

REVIEW ARTICLES

Organizing Public Construction in Ancient Greece*

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V.D. Kuznetsov, *Organizatsiya obshtshestvennogo stroitelstva v drevnej Gretsyji* (*Organization of Public Construction Works in Ancient Greece*, in Russian), Moscow: Yazyki Russkoi Kultury, 2000. 536 pp. ISBN: 5-7859-0109-9.

This book examines the process of organizing construction work at public buildings in Classical and Hellenistic Greece. The organization is reconstructed mainly on the basis of epigraphic material including, first and foremost, accounts of building commissions selected for producing the works. These documents originate from various *poleis* and, in most cases, refer to construction work carried out at large shrines. The main issues explored in the monograph are the functions and composition of the bodies responsible for organizing the erection of public buildings, the methods of recruiting manpower to this end, the clauses of the Greek contract, builders' wages and salaries, free and non-free labor at the building site, the geographical and professional division of labor during the construction work, sources of financing, and the roles of various participants in the construction process. This is the first book which comprehensively examines all extant major documents relating to public construction in Ancient Greece.

Building accounts, which are our richest source of information on the economic life of Ancient Greece, have been studied for at least a century. However, the emphasis has always been on analyzing them philologically and historically (including from a historical-architectural standpoint). Organizational and social aspects, which are the main focus of K(uznetsov)'s book, have been insufficiently investigated. Some important publications have, indeed, dealt with these issues within the framework of studies of specific building projects.¹ However, this approach has obvious drawbacks, the more so since none of these projects is adequately documented. The solution attempted by K. involves the analysis of all the main groups of the building accounts preserved. The author believes that this strategy should, on the one hand, help resolve some problems that

* I am grateful to Professor D.M. Schaps and to the editors of SCI for their helpful comments. Any remaining mistakes are, of course, my own.

¹ E.g.: M. Lacroix, 'Les architectes et entrepreneurs à Délos de 314 à 240', *RPh* 38, 1914, 303-330; R.H. Randall, 'The Erechtheum Workmen', *AJA* 57, 1953, 199-210; A. Burford, *The Greek Temple Builders at Epidauros: A social and economic study of building in the Asklepien sanctuary, during the fourth and early third centuries B.C.*, Liverpool, 1969 (henceforth *GTBE*); R. Martin, 'Aspects financiers et sociaux des programmes de construction dans les villes grecques de la Grande Grèce et de Sicile', in *Economia e società nella Magna Grecia, Atti del XII Convegno di Studi sulla Magna Grecia*, S. Ceccoli (ed.), Naples, 1973, 185-204. The monograph by A. Wittenburg, *Griechische Baukommissionen des 5. und 4. Jahrhunderts*, Munich, 1978, draws on documents from Athens in particular, as well as from Delos and Tegea.

otherwise could not be approached while, on the other, prevent arbitrary conclusions and unwarranted generalizations (17-19, 416, and see below). K. has been investigating the subject for over two decades, and at times refers to previous publications of his (all in Russian; the later ones come with abstracts in English), in which some specific problems are dealt with in more detail (see bibliography). As noted in the introduction, the method employed by K. for analyzing the building documents is the compilation of working tables in which the data from all the inscriptions examined are entered, line by line. By means of this method, the information can be analyzed quantitatively and qualitatively, using statistical methods (17).

The book is clearly structured. The Introduction and the very good Historiographical Survey are followed by chapters on construction projects executed in Athens (the Erechtheion, of course, gets pride of place), Eleusis, Epidauros, Delphi, Delos and Miletus (Didyma), in that order. To the extent that the sources from other projects (from Lebadea, Tegea, Troezen, some fortifications, etc.) are used, they are treated primarily in the Conclusion: there, the material is summarized and some general issues examined (among them the sources of financing the building projects — the subject is treated meticulously, 389-98). The geographical and chronological frameworks (from the construction work on the Acropolis in the middle of the fifth century to the works on the temple of Apollo in Didyma in the third to second centuries BCE) are, of course, determined, first and foremost, on the basis of the available sources.²

