82-5, suggested that they had no connection with building but acted as "porters" of the sacred pine in religious processions and of heavy burdens in connection with fire-fighting.
326. See Waltzing, Vol. I, pp. 161-333, esp. pp. 181-95.
327. CIL VI 9034.
328. ESAR, Vol. V, p. 236.
329. MacMullen, "Building", p. 213.
330. On the dangerous 'mistranslations' of the word collegium, see Finley, Economy, p. 138. MacMullen himself recognises this point, albeit only in a note (MacMullen, "Building", p. 229, n. 59), but his text 'telescopes' the centuries and does not sufficiently recognize the great difference in the position of the colleges in the early and late Empire.
331. See Waltzing, Vol. I, p. 346 f., and Cracco Ruggini, "Stato", p. 277 with n. 21.
332. Cf. above, Ch. 2, p. 38 with n. 51.
333. AE 1941, 71, ll. 72-7.
334. MacMullen, "Building", p. 229, n. 59.
335. For a detailed examination of the membership of this college, see below, Ch. 5, pp. 128-36.
336. Suet., Claud., 20.3.
337. Suet., Nero, 31.3.
338. Joseph., BJ, 3.10.10.
339. The 'building exploits' of Nero and Vespasian (see Suet., Nero, 19.2 and Dio Cass., 65.10.2), solemnly recorded by MacMullen, "Building", p. 213, are completely irrelevant; one might as well include members of the British royal family in a list of arboriculturists.
340. Suet., Calig., 21.
341. Suet., Vesp., 18.
342. MacDonald, Architecture, pp. 141-2.
343. MacDonald himself, p. 141, recognized this but remained faithful to his hypothesis.
344. The organization of the provision of materials is discussed in Chapter 3.
345. The practice was, at least by the early third century, enshrined in a law: inscribi autem nomen operi publico alterius quam principis aut eius cuius pecunia id opus factum sit, non licet (Dig., 50.10.3) (Aemilius Macer, hardly an "early jurisconsult", as Frothingham, "Architect", p. 184); cf. also Dig., 50.10.2 (Ulpian), 4 (Modestinus) and 7 (Callistratus).

346. Cf. above, Ch. 1, p. 10 with n. 72; cf. also the complaints about the practice made by Julian., Caesares, 24 (323a-b).
347. I am unable to add to the list given by de Ruggiero, DE, s.v. curator, p. 1340; the exception is from Germe (Galatia), CIL III 285.
348. CIL XIV 171 (= ILS 2741) and 373 = ILS 6141.
349. CIL IX 1160 (= ILS 6485) (Hadrian) and X 1266 (Vespasian); Liebenam, p. 385, de Ruggiero, DE, loc. cit., p. 1334, and Hirschfeld, p. 271, n. 3, believed that these two were appointed to undertake new Imperial works, but the 'Imperial connection' might equally have been purely honorific; the first man was also appointed curator kalendarii at Nola by Antoninus Pius; if they had been appointed as "Kuratoren für einen bestimmten Bau", as Hirschfeld thought, the phraseology would surely have been different; see also MacMullen, "Building", p. 226, n. 30.
350. See DE, loc. cit., p. 1340.
351. ibid., pp. 1340-1.
352. In Syria, we also find πρωτοί; on these and other Syrian officials, see especially G. M. Harper, "Village Administration in the Roman Province of Syria", YCLS, I (1928), esp. pp. 122-41; cf. also Robert, Hellenica, Vol. X, p. 39.
353. For example, IGRR III 648 and (perhaps) 1075.
354. So Liebenam, pp. 384-5.
355. Strabo, 12.8.11 (C 575).
356. T. S. R. Broughton, ESAR, Vol. IV, p. 850; cf. Liebenam, p. 384.
357. Strabo, 14.2.5 (C 653).
358. Perhaps nos. 56, 61 and 71; cf. below, Ch. 4, pp. 106-7.
359. Pliny, Ep., 10.39.4; it is interesting to compare the conclusion of Broughton with that of Jones, Greek City, p. 238, that "some Hellenistic cities maintained an official architect to advise on public buildings, but this practice seems to have been abandoned in the Roman period".
360. Nos. 41 and 45-51.
361. Nos. 41 and 48.
362. See also below, Ch. 4, pp. 104-7.
363. Cf., for example, on some Syrian texts, H. G. Pflaum, "La fortification de la ville d'Adraha d'Arabie", Syria, XXIX (1952), pp. 307-30, esp. pp. 318-21; see also H. C. Butler, Early Churches in Syria, fourth to seventh centuries, edited and compiled by E. B. Smith (Princeton 1929), p. 254.
364. Cf., for example, CIL III 2907 (= ILS 5336) and 8333; a large amount of information is often given where the work was executed by the army, although this is by no means the rule.
365. For example, the dedication of a building.
366. These subordinates are themselves often of high rank, and probably delegated much of the work to others.
367. It is probable that in some cities there were permanent official architects, cf. above, Ch. 2, n. 358, and below, Ch. 4, pp. 104-7; even there, however, it seems that officials were appointed to oversee the execution of a particular work, cf. nos. 46, 49, 73 and 89.

368. CIL XII 3070 = ILS 4844; see above, Ch. 2, p. 46.
369. CIL X 3907 = ILS 6313; the first part of his title does not imply that he was a permanent official in charge of opera publica.
370. CIL IX 1419 = ILS 6489; there is no need to assume that these thermae were built on the initiative or at the expense of Hadrian, cf. above, Ch. 2, n. 349.
371. IRT 263 (probably third century, according to the editors).
372. NS 1899, p. 124 (early imperial).
373. These verbs are the Greek equivalents of the general Latin verb curare; although they appear to be almost interchangeable, we might note that they were used together of one man in connection with the same work, IGRR IV 1352; cf. also IGRR IV 870.
374. For example, IGRR III 605 and IV 242, 1189 and 1523; MAMA IV 334; some inscriptions record that a man acted as ἐργεπιστάτης on more than one occasion, but the very phrase ἐργεπιστάτης πολλῶν suggests that it was only a temporary post, see IGRR IV 580 and cf. IGRR IV 861 and MAMA VIII 473.
375. Pliny, Ep., 10.17b.2.
376. Dig., 1.16.7 and 50.10.2.
377. Cf. Dio Chrys., 46.6; see also Jones, Greek City, pp. 248-50.
378. MacMullen, "Building", pp. 210-11 and notes (esp. n. 28); Jones, Greek City, pp. 237-8.
379. Dio Chrys., 40.7.
380. Dio's precise 'title' is not known, but cf. Pliny, Ep., 10.82.2 (sub cura).
381. Broughton and MacMullen assume that the last phrase refers to a visit to stone quarries, but Dio might also have gone to select timber.
382. Plut., Mor., 811 B-C (Praecepta gerendae reipublicae); the context makes it clear that Plutarch was acting as an official overseer.
383. Dio Chrys., 40.7.
384. Sherwin-White, Pliny, p. 584.
385. On this, see below, Ch. 3, passim, esp. pp. 86-8; note also the redemptor marmorarius at Lepcis Magna, IRT 275. In the late Empire, curatores seem to have been allocated a fixed amount of material from public sources, see IG XII.9, 907 (Chalcis, 359), cf. SEG XI 464.
386. Dig., 50.10.2.
387. Cf. Vitruv., 9.praef.9.
388. The latest 'edition' of it which I have found is that cited by Broughton, see my list of architects, no. 65; this was recorded (without text or additional references) in SEG IV 439.
389. It would be interesting to know whether there was a single ἐπιμελητής with responsibility for the whole theatre.
390. Cf. below, Ch. 2, pp. 79-80.
391. ὑπαρχιτέκτονες are recorded in classical and Hellenistic Greece who clearly worked under the main ἀρχιτέκτων, cf. IG II<sup>2</sup> 1678a, A.7 and VII 3073, 160.

392. IGRR IV 444 = Buckler, Anatolian Studies, p. 33; Cracco Ruggini, "Associazioni", p. 101, describes the ἐργεπιστάται in this inscription as "una società di costruttori ... che il proconsole tuttavia perdona come collettività", but they are surely individual officials working together as overseers.
393. BCH, XXXVII (1913), p. 90 ff., no. 4, l. 4; 'building' ἐργολάβοι are also found in an inscription of 459 from Sardis, see Buckler, Anatolian Studies, p. 36 ff., no. 4, ll. 24, 31, 38 and 44, cf. SEG XV 742 (in fact, the verb ἐργολαβεῖν is used); some at least of the references are to individual workers, who are contrasted with the ἐργοδοταί; cf. Cod. Iust., 4.59.2 (483) and 8.10.12.9 (Zeno), but see also 8.12.5e, where the ἀρχιτέκτων and ἐργολάβοι are together distinguished from the τεχνίτης. I know of only two other epigraphic examples of ἐργολάβοι in the Roman period, Bull. Ep. 1946-7, 204 (pp. 357-8) (a salt-contractor near Chalcis in Syria dated 553), and BCH, VI (1882), pp. 185-6, no. 8 (the sculptor of a statue of Justinus II, from Ergissa (Thrace), dated 576), although there is an ergolabus at Thermae Himeraeae (CIL X 7363) (whom Scramuzza, ESAR, Vol. III, p. 360, describes, without any warrant, as "a contractor of gladiatorial shows").
394. This material is fully discussed by Burford, GTBE, esp. pp. 119-58; Burford also suggests reasons for its inscription on stone in Acta 5th. Cong. Epigraphy, 1967 (Oxford 1971), pp. 71-6.
395. Cf., for example, IGRR IV 1431 and 1637; IG VII 3077; TAM II.2, 578-9; cf. also Dig., 50.8.7(5).1 (Paulus) and 50.10.7 (Callistratus).
396. SEG XXIII 207; cf. Pliny, Ep., 10.39.3.
397. Pliny, Ep., 10.41.2.
398. On this, see also below, Ch. 6, pp. 145-8.
399. For a list of 'colleges' in Asia Minor, see Broughton, ESAR, Vol. IV, pp. 841-4; note esp. the ναυπηγοὶ τέκτονες at Ephesus (Forsch. Ephesos, III (1923), p. 158, no. 75) and οἱ ἐπὶ τῆς Ἀσίας τεχνεῖται at Didyma (Th. Wiegand, Didyma, II - Die Inschriften (A. Rehm) (Berlin 1958), no. 107).
400. See below, Ch. 5, pp. 121-4.
401. See nos. 46, 49, 50, 73 and 77; a mosaic in the Bardo museum at Tunis probably depicts the overseer and architect together (see Plate VIII, fig. 2).
402. ILS 6087, 98.
403. ILLRP 542, CIL IX 2828, and AE 1916, 60-1; see also Cic., Font., 8.18.
404. CIL VIII 8701 (= ILS 6887), 8777 (= ILS 6888), and 16411; cf. R. Clausen, The Roman Colonate (New York 1925), p. 291. The repair of public buildings, however, was perhaps considered a munus publicum throughout the imperial period, cf. Dig., 6.4.4. (Ulpian).
405. CIL X 854-7 = ILS 5653.
406. CIL III 1035 and XIV 4259 = ILS 5630; AE 1960, 252.
407. FIRA, Vol. III, 150, cf. A. Berger, "A Labor Contract of A.D. 164: CIL III, p. 948, no. X", CP, XLIII (1948), pp. 231-42.

403. See above, Ch. 2, pp. 68-71.
409. On the fire-fighting duties of this college, see Waltzing, Vol. II, pp. 203-4; R. Ambrosino, "Riferimenti all'ordinamento associativo romano", ECAR, LXVII (1939), p. 99, note ad fin., rejects the theory that this was their *raison d'être*.

NOTES TO CHAPTER 3

1. Cf. Ward-Perkins, "Quarrying", pp. 142-3; for a detailed discussion of transport, see A. Burford, "Heavy Transport in Classical Antiquity", Economic History Review, 2nd. ser., XIII.1 (1960), pp. 1-18.
2. A good example is provided by Lepcis Magna, cf. below, Ch. 3, p. 87.
3. Vitr., 2.1.4-5 and 5.6.7, cf. also 7.10.3.
4. Strabo, 5.3.7 (C 235) and 10-11 (C 237-8); cf. also Vitr., 2.7 passim; on Rome's quarries, see R. Lanciani, The Ruins and Excavations of Ancient Rome (1897, reissued New York 1967), pp. 32-8.
5. Strabo, 5.2.5 (C 222), cf. 5.3.7 (C 235).
6. See Burford, GTBE, pp. 167-191 and esp. 173-4; cf. also ibid., pp. 150-2; the size of individual contracts for the supply of material varied enormously.
7. For a list of buildings, see T. Frank, ESAR, Vol. I, pp. 50, 104 and 183-7.
8. Livy, 35.10.12; 41.27.8.
9. Livy, 35.41.10; cf. Armini, Eranos, XXI (1923), pp. 42-3.
10. Cf. Blake, Roman Construction I, pp. 67-9.
11. For example, the wooden structure erected for a gladiatorial show just outside Rome in 80 (Dio Cass., 66.25.3).
12. Cf. Herodian, 7.12.5-6.
13. Cf. MacDonald, Architecture, pp. 147-3, and a painting in the tomb of Trebius Iustus illustrated ibid., Plate 130b.
14. Cic., Brut., 22.85.
15. Livy, 45.18.3; on mines in general, see O. Davies, Roman Mines in Europe (Oxford 1935).
16. Plaut., Capt., 723-6.
17. Plaut., Mil. Glor., 920-1.
18. On this, see below, Ch. 3, pp. 85-94.
19. Its first attested use in Rome is dated to 190 B.C. (Livy, 37.3.7); for various references to its use in Rome in the late Republic, see Blake, Roman Construction I, pp. 50-60, and Ward-Perkins, "Marmo", pp. 866-7.
20. Pliny, NH, 36.7.48 (quoting Nepos).
21. Cf. CIL XI 1356.
22. On the Luna quarries in general, see Bruzza, "Marmi lunensi".
23. For example, Lucullus, cf. Pliny, NH, 36.8.49-50.
24. For example, Sulla (Pliny, NH, 36.5.45); cf. also Livy, 42.3.1-2.
25. Cic., Att., 12.19.1.
26. See Ward-Perkins, Jerome, II.
27. Suet., Aug., 28.3.

28. Cf. esp. Blake, Roman Construction I, p. 53.
29. For references to particular overseas marbles, see Blake, Roman Construction I, pp. 53-60.
30. ibid., p. 53.
31. CIL XI 1356, on which see Bruzza, "Marmi lunensi", p. 394 f.
32. See Bruzza, "Marmi lunensi".
33. See Lanciani, op. cit. (n. 4), pp. 525-6, and Blake, Roman Construction I, p. 51.
34. Cf. CIL VIII 14564 and 14580-2, and Bruzza, "Marmi grezzi", no. 255.
35. These entries are collected and discussed by Bruzza, "Marmi grezzi".
36. Cf. Suet., Tib., 49.2.
37. Bruzza, "Marmi grezzi", nos. 2, 138, 191, 220, 256, 266 and 291 respectively; Imperial ownership of the Pentelic quarries is disputed, see Ward-Perkins, "Tripolitania", p. 92, and references there cited.
38. See Blake, Roman Construction II, Index E, s.vv.
39. See above, Ch. 2, pp. 53-4.
40. We should note that CIL VI 30760 = ILS 1707 was originally found in the area of the Aventine, and not in the Campus Martius, as Bruzza, "Marmi grezzi", p. 138; see BCAR, 1888, pp. 68-70.
41. CIL III 348 (= ILS 1477), VI 8482, VIII 14551, 14552 (= ILS 1597) and 25692; IGUR I 1255, cf. SEG XV 863.
42. Bruzza, "Marmi grezzi", nos. 1 (= ILS 8717), 4 (= ILS 8718), 5 and 292, with pp. 127-8.
43. ibid., nos. 1 (= ILS 8717), 237 and 258-9 = ILS 8716a-b; cf. also CIL III 25 = ILS 2012 = Meredith, Chron. d'Egypte, XXII (1954), pp. 108-9, no. 26.
44. For example, RIB 1952, P. Mich. 466.
45. Appendix B, nos. 83-5 and 88; cf. also K. Fitzler, Steinbrüche und Bergwerke in ptolemäischen und römischen Ägypten: ein Beitrag zur antiken Wirtschaftsgeschichte (Leipzig 1910), pp. 132-3; Dubois, Carrières, p. XXXII f.
46. The evidence is collected by Robert, "Lettres", p. 25, n. 18 (where emend MAMA VI to MAMA IV); in this particular case, the quarries were at Docimium, the administrative centre in neighbouring Synnada.
47. For a description of the area and references to the excavation, see Platner-Ashby, p. 200, s.v. Emporium; for photographs and additional references, see Nash, Vol. I, pp. 380-6.
48. See Degrassi, Scritti vari, Vol. I, pp. 226-7, and references there cited, and Robert, "Lettres", p. 36.
49. Cf. Bruzza, "Iscrizioni grezzi", no. 1 = ILS 8717, with Larsen, ESAR, Vol. IV, pp. 463-4.
50. See Appendix B, no. 83.
51. G. Becatti, Scavi di Ostia, VI (1969), pp. 22-5, who rules out the possibility of re-use.
52. Cf. Ward-Perkins, "Marmo", p. 867.