The Appendices contain, besides six tables (some selective) in which the data for several specific categories of builders are grouped, a full prosopography of the persons mentioned (sometimes anonymously) in the inscribed building documents of the six projects studied. The prosopography is of significant independent value, and some scholars will no doubt use the book primarily or exclusively for it. In fact, it is the only part of the monograph that many non-Russian-speaking researchers will be able to take advantage of, as it requires only a minimal knowledge of Russian. Some comments are, indeed, in Russian, and the professions (known or implicit) of the persons in question are denoted by Cyrillic letters, explained on 448, note 1100. The book concludes with an impressive bibliography and indices. Besides works published too late to be mentioned in 2000,³ I miss some earlier works relevant to the issues considered.⁴ In addition, some works referred to in the text are absent from the bibliography.⁵ This, however, is not very

² Little use is made of the material from Southern Italy. For building in Magna Graecia, see the works by Martin in K's bibliography. See also the previous note.

³ E.g., W.T. Loomis, *Wages, Welfare Costs and Inflation in Classical Athens*, Ann Arbor, 1998; B.S. Ridgway, *Prayers in Stone: Greek Architectural Sculpture* (ca. 600-100 B.C.E.), Berkeley, 1999 (esp. ch. 6); D.J. Mattingly and J. Salmon (eds.), *Economies Beyond Agriculture in the Classical World*, London-New York, 2001; P. Boucheron, H. Broise and Y. Thébert (eds.), *La brique antique et médiévale. Production et commercialisation d'un matériel*, Rome, 2000.

⁴ E.g., J.G. Younger, 'The Parthenon as Public Works Project', *AJA* 97, 1993, 309. Other works will be referred to below.

⁵ For example, F. Noack, *Eleusis: die baugeschichtliche Entwicklung des Heiligtumes: Aufnahmen und Untersuchungen von Ferdinand Noack, mit Beiträgen von J. Kirchner, A. Korte und A.K. Orlandos*, Berlin, 1927 (referred to as Noack on 28, n. 63, but as Eleusis on 72, nn. 190, 192); R.S. Stanier, 'The Cost of the Parthenon', *JHS* 73, 1953, 68-76 (44, n.

detrimental, since the Cambridge/Harvard system of references is not used, and even when abbreviations are used, they are mostly transparent. As for the indices, detailed and comprehensive as they are, it might have been more helpful to have separate entries for different bearers of the same name. In addition, the list of the sources used is not accompanied by the numbers of the pages where these sources are referred to, and modern authors do not appear in the name index if mentioned only with reference to their publications.

K. commands a superb knowledge of the building documents and, in general, is very thorough and careful in their treatment.⁶ The conclusions drawn by him are mostly well-founded and cautious, though the reader will see that the present reviewer does not always find them convincing. In what follows I will concentrate on some central issues and corollaries of the book, keeping in mind, *inter alia*, the inaccessibility of the Russian text to most Western scholars.

Social Composition of the Building Force

Detailed information is available for the Erechtheion only, and, to a lesser degree, for the works in Eleusis. With the former project, what is striking is the under-representation of citizens among the workers of known status. Of the 85 builders whose civic status is recorded, 23 were citizens, 40 metics, and 22 slaves.⁷ Randall (203) explains the small proportion of citizen craftsmen by the catastrophic results of the Syracusan campaign, but K. reminds us that the war affected not only citizens; some metics and even slaves served in the army, while others left Athens voluntarily.⁸ According to the author, the ratio of citizens, free resident aliens and slaves engaged in the Erechtheion project adequately reflects the true state of things at the Athenian building site. However, it would be very risky to apply the results obtained to all Athenian crafts, let alone Greek crafts as a whole. I would suggest an even more cautious attitude: the work recorded in the surviving inscriptions is that of the skilled labor at the final phase of the construction, with a

120); S. Lauffer, *Die Bergwerksklaven von Laureion*, Bd. I-II, Wiesbaden, 1955-1956 (82, n. 220); R.J. Hopper, 'The Attic Silver Mines in the Fourth Century B. C.', *BSA* 48, 1953 (82, n. 220).

⁶ Thus, he rejects Burford's interpretation of an Epidaurian inscription, pointing out that the sum received from a priest each month should equal the sum paid to the contractors (121, n. 310).

⁷ K., 54, 441. These numbers differ somewhat from those of Randall, 201, partly on account of the publication of *IG I³*, partly because of disagreements between the two scholars, and partly as a result of miscalculations by K. See my 'Towards a Problem of Slave Labor in Athenian Public Construction', forthcoming (in Russian), and the text below. The discrepancy is not significant for our purpose. Here, as usual, the term 'metics' includes freedmen: in spite of there being some differences in their status, we do not know who was which, since the form of their official names was identical. (see R. Zelnick-Abramovitz, *Not Wholly Free: The Concept of Manumission and the Status of Manumitted Slaves in the Ancient Greek World*, Mnemosyne Supplement 266, Leiden, 2005, ch. 6).

⁸ 54-5. For a more detailed treatment of the subject see V.D. Kuznetsov, 'The Builders of the Erechtheion', *VDI* 4, 1990, 38-9 (in Russian). We might add the impact of the citizens' concentration in the city during the Dekeleian War, whereas most metics probably lived in the urban districts from the start.

greater distribution of trades.⁹ As we shall see below, in this project the citizens performed only those tasks that required some skill, while we can only guess what the proportion of the metics and slaves was in the earlier stages of the work. While some scholars look for the reasons for the low participation of citizens in the construction of the Erechtheion, others emphasize their significant proportion, suggesting that only in the public sector was free labor by citizens important.¹⁰ K. tends to embrace this view (67, 417), but one wonders what these skilled artisans did during long periods of little or no public construction projects.

K.'s deduction about the not-too-great impact of the war on the proportion of citizens involved seems to be corroborated by later Athenian inscriptions. The Eleusinian accounts, reflecting peaceful conditions, mention an even lower percentage of citizens in comparison with the data on the Erechtheion (97-8).¹¹ In contradistinction to the documents of the Erechtheion, most of the work in other projects studied in the book was done by contractors, and no mention is made of their assistants. If the metics and foreigners were predominant among the Eleusinian contractors, this was *a fortiori* true with regard to their assistants, some of them surely slaves. On the other hand, K.'s confidence that all those who worked for a contractor and not directly for the polis should be counted as slaves (83, 98, n. 256, 432) seems to me unwarranted.¹²

There were from 17 to 28 state-owned slaves (δημόσιοι) at various stages of the recorded Eleusinian works (74). Unlike the Erechtheion inscriptions, the Eleusinian inscriptions do not permit formal and unequivocal identification of privately-owned slaves. The nameless workers (ἄνδρες, μισθωτοί, οἰκοσῆτοι: *IG II² 1672.26, 29, 32-3, 46, 62, 111, 160, 177-8*) are, according to K., such slaves (77, 82-3, cf. 52-3, 91, 102, and, for Delos, 321-2, 345-6). I feel that this cannot be proved and, in some cases, is probably untrue.¹³ K. does not explain why it is the slaves who should remain unnamed,

⁹ Randall, 202-3; cf. K., 99.

¹⁰ The work cited by K. is S.C. Humphreys, *Anthropology and the Greeks*, London, 1978, 147 (but the author primarily refers to wage labor, as is obvious from the context, so K. may be misleading his readers); cf. M.I. Finley, *The Ancient Economy*, Berkeley, 1985 (reprint of 1973), 74, highlighting the religious dimension.

¹¹ An indication of status is frequently omitted in the Eleusinian documents. K. does not refer to the account of the works at the Erechtheion in 395/4 (*IG II/III² 1654.2-4, 5-8, 12-4, 15-6, 28, 30, 40*), probably because only a few names are preserved. Of the ten men whose status is more or less securely attested, all are metics. Two craftsmen may be either citizens or metics (II. 5, 12). None of the Erechtheion builders of the later fifth century is mentioned. Though the sample is too small to be reliable, it is perhaps symptomatic that the distribution of the metics according to demes is similar to that known from the inscriptions of 409-407 BCE. Cf. L. Gluskina, *Problems of Socio-Economic History of Athens of the IV c. B. C. E.*, Leningrad, 1975 (Russian), 50.