28. Cf. esp. Blake, Roman Construction I, p. 53.
29. For references to particular overseas marbles, see Blake, Roman Construction I, pp. 53-60.
30. ibid., p. 53.
31. CIL XI 1356, on which see Bruzza, "Marmi lunensi", p. 394 f.
32. See Bruzza, "Marmi lunensi".
33. See Lanciani, op. cit. (n. 4), pp. 525-6, and Blake, Roman Construction I, p. 51.
34. Cf. CIL VIII 14564 and 14580-2, and Bruzza, "Marmi grezzi", no. 255.
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41. CIL III 548 (= ILS 1477), VI 8482, VIII 14551, 14552 (= ILS 1597) and 25692; IGUR I 1255, cf. SEG XV 863.
42. Bruzza, "Marmi grezzi", nos. 1 (= ILS 8717), 4 (= ILS 8718), 5 and 292, with pp. 127-8.
43. ibid., nos. 1 (= ILS 8717), 237 and 258-9 = ILS 8716a-b; cf. also CIL III 25 = ILS 2012 = Meredith, Chron. d'Egypte, XXII (1954), pp. 108-9, no. 26.
44. For example, RIB 1952, P. Mich. 466.
45. Appendix B, nos. 83-5 and 88; cf. also K. Fitzler, Steinbrüche und Bergwerke in ptolemäischen und römischen Ägypten: ein Beitrag zur antiken Wirtschaftsgeschichte (Leipzig 1910), pp. 132-3; Dubois, Carrières, p. XXXII f.
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48. See Degrassi, Scritti vari, Vol. I, pp. 226-7, and references there cited, and Robert, "Lettres", p. 36.
49. Cf. Bruzza, "Iscrizioni grezzi", no. 1 = ILS 8717, with Larsen, ESAR, Vol. IV, pp. 463-4.
50. See Appendix B, no. 83.
51. G. Becatti, Scavi di Ostia, VI (1969), pp. 22-5, who rules out the possibility of re-use.
52. Cf. Ward-Perkins, "Marmo", p. 867.

53. For detailed evidence, see esp. Ward-Perkins, "Tripolitania", p. 95 f.
54. IRT 361.
55. IRT 275 and 352 and 355-6 respectively.
56. IRT 300; for a comparison of building costs in Africa, see R. Duncan-Jones, The Economy of the Roman Empire: Quantitative Studies (Cambridge 1974), pp. 75-8. and 90-3.
57. Cf. Ward-Perkins, "Tripolitania", p. 95.
58. Meiggs, Ostia, pp. 167-8; see also P. Pensabene, "Studio tecnico e architettonico", Scavi di Ostia, Vol. VII (Rome 1973), esp. pp. 185-92, for a detailed review of the evidence of materials at Ostia.
59. SEG XIX 684, cf. Bull. Ep. 1962, 284, and Robert, "Lettres", pp. 34-6.
60. Cf. Ward-Perkins, "Quarrying", pp. 138-9; the two different types of work executed in the quarries - the cutting of a block and the roughing out of certain details - are pictured in the reliefs on a dedicatory altar from the marble quarries of St. B  at, see M. Labrousse, "Un sanctuaire rupestre gallo-romain dans les Pyr  n  es", M  langes d'arch  ologie et d'histoire offerts    Charles Picard, Vol. II (Paris 1949), pp. 504-5 and fig. 5.
61. For the evidence of the standardization of column lengths, see Ward-Perkins, "Quarrying", n. 25.
62. See G. Kapitan, "The Church Wreck off Marzameni", Archaeology, 22 (1969), pp. 122-33.
63. Cf. Kapitan, loc. cit., p. 133.
64. See P. N. Gargallo, "Exploring off the Coast of Sicily", Archaeology, 15 (1962), pp. 193-7.
65. On sarcophagi in general, see J. B. Ward-Perkins, "The imported sarcophagi of Roman Tyre", Bull. Mus. Beyrouth, XXII (1969), pp. 109-45, esp. pp. 132-9.
66. See Ward-Perkins, "Quarrying", p. 13 and n. 34. Proconnesus provides valuable evidence of the work executed in quarries, especially of objects - architectural, sculptural and funerary - in half-finished form. Recent excavations in the quarries there are the subject of a paper by Dr. Nu  in Asgari which is to be published in Papers of the Tenth International Congress of Archaeology. I am grateful to Dr. Asgari for sending me an outline of the results.
67. Ward-Perkins, "Tripolitania", p. 95.
68. ibid., pp. 103-4, with IRT add. 801.
69. IRT 264.
70. sic; IRT gives marmorarius, erroneously as the photo of Ciotti (reference given in IRT), p. 43, shows; we might note that the Greek loan-word was itself invariably spelt μαρμαρ  ριος (see Robert, Hellenica, Vol. XI-XII, pp. 28-9), which, together with the bilingual form of the dedication and the Nicomedian origin of Asclepiades, suggests that we have here a latinization of the Greek form rather than a positive error.
71. On whom see M. Squarciapino, La scuola di Afrodisia (Rome 1943), with the qualifications of Toynbee and others noted by Ward-Perkins,

"Tripolitania", p. 101, n. 106.

72. IGBulg. II 674.
73. Respectively Bull. Ep. 1949, 234, CIMRM II 2307 (cf. Bull. Ep. 1972, 308), BCH, VII (1883), p. 27, no. 20 and Bull. Ep. 1972, 505; we might also note a Nicomedian ἀρχιτέκτων at Olbia (Appendix B, no. 50), and a λιθένπορος at Interamna (IG XIV 2247), on whom see below, Ch. 3, pp. 89-92; a full treatment of the marble-workers of Nicomedia has been promised by Robert, Hellenica, Vol. X, p. 281, n. 6, cf. ibid., Vol. XI-XII, p. 35, n. 5.
74. Much of the evidence is collected by Robert, "Lettres", pp. 41-3, to which add, possibly, MAMA VIII 217 and Bull. Ep. 1973, 467 and references there cited.
75. ILAlg. I 2102.
76. Cf., for example, G. Pesce, Sarcophagi romani di Sardegna (Rome 1957), pp. 12-13, and V. Tusa, I sarcophagi romani in Sicilia (Palermo 1957), pp. 16-18.
77. Pliny, Ep., 9.39.4.
78. CIL VI 33873 and X 1549 and IRT 275 respectively; cf. also above, Ch. 2, p. 34.
79. Respectively CIL VI 33886 = ILS 7539, and SEG IV 106 = IGUR 413.
80. See G. Rickman, Roman Granaries and Store Buildings (Cambridge 1971), p. 97.
81. Frank, ESAR, Vol. V, p. 233, located them in the Emporium district; Rickman makes no suggestion.
82. IG XIV 2247; I can attach no significance to the find-spot; Interamna was not on a main road from Rome to a port on the east coast of Italy.
83. See Meiggs, Ostia, pp. 56-8.
84. See above, Ch. 3, p. 85 with n. 34.
85. Cf. R. Gnoli, Marmora Romana (Rome 1971), p. 141; the type of marble which Clemens employed for his inscription is not recorded in IRT, but Miss Reynolds informs me privately that it was a white marble of a type not distinctive enough to make its provenance obvious without a detailed petrological examination.
86. Marble from the quarries at St. Béat (Aquitania), for example, was mainly used in what is now central and southern France, cf. R. Lizop, Histoire de deux cités gallo-romaines: Les Convenae et les Consoranni (Comminges et Couserans) (Toulouse and Paris 1931), pp. 243-4; cf. also O. Brogan, Roman Gaul (London 1953), p. 139.
87. CIL XIV 425 = ILS 6170.
88. Weaver, pp. 81-2, notes several examples where an otherwise known Imperial freedman omitted his status indication, but these are probably exceptional; Weaver himself warns against the temptation of assuming a connection with the Imperial familia where none is expressed.
89. Cf. the description of the horrea as Galban and not Sulpician (see Rickman, op. cit. (n. 80), p. 174), and the spelling vibus (see R. G. Kent, The Sounds of Latin: a descriptive and historical phonology, 3rd. ed. (Baltimore, 1945), para. 61 II, p. 61).
90. IG XIV 2247.

91. Cf. Fiehn, "Steinbruch", RE (2). III.2 (1929), col. 2266, and the map in Gnoli, op. cit. (n. 85); on Nicomedia's local trade in marble, see Pliny, Ep., 10.41.2.
92. On the ownership of these horrea, see Rickman, op. cit., pp. 165-8.
93. Dig., 20.4.21.1 (Scaevola).
94. Rickman, op. cit., pp. 195 and 207-8.
95. Rickman, op. cit., p. 173 f.
96. Cf. Moretti ad IGUR 413.
97. Cf. above, Ch. 3, p. 86 with n. 49.
98. Pliny, NH, 36.14.70.
99. Cf. also below, Ch. 3, pp. 94-6, on the brick industry.
100. IRT 530a and b.
101. See Ward-Perkins, "Tripolitania", pp. 90-3; I find it difficult to accept that iussu could have been used of "a customer, placing an order" (p. 91).
102. See above, Ch. 3, p. 88 with n. 59.
103. See Ward-Perkins, "Quarrying", p. 146.
104. See Karitan, loc. cit. (n. 62), p. 122.
105. See Blake, Roman Construction I, pp. 279-80.
106. Cf. Dio Cass., 39.62.2.
107. Cf. Vitr., 2.8.17, and Pliny, NH, 35.49.173.
108. See Blake, Roman Construction I, pp. 292-8.
109. For example, those of C. Asinius Pollio and Cn. Domitius Afer (cf. CIL XV 2231 f. and 979 f. respectively).
110. Tac., Ann., 15.43.
111. The stamps of Rome are fully treated by Bloch, Bolli.
112. Some examples are given by Frank, ESAR; Vol. V, p. 209.
113. See Bloch, Bolli, pp. 336-7, esp. the list on p. 337.
114. See Bloch, Bolli, pp. 337-8.
115. Cf. Loane, pp. 102-3, and Bloch, Bolli, pp. 337-9.
116. Bloch, Bolli, p. 339.
117. Bloch, Bolli, pp. 292-303.
118. Cf. Bloch, Bolli, pp. 329-31.
119. CIL XV 6123.
120. See CIL XV, p. 6, VII, and nos. 3-6, and Bloch, Brick Stamps, nos. 1 and 2.
121. See Platner-Ashby, p. 431.
122. For evidence of the transporting of bricks, see Loane, pp. 101-2, and Frank, ESAR, Vol. V, p. 208.
123. For the evidence, see MacBullen, "Building", pp. 212-3 and 216.
124. See above, Ch. 3, p. 82 with n. 5.

125. S.H.A., Pert., 1.1, but cf. the mention of his father's taberna coactiliaria, ibid., 3.3.
126. Dio Cass., 74.3.1.
127. CIL XI 363 and 1620 = ILS 7540 respectively; the third is from Salona (CIL III 12924), while a negotiator materiarius is recorded at Rome (AE 1960, 29); of the 5 materiarii, 2 are from northern Italy, Dertona (CIL V 7377) and Sena Gallica (CIL XI 6212), 2 from Rome (CIL VI 9561 and AE 1923, 74), and only one from southern Italy, Capua (CIL X 3965 = ILS 7626); on the meaning of materiarius, see below, Ch. 5, n. 53; cf. also the lignarii at Pompeii (CIL IV 951 and 960 = ILS 6419d).
128. CIL V 815 = ILS 3547.
129. See Loane, p. 43, and ESAR, Vol. III, pp. 579-80, and Vol. IV, pp. 53-5 and 616.
130. See Honigmann, "Libanos", RE, XIII.1 (1926), col. 7.
131. In the fourth and fifth centuries, state contracts were let to manicipes thermarum for wood to heat the baths, cf. Cod. Theod., 11.20.3, 14.5.1; see also ibid., 13.5.10.
132. SEG XIX 684, cf. above, Ch. 3, p. 88 with n. 59.
133. Yediot, XXX (1966), pp. 221-3, cf. FA, XXI (1966), 7372; LSJ Supplement erroneously translates ξυλικάριος as "dealer in timber or worker in wood", cf. Bull. Ep. 1972, 532 and references.
134. CIL XIV 278.
135. IG XII.9, 907 (ξύλα τετράγωνα and ξύλα μονόξυγα); cf. the edict of Diocletian, XII.1 f., with Bull. Ep. 1965, 80.
136. Pliny, NH, 16.70.200-2.
137. Juv., 3.254-6.
138. CIL VI 975, III.36, cf. Platner-Ashby, s.v.
139. See above, Ch. 2, p. 51 with n. 161.

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1. Burford, Craftsmen, p. 102; the distinction has long been recognized though not always remembered.
2. Perhaps first by Promis; cf. also Frothingham, "Architect", pp. 180 and 189, Briggs, pp. 32-6, and MacDonald, Architecture, p. 123.
3. For the Greek period, see LSJ, s.v. ἀρχιτέκτων; on the derivation of architectus, see M. Niedermann, "Zur lateinischen und griechischen Wortgeschichte: Lat. architectus, architectari, architector, -oris", Glotta, XIX (1931), pp. 1-4.
4. Plaut., Mostell., 760 and Mil., 915; in fact, architecton is used in the first passage, architectus in the second, but I see no significance in that (pace Promis, p. 14), cf. Niedermann, loc. cit., p. 2, who notes inter alia that there may have been metrical reasons for the use there of architecton; cf. also Plaut., Poen., 1110, and Truc., 3; F. Conrad, "Vers-Ende und Sinnesabschnitt bei Plautus", Glotta, XV (1927), pp. 32-3, also postulates metrical reasons, but G. P. Shipp, "Plautine Terms for Greek and Roman Things", Glotta, XXXIV (1955), pp. 151-2, prefers to discern a difference in nationality.
5. Vitr., 10.16.3-4 and 7.praef.15.
6. Pliny, NH, 34.42.148, and 36.18.83, cf. also 36.14.67.
7. For a discussion of the whole approach of modern critics to Roman art in general, see O. J. Brendel, "Prolegomena to a Book on Roman Art", MAAR, XXI (1953), pp. 7-73; cf. also Sir M. Wheeler, Roman Art and Architecture (London 1964), pp. 7-10.
8. Vitr., 1.praef.2 and 5.1.6.
9. Procop., Aed., 4.6.13, and Dio Cass., 69.4.1; we might note that Vitruvius was regarded as an architectus and Apollodorus an ἀρχιτέκτων in connection with either type of project.
10. For example, Paus., 5.12.6 and MacDonald, Architecture, p. 76.
11. No. 23.
12. Indeed, the two are frequently contrasted, see, for example, Plato, Amat., 135c, Cic., Fam., 9.2.5, and no. 106; cf. also Arist., Metaph., I 981a30.
13. See Burford, Craftsmen, pp. 93-4 and 101-7, and also above, Ch. 3, pp. 100-2. Burford, Craftsmen, pp. 93-4 and n. 237, is not quite correct about the rarity of the prefix archi-; to her two exceptions, I can add ἀρχιγράφος (Bull. Ep. 1958, 516), ἀρχιμηχανικός (IGRR I 1232) and ἀρχιουκοδόμος (SEG VIII 781 and Bull. Ep. 1958, 507) (although the last may have been an 'architect'), but her general point remains valid.
14. CIL VIII 2728 = ILS 5795.
15. G. Downey, "Byzantine Architects, their training and methods", Byzantion, XVIII (1946-8), pp. 99-118, argues, with some force, that in the late Empire the μηχανικός was the architect-engineer and held a higher place than the ἀρχιτέκτων, who by then was

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- simply a 'master-builder'; cf. also, for example, Procop., Aed., 1.1.24, 50 and 71, and IGLS 348.
16. Machinator: CIL VI 9533, cf. 33810 = ILS 7727, and NS 1953, pp. 302-3, no. 70; to my knowledge, mechanicus is found on inscriptions only in its Greek form, e.g. IGLS 348.
  17. See esp. H. C. Butler, Early Churches in Syria, fourth to seventh centuries, edited and compiled by E. B. Smith (Princeton 1929), pp. 254-7.
  18. See above, Ch. 4, n. 13.
  19. See Appendix B, pp. 172-8 and 186-7.
  20. Cic., QF 2.6(5).3; cf. also Vitr., 6.8.9-10.
  21. Gell., 19.10.2.
  22. This variation again illustrates the difficulty of recognizing an 'architect' and demonstrates that we should not place too much reliance on the exactitude of technical terms employed by ancient writers in non-technical contexts.
  23. Plut., Mor., 498 E (An Vitiositas); on the use here of the word τεχνίτης, see previous note.
  24. See, for example, DS, Vol. I.i, p. 381, fig. 464, and Rivoira, Architecture, p. 86, fig. 93.
  25. Vitr., 1.2.2 and 1.1.4.
  26. Cf. Vitr., 1.6.12 and 3.5.8.
  27. ILLRP 518 = ILS 5317.
  28. Apart from the Forma Urbis Romae, there are, for example, a marble plan of a tomb now in the Museo Etrusco-Romano at Perugia, illustrated in Briggs, p. 43, fig. 3, and a mosaic plan of a bath, illustrated in MacDonald, Architecture, Plate 128.
  29. See MacDonald, Architecture, p. 140, n. 68, and Ward-Perkins, Jerome, II.
  30. Vitr., 3 passim, esp. 1, and 6.2; cf. also 6.3.4-5.
  31. See J. Harvey, The Mediaeval Architect (London 1972), pp. 101-19; on mediaeval plans in general, see esp. L. F. Salzman, Building in England down to 1540: a documentary history (Oxford 1952), pp. 14-25.
  32. CIL VIII 2728 = ILS 5795; it may be no coincidence that the work was in Mauretania.
  33. See Ward-Perkins, Jerome, II.
  34. For example, Nero's Golden House and Hadrian's villa at Tivoli.
  35. Pompey is said to have had sketches and plans (εἶδος καὶ τύπος) of the theatre at Mytilene made for him so that he might build one like it in Rome (Plut., Pomp., 42.4).
  36. See no. 65 and cf. above, Ch. 2, pp. 78-9.
  37. An unauthorized change was made by the architect or contractor Diphilus, see Cic., QF, 3.1.2, and above, Ch. 1, p. 19; clients might also make changes, cf. Cic., QF, 3.1.1 and 3.1.5, for the legal consequences of which see Dig., 19.2.60.3 (Labeo), where the position of the redemptor is clarified.
  38. See Cato, Agr., 14.3, cf. also 15 and 16; Vitr., 6.8.9.