¹² See my 'Towards a Problem of Slave Labor in Athenian Public Construction', forthcoming (in Russian).

¹³ Thus, K. himself suggests that οἱ μισθωτοί from Megara, who 'are going to arrive at the shrine' (*IG II² 1673.28-9*) do this 'on their own initiative' (77). K. calls these workers 'specialists', without sufficient reasons, I suspect. See also 'Towards a Problem of Slave Labor in Athenian Public Construction', as in the previous note. For an alternative explanation of the word οἰκοσῆτοι see K. Clinton, 'Inscriptions from Eleusis', *Ἀρχαιολογικὴ Ἐφημερίς* 1971 (1972), 110-1; Loomis, *op. cit.* (above, n. 3), 11-12 n. 19. Cf. K., 99-100, n. 258.

but he probably attributes this to their low status. The argument is sometimes rather circular: by assuming that only unfree workers can be left anonymous, we naturally count all unnamed workers as slaves, thereby confirming, as it were, the initial hypothesis (see esp. 91). We shall return to this question below.

Needless to say, the number of anonymous workers is unknown, since the same man may be mentioned several times. As for the named free non-citizens, metics are not always distinguishable from non-resident foreigners, who should be excluded for the purpose of comparison with the situation at the Erechtheion, as they must have frequently been barred from Athens during the Peloponnesian War (many of the foreigners in the Eleusinian project are Corinthians, Megarians and Boeotians). Besides, the accounts of the Erechtheion and Eleusis do not always reflect comparable stages of construction, and even the two main Eleusinian accounts (1672 and 1673) are practically unrelated to one another. These facts, together with recurring omissions in the designation of status, impede direct comparison of the ratio of representatives of three official Athenian strata in the two projects (98-9).

Temple slaves played a very significant role in the construction of the temple of Apollo in Didyma (364 ff), and some workers, mentioned (sometimes anonymously) in the Delian inscriptions, can be identified as belonging to the shrine with various degrees of certainty (278-9, 302-3). In one case, a Delian carpenter, paid on a daily basis, brought with him his παῖς — probably a slave, as υἱός stood for ‘son’ (278). On the same island, several providers of services for the temple building rented workshops for male and female slaves — ἀνδρῶνες, ἀνδρωνίτιδες and γυναικωνίτιδες (348-51); these workshops generally seem to be small (351). Two of the Delian contractors have ‘protectors’ (κύριοι) indicated in accounts, which may point to their status as slaves or freedmen, but K. is judiciously cautious (344-5).

For Didyma, we have, in addition to building accounts, something unique: thousands of labels on the stone blocks comprising the edifice. The labels were used for quality control and were supposed to be erased during the final polishing. Since, however, the building was never completed, many labels were left untouched. These are either abridged proper names or ‘IE’. K. accepts Rehm’s interpretation of the latter, most frequent, label as (τῶν) ἱε(ρῶν παίδων), i.e. a stone, processed by ‘sacred’ slaves, rejecting (probably rightly) Haussoullier’s suggestion of ἱε(ρὸς λίθος) (373-4). While Haussoullier believed that the bearers of the proper names, preserved on the stones, were ‘entrepreneurs’, or brigade leaders, and Rehm believed them to be private slaves (with the exception of the case of the label ΔΗ(MO), which both took to denote a public slave), K. insists on their free status (375-81). I fail to understand how we can know, and in fact Haussoullier’s ‘entrepreneurs’ may be simply artisans. In any event, it appears from the stone labels, as well as from the accounts, that the temple slaves did most of the work (380-81).

Social, Professional and Geographic Division of Labor

Generally, K. maintains that unskilled and heavy types of work were practically always performed by slaves, while free men engaged in work requiring high levels of skill (47-8, 52-3, 61-2, 67-8, 102, 345-6, 415-8, 427, 432-3). This was because slaves were not economically motivated to perform skilled tasks, since the pay went to their owners (82, 91

and 104-5). The skilled work could not be performed by slaves unless they were under supervision (47, 67). Accordingly, there was no serious competition between free and slave labor — and this not because there was a shortage of craftsmen (as Burford and Garlan believed) or because the non-agricultural professions were unimportant to the citizens (Garlan); rather, the reason was that free and unfree workers occupied different niches in the construction process (105, 417-8).

However, the fact is that at the Erechtheion *all* the slaves were skilled workers, while all laborers (i.e. those not attested as performing skilled jobs) were metics, as far as can be ascertained in our present state of knowledge. This should cause no surprise, since these slaves followed the trades of their masters — mostly artisans working at the Erechtheion (Randall 203-4; cf. K., 67). What does require explanation is the absence of slaves among casual workers. As for Eleusis, some οἰκοσῆται who, according to K., were slaves, performed skilled work (81-3), and this was certainly true with regard to some Milesian (and perhaps some Delian) temple slaves (278-9, 302-3, 370). The question of the possible incentives for these slaves will be examined below, but surely skilled compulsory labor was not so rare in the ancient world. The distribution of work among citizens and metics is documented in detail only for the Erechtheion, and here we owe a valuable observation to K.: no citizen worked on this project as an unskilled laborer (61).

For Epidaurus, Delphi and Delos, the social, geographical and professional divisions of labor closely overlap. In these small communities, which housed sanctuaries of Panhellenic importance, the quality and quantity of the local craftsmen more or less satisfied the requirements of everyday work, but foreign workers were needed for exceptional and demanding instances (173, 196). Moreover, these poleis usually lacked the necessary resources, such as wood and stone, which were mostly supplied by natives of the regions where these materials abounded (primarily Argos, Corinth, Athens, Paros; cf. the role of Boeotians in stone blocks transportation in the Eleusinian inscriptions, 94-5). People born in a specific locality usually had more opportunities and experience in working with local materials (135-6, 138-9, 143-4, 150, 168-73, 201, 210, 260-1, 248, 270, n. 635), but foreign contractors could quarry the Corinthian stone for the needs of the Delphic shrine (202). Such specialization could sometimes be seen inside Attica, too (84). Distance was also important: thus, most foreign workers at Delos came from the Cyclades (337). According to K., only a minority of the builders in Epidaurus can be identified as foreigners (against approximately half, according to Burford), but in most cases the ethnonym is absent. These foreigners, however, played a key role in the construction works (168-9). Since the beginning of the last century, attempts have been made to identify foreigners at Delos. However, this can only be done tentatively (247-8, 261, 270-3, 298-9, 320, 325, 332-7). K. endorses Burford's method of identification of a mason's locality of origin with that of the stone he processed (150, 248, 260-1, 270, cf. 353-4). However, at times this may be an overconfident approach: for example, Phalakros worked at the Erechtheion with both Aeginetan stone and Pentelic marble (*IG* I³ 475.32, 53). K. rejects the conclusions of Lacroix as to competition between metics and nationals at Delos and the changing number of the latter, plausibly explaining the different statistics as stemming from the changed mode of compiling the accounts (247-8, 332-7). The foreigners (including metics, who only rarely can be distinguished) remained indispensable for the Delian economic system (247-8, 336-8).

The identification of the builders according to their professions, together with comments on their work, forms the bulk of the book. The analysis is generally keen and scrupulous. K. is skeptical of the excessive specialization sometimes implied by the terminology used in the accounts, while maintaining that the borderline between materials was not usually crossed (48-51, 85-6, 133, 151-2, 197, 200-1, 203, 263ff, 268; cf. 93, n. 242).¹⁴ At times, it was even impossible to cross the dividing line between different kinds of stone (373). When a person *does* work with different materials, the author tends to suppose either that the work was actually done by a namesake or that it stemmed from a need for money, probably implying that the workman in question could not make a living out of his work in one particular material (e.g. 81, 85, 135-6, 144-5, 147, 199-200, 205-6, 308; see also 459 for Asklapiadas; but see 279ff, 284ff). We shall see an alternative explanation below. The impossibility of a painter being a mason's son is assumed automatically, and perhaps a little too categorically (270, n. 635).