39. Cf. Vitr., 5.6.7, and 7, passim.
40. Pliny, Ep., 9.39.4; the mention of a plan (forma) suggests that Mustius was an architect; cf. also Cicero and Apella of Chios (Cic., Att., 12.9.1).
41. This apparently happened at Lepcis Magna, see Ward-Perkins, Jerome, V.
42. On the training of an architect, see below, Ch. 4, pp. 116-19.
43. Cf. no. 65, on which see above, Ch. 2, pp. 78-9.
44. Cassiod., Var., 7.5.5.
45. The comparison with an orchestral conductor might not be inapposite.
46. See, for example, Plate VIII, fig. 2; cf. also the relief from Agedincum, illustrated in P. MacKendrick, Roman France (London 1971), pp. 186-7 and fig. 7.2, and a mural in the tomb of Trebius Iustus, illustrated in O. Marucchi, "L'ipogeo sepolcrale di Trebio Giusto", Nuov. Bull. Arch. Crist., XVII (1911), tav. X, fig. 3.
47. Dig., 11.6.7 (Ulpian).
48. Pace Promis, pp. 10-11.
49. Cic., Leg. Agr., 2.13.32.
50. No. 14.
51. Cf. Molisani (cited no. 14), pp. 45-8.
52. Vitr., 3.2.5; it is true, however, that the main material used in the building was marble (Vell. Pat., 1.11.3), of which native Roman architects would at that time have had almost no experience.
53. Cic., Att., 13.35.1, cf. 13.33a; on the nationality and name of this man, see Shackleton Bailey, ad loc.
54. No. 98.
55. Hermodorus, for example, designed the temple of Mars for D. Iunius Callaecus in 138 B.C., only eight years after he was employed by Metellus, see no. 96.
56. For competition among architects, see Gell., 19.10.1-4, Pliny, Ep., 10.39.4 and Plut., Mor., 498 E (An Vitiositas).
57. See above, Ch. 2, pp. 42-7.
58. On the description of Severus, Celer and Rabirius as architects, see above, Ch. 2, n. 101.
59. See above, Ch. 2, p. 47 with nn. 123-4.
60. Nos. 2, 4, 5, 7, 10 and 53; on their employment, see above, Ch. 2, p. 58.
61. No. 53.
62. Nos. 3, 11, 12, 119 and 121; on this term, see above, Ch. 2, pp. 59-62.
63. For example, Rabirius and Sex. Iulius Africanus (no. 104); cf. above, Ch. 2, pp. 57-8.
64. Cf. Vitr., 3.praef.2.
65. Pliny, Ep., 10.39.4.
66. Plut., Mor., 498 E (An Vitiositas).
67. No. 41.
68. No. 45.

69. See Inscripfen v. Olympia, no. 59 for a discussion of these lists.
70. The ξαλεύς who is found on four of the lists (62, 64, 121 and 122, i.e. at the start and close of the 300-year period) was not a 'carpenter' but furnished wood for sacrifices, cf. Paus., 5.13.2.3 and 5.15.6.10.
71. No. 76.
72. Nos. 46, 47 (probably) and 49.
73. Nos. 46 and 49.
74. No. 46.
75. No. 48.
76. Contrast on this inscription ταμίον τῆς πόλεως (l. 14) and ταμιευνόντων τῶν νέων (ll. 16-17).
77. Nos. 50 and 51.
78. No. 89.
79. No. 89b.
80. Nos. 89a and c.
81. Nos. 89b and d.
82. No. 61.
83. No. 71.
84. No. 64; this restoration seems preferable to the ἀρχιτέκτονος τῆς [θεοῦ] given in Greek Inscriptions BM, since none of the three deities in whose honour mysteries were being celebrated was a goddess; τῆς [νεώ] is another possibility, especially since a consecration of probably a similar date emanates from the ναουργοὶ τέκτονες, cf. Ch. Picard, Ephèse et Claros (Paris 1922), p. 103, n. 5 (now edited in Forsch. Ephesos, III, p. 158, no. 75).
85. No. 67.
86. Cf. the IIIIvir at Verona who was also an architectus, no. 33.
87. No. 56.
88. Greek Inscriptions BM, IV.1.DCCCXCIII, l. 53.
89. IGRR IV 146, l. 28.
90. No. 65; cf. above, Ch. 2, pp. 78-9.
91. We might note that Strabo, 14.2.5 (C 653), refers to ἀρχιτέκτονες at Massalia as if they were officials, though admittedly with specific reference to the manufacture of weapons.
92. Broughton, ESAR, Vol. IV, p. 350; cf. above, Ch. 2, p. 74 and esp. n. 359.
93. Plut., Mor., 498 E (An Vitiositas).
94. Pliny, Ep., 10.39.4.
95. On the availability of architects, see below, Ch. 4, pp. 115-6.
96. Promis, pp. 10-11.
97. Rivoira, Architecture, pp. 83-8.
98. L. Friedländer, Darstellungen aus der Sittengeschichte Roms in der Zeit von Augustus bis zum Ausgang der Antonine, 10th. ed. (Aalen 1964), Vol. III, p. 107.

99. For what it is worth, I have collected in statistical form in Appendix C, pp. 188-9, the epigraphic examples of civilian architecti, mensores aedificiorum and mensores in Rome and Italy. I have excluded from the architecti nos. 8 (a Christian) and 21 (which presents numerous problems).
100. Cf. above, Ch. 4, pp. 98-100.
101. Pliny, Ep., 10.40.3; the comment on this passage of Sherwin-White, Pliny, p. 621, is frankly of little value.
102. Freedmen: nos. 2, 4, 6, 7, 9, 13, 15, 16, 18, 22, 24 and 31; slaves: nos. 5, 10 and 25; I have excluded the one Christian example, no. 8, from these figures.
103. Nos. 11, 17, 19 and 30; on the significance of the cognomen, see Appendix A, pp. 169-70.
104. No. 1.
105. Nos. 3 and 12.
106. No. 14.
107. Respectively nos. 27, 35, 23, 26a and b, 29, 32 and 33.
108. Vitruv., 7.praef.15.
109. Nos. 95 and 97; it has often been maintained that the former, D. Cossutius, was not a pure Roman but a Campanian-Greek, cf. Toynbee, "Notes", p. 9; but the nomen is by no means peculiar to Campania (cf. Schulze, p. 159), and although the term Ῥωμαῖος which is used on his statue base at Athens (IG II<sup>2</sup> 4099) often denotes on Republican inscriptions, especially those from Delos, an Italian rather than a Roman (cf. Hatzfeld, Trafiqants, pp. 242-5), the lack of a cognomen is noteworthy, and it seems unnecessary to reject the specific statement of Vitruvius. We might note, moreover, that Antiochus Epiphanes had a mania for things Roman, cf. Athenaeus, 5.193d-f (quoting Polybius); does this account for his employment of a Roman architect? It has also been suggested that Cossutius was employed by Antiochus in Syria, see G. Downey, A History of Antioch in Syria from Seleucus to the Arab Conquest (Princeton 1961), pp. 102-3, but cf. the note at IGLS 825. On the activities of the Cossutii throughout Italy and the Mediterranean in the late Republic and their connection with building activities, see inter alios Hatzfeld, Trafiqants, p. 228, and A. J. N. Wilson, Emigration from Italy in the Republican Age of Rome (Manchester 1966), pp. 96-7; Wilson, p. 97, n. 1, misquotes the inscription from Athens.
110. Nos. 98 and 101.
111. For example, Numisius and perhaps Vettius, cf. above, Ch. 1, pp. 16-27.
112. Cf. Mart., 7.56 and 10.71.
113. Cf. Pliny, Ep. 9.39.
114. Pliny, Ep. 10.40.3.
115. Trajan was, after all, writing to a governor who persistently pestered him with requests.
116. Cf. my list in Appendix B, pp. 179-84; the following men from these areas are often called 'architects' by modern scholars: C. Iulius Lacer (CIL II 761 = ILS 287b), Veranius (CIL XII 2980),

- and T. Crispus Reburus (CIL XII 3315); on the last see R. Etienne, "Le date de l'amphithéâtre de Nîmes", in Mélanges d'archéologie et d'histoire offerts à André Picanol (Paris 1966), Vol. II, pp. 935-1010 and refs. there cited, see esp. p. 990.
117. On these colleges, see below Ch. 5, esp. pp. 124-5; for most of the epigraphic evidence for these particular cities, see Waltzing, Vol. III.
  118. The indices of CIL II reveal very few 'builders' or 'builders' colleges' on inscriptions from the provinces of Spain.
  119. On this subject, see in general Becatti, Arte e gusto, and Calabi Limentani, Lavoro, esp. pp. 61-4.
  120. Cic., Off., 1.42.151.
  121. Cf. his conversation with Vettius Cyrus, Cic., Att., 2.3.2; it is probable, however, that his interest was essentially that of a dilettante.
  122. It is, perhaps, no coincidence that 'professions' is the modern word that covers the three pursuits praised here by Cicero.
  123. Vitr., 6.praef.5, and 10.praef.2.
  124. Sen., Ep., 90.8.
  125. Cf. ibid., 88.18.
  126. As Plutarch, Per., 2.1-2, wrote, no nobleman would want to be a Pheidias, although he might admire his works; on the other hand, cf. Cic., Brut., 73.257.
  127. Nos. 3, 12, 14, 21<sup>x</sup>, 23, 26, 27, 29, 32, 33 and 35; again I omit the Christian example; it is true that nos. 3 and 12 were probably the sons of liberti, see above, Ch. 5, p. 108 with n. 105.
  128. No. 34.
  129. Of the other inscriptions the following seem to be dated to the second century or later: nos. 1, 2, 4(?), 8<sup>+</sup>, 11, 17(?) and 30(?); nos. 16, 19 and 31 are of uncertain date.
  130. Cf. I. Calabi Limentani, Epigrafia latina (Milan 1968), p. 162.
  131. Nos. 18, 22, 23a and b, 24(?), 25, 26a and b, 27, 30, 32 and 34.
  132. Dig., 50.10.3 (Macer); Frothingham, "Architect", p. 184, erroneously terms Macer an "early jurisconsult"; Becatti, Arte e gusto, p. 37, erroneously states that the prohibition related to buildings erected publico sumptu.
  133. For a discussion of the various types and purposes of 'signature', see Calabi Limentani, Lavoro, pp. 86-93; I use the word for convenience.
  134. Of uncertain date are nos. 26 and 30.
  135. Cf. Toynbee, "Notes", p. 23, but see contra Frothingham, "Architect", p. 184, and Burford, Craftsmen, p. 214.
  136. Nos. 22, 23a and b, 24 and 26a and b.
  137. Nos. 18 and 30; the third is no. 32.
  138. Cf. Calabi Limentani, Lavoro, pp. 86-8.
  139. Cf. no. 25.
  140. No. 6; see Panciera, Rend. Pont. Acc. (cited), pp. 102-5, on his possible patron.

141. The tomb is illustrated in Nash, Vol. II, pp. 324-6.
142. No. 1; I agree with Gummerus, "Cognomen", p. 63, that Architectus is here to be regarded as both a cognomen and occupation.
143. No. 16.
144. Nos. 37<sup>x</sup>, 39, 40, 41, 44, 48, 55, 57, 58, 61, 67, 68, 73, 89 and 94.
145. No. 37<sup>x</sup>.
146. No. 40, which comes from the fort at Heidelberg.
147. No. 39; it is not clear whether the geographical adjectives qualify architectus or refer to the origin of Lupus; Aeminium itself was in Lusitania.
148. See Schulze, p. 223; cf. also G. Alföldy, Die Personennamen in der römischen Provinz Dalmatia (Heidelberg 1969), p. 120.
149. No. 44.
150. Cf. Robert Hellenica, Vol. II, pp. 10-11; see also FD III fasc. IV.2, 92, and J. H. Kent, Corinth, Vol. VIII, Part III, The Inscriptions 1926-1950 (Princeton 1966), nos. 150-1.
151. No. 41.
152. The cognomen alone is used to express filiation throughout this list, even for other Roman citizens.
153. No. 48.
154. No. 57.
155. No. 58.
156. The claims of both men have been championed, cf., for example, Magie, Roman Rule, p. 585, and PIR I<sup>2</sup>, no. 226; on both Galen and his family, see V. Nutton, The Medical Profession in the Roman Empire from Augustus to Justinian (diss. Cambridge 1970), pp. 43-4.
157. No. 61; its editor, unfortunately, did not attempt to date it.
158. Cf. Hatzfeld, Trafiguants, pp. 392-3, and Wilson, op. cit. (n. 109), pp. 109, 136 and 146.
159. Cf. Milet. Vol. III, pp. 396-7.
160. Cf. W. M. Ramsay, The Historical Geography of Asia Minor (Royal Geographical Society, Supplementary Papers, Vol. IV, London 1890), p. 195, and Magie, Roman Rule, Vol. II, p. 1233.
161. No. 68.
162. No. 73.
163. No. 67.
164. Nos. 55, 89 and 94 respectively.
165. No. 71.
166. No. 70; on the location of Sillyum, see Ramsay, op cit. (n. 160) pp. 416-7, and Robert, Noms Indigènes, p. 107. The word ἀρχιτεκτόσυνη is recorded twice in LSJ, once in the main volume and once in the Supplement, where it is also marked as a new word; on each occasion, the only reference given is to this inscription. The word is translated in the first place as "the conduct of the office of ἀρχιτέκτων" and in the second "the art or skill of an ἀρχιτέκτων".

On neither this inscription nor the other that I have found where the word also appears (no. 66) does it definitely refer to a public office, so that the meaning given in the Supplement seems to be the more accurate. In any event, there is ample justification for including in my list of 'architects' the two men of whose activities the word is used. ἀρχιτεκτονική does not figure in the errors and additions noted either by M.N. Tod, "Lexicographical Notes", Hermathena, LIX (1942), pp. 67-93, and LX (1942), pp. 16-37, or by Th. Drew-Bear, "Some Greek Words", Glotta, L (1972), pp. 61-96 and 182-228.

167. No. 66; see previous note.
168. On the use of πολυλίς = sarcophagus, see J. Kubinska, Les monuments funéraires dans les inscriptions grecques de l'Asie-Mineure (Warsaw 1968), pp. 46 and 112.
169. Nos. 55, 76, 85 and 86.
170. Cic., Nat. D., 1.26.72.
171. Columella, Rust., 1.praef.4, and 5.1.3.
172. Cassiod., Var., 7.5.5.
173. Cod. Theod., 13.4.1-3; on these texts, cf. P. de Francisci, "Le arti nella legislazione del secolo IV", Rend. Pont. Acc., XXVIII (1954-5), pp. 63-73.
174. Pliny, Ep., 10.18.3.
175. ibid., cf. also 10.62.
176. Pliny, Ep., 10.40.3.
177. Pliny, Ep., 10.42; the promise seems never to have been fulfilled, cf. 10.61.1.
178. Pliny, Ep., 10.30.4.
179. Cf. Sherwin-White, Pliny, p. 621.
180. Pliny, Ep., 10.37 and 39.4 respectively; cf. Sherwin-White, Pliny, pp. 618-9.
181. It is true that Cicero, Brut., 73.257, contrasts the dearth of painters and sculptors with the superfluity of operarii and baiuli, but his comparison seems to be between high-class and run-of-the-mill craftsmen.
182. Cod. Theod., 13.4.1-4; cf. above, Ch. 4, n. 173.
183. We do not know when or how Apollodorus first came to Rome; R. Paribeni, Optimus Princeps; saggio sulla storia e sui tempi dell'imperatore Traiano (Messina 1926-7), Vol. II, pp. 246-7, suggested that Trajan first encountered him during his father's governorship of Syria in the late 70's.
184. No. 66 is a possible example, cf. above Ch. 4, p. 114 with n. 167.
185. No. 44.
186. No. 62.
187. Nos. 50 and 52; the former also worked at Olbia.
188. No. 70.
189. No. 67.
190. No. 27; his tribe, Sergia, belongs to the area of the Sabini, Marsi and Paeligni, while the tribe of Grumentum was Pomptina, see

Taylor, Voting Districts, pp. 274-5; it is interesting, however, that two aediles at Grumentum were also in the Sergia tribe, ILS 5350-1. The nomen Vettius was especially common in both Etruria and northern Italy, see Schulze, p. 101, and G. E. F. Chilver, Cisalpine Gaul: Social and Economic History from 49 B.C. to the death of Trajan (Oxford 1941), pp. 91-3, but it is by no means unknown in southern Italy, cf. the index of CIL X.