K. rejects Burford's theory on the special place of the Epidaurian metalworkers between 'the upper classes and the traders and craftsmen, and as regards the building scheme in particular between the administrators and contractors'. Although five names of smiths appear among the members of the building commission, guarantors and *katalogoi*, their identification is uncertain in the absence of patronyms, and the sample is too small. In any event, membership in the building commission is not a sign of high social standing (150). I would suggest that, if the overlap between the Epidaurian smiths and the administrators was, in fact, larger than for other professions, it was related to the mostly local origin of the metalworkers, convincingly argued by K. (147-8).

Double, triple and quadruple labels on some Didyma stones are interpreted by K. (plausibly, in my view) as a sign of successive work on each of these stones by different workers (some of them slaves), performing successive operations (380). I would add that, if this is indeed so, it seems to be one of a very few examples of 'vertical specialization' in ancient Greek production.¹⁵ Continuing the theme of specialization: K. argues that the workers recorded in the building accounts, were not (*pace* Burford) specialized 'temple builders', migrating all over Greece in search of large projects but, rather, craftsmen of a relatively wide profile within their professions, sometimes attracted to other cities by the opportunity to earn money (169-71, 175; partly acknowledged by Burford herself: *Craftsmen*, 62). K. also rejects (justly, I believe) a related theory of Burford — that the nearly complete absence of craft names implies that the Epidaurians were unused to specialists: K. asserts that there was no need to indicate a builder's profession in a laconic account (168). It is implied (and is worth making explicit) that this sparseness of technical terms is primarily a consequence of the work having been mostly contracted out.

¹⁴ Cf. A. Burford, *Craftsmen in Greek and Roman Society*, London, 1972, 96-101 (not quoted by K.). *Contra*: E.M. Harris, 'Workshop, Marketplace and Household: The Nature of Technical Specialization in Classical Athens and its Influence on Economy and Society', in *Money, Labour and Land: Approaches to the Economies of Ancient Greece*, P. Cartledge, E.E. Cohen and L. Foxhall (eds.), London, 2002, 67-99. In particular, K. disagrees with Dow and Tracy with regard to the necessarily narrow specialization of the inscribers: 265-8.

¹⁵ See E.M. Harris, *op. cit.*, 70.

Architects

One profession especially important for public construction was, of course, that of the architect. There is a well known modern controversy concerning the role of the architect. K. tends to join Lacroix, Boersma, Martin and Coulton (against, e.g., Bundgaard and Burford) in dividing the architects into the artists who drew up the designs, and the master-craftsmen supervising the execution of finished specifications. The former are known only from literary sources and are virtually mythical figures for us, whereas the latter are not infrequently attested epigraphically (42, 155-7, 204, 419-20, 423-5).¹⁶ Accordingly, the known architects were craftsmen, not artists — frequently carpenters or masons (211, 272, 287-8, 296-7). However, Callicrates is quoted by one source as making a *syngraphe* — specification — for the Temple of Athena (*IG I³ 35*, mentioned on 385; cf. *I³ 45.6-8*). Is this not the same ‘mythical’ Callicrates of Plutarch, who as K. says on 42 is not mentioned in inscriptions? Compare the case of Philon, mentioned by Vitruvius and in *IG II² 1668.3*. An architect was probably not a magistrate, and may have been a foreigner; in a Delian inscription he belongs with the *hyperetais* (pace Lacroix and together with Burford [unmentioned], *GTBE 142ff: 295-6, 340*). The architect’s salary in Delos varies, perhaps according to skill, but K. doubts this, probably rightly (294). The architect is the main technical expert on the building site, usually chosen by the people, but sometimes by building commissions — and sometimes perhaps by the Amphictyonic Council; there could be several for a building, but not necessarily subject to rotation (190-1, 383, 385-7, 423-5). How, then, was the design transmitted (the question of drafts and models, 420-1)? The distinction may not be that sharp: like Coulton, K. believes that Greek architecture was of a more standardized character than modern, and had no division between the processes of the preparation of a design and of its realization. But what about the two types of architects? It seems that the solution lies in the elaboration of the projects in the process of their realization, where in principle each one could participate. Precisely for this reason, the *syngraphe* was not informative enough (386, 421-3). The builders were closely supervised by the architect and by the building commission, whose members, however, were usually no more than competent laymen and thus depended on the architect’s expertise (115, 170).

Form and Size of Payment

Here is the most innovative and controversial aspect of the book. In the matter of hiring and paying the builders K. distinguishes four principles, not every one of which is attested in every project: payment by the day, fixed salary, payment on piecework, and contract (55-6, 67, 73, 99, 101-2, 167, 175-7, 190-1, 248-52, 326-7, 338-9, 412ff). On the face of it, the first two methods seem identical, as do the last two methods. The first distinction is explained by K. thus: workers hired by the day received a fixed daily payment multiplied by the number of days in which they actually worked, whereas in the case of fixed salaries, employees were hired for a definite period (frequently annually) multiplied by the fixed daily payment usually determined by the People’s Assembly (99, 413, less clearly on 55-6). The implication, that neither *per diem* workers nor those

¹⁶ For a similar view of the architect’s role in shipbuilding, see E. Rieth (ed.), *Concevoir et construire navires. De la trière au picoteux*, Ramonville-Saint-Agne, 1998.

employed on a long-term basis necessarily worked every day, with an effect on the income of the former, but not of the latter, could be expressed more explicitly.¹⁷ As for the contracts, these are characterized by payments in installments, the production of guarantors, and written agreements (56-8, 71-2, 124-33, 167, 191-6, 249, 338, 400ff). I have reservations about this classification: the word K. uses for piecework payment (сдельная) is associated with the principle 'the more done, the more paid'. It was indeed so in some cases (e.g. *IG* I³ 475.240-48). However, usually both the amount of work and the sum to be paid were known in advance, in which case we should speak about payment 'agreed upon in advance' (this is implied in 64, 68, 414; stated explicitly in 249). The difference is not only a terminological one: his task accomplished, a worker was free to seek a new job; but was he sure he would find one immediately? More importantly, I would suggest that a contract is not so much a form of paying and hiring but, rather, a form of organization. Formally, in fact, the contractors, too, were sometimes paid on a piece-rate basis (e.g. I³ 476.24; II² 1672.59-60; IV² 106.1.59-65; *ID* 209.156-8), while in other cases the sum was fixed. Conversely, piecework or lump sum pay¹⁸ might be a latent form of contract, having only a juridical, but no economical, distinction. We do not know on what basis the contractors' workers were hired, when they were in fact used.

K. asserts that the choice of a specific form of payment depended not on the epoch (as Burford would have it), nor on the artisan's specialization or specific type of task (so Randall), but rather on the amount of work required and its quality (esp. 47-8, 67-8, 102, 119, 167, 412-4). A fixed salary was reserved for the architects and their assistants (if there were any). In Eleusis and Delos, several administrative and manual workers were employed permanently, some of whom could be slaves (99-100, 250-2, 302-3). The daily pay was characteristic of unskilled work or of situations where the amount of work and the time required could not be known in advance. Piecework (sometimes called by K. by a word I would translate as 'lump sum') payment was reserved for limited tasks, with no need for a written agreement. These cases aside, the contract was the main form used (414-6). It is still unclear why the sculptors were not paid under contract at the Erechtheion, while a painter and gilders were (noted on 58).

One of the most disputable theses of the book is that of a correspondence between a certain method of employment and a worker's official status. Thus, K. views daily payment as being reserved mainly for privately owned slaves, who were hired out for building jobs — even when they performed skilled tasks. The correlation is explained by the slaves' lack of economic stimuli, mentioned above (47-8, 60-2, 102, 415, 417-8, 427). Here, the author appears to be influenced by the Marxist view of all slaves forming both a class and an order. In fact, we know that some slaves lived and worked

¹⁷ Cf. M.M. Markle, 'Jury Pay and Assembly Pay At Athens', in *Crux: Essays in Greek History, Presented to G.E.M. de Ste. Croix*, P.A. Cartledge and F.D. Harvey (eds.), London 1985, 296-7; D.M. Schaps, *The Invention of Coinage and the Monetization of Ancient Greece*, Ann Arbor 2003, 153-8. The point is often overlooked by proponents of standard wages for the Erechtheion builders: for example, see recently Loomis (above, n. 3) 233, 235ff. The advantage of permanent employment (particularly for the architects) is virtually ignored by K.