191. No. 95; cf. above, Ch. 4, n. 109, for another possible explanation for his summons to Athens.
192. No. 98.
193. No. 100; cf. above, Ch. 1, pp. 17-18.
194. Cf. no. 53; cf. also Suet., Calig., 21.
195. Aur. Vict., Epit., 14.5; on this passage, see the important warning of Loane, p. 80.
196. Cf. Badian, p. 127, n. 33; it is possible that in small towns an ὑπερέκτιον might also have undertaken various types of work connected with building, cf. Xen., Cyr., 8.2.5.
197. On the apprentice system in Egypt, see A. Zambon, "Διδασκαλικά", Aegyptus, XIII (1935), pp. 3-66, and refs. there cited, and O. Montevicchi, I contratti di lavoro di servizio nell'Egitto greco-romano e bizantino (Milan 1950).
198. Vitr., 6.praef.6; the translation of this passage given by Burford, Craftsmen, p. 86, seems to me to be incorrect.
199. See no. 99 and cf. above Ch. 1, pp. 21-2.
200. Cf. Cic., Att., 2.4.7, and above, Ch. 1, pp. 16-17.
201. Nos. 24 and 26.
202. No. 66.
203. Cod. Theod., 13.4.1-2; cf. H. A. Meek, "The Architect and his Profession in Byzantium", JRIBA, 3rd. ser., LIX (1951-2), pp. 216-7.
204. For one of the earliest recorded examples, see H. J. Fischer, "A Foreman of Stoneworkers and his Family", Bulletin of the Metropolitan Museum of Art, XVII (1958-9), pp. 145-53; see also Burford, Craftsmen, pp. 86-7.
205. See above, Ch. 4, n. 109.
206. No. 1.
207. Cf. Plato, Protag., 328c; Paus., 5.14.5.
208. Cf. below, Ch. 5, pp. 132-5, and Ch. 6, pp. 150-1.
209. Burford, Craftsmen, pp. 102-3.
210. Cf. no. 6 and above, Ch. 4, p. 111 with n. 140; it is interesting that several architects came from areas that possessed marble quarries, although that by no means proves that they ever worked in them, cf. nos. 50, 52, 66 and 67(?).
211. MacMullen, "Building", p. 211, thought Vitruvius' course ridiculous, but see F. E. Brown, "Vitruvius and the Liberal Art of Architecture", Bucknell Review, 11.4 (1963), pp. 99-107; cf. also Quint., Inst., 2.21.8 and 16-18.
212. It would be interesting to know the precise training undertaken by the town-councillor and knight M. Cassius Denticulus, no. 33,

and the slave Hospes, no. 25.

213. S.H.A., Alex. Sev., 44.4.

214. Cf. Nutton, op. cit. (n. 156), pp. 126-8.

215. VII.74; the text of the edict is conveniently given in ESAR, Vol. V, pp. 310-421.

216. Cod. Theod., 13.4.1-4.

217. No. 12.

218. Cf. Frothingham, "Architect", pp. 190-1, for a comparison of various wages in the edict.

219. See Burford, GTBE, pp. 140-3.

220. Cic., Off., 1.42.151.

221. Cf. Vitr., 6.praef.5, and 10.praef.1-2.

222. See, for example, Calabi Limentani, "architetto", p. 576.

223. Mart., 5.56.

224. The evidence relating to building costs in Africa and Italy is conveniently collected by R. Duncan-Jones, The Economy of the Roman Empire: Quantitative Studies (Cambridge 1974), pp. 90-3 and 157-62.

NOTES TO CHAPTER 5

1. Finley, Economy, p. 138.
2. Thus MacMullen, "Building", in his text (p. 213) describes a man as a "gild master" but in a note (n. 59) qualifies this by stating that "it is not accurate to call [him] a gildmaster in any medieval sense"; he does not, however, define his sense of "gild master", and continues to use the word "gild"; Meiggs, Ostia, passim also employs the word "guild", although admittedly he is less reluctant to give them a 'professional' function (cf. p. 313).
3. On the variety of terms, see Waltzing, Vol. I, pp. 339-41, and most recently Cracco Ruggini, "Associazioni", pp. 140-6; to her bibliography on the subject, add M. Fasciato, "Les associations professionnelles romaines du I<sup>er</sup> au III<sup>e</sup> siècle, d'après les inscriptions d'Ostie", MEFRA, LXI (1949), pp. 237-41.
4. Waltzing, Vol. I, pp. 161-333.
5. The administrative organization of many colleges has often been likened to that of a city, see Waltzing, Vol. I, p. 357 f., and cf. Dig., 3.4.1.1 (Gaius).
6. Obviously some colleges had a greater importance in this respect than others and there were differences within each college, but the point is generally valid, see Waltzing, Vol. II, pp. 183-93; cf. also Burford, Craftsmen, pp. 160-1.
7. K. D. Matthews, "Roman Aqueducts: Technical Aspects of their Construction", Expedition (Bulletin of the University Museum of the University of Pennsylvania), 13.1 (1970), p. 11.
8. Packer, p. 59; cf. p. 42; the theory that the colleges were 'directly employed' throughout the imperial period was also put forward by A. Choisy, L'art de bâtir chez les romains (Paris 1873), esp. pp. 189-205, but he wrote before the great study of the colleges made by Waltzing, who described the theory as "fantaisie pure" (Waltzing, Vol. II, p. 119).
9. Cf. Xen., Cyr., 8.2.5.
10. No. 52.
11. No. 94.
12. CIL VI 33903/9 = ILS 7675 and 7675a.
13. Burford, Craftsmen, p. 99.
14. Cod. Iust., 10.66.1 = Cod. Theod., 13.4.2.
15. Cf. below, Ch. 5, pp. 125-6; in several cases, particular local reasons are applicable.
16. Henceforth in this chapter, these two colleges are referred to respectively by the abbreviations cf and cft, while the latter college at Rome and Ostia are abbreviated respectively cftR and cftO.
17. For references, see Waltzing, Vol. IV, pp. 4-49.
18. Not attested in epigraphy.
19. On the two very different meanings of the word structor, see

above, Ch. 2, pp. 65-6.

20. On the meaning of subaedianus, see, in addition to the references given by Waltzing, loc. cit. (n. 17), A. Sogliano in Atti Acc. Pontaniana, LI (abstract, 19 June 1921), resumed in AE 1923, 12 (p. 3), and Cracco Ruggini, "Associazioni", p. 116.
21. Mommsen, ad CIL VI 940, defined subrutores as demolition experts, but G. B. Kühn, De opificum Romanorum condicione privata quaestiones (Diss. Halle 1910), p. 30, suggested that they were rather tree-fellers, comparing Caes., EG, 6.27.4, and their own description as cultores Silvani.
22. Not attested in epigraphy.
23. For details, see below, Ch. 5, pp. 126-38.
24. Although doubtless many started as 'employees'; for other evidence of 'contractors', see above, Ch. 2, pp. 32-40.
25. See, for example, MacDonald, Architecture, p. 144, and Packer, p. 42; cf. also Frank, ESAR, Vol. V, p. 215 with n. 75.
26. Cf. Dig., 50.16.235 (Gaius), and see below, Ch. 5, p. 136.
27. For example, the marmorarii (CIL VI 9550), structores (CIL VI 444 = ILS 7280), subaediani (CIL VI 9558-9, 33875 (= ILS 7261) and 33876) and subrutores (CIL VI 940).
28. As did Matthews, loc. cit. (n. 7), p. 11.
29. The evidence is collected by Waltzing, Vol. IV, pp. 626-31, cf. Vol. I, pp. 450-4.
30. The cultores Dianae et Antinoi at Lanuvium, CIL XIV 2112.
31. See Waltzing, Vol. I, pp. 346 f. and 422-3, and Cracco Ruggini, "Stato", p. 277 with n. 21.
32. Some of the later evidence is given by MacMullen, "Building", p. 213 and nn. 60-1; cf. also Cozzo, Ingegneria, pp. 216-20, on the construction of the Colosseum.
33. MacMullen, "Building", p. 213.
34. Waltzing, Vol. II, pp. 193-4; cf. p. 149, where he adds the reservation "peut-être".
35. It has most recently been advocated by J. H. More, The Fabri Tignarii of Rome (doctoral diss. Harvard 1969, summarized in HSCP, LXXV (1971), pp. 202-5).
36. Rome: conlegium fabrum ferrarium (CIL VI 1892 = ILS 1915), collegium fabrum soliarium baxiarium (CIL VI 9404 = ILS 7249), and, possibly, [collegium fabrum intes]tinariorum (CIL VI 9415a); elsewhere: collegium fabrum navalium at Arelate (CIL XII 700 (= ILS 6985) and 750), Catina (?) (CIL XIV 364), Ostia (CIL XIV 256 etc.), and Pisa (CIL XI 1436 = ILS 7258); fabri ferrarii at Dibio (CIL XIII 5474 = ILS 7048); fabri subaediani at Cordoba (CIL II 2211 = ILS 7222) and Narbo (CIL XII 4393 = ILS 7259); and a conlecium (sic) fabrum argentariorum at Caesarea (CIL VIII 21106 = ILS 7286).
37. Rome: to those listed above, Ch. 5, n. 27, add the conlegium aurificum (CIL VI 9202 = ILS 7283), collegium brattiariorum inauratorum (CIL VI 95 = ILS 7281), conlegium sectorum serrarium (CIL VI 9338 = ILS 7232), collegium pavimentariorum (CIL VI 243), and sagarii (CIL VI 339 = ILS 7315); cf. also the coronarii (CIL VI 4414/5); elsewhere, there are isolated groups of aquarii (CIL IX 460), aurarii (CIL III 941, 7822 and 7827), aurifices (CIL IV

- 710 = ILS 6419c), figuli (CIL XIII 8729), lanarii (CIL V 4504 and XI 1031 = ILS 7290), lapidarii (CIL III 1365, 8840; V 7869 (= ILS 3459); XII 732, 1384 (= ILS 7677); and XIII 1034), marmorarii (CIL V 7044 (= ILS 7238) and X 7039 = ILS 6752), sagarii (CIL IV 753; XIII 1398, 2008 = ILS 7581), sectores materiaram (CIL V 815 = ILS 3547), serrarii (CIL II 1131-2 = ILS 7215), tectores (CIL XIII 1734 = ILS 7263) and vestiarii (CIL VIII 21848 = ILS 7291); in many of these cases, there were particular local reasons for their existence, cf. below, Ch. 5, pp. 125-6.
38. There is, however, evidence of a faber navalis, CIL XI 139.
  39. Cf. CIL XI 126.
  40. CIL XI, p. 6b.
  41. That chance, however, is not great in view of the fact that Ravenna has produced a large number of inscriptions; and if there were, indeed, a separate collegium fabrum navalium, it would undermine the argument of Waltzing, Vol. II, pp. 193-4, that "on dise toujours fabri tignuarii, quand la ville possédait aussi un collegium fabrum navalium ... parce qu'il était nécessaire de bien distinguer".
  42. Apulum, Aquileia, Aquincum, Ariminum, Brixia, Mediolanum, Pisaurum, Salona and Sarmizegetusa.
  43. R. Ambrosino, "Riferimenti all'ordinamento associativo romano - Postilla", BOAR, LXVII (1939), pp. 98-9.
  44. Degrassi, Scritti vari, Vol. I, p. 381.
  45. CIL XIV 252.
  46. CIL XI 1355b (not 1354b as Waltzing, Vol. I, p. 350).
  47. CIL IX 2339 and 5568 = ILS 7256 respectively.
  48. Cf. Degrassi, Scritti vari, Vol. I, p. 381.
  49. There are occasional examples of men of other trades in the cft, but they were probably the exception: 2 medici (CIL XI 1355a), a faber ferrarius (CIL XIII 2036 = ILS 7723) and 2 aurifices (CIL XIII 5154 = ILS 7687); the trade of a member of the cf is only once specifically recorded: exserc(ens) art(em) cret(ariam) (CIL XIII 1978).
  50. Respectively CIL X 7039 (= ILS 7238a), V 7044 (= ILS 7238) and II 1043.
  51. There were certainly marble quarries at Tauromenium (cf. Athen., 5.207f), and at Foresto near Susa, in the Turin valley (cf. E. Ferrero, L'arc d'Auguste à Susa (Turin 1901), p. 12).
  52. CIL V 815 = ILS 3547.
  53. Cf. Strabo, 5.1.8 (C 214) and Herodian, 8.2.4; the sectores materiaram were surely cutters of wood rather than stone, as Waltzing believed (Vol. II, p. 156); although materia was used of material other than wood (cf. TLL, s.v.), it is noteworthy that these sectores dedicated a table (mensa) to Silvanus.
  54. CIL II 1131 = ILS 7235.
  55. CIL V 7869 = ILS 3459.
  56. CIL XII 732; on the origin of this group, see most recently, N. Lamboglia, "Questioni di topografia antica nell'Alpi Marittime",

Rivista di Studi Liguri, IX.17.1 (1943), pp. 57-63.

57. CIL III 8840 (Salona); XII 1384 (= ILS 7677) (Vasio); XIII 1034 (Mediolanum Santonum) and 5475 = ILS 7048a (Dibio Lingonum); and AE 1913, 137 (Esseck, Pannonia Inferior).
58. CIL II 2211 (= ILS 7222) (Cordoba); VIII 10523 (= ILS 7260) (Villa Magna), cf. VIII 3743 (Lambaesis); X 6699 (= ILS 7262) (Antium); XII 4393 = ILS 7259 (Narbo); and possibly AE 1913, 137 (Esseck, Pannonia Inferior).
59. See above, Ch. 5, n. 20.
60. Cf. Waltzing, Vol. II, pp. 158-60, and see esp. Poland, pp. 106-29.
61. For example, IGRR I 807 (Perinthus).
62. For example, the τέκτονες at Histria (Bull. Ep. 1962, 239 (p. 191)) and at Sidon (SEG XVIII 599).
63. Cf. the ναυπηγοὶ τέκτονες at Ephesus and οἱ ἀπὸ τῆς Ἀσίας τεχνεῖται at Didyma (see above, Ch. 2, n. 399).
64. CIL XIV 128 (= ILS 615), 160 (= ILS 1428), 4365, 4382, 5344, 5345 and 5383; CIL XIV 4365 and 4382 have now been joined, see below, Ch. 5, n. 122.
65. CIL XIV 296 (= ILS 1916), 297, 299, 407, 418 (= ILS 6167) and 4656; and NS 1953, pp. 290-1, no. 53; the difference in title reflects the reorganization of the order in the late first or early second century, see Wilson (1935), pp. 52-3 and Meiggs, Ostia, pp. 217-20.
66. Cf. Wilson (1938), pp. 155-6 and Meiggs, Ostia, pp. 220-2.
67. CIL XIV 4656; it is usually assumed that the son was patron of the cfto, but see Meiggs, Ostia, p. 320 with n. 1, and Pearse, "Three Alba", n. 10; one point in favour of Meiggs' thesis is that an unpublished inscription from Ostia (inv. 8221) shows that the father was corporatus inter [fabros] navales.
68. CIL XIV 296 = ILS 1916.
69. CIL XIV 4642.
70. CIL XIV 314 and 374 = ILS 6165.
71. Cf. Meiggs, Ostia, pp. 196-211.
72. CIL XIV 314.
73. CIL XIV 374 = ILS 6165.
74. CIL XIV 430 = ILS 6168.
75. CIL XIV 4300.
76. CIL XIV 370 = ILS 6166.
77. CIL XIV 371; the sarcophagus is illustrated in R. B. Bandinelli, Rome, The Centre of Power (transl. P. Green, London 1970), p. 302, fig. 342.
78. CIL XIV 299 and 407; the other 5 Augustales were almost certainly freedmen.
79. Respectively CIL XIV 347 = ILS 6150 (a scriba) and an unpublished inscription, inv. 6750 (a decurio) (Plate XI, fig. 1).
80. CIL XIV 330.
81. CIL XIV 374 (= ILS 6165) and 418 (= ILS 6167), as well as the three magistri on CIL XIV 128 = ILS 615, who appear as decuriones on

CIL XIV 4569; also Claudius Epagathus certainly and L. Iu[lius] -- Jorianus possibly of the 3 magistri on CIL XIV 5344 appear as members on CIL XIV 4569 (the last named may be identical with the Iulius recorded on CIL XIV 4569, dec. III.1, dec. V.6, dec. VI.2 or dec. XV.18).

82. Respectively CIL XIV 4656 and 418 = ILS 6167; the former is now dated to the 17th lustrum on the unpublished fragment mentioned above, Ch. 5, n. 67; on the foundation date of the college, see below, Ch. 5, n. 84.
83. CIL XIV 407; he is dated by the form of the title Augustalis, cf. above, Ch. 5, n. 65.
84. CIL XIV 299; on the foundation-date of the college, see Wickert, CIL XIV, suppl., p. 611, and Meiggs, Ostia, pp. 330-1. Meiggs' date of "between 58 and 63" is an incorrect mathematical deduction from his own premiss, which demands the range 54 to 58 for the first year of the first lustrum. I would prefer to date the foundation to the period 60-64 on the belief that lustrum XXIX fell after the year 198 and that CIL XIV 5345 was erected in 184 (cf. CIL XIV 172 and p. 481); Wickert's conjecture that CIL XIV 459 = 4142 was erected in lustrum XXV is impossible since that lustrum is occupied by the 3 magistri recorded on CIL XIV 5345, cf. 237.
85. Cf. Meiggs, Ostia, pp. 67-78.
86. CIL VI 148 = XIV 5, cf. VI 30703 (= ILS 3776), 321 and 3678 (= ILS 7232), and AE 1941, 69 and 70; two linguistic arguments can be advanced for the attribution of the first inscription to the cftR rather than cftO: (i) all but one (CIL XIV 5351/2) of the definite inscriptions of the cftO contain at least an abbreviation of Ostiensis, while at Rome the adjective Romanus never appears; (ii) at Rome, the spelling collegium fabrum tignariorum, which appears on CIL VI 148, occurs 5 times (CIL VI 996 (= ILS 7224), 9408 and 33358; AE 1941, 69 and 71), c. f. tignuariorum 3 times (CIL VI 1673 (= ILS 1211), 9034 and 9405 = ILS 7238) (there is no chronological pattern), while at Ostia the spelling is invariably c. f. tignuariorum. These two points also favour the attribution of CIL XIV 2630 = ILS 7237 to the Roman rather than the Ostian college, cf. also AE 1941, 71, l. 51.
87. AE 1941, 69.
88. AE 1941, 70.
89. CIL VI 9408.
90. CIL XI 3936 = ILS 6588.
91. CIL VI 33856c.14; Mommsen, R. St., Vol. III, p. 287, n. 2, suggested that Romaniensis described a man who worked in the fashion of Rome, an explanation which is certainly acceptable for the three other epigraphic (CIL XII 1928 (= ILS 7583) and XIV 2213 = ILS 3243 and EE VIII 121) and one literary (Cato, Rust., 162.1) examples of the word. But can we seriously believe that there was a whole college of fabri tignarii at Capena that worked in the Roman style? The nomen Pacatius, moreover, is extremely rare in Latin epigraphy; there are 2 other examples in the index of CIL VI, including a L. Pacatius L.l. Successus who was a magister vicorum in 136 (1975 III.45), one at Brixia (CIL V 4264) and 2, a freedman and freedwoman of our Tyrannus, at Capena (CIL XI 3990). In view of this, the proximity of date of the two college members surely favours my identification; the title of honoratus would then indicate that Tyrannus had been a magister of the cftR between 154 and 162, a

position which he need not necessarily have held for the full 5-year period (cf. the examples of the magistri on AE 1941, 71, who were 'excused' and replaced). On the meaning of honoratus, see Waltzing, Vol. I, pp. 366-7, and cf. esp. CIL VI 321 and XIV 2630 = ILS 7237.

92. CIL XIII 1967 and XIV 3003 = ILS 6255.
93. CIL XIII 1939 and 1966 = ILS 7028.
94. CIL XIII 1606.
95. CIL XII 722 = ILS 7715.
96. CIL IX 2683; XI 2710a and 6358 (= ILS 6654); and XIV 2981; and AE 1903, 350.
97. CIL III 1082 and 3893 (= ILS 7235a); and V 731.
98. CIL XI 6358 = ILS 6654.
99. CIL III 1210 and V 5869 = ILS 6730.
100. See above, Ch. 5, n. 31.
101. See esp. AE 1941, 71.
102. See above, Ch. 5, n. 78; for other colleges, see, for example, CIL IX 2683 and 5450 (= ILS 7248) and XIII 1939, and AE 1925, 86.
103. See AE 1941, 71, with Pearse, "Altar", pp. 8-9, and CIL XIV 299.
104. For example, cftR: AE 1941, 71, l. 6, and CIL VI 996, cf. 31220a = ILS 7224; cftO: CIL XIV 347 = ILS 6150 and an unpublished inscription (Plate XI, fig. 1); cft: CIL IX 3923 (= ILS 6536) and XII 728; cf: NS 1930, p. 444, no. 36.
105. Cf. for example CIL VI 996 = ILS 7224.
106. Cf., however, CIL VI 33858, on which status indication was not recorded except in three cases.
107. Gummerus, "Industrie", RE, IX.2 (1916), col. 1503, suggested that one might conclude that these fabri were foremen and contractors rather than workers, but I would hesitate to draw that conclusion simply from the evidence of cognomina.
108. On the social spread of cognomina, see Kajanto, passim, but cf. the review by Rawson, CP, LXIII (1968), pp. 154-9, and esp. p. 156 on Kajanto's assignment of free status to most of the incerti.
109. On the date of the foundation of the cftR, see Pearse, "Altar", esp. pp. 11-16; on the foundation date of the cftO, see above, Ch. 5, n. 84.
110. CIL VI 9405.
111. CIL XIV 4569.
112. Cf. above, Ch. 5, n. 84.
113. Iulius, Claudius, Flavius, Ulpus, Aelius and Aurelius; although Imperial nomina were borne by many men who had themselves no direct connection with any Imperial house, their commonness throughout the Roman world might distort the statistics presented here, and I have in general excluded them from the figures which I quote for various colleges. The nomina of relatives of Emperors, however, have not been excluded, mainly because it is difficult to decide how far to extend such a category; their numbers in the colleges are anyway insignificant. On the appearance of Imperial nomina

in the cftR and cftO, see above, Ch. 2, pp. 68-9.

114. Abizei(us), Aposimul., Hirtid(ius), Matil. (unless = Metilius), Ostul. (unless = Hostilius), Pampul. (unless = Pamphilius), Pisevius and Rodonius, all of which are also absent from the indices of the other volumes of CIL, and Aeren(us), Arrenius, Bener(ius), Brutt(ius), Ennius, Oclat., Orcius, Pacub(ius), Sedius, Tetteius and Vienni(us).
115. Clodius and Tadius, both on CIL XIV 459 = 4142 = ILS 6140, which is perhaps to be assigned to the cftO, cf. CIL XIV, add., p. 611, n. 40.
116. Apul(eius), Cassi(us), Clodi(us), Fulvius, Furius, Lucceius, Lucil(ius), Mind(ius), Modius, Pont(ius), Popil(ius), Publ(icius), Quintil(ius), Ragon(ius), Scant(ius), Sextil(ius) and Volt(idius).
117. Clodius, Ponteius, Furius, Mindius, Publicius and Sextilius.
118. Abius (no examples in CIL VI index), Aedinius (2 men, 1 woman), Aius (3, 1), Amatius (5, 4), Aonius (5, 6), Asuetius (none), Betuedius (5, 6), Caisuius (none), Cintasius (none), Iustuleius (5, 1), Mumatidius (4, 3), Opetreius (7, 9), Pacatius (2, 0), Pomplinus (none), Ulvienus (none) and Urinatius (7, 0).
119. CIL VI 9405.
120. An interesting comparison can be made here with the lenuncularii tabularii auxilarii, see below, Ch. 5, pp. 136-8.
121. Meiggs, Ostia, pp. 268-9.
122. CIL XIV 4382, which is now to be joined to 4365 and dated to the very early years of Septimius Severus, see AE 1971, 64.
123. There are 7 other Ostian examples in the indices of CIL XIV.
124. CIL XIV 281.
125. On the Egrilii in general, see Meiggs, Ostia, pp. 502-7.
126. CIL XIV 281 and 283, where there are 5 examples, 2 of patroni.
127. CIL XIV 246.
128. CIL XIV 347 = ILS 6150 and NS 1953, pp. 290-1, no. 53 (recording a magister of lustrum XXVI).
129. Meiggs, Ostia, p. 506, suggested "that the fortunes of the Egrilii were based on trade. This is an inference from the wide distribution of their freedmen in the trade guilds and their own accumulation of treasury posts." His statement about their freedmen is incorrect.
130. Since the Egrilii can boast only one scriba, one decurio and one magister in the college in the second half of the second century, I wonder whether they had not long been established in it.
131. For a comparison with the evidence of the lenuncularii tabularii auxilarii, see below, Ch. 5, pp. 136-8.
132. Aemilius, Arrius, Cornelius, Egrilius, Fabius, Fufius, Fulcinus, Larcus, Livius, Mallius, Octavius and Valerius; I have again excluded Imperial nomina from consideration here, cf. above Ch. 5, n. 113.
133. CIL VI 9405, b.5-6 and c.5 and c.6-7 and 9; we should note, however, that there are also on this list a Sextus and a Caius Iulius and a Caius and a Lucius Baebius, examples which further illustrate the inadequacy of the evidence merely of recurring nomina.

134. Agrius, Fufius and Fulcinus.
135. Fufii Felix and Felicianus, and Fulcinii Fucinianus and Osties.
136. Cornelius (decuria I and XIII), Fabius (dec. VI) and Mallius (dec. XVI).
137. The exceptions are Ragonius Chrysant. (dec. I), Metilius Ias (dec. V, unless Matil. in dec. VIII is a miscut) and Tuccius Victor (dec. XI).
138. Cornelius Euti... (dec. X) and Val(erius) Blastian(us) (dec. XIII).
139. P. Sulpicius Felix (CIL VI 9405).
140. Cornelius Euporianus (dec. I) and Cornelius Euporio (dec. X).
141. See above, Ch. 5, n. 133.
142. CIL VI 148 = XIV 5, cf. VI 30703 = ILS 3776.
143. If we exclude Imperial nomina, the figures are 6 nomina covering 13 of the 29 decuriones on CIL VI 33856 (45%), 2 covering 6 of the 36 on a restored CIL VI 33857 (17%) and 2 covering 5 of the 38 on a restored CIL VI 33858 (13%); if we include Imperial nomina, the percentages are respectively 43, 42 and 39. For the restoration of CIL VI 33857 and 33858, see Pearse, "Three Alba".
144. Respectively AE 1941, 71, l. 25 and CIL VI 996, cf. 31220a = ILS 7224; and AE 1941, 71, l. 14, with CIL VI 30982 (see Pearse, "Altar", esp. pp. 1 and 9) and AE 1941, 71, l. 38; a Numisius without praenomen also appears on CIL VI 33858, c.II.6.
145. Lollius (CIL VI 996 (= ILS 7224) (lustrum XXIII) and 33858 (Severan)), Lurius (33856(154) and 33858), Naevius (996 and 33856), Pautina (33856 and 33857(190-200?)), Pomponius (33856 (twice) and 33857 and 33858 (the same man)) and Rutilius (33856 and 33858); the inadequacy of the evidence simply of nomina, however, is illustrated by the appearance on AE 1941, 71, of both an A. Caecilius and a Q. Caecilius in lustrum IX, and 2 Q. Caecilii in lustrum X; on the date of CIL VI 33857, see Pearse, "Three Alba", pp. 10-12.
146. Livius (CIL XIV 4656; for the date, see above, Ch. 5, n. 82).
147. CIL XIV 4142, cf. add., p. 611, n. 40; see also above, Ch. 5, n. 84.
148. CIL XIV 4382; the only other Ostian bearer of this nomen has a different praenomen (CIL XIV 1001); the other exception is Aufidius (CIL XIV 4142), though cf. CIL XIV 4620.
149. On the date, see above, Ch. 5, n. 122.
150. We must remember not only that in a few cases the cognomen alone is extant but also that about 25 names are completely missing from the album.
151. L. Aquillius Modestus (CIL XIV 299) and L. Rennius Philodoxus (CIL XIV 407; on the date of this, see above, Ch. 5, n. 83); both nomina are very rare at Ostia.
152. AE 1941, 71.
153. Respectively Turranius (CIL XIV 160 = ILS 1428) and Similius (CIL XIV 418 = ILS 6167); it is also interesting that neither of the other magistri of lustrum XXXIII is found on the extant part of the album; if indeed they were not even ordinary members in 198, their rise to the highest office in the college was swift.
154. 2 Sentii (AE 1941, 71, lustrum XIIX); 2 C. Vibii (CIL VI 9405 = ILS 7238); 2 Caesii, Manlii and Terentii (CIL VI 33856; Manlius

134. Agrius, Fufius and Fulcinus.
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139. P. Sulpicius Felix (CIL VI 9405).
140. Cornelius Euporianus (dec. I) and Cornelius Euporio (dec. X).
141. See above, Ch. 5, n. 133.
142. CIL VI 148 = XIV 5, cf. VI 30703 = ILS 3776.
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148. CIL XIV 4382; the only other Ostian bearer of this nomen has a different praenomen (CIL XIV 1001); the other exception is Aufidius (CIL XIV 4142), though cf. CIL XIV 4620.
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153. Respectively Turranius (CIL XIV 160 = ILS 1428) and Similius (CIL XIV 418 = ILS 6167); it is also interesting that neither of the other magistri of lustrum XXXIII is found on the extant part of the album; if indeed they were not even ordinary members in 198, their rise to the highest office in the college was swift.
154. 2 Sentii (AE 1941, 71, lustrum XIIX); 2 C. Vibii (CIL VI 9405 = ILS 7238); 2 Caesii, Manlii and Terentii (CIL VI 33856; Manlius

- Ennianus also appears on CIL VI 33857); and 2 Monnienii and Servilii and 3 Marcii and Marseni (CIL VI 33858); there are no other examples of Marsenus or Monnienius in the CIL VI index, although two Monnienii almost certainly appear on an unpublished funerary monument from Rome (information from Miss J. M. Reynolds).
155. cftR: CIL VI 9405 = ILS 7233 (the quinquevir L. Cincius Martialis; A. von Premerstein, "Stadtrömische und municipale Quinqueviri", in Festschrift zu O. Hirschfeld (Berlin 1903), pp. 238-9, correctly does not make him a college magistrate but nevertheless regards him "ohne Zweifel" as a member of the cftR) and CIL VI 9407-8; cftO: CIL XIV 314 and 407; in no case was the social position of the relative certainly incommensurate with membership.
  156. There are a few examples where a male relative is recorded on the same inscription as a member of the same college; cftR: CIL VI 148 = ILS 3776; cft: CIL XIII 5154 = ILS 7687; cf: CIL IX 5450 = ILS 7248; I know of no case where the membership of a male relative is omitted from the same inscription but attested on another.
  157. Meiggs, Ostia, p. 323.
  158. On this subject, see also below, Ch. 5, pp. 136-8.
  159. We might note the close association with the cftR of the 6 ministri who were each a slave of one of the magistri in the second lustrum of the college, see CIL VI 30982 and AE 1941, 71, together with Pearse, "Altar", esp. p. 1.
  160. See above, Ch. 2, pp. 63-72.
  161. CIL VI 9034; cf. also above, Ch. 2, pp. 37-8 and 70-1; on the date of the inscription, see Pearse, "Altar", pp. 11-16.
  162. Cf. Loane, pp. 80-2.
  163. Some types of work might have required large numbers of slaves but only one or two freedman supervisors; cf. also below, Ch. 5, pp. 137-8.
  164. Suet., Vesp., 18; the reliability of this anecdote is often questioned, but it surely seemed at least plausible to Suetonius.
  165. Such was the original meaning of the term, cf. Dig., 50.16.235; we might note that the tools depicted on the altar of the ministri of the cftR (CIL VI 30982) are those of a woodworker, saws, an axe, and adzes, see Pearse, "Altar", p. 1.
  166. So Meiggs, Ostia, p. 319, n. 2.
  167. So Frank, ESAR, Vol. V, pp. 250-1; Frank, however, did regard some members as simple carpenters.
  168. Dig., 50.16.235.
  169. Hereafter referred to in this chapter as the lta; for a definition of them, see below, Ch. 5, p. 137; of their alba, two survive virtually complete, CIL XIV 250 (dated 152) and 251 (dated 192), recording both magistrates and ordinary members.
  170. Wilson (1935), p. 66.
  171. Furius, Lollius, Publicius, Sextilius and Sittius.
  172. To the 19 quoted above, Ch. 5, n. 114, add Curius, found twice on the cftO album.
  173. cftO: 3 times; lta: 5 times.
  174. Wilson (1935), p. 66.

175. 11 T. Cornelii, 10 M. Cornelii, 6 M. Antistii, 5 M. Cipii, M'. Lollii, M. Publicii and C. Vatronii, 4 A. Herennuleii and L. Valerii.
176. 28 M. Publicii, 23 M. Cornelii, 16 L. Furii, 13 M. Cipii, 7 A. Herennuleii and Sex. Sextilii, 5 M. Curtii, D. Otacilii and L. Valerii, 4 Q. Fabii.
177. I have excluded Imperial nomina, cf. above, Ch. 5, n. 113.
178. 11 Cornelii and Valerii, 9 Egrilii, 7 Mallii, 5 Aemilii, Fabii, Vettii and Vibii, 4 Caecilii, Iunii, Larcii, Livii, Octavii and Pomp(eii?).
179. See above, Ch. 5, p. 130.
180. Meiggs, Ostia, pp. 297-8; cf., however, J. Rougé, Recherches sur l'organisation du commerce maritime en Méditerranée sous l'empire romain (Paris 1966), p. 198.
181. Meiggs, Ostia, p. 323.
182. CIL XIV 256.
183. CIL XIV 250, IV.31 and 33; 251, III.19 and 35, IV.8, V.11, VI.20 and 22, VII.11, 23, 24, 28 and 35, VIII.11; CIL XIV 256.56, 148, 235, 246 and 267; CIL XIV 250 also records 3 men (III.30 and IV.26-7) as liberti, presumably of other members.
184. Wilson (1935), p. 66; to his examples we can add 4 Q. Fabii in the college in 192 but not in 152; there were also 6 M. Antistii in the college in 152 but only 1 in 192 and 16 L. Furii in 192 but only 1 in 152, and he was possibly one of the 16 on the later inscription; nor are any of mine or Wilson's examples found on the fragmentary list of the lta of 213 (NS 1953, p. 278, no. 42), where the praenomina and nomina of 37 members are extant.
185. See above, Ch. 5, pp. 124-5.
186. For example, Apulum, Ariminum, Lugdunum, Mediolanum, Salona and Sarmizegetusa (see Waltzing, Vol. III, s.vv., for references).
187. See above, Ch. 5, n. 100.
188. See above, Ch. 5, p. 128.

## NOTES TO CHAPTER 6

1. Cf. the all-embracing definition of Ferrua, I. It. IX.1, 46 (p. 27): "seu quadratarius seu lapicida aut lapidarius is fuit qui in opere marmorario versaretur sive secabat sive caedebat sive scalpebat sive scribebat."
2. It seems to me fruitless, as well as irrelevant here, to attempt to define such terms exactly. Many of the Greek terms are considered at length by Robert, Hellenica, Vol. XI-XII, pp. 28-37, cf. also A. K. Orlandos, Les matériaux de construction et la technique architecturale des anciens Grecs (French translation by V. Hadjimichali and K. Laumonier, Paris 1968), Part II, p. 50; on some Latin terms, see Brewster, and M. Maxey, Occupations of the Lower Classes in Roman Society (Chicago 1938).
3. This is not to say that they were necessarily independent.
4. See above, Ch. 5, n. 20 and n. 21 respectively.
5. See above, Ch. 2, pp. 65-6.
6. Cf., for example, Robert, Hellenica, Vol. X, p. 281.
7. Gummerus, "Handwerk", accepted almost all such examples as professional craftsmen, but W. Deonna, "Ex-votos Déliens: II - Instruments de métiers sur un relief de Délos", BCH, LVI (1932), pp. 421-90, pointed out that certain tools seem to have acquired a cult significance completely remote from the interests of skilled workers.
8. This factor and the differing chances of survival make it worthless, in my opinion, to compile a table of the geographical distribution of 'building workers'.
9. Hence my references in this chapter to 'building workers'.
10. Plaut., Vidul., 20-36 (O.C.T.).
11. Cic., Planc., 25.62.
12. Frontin., Aq., 2.96, 98, 116 and 117.
13. For example, Dig., 13.6.5.7 (Ulpian) and 33.7.12.5 (Ulpian).
14. On this, see inter alios F. M. de Robertis, "Locatio operarum e status del lavoratore", Studia et Documenta Historiae et Iuris, XXVII (1961), pp. 19-45, and id., "Ancora sulla considerazione sociale del lavoro nel mondo romano (II: L'ambiente aulico)", Studi in onore di A. Fanfani, Vol. I (Milan 1962), pp. 1-37.
15. Burford, Craftsmen, pp. 59-60.
16. See K. D. White, Roman Farming (London 1970), pp. 349-50; cf. also Varro, Rust., 1.17.3.
17. Cf. ILS 6087, 98.
18. Suet., Vesp., 18; cf. above, Ch. 5, p. 136 with n. 164.
19. Atti Acc. Sci. Torino, XCII (1957-8), pp. 337-8; the editor suggests an early imperial date.
20. CIL VI 33908/9 = ILS 7675 and 7675a; the date is suggested by the lack of a cognomen, see Appendix A, p. 169.

21. See Taylor, Voting Districts, pp. 11-12 and 66-7.
22. CIL XI 6838 = ILS 7676 = G. Susini, Il lapidario greco e romano di Bologna (Bologna 1960), p. 111 ff., no. 125; cf. also Gummerus, "Cognomen", p. 58, and G. dall'Olio, Iscrizioni sepolcrali romane scoperte nell'alveo del Reno presso Bologna (Bologna 1922), p. 115, no. 57. To my knowledge, all editors and commentators recognize the occupation as faber lapidarius rather than take Faber as a cognomen, and a definite parallel is provided by ILGaule 580 (dall'Olio, loc. cit., compares Dig., 13.6.5.7 and Petron., Sat., 65, but these are both examples of simple lapidarii); if correct, the lack of a cognomen should indicate an early date.
23. CIL V 3045; lapidarius is here not regarded as a cognomen in the index to CIL V, nor does it appear in the index of Kajanto.
24. See FA, XIII (1958), 4085 and figs. 69-70, cf. Epigraphica, XXI (1959), pp. 134-5.
25. For example, CIL VI 9550-1 and 9910 (= ILS 7624), and X 7039 = ILS 7288a.
26. Cf. the review of Kajanto by B. Rawson in CP, LXIII (1968), pp. 154-9, and esp. p. 156.
27. For example, CIL XIII 1466 and 1933 = ILS 8158.
28. See CIL VI 10234, 7 = ILS 7213; CIL XII 732, 736 and 1384 = ILS 7677.
29. CIL XI 961; for a photograph, see Gummerus, "Handwerk", p. 105, fig. 24.
30. IGRR I 168; for the interpretation, see Robert, Hellenica, Vol. XI-XII, pp. 11-13.
31. I. It. IV.1, 62.
32. CIL II 1724 = ILS 5442.
33. IRT 264.
34. IGBulg. IV 2342.
35. CIL X 1873 = ILS 6331; there is a minor inaccuracy in the published reading; emend Puteolis to Puteol.
36. CIL XI 6212; on Augustales, see above, Ch. 5, p. 126 with nn. 65-6.
37. CIL XI 6367; we might note that two of the other three seem to have had the occupations of vestiarius and lanarius respectively, cf. Gummerus, "Cognomen", pp. 58-9.
38. Bull. Ep. 1958, 75.
39. Bull. Ep. 1972, 514.
40. Bull. Ep. 1962, 239 (p. 191).
41. Sen., Ben., 6.15.7-8.
42. See, for example, P. MacKendrick, Roman France (London 1971), pp. 186-7, fig. 7.2, and a mural in the tomb of Trebius Iustus, illustrated in MacDonald, Architecture, Plate 130b; on the other hand, the figure who appears to be an architect both in the Bardo mosaic (Plate VIII, fig. 2) and on another mural in the tomb of Trebius Iustus (see O. Marucchi, "L'ipogeo sepolcrale di Trebio Giusto", Nuov. Bull. Arch. Crist., XVII (1911), pp. 215-6 and 223 and tav. X, fig. 3) is wearing a short tunic; cf. also G. Becatti, Scavi di Ostia, Vol. VI (Rome 1969), pp. 152-4, and tav. XXXIV.1, who recognizes in the figure of a man in a long tunic a marmorarius working on the design of a mosaic rather than an architect; cf., however, Rivoira,

- Architecture, p. 83.
43. Mart., 10.48.15-16, cf. 13.13.1; as was noted by Brewster, p. 79, fabri is here a generic term.
  44. See Appendix A, pp. 169-70.
  45. See below, Ch. 6, p. 146.
  46. Cf. the map in R. Gnoli, Marmora Romana (Rome 1971).
  47. See AE 1949, 113-30 and 1951, 232-6 and refs. there cited, and CIL XIII 122, 915 (= ILS 4681) and 1466.
  48. See above, Ch. 5, pp. 135-6.
  49. See above, Ch. 3, p. 89.
  50. ILAlg. I 2102.
  51. Dio Cass., 63.6.6.
  52. IGRR I 211 = IGUR 1860 (forthcoming); cf. Robert, Hellenica, Vol. XI-XII, p. 29, n. 10.
  53. IGRR I 168; see Robert, Hellenica, Vol. XI-XII, p. 11, n. 6, on his origin.
  54. See M. Squarciapino, La scuola di Afrodisia (Rome 1943), and above, Ch. 3, p. 89 with n. 71.
  55. Bull. Ep. 1949, 234.
  56. For refs., see above, Ch. 3, n. 74.
  57. BCH, VII (1883), p. 27, no. 20.
  58. Bull. Ep. 1968, 514.
  59. Studia Pontica III.1, no. 25, cf. Robert, Hellenica, Vol. X, p. 60 with n. 3; for other examples of the movement of Greeks, involving groups of workers and merchants; see above, Ch. 3, pp. 89-90.
  60. Rev. Arch., ser.V, III (1916), pp. 359-62, no. 148.
  61. RIB 149 = ILS 4661; cf. J. M. C. Toynbee, Art in Roman Britain, 2nd.ed. (London 1963), p. 164.
  62. SEG IV 105, cf. Robert, OMS, Vol. II, p. 1322; we should note that he was apparently the son of a peregrinus and a Roman mother; on his function, see above, Ch. 2, n. 288.
  63. Robert, loc. cit. (n. 62), and Hellenica, Vol. XI-XII, pp. 35-6, assumes that the Bithynian city is intended, but the Acarnanian city still existed in the time of Strabo (10.2.21 (C 459)); cf. also CIL III 600 = ILS 2724.
  64. IGBulg. II 690 (improving IGRR I 590 = 1431).
  65. MDAI(A), VI (1881), pp. 227-8, no. 3.
  66. See Robert, Hellenica, Vol. XI-XII, p. 36, n. 2; note especially the appearance on the epitaph of a mallet and chisel.
  67. CIL XIII 1983 = ILS 8158.
  68. For example, BCH, VII (1883), p. 27, no. 20.
  69. G. E. Bean and T. B. Mitford, "Journeys in Rough Cilicia 1964-1963", Denkschr. Öst. Akad. Wiss., phil.-hist. klasse, 102 (1970), no. 196 and pp. 177-8.
  70. IGRR I 258; Squarciapino, op. cit. (n. 56), p. 15, no. 23, dates him to the Hadrianic period.

71. Cf. Burford, Craftsmen, p. 67.
72. Livy, 42.3.1-11; cf. esp. reponendarum nemo artifex inire rationem potuerit.
73. Cf. Burford, Craftsmen, p. 65.
74. ibid., pp. 97-101.
75. Xen., Cyr., 8.2.5.
76. Suet., Nero, 31.3.
77. Joseph., BJ, 3.10.10.
78. Vitr., 7.1.3; we should not assume that the gangs consisted of slaves, despite Sen., Ep., 47.9.
79. Vitr., 7.3.10; the use of the term decuria does not imply that there were ten men in each gang, cf. CIL V 2045 and AE 1916, 60 (Plate XII, fig. 2).
80. Stat., Silv., 4.3.40-58, and esp. 50: o quanta pariter manus laborant.
81. Cf. above, Ch. 5, p. 124.
82. See A. M. Colini, "Officina di fabri tignarii", Capitolium, XXII (1947), pp. 21-8.
83. See Burford, Craftsmen, Plates 84-5.
84. See, for example, della Corte, Case, p. 219, no. 517; Royal Commission on Ancient and Historical Monuments (England), An Inventory of the Historical Monuments in the City of York: Vol. I - Eboracum, Roman York (London 1962), p. 63, no. 47; cf. also P. Durvin in A. Piganiol, "Le Circonscription des Antiquités historiques", Gallia, XII (1954), p. 145.
85. CIL X 7296 = ILS 7680 = L. Biviona, Iscrizioni latine lapidarie del Museo di Palermo (Palermo 1970), no. 74, tav. XLIV.
86. CIL X 868, illustrated in Gummerus, "Handwerk", p. 107, fig. 25; both Gummerus, p. 106, and Deonna, loc. cit. (n. 7), p. 430, no. 12, believed it to be a votive relief rather than an advertisement, but della Corte, Case, p. 164, described it as Diogenes' name-plate (targa).
87. CIL VI 9556 = ILS 7679; on this and CIL X 7296 = ILS 7680, see G. Susini, Il lapicida romano: introduzione all'epigrafia latina (Bologna 1966), pp. 18 f. and 26 f.
88. Cf. Burford, Craftsmen, pp. 43 and 49-50.
89. Plut., Crass., 2.4.
90. On Egyptian apprentice contracts, see the refs. given above, Ch. 4, n. 197.
91. CIL X 1959.
92. CIL III 13389.
93. IGRR I 170 and 171.
94. Cf. for example CIL X 7039 (= ILS 7283a) and XIV 2656; SEG IV 105 ( $\alpha\mu\omega\mu\eta\tau\omicron\varsigma\ \kappa\alpha\tau\alpha\ \tau\epsilon\chi\eta\gamma\upsilon$ ); and IG II<sup>2</sup> 9611, which records the death of a 16 year old  $\lambda\alpha\phi\acute{o}\sigma\omicron\varsigma$  who claimed to rival Praxiteles.
95. One might compare the lot of the sons of British miners up to about twenty years ago; by contrast, the sons of fathers who had prospered from their trade were able to start life on a higher level,

for example, the sons of magistri quinquennales of the collegium fabrum tignuariorum of Ostia, cf. above, Ch. 5, pp. 126-7.

96. For examples from an earlier period, see Burford, Craftsmen, pp. 84-7; see also above, Ch. 4, pp. 116-19.
97. See above, Ch. 4, n. 109.
98. IGRR I 169/70 and 397 respectively.
99. CIL VI 16534; cf. Gummerus, "Handwerk", p. 109 and fig. 27, and Deonna, loc. cit. (n. 7), p. 427, no. 1.
100. IGRR I 167/8.
101. MAMA VII 313.
102. Bull. Ep. 1972, 514.
103. For example, CIL VI 9533 (= ILS 7727), 9910 (= ILS 7624) and 37798.
104. CIL XIII 2036 = ILS 7723.

NOTES TO CHAPTER 7

1. In this chapter, the phrase 'building work' is used to embrace all types of 'construction work', from digging canals or defensive ditches to erecting temples and theatres. I also make a twofold division: by 'military work', I intend all work primarily designed to assist the Roman army in attack or defence; by 'civil work', all works, such as baths and aqueducts, which were primarily designed to meet the needs of ordinary life, whether of the troops themselves or of the civilian population. There is inevitably some overlap, on which see below, Ch. 7, pp. 158-9.
2. Examples can be found for every period: Livy, 39.2.6; Plut., Sulla, 16.5; Tac., Ann., 13.53; see also MacMullen, Soldier, p. 33, n. 39.
3. Cf. Sen., Ep., 18.6; Frontin. Str., 4.1.15.
4. Cf. Livy, 7.20.9 (353 B.C.).
5. Cf. CAH, Vol. XI, pp. 311-12.
6. Veg., Mil., 2.11.
7. Dig., 50.6.7.
8. For example, CIL VI 2454 (= ILS 2060) and 31165 = ILS 2190; on the role of military tectores, see below, Ch. 7, p. 157.
9. Cf. CIL XIII.6, pp. 60-2; see also J. M. Reynolds and W. G. Simpson, "Some inscriptions from el-Auenia near Yefren in Tripolitania", Libya Antiqua, III-IV (1966-7), pp. 45-7.
10. See above, Ch. 4, pp. 88-9.
11. Procop., Aed., 4.6.13.
12. Vitr., 10.16.3-4; Strabo, 14.2.5 (C 653); cf. also Veg., Mil., 2.11.
13. Appendix B, no. 122; see Plate VI, fig. 2, for an illustration of one of the types of weapon which he produced; the literature on Moderatus is vast. The usually accepted chronology of his career is that given by Mommsen, Ges. Schrift., VI, p. 8, n. 1, who placed his enrolment in the army in 59/60, his transfer to the praetorian guard after the defeat of Otho in 69, his recall in about 77 and his death around 100; to my knowledge only U. Antonielli, "Osservazioni su le cohortes vigilum", Boll. Assoc. Arch. Rom., IV (1914), p. 299, has placed Moderatus' death in or before 96, presumably on the basis of the appearance of Domitian's full titles, although Mommsen expressed his reservations on that same point. Despite the weight of the scholarship against him, Antonielli seems to me to be correct; it would be most unlikely that Moderatus recorded the full titles of Domitian after that Emperor's damnatio memoriae, as well as without parallel; on AE 1969/70, 583, a military tombstone of Hadrianic date, only the name of Domitian is recorded: donis donatus ab imp. Domitiano. There is good evidence, moreover, for an alternative chronology which would place Moderatus' death in the reign of Domitian; for if his 8 years' service in the Guard began in the middle of Nero's reign, he could have been among those praetorians dismissed by Vitellius who either accepted the discharge (cf. addito honestae missionis lenimento (Tac., Hist., 2.67.1) with honestae missione on the inscription) or, perhaps more likely, were encouraged and allowed to rejoin the Guard under Vespasian (cf. Tac.,

- Hist., 2.82.5, 3.24.5, and 4.46). In either case, his recall as an evocatus Augusti could easily have fallen in the early years of Vespasian's reign so that his death 23 years later could have occurred in or before 96.
14. Cf. the example of Vitruvius, on whose arms assignment see Vitruv., 1.praef.2.
  15. See Appendix B, nos. 107-25; by comparison, there are over 80 military doctors, though admittedly with differing titles.
  16. Dig., 50.6.7; Watson, p. 76, translates this passage with the correct number in every case except that of architectus.
  17. Appendix B, nos. 112 and 117.
  18. Nos. 115b and 118: it seems to me unwise to suppose on the basis of this title that these two were the senior or only architecti in their legion, cf. V. Nutton, The Medical Profession in the Roman Empire from Augustus to Justinian (diss. Cambridge 1970), p. 114, on the 'title' medicus legionis.
  19. Nos. 121 and 119 respectively.
  20. See above, Ch. 2, pp. 61-2.
  21. No. 120; on the title, see most recently C. Gatti, "Alcuni tipi di immunes dell'esercito romano", Rend. Ist. Lomb., XCI (1957), pp. 311-12, and E. Sander, "Zur Rangordnung des römischen Heeres: der duplicarius", Historia, VIII (1959), pp. 240-1 and refs. there cited; cf. also R. W. Davies, "The medici of the Roman Armed Forces", Epig. Studien, 8, pp. 88-91. Domaszewski, Rangordnung, p. 25, suggested that [architectus] ordinatus was to be restored in CIL VI 30715.
  22. De Ruggiero, "Architectus", p. 646, exactly reversed the chronology of his career, making his position as architectus his most senior, but the career is surely given in ascending order; cf. D. J. Breeze, "The Career Structure below the Centurionate during the Principate", in Temporini, Aufstieg II, pp. 436-8.
  23. No. 122.
  24. Nos. 114 and 110 respectively; on their identification, see the refs. cited at RIB 2091; see also J. M. C. Toynbee, Art in Roman Britain, 2nd. ed. (London 1963), p. 157, no. 80.
  25. See DE, s.v. discens, pp. 1910-11.
  26. Cf. Burford, Craftsmen, p. 158.
  27. No. 117; a consequence of this would be an addition to the ranks of the non-Greek architecti, since Seius was a native of Vienna.
  28. Nos. 107 and 108 (both ex architecto).
  29. No. 120.
  30. Nos. 124-5; on the possibility that no. 125 was not an architectus, see above, Ch. 2, n. 261.
  31. Cf. nos. 126-9, and above, Ch. 4, p. 98 with n. 4.
  32. Cf. E. Ferrero, L'ordinamento delle armate romane (Turin 1878), p. 60; C. G. Starr, The Roman Imperial Navy 31 B.C.-A.D. 324 (Ithaca 1941), pp. 51-2; and L. Rossi, Trajan's Column and the Dacian Wars (London 1971), pp. 90-1.
  33. On military surveyors, see most recently R. K. Sherk, "Roman Geographical Exploration and Military Maps", in Temporini,

Aufstieg II, esp. pp. 544-53.

34. Among the 25 military examples, mesor is found slightly more frequently than ensor, but neither form predominates in any particular period; area or branch of the army; cf. CIL VIII 2935 and 2946, where ensor and mesor are used of the same man.
35. CIL VI 3606 = ILS 2422a.
36. CIL V 936 = ILS 2423 and AE 1917/18, 29, l. 4; there are also possibly two or three ensores ordinati (CIL VI 30715 (see above, Ch. 7, n. 21) and 32520b.II, 21 and 35), but that title does not describe their function, see the refs. cited above, Ch. 7, n. 21; see also Durry, p. 115 and n. 2.
37. ILS 9091.
38. Veg., Mil., 2.7.
39. See Cagnat, Armée, p. 167, who suggested that the metatores qui praecedentes locum eligunt castris (Veg., Mil., 2.7) were in fact non-technical centurions; there are no epigraphic examples of a metator.
40. Cf. CIL III 586, cf. 12306 = ILS 5947a, recording the settlement of an inter-city land dispute; see Sherk, loc. cit. (n. 33), pp. 551-62.
41. CIL VI 33023; VIII 2935 and 2946 (idem); and XIII 6538.
42. For example, CIL XIII 6538.
43. CIL VI 32536 and P. Dur. 89, l. 3 (= Fink, Records, no. 50); cf. also P. Dur. 96a, l. 5.
44. CIL VI 32520b.II, 21 and 35, as well as a.III, 51.
45. CIL VI 32520a.II, 56 and IV, 50.
46. CIL III 8112.
47. AE 1904, 72.
48. See also Cagnat, Armée, p. 168; Sherk, loc. cit. (n. 33), p. 549, regards CIL III 8112 as proof that each legion had 11 ensores, one per cohort with two in the first cohort.
49. CIL VI 2754 = ILS 2059.
50. Cf. Frontin., Aq., 2.105.4.
51. AE 1942/43, 93; the others are CIL VI 2454 (= ILS 2060) and 2754 (= ILS 2059); VIII 2564.1, 20, and 2900 (idem), 2728 (= ILS 5795) and 2934 = ILS 2422.
52. Cf. Pliny, Ep., 10.37.3.
53. This is almost certainly accidental; for Trajan advised Pliny to apply for a librator to the army in Moesia Inferior, where the legio V Macedonica was stationed at the time (Pliny, Ep., 10.41-42, cf. 61-62). It is possible, however, that the legio III Augusta had more libratores than most other legions because of the comparative difficulty of water-supply in Africa.
54. Frontin. Aq., 2.105.4.
55. Suet., Calig., 21.
56. They are surely the aquilices of Dig., 50.6.7, cf. Pliny, Ep., 10.37.3.
57. CIL VIII 2728 (= ILS 5795) and VI 2454 = ILS 2059 respectively.

58. CIL XIII 5209 = F. Stähelin, Die Schweiz in römischer Zeit, 3rd.ed. (Basle 1948), p. 201 (with fig. 36); see also AE 1954, 119, for a second possible example.
59. ILS 2331 and 2868-70.
60. RIB 156 = ILS 2429.
61. P. Dur. 101, col. XXI, l. 6 = Fink, Records, no. 2.
62. CIL VI 31165 (= ILS 2190) and also possibly 3261, cf. 32456, and 31186.
63. CIL VI 2256 (= ILS 2090) and 2773, cf. p. 3370.
64. CIL XIII 11803 = ILS 9183 = AE 1911, 232.
65. E. Sander, "Der praefectus fabrum und die Legionsfabriken", BJ, 162 (1962), p. 149.
66. Domaszewski, Rangordnung, p. 20.
67. Speidel, pp. 34-5.
68. Again Dr. Bader kindly supplied me with the TLL file; the sole exception is Dig., 9.2.27.35 (Ulpian): item si tectori locaveris laccum vino plenum curandum ... I cannot explain why a tector should undertake such a contract.
69. See above, Ch. 3, p. 86; cf. also Watson, pp. 145-6.
70. RIB 1946.
71. RIB 1952.
72. P. Mich. 465-6.
73. For example, the quarries at Enesh in Syria, on which see F. Cumont, Etudes Syriennes (Paris 1917), pp. 151-62; on the use of troops in mines and quarries, see also R. W. Davies, "The Daily Life of the Roman Soldier", in Temporini, Aufstieg II, pp. 328-9.
74. CIL XIII 7693-7720.
75. CIL XIII 4623-5 = ILS 9120 and 3453-4.
76. See E. M. Wightman, Roman Trier and the Treveri (London 1970), pp. 192-3.
77. CIL XIII 8036 = ILS 2907 and add.; cf. Starr, op cit. (n. 32), p. 151.
78. See MacMullen, "Building", pp. 212-13 and 216 and notes thereto for refs.
79. MacMullen, "Building", pp. 231-2, n. 80, does not make this differentiation; MacMullen, Soldier, pp. 29-30, suggests that army bricks were exchanged with local farmers for food, but there is no solid evidence for this.
80. See CIL XIII 6618 and 6623 (= ILS 9119), and cf. 11781.
81. See Miss M. V. Taylor and D. R. Wilson, "Roman Britain in 1960", JRS, LI (1961), p. 160, and Frere, Britannia, pp. 120 with n. 3 and 223; de Camp, pp. 188-9, gives the incorrect figure of 7 tons. See also N. S. Angus, G. T. Brown and H. F. Cleere, "The iron nails from the Roman legionary fortress at Inchtuthil, Perthshire", Journal of the Iron and Steel Institute, 200 (1962), pp. 956-68.
82. De Camp, p. 189, believed that the production of the nails was a military fatigue designed to keep the troops busy and that the nails were to be exported to other parts of the Empire; it seems to me more

likely that they were produced for a specific purpose in Britain; their very bulk would have made them difficult to transport far, as is attested by the fact that they were buried rather than taken back south; Angus, Brown and Cleere, loc. cit., p. 959, suggested that the iron might have been smelted near Inchtuthil, and asserted the existence of local iron resources.

83. For example, CIL VIII 2488 and 2658.
84. For example, CIL III 8484 (= ILS 3381) and 8485.
85. See above, Ch. 7, n. 1.
86. Although the trifold division made by R. Cagnat, "Manus Militaris", DS, Vol. III.2, p. 1591, appears from the titles given to the three categories to recognize this, the examples given under each demonstrate its need of revision; cf. also below, Ch. 7, n. 88.
87. For this reason, presumably, MacMullen, "Building", p. 215 and n. 73, includes canals under civil work, but he neglects to record that almost all of the examples which he gives were, according to the sources, purely military in conception (e.g. Tac., Ann., 13.53); his list, moreover, is lengthened by covert duplication of references to the same canal (e.g. Suet., Aug., 18.2 = Dio Cass., 51.18.1; Tac., Ann., 11.20 = Dio Cass., 61.30.6).
88. MacMullen, "Building", p. 232, n. 81, noted, though occasionally seems to forget, that "when army settlements fused with civilian settlements ... the line between buildings for military and civilian use is hard to draw". On the other hand, Cagnat, loc. cit. (n. 86) categorized all the army's baths, aqueducts etc. as "travaux purement militaires", which is completely misleading.
89. See M. P. Charlesworth, Trade-Routes and Commerce of the Roman Empire, 2nd.ed. (Cambridge 1926), pp. 230-1.
90. Cf. G. H. Stevenson in CAH X, p. 217.
91. For example, CIL VIII 2546 and 2548.
92. Hadrian's Wall had several military objectives, but they all concerned defence in one way or another, see Frere, Britannia, pp. 127 ff.
93. CIL III 88 (= ILS 773) (Arabia), 3653 (= ILS 775) (Pannonia Inferior), 13796 (= ILS 9180) (Dacia); VIII 2494 (= ILS 2636) (Numidia); and XIII 11538 = ILS 8949 (Germania Superior).
94. For example, CIL III 8031 = ILS 510 (Romula, Dacia).
95. For example, CIL III 7494 = ILS 770.
96. So Cagnat, loc. cit. (n. 86), p. 1591 (category no. 2).
97. This is not to say that during this period the troops did not have any 'leisure' buildings, but about the only reference to them is the statement that Hadrian cleared the camps of porticoes etc. (S.H.A., Hadr., 10.4) and this itself may be laudatory exaggeration.
98. Cf. MacMullen, "Building", pp. 216-18.
99. For example, CIL III 8484 (= ILS 3381) and 8485.
100. For example, CIL VIII 2698.
101. For example, CIL XIII 8019.
102. Cf. G. Webster, The Roman Imperial Army of the first and second centuries A. D. (London 1969), pp. 198 and 201.

103. For example, CIL III 1374, 7473 and 10492 = ILS 2457.
104. Although it is probable that legionary amphitheatres were intended primarily for ceremonial and sacrificial purposes, and possibly also for the demonstration of tactics (see Webster, op. cit., pp. 201-2), the very capacity of some of them (6,000 at Caerleon, 8,000 at Carnuntum) perhaps suggests that the spectators at the shows did not comprise solely legionaries.
105. On this, see Herodian, 3.8.5, and cf. CIL III 14509 = ILS 9105; this was recognized by MacKullen, "Building", p. 232, n. 81, though not remembered in his table, p. 218.
106. CIL VIII 2658, cf. p. 954, 2579, cf. 18039 (= ILS 3841), and 2611, cf. AE 1951, 121.
107. RIB 1091 = ILS 2620.
108. CIL VIII 2728, cf. 18122 = ILS 5795, cf. AE 1941, 117; the precise nature of the gaesates is disputed, see G. Wilmanns, ad CIL VIII 2728, and the OLD, s.v.
109. Tac., Hist., 2.67.
110. S.H.A., Probus, 9.4; the passage is cited without question by both Cagnat, loc. cit. (n. 86), p. 1591, and Davies, loc. cit. (n. 73), p. 330; on the authenticity and reliability of the S.H.A., see R. Syme, Emperors and Biography: Studies in the Historia Augusta (Oxford 1971), esp. pp. 30-77.
111. CIL III 11965, 14370<sup>2</sup> (= ILS 5338) and 5911.
112. For example, CIL III 5773 (= ILS 4597) (dated 211), 5796 (= ILS 3972) and 5862.
113. CIL III 1374.
114. Amphitheatre: CIL III 836 (dated 157); aqueduct: CIL III 1446 (dated 132/3); cf. also the third century buildings recorded on CIL III 976, 1096 (= ILS 5552) and 1174 = ILS 7255a; on building work in Dacia, see D. Tudor, "Les constructions publiques de la Dacie romaine d'après les inscriptions", Latomus, XXIII (1964), pp. 271-301.
115. RIB 707.
116. Cf. MacKullen, "Building", pp. 217-20.
117. Cf. Charlesworth, op. cit. (n. 89); Cagnat, loc. cit. (n. 86), p. 1591, believed, not unreasonably, that the army's construction in 112 of a bridge at Simitthus (CIL VIII 10117, cf. p. 2118, = ILS 293) was designed to facilitate the export of marble from the nearby quarries.
118. For example, Libanius, Or., 11.159 (Förster, Vol. I, p. 489); cf. also ECH, XXVI (1902), pp. 205-8, no. 61; this type of work, however, cannot really be classified as 'building', though it is included as such by MacKullen, Soldier, pp. 32-3.
119. Cf. above, Ch. 7, p. 152 with n. 2.
120. For example, CIL III 4121 (= ILS 704) (near Poetovio, Pannonia Superior - an aqueduct; Constantine); III 6703 (Nicopolis, Syria - an aqueduct; Tiberius); II 191 = ILS 5699 (Olisipo, Lusitania).
121. Dig., 1.16.7.1; it is true that proconsuls as such would not have had command of a legion, but since Ulpian writes as though they were to give military aid to the curatores direct rather than

summon it from a province in which troops were stationed, it is possible that he is using the term loosely to embrace all provincial governors.

122. MacMullen, "Building", pp. 214-15; the only certain examples known to me are Caligula's projected Corinth canal (Suet., Calig., 21, cf. above, Ch. 7, p. 156), a canal at Nicomedia (Pliny, Ep., 10.41-2, though the librator was never sent, cf. ibid., 61-2), and the aqueduct at Saldae (CIL VIII 2728); it is possible that the two architecti Augusti who were in the praetorians (Appendix B, nos. 119 and 121) were also employed on civil work of an Emperor at Rome (see above, Ch. 2, pp. 61-2), but that is hardly the same.
123. I. A. Richmond, Roman Britain (London 1963) p. 72, cf. Frere, Britannia, p. 242.
124. J. J. Wilkes, Dalmatia (London 1969), p. 368.
125. Cf. Dio Cass., 56.18.2 and 20.1, on the Roman army in Germany in 9; cf. also Frere, Britannia, p. 204.
126. Tingad, whose military plan is often cited (cf. Sir M. Wheeler, Roman Art and Architecture (London 1964) pp. 47-52), was in fact founded with the aid of the legio III Augusta (CIL VIII 17842/3), and may have been originally designed largely for military veterans; see contra Cagnat, Armée, p. 591, n. 3.
127. Pace Cagnat, loc. cit. (n. 86), pp. 1591-2.
128. CIL III 1171.
129. CIL III 3653 = ILS 775.
130. See AE 1940, 13-14, cf. AE 1945, p. 24, sub no. 76, and CIL III 8074, 28, and 14216, 30-1; cf. also CIL III 8031 (= ILS 510) and 8032.
131. CIL III 1979 (= ILS 2616) and 1980 = ILS 2282.
132. CIL VIII 2658, 2661 and 2572.
133. CIL XIII 11758 (= ILS 9179a) and 11759 = ILS 9179b.
134. CIL III 10492 = ILS 2457.
135. CIL XIII 6562.
136. For example, CIL III 1980 (= ILS 2287) and XIII 8201 = ILS 4312; on the use of centurions on building work, see H. Zwicky, Zur Verwendung des Militärs in der Verwaltung der römischen Kaiserzeit (Diss. Zurich 1944), pp. 76-8.
137. For example, CIL III 1374, 6374 (= ILS 2617); XIII 6562; RIB 978; the mention of senior officers, including legionary legates, even with derivatives of cura, is of course largely honorific, cf. above, Ch. 2, p. 75.
138. CIL III 6025 and 8484.
139. CIL III 1979 (= ILS 2616) and 1980 = ILS 2287 respectively.
140. AE 1916, 60 and 61, cf. Cozzo, Ingegneria, p. 70; for an example of the division of work on an aqueduct, see CIL XIII 11757 and 11758-9 = ILS 9179a-b.
141. For Hadrian's Wall, see Frere, Britannia, pp. 129-37.
142. See G. Macdonald, The Roman Wall in Scotland, 2nd.ed. (Oxford 1934), pp. 393-400, but cf. Frere, Britannia, pp. 147-8.

143. MacMullen, "Building", pp. 213 and 221 with n. 109.
144. On this, see above, Ch. 5, esp. pp. 121-2.

143. MacMullen, "Building", pp. 213 and 221 with n. 109.
144. On this, see above, Ch. 5, esp. pp. 121-2.

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- Plate XII, fig. 1 CIL VI 9556 (Rome, Vatican, Galleria Lapidaria)
- fig. 2 AE 1916, 60 (cast; Rome, Museo della Civiltà)
- fig. 3 CIL VI 9139 (Rome, Vatican, Galleria Lapidaria)
- fig. 4 CIL VI 9624 (Rome, Vatican, Galleria Lapidaria)



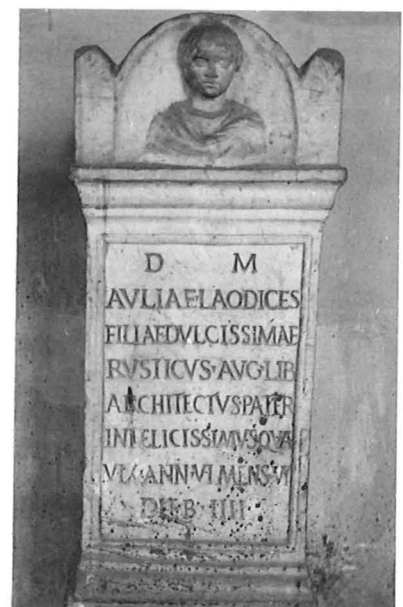
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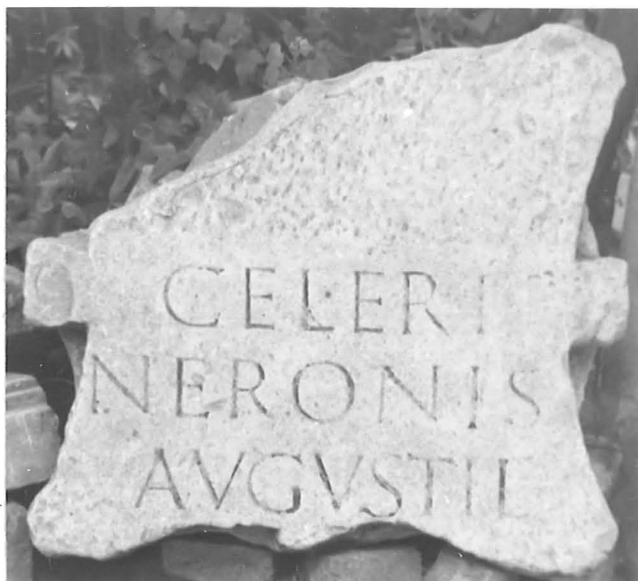
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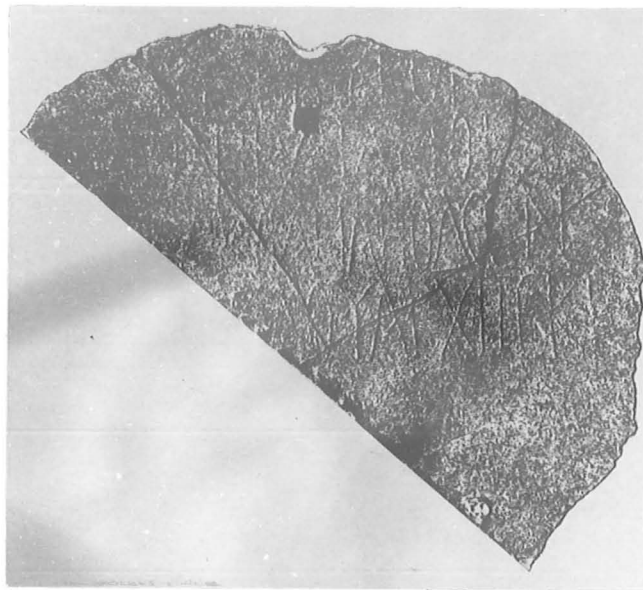
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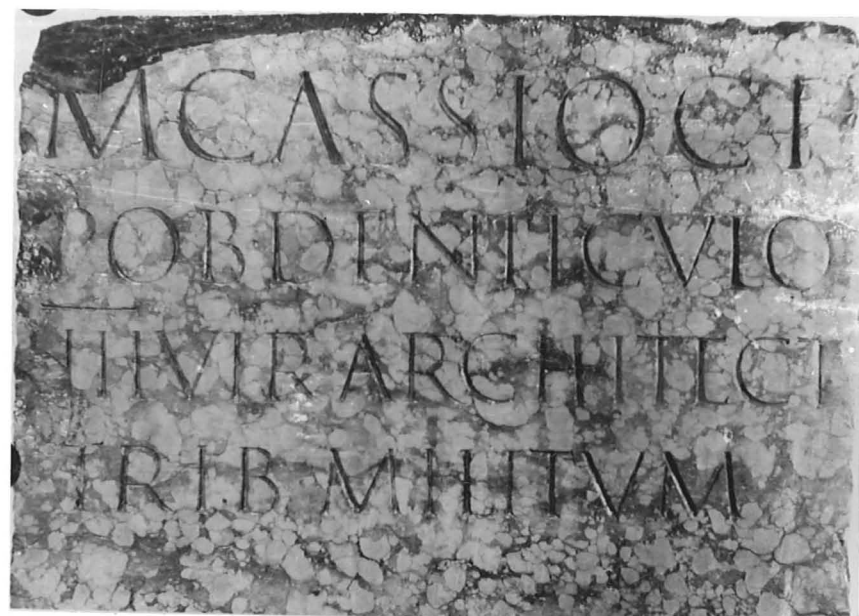
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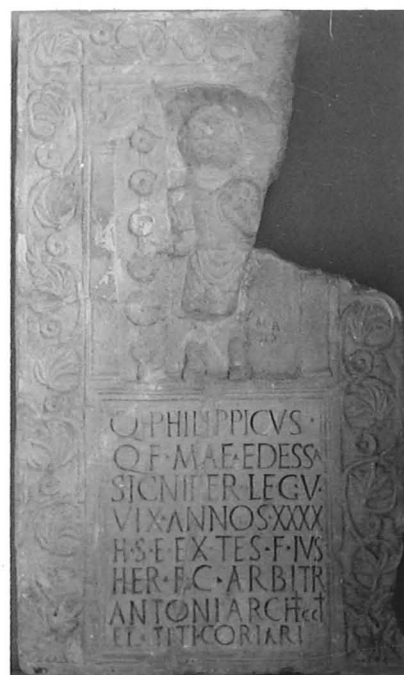
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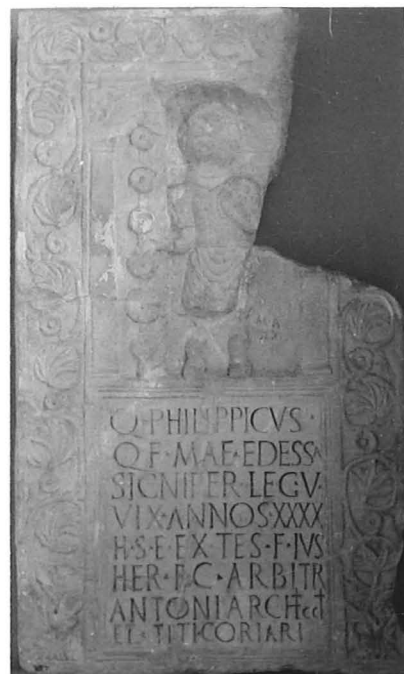
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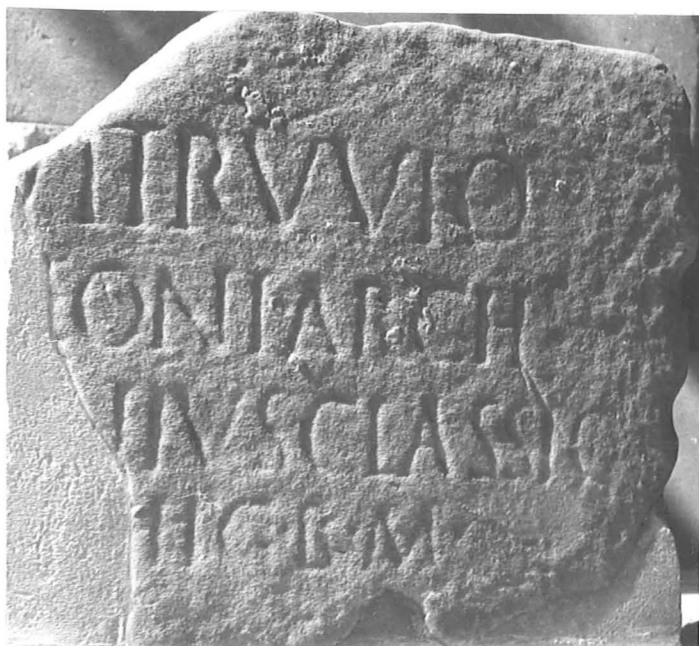
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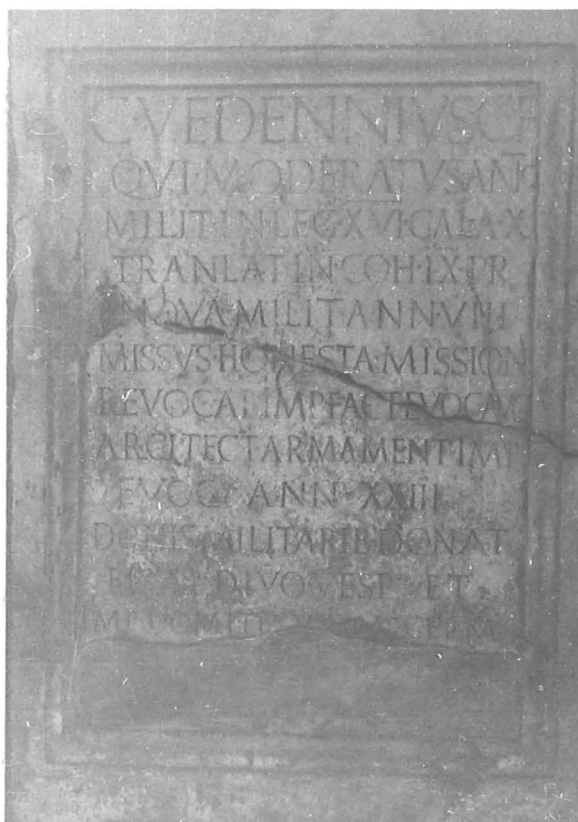
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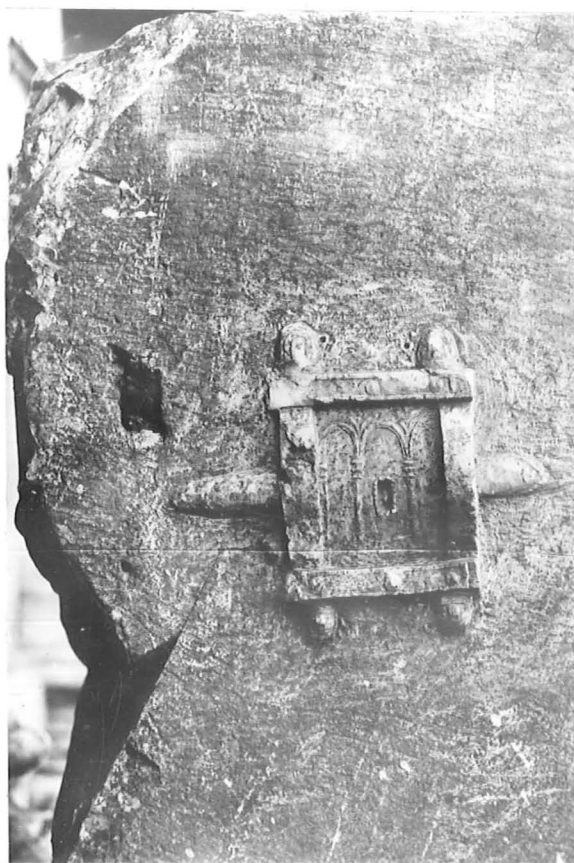
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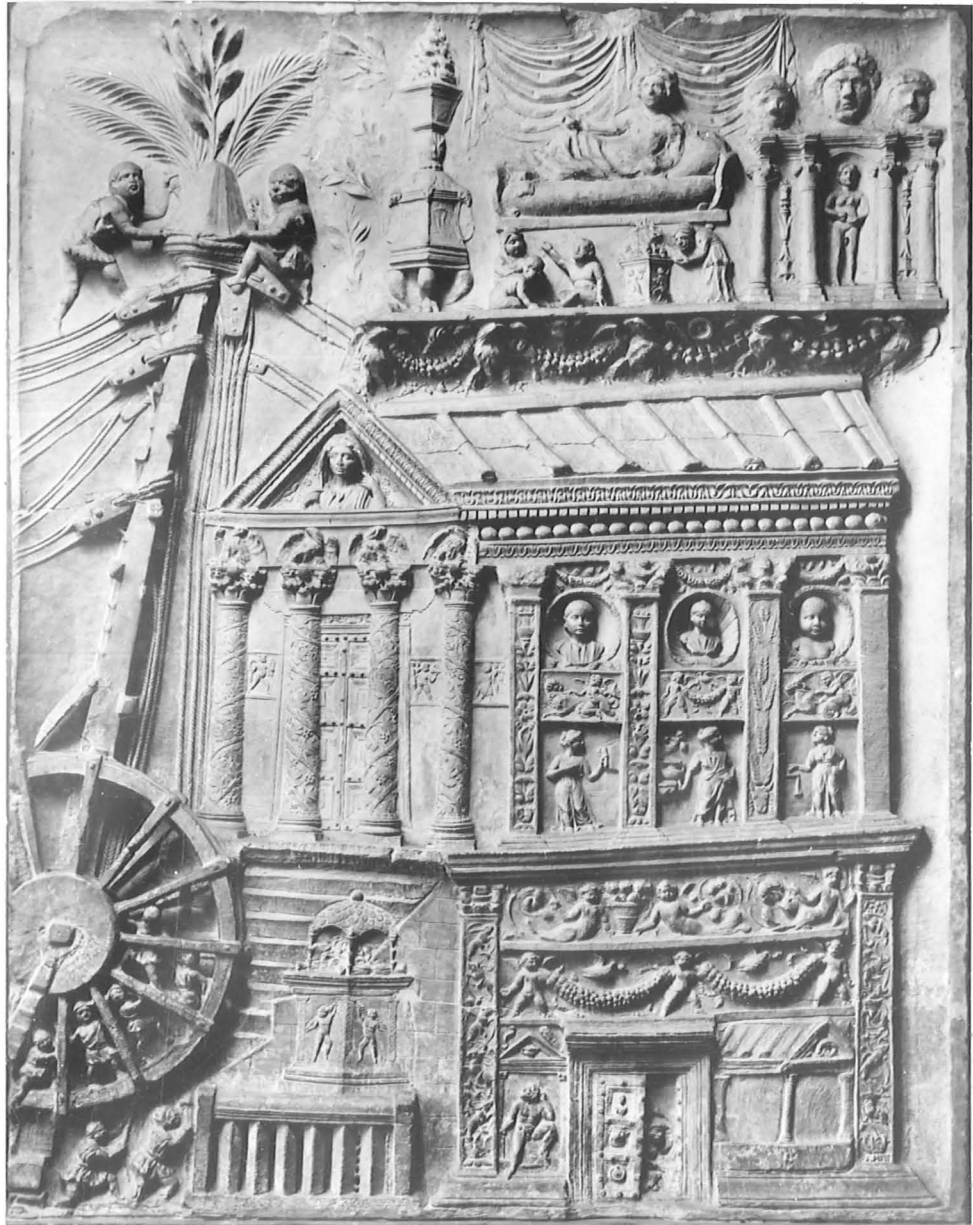
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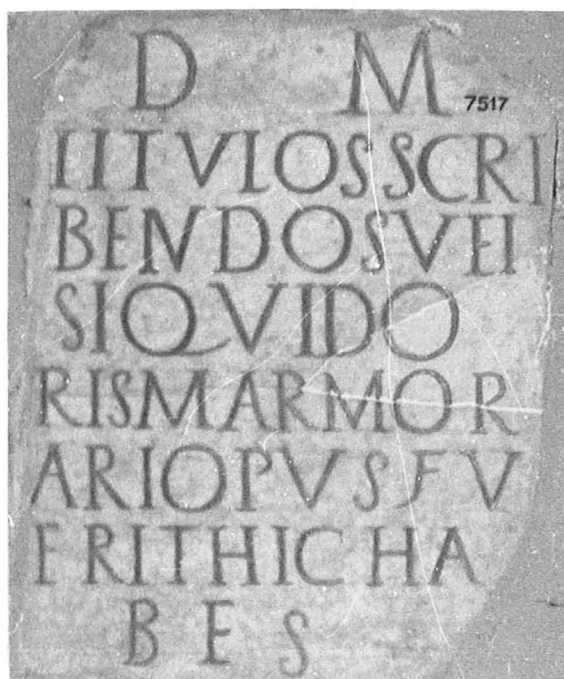
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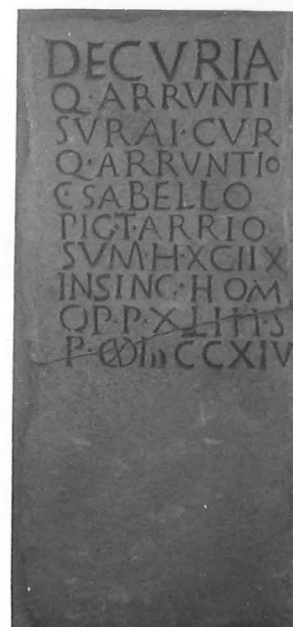
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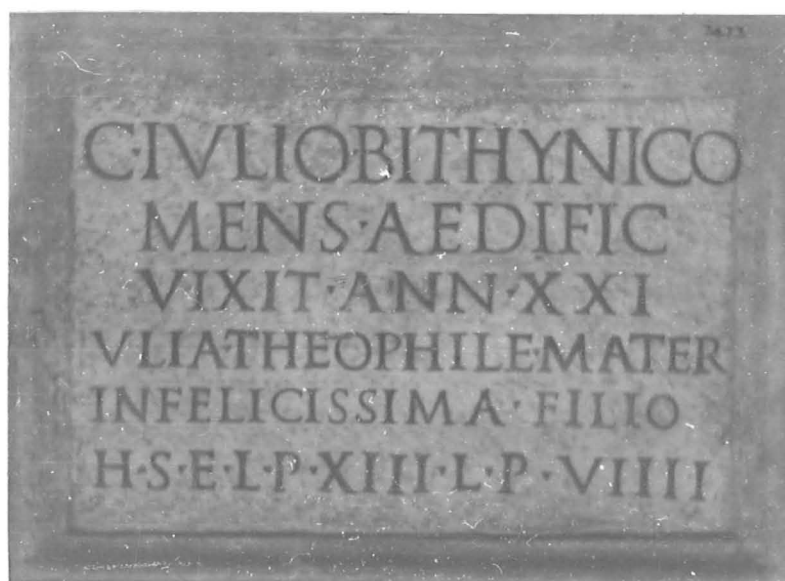
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