¹⁸ Cf. $\mu\iota\sigma\theta\omicron\iota$ ἀπόπαχος of *IG* I³ 435.19, 26, 52, 77, 112; $\mu\iota\sigma\theta\delta[s]$ ἀπόπα[αχς] of 472.186.

independently, paying a fixed sum to their masters. Another possibility easily coming to mind is that slaves were rented out against payment for piecework in order to increase the profits from them through their more intensive exploitation. K. seems to confuse the slaves who paid a fixed sum (*apophora*) to their owner with ἀνδράποδα μισθοφοροῦντα whose payments were perhaps made directly to their masters (77, 82, n. 220).¹⁹ On the other hand, free workers had to be supervised, too — even those who were economically interested in their work, as is abundantly attested by the inscriptions. Predictably enough, the building documents never inform us about the exact nature of the economic relationship between a slave and his owner. What we do know is that at the Erechtheion only a minority of the slaves were paid by the day — always together with some metics. K. astutely draws our attention to the absence of citizens among the *per diem* workers at the Erechtheion (60-1, 67). When metics were thus paid it is explained by their wish to earn money (67). But why did the *epistatai* choose this form of payment in the first instance? Obviously there were jobs where the amount of work done was impossible to measure; and the dividing line was between citizens and non-citizens, not between free men and slaves.

As for the Eleusinian works, K. has an interesting observation: only unnamed workers were paid by the day. This he explains by these workers' slave status (102). However, it may well be the other way round: there was no need to record the *per diem* workers' names, while there were plenty of reasons and possibilities to name the contractors (whom, of course, no one would ever pay on a *per diem* basis). The pieceworkers, if they were employed for this project at all, might belong in either category: mention is made of both named and anonymous workmen not denoted as either daily workers or contractors.

Greek building inscriptions, especially the Attic ones, have frequently served for superficial and hasty conclusions concerning the incomes of the Greek craftsmen. In particular, there exists a stereotype of egalitarian payment in Athens of one drachma a day regardless of the type of the work and the worker's status. As K. insists, the notorious one drachma was but a *per diem* pay, mostly of unskilled laborers at the Erechtheion, and cannot be a basis for the assessment of the sums received by the specialists paid on a piecework basis or by contract (18, 62-8, 155, 176, 412-3, 425-6). The reason behind the said stereotype is, of course, that for work not paid by the day, we are invariably ignorant about the number of either days (hours) or men, and usually both. What matters, however, is that under these methods of employment, a worker's earnings depended on his own ability and energy. Some evaluation can be attempted, though, since some accounts are ordered according to prytanies or months; several Delian contracts survived, so we know the periods of time and the sums paid, etc. (62-8, 102-6, 329ff, 340ff). Burford tried to calculate the number of men engaged and the time necessary to perform most contracts for building the Asklepios temple with the help of information about the productivity of modern workers restoring ancient monuments and

¹⁹ For various types of slave exploitation see, e.g., E. Perotti, 'Esclaves χωρίς οἰκοῦντες', *Actes du colloque 1972 sur l'esclavage*, Paris 1974, 47-56; *id.* 'Contribution à l'étude d'une autre catégorie d'esclaves: les ἀνδράποδα μισθοφοροῦντα', *Actes du colloque 1973 sur l'esclavage*, Paris 1975, 181-91; E.L. Kazakevich, 'Were οἱ χωρίς οἰκοῦντες Slaves?', *VDI* 3, 1960, 23-42, and 'On Slave Agents in Athens', *VDI* 3, 1961, 3-21 (both in Russian).

about the works preceding and succeeding a given task in the building cycle. K. notes, however, that relating the results obtained to the sums paid, we get absurdly low wages of two to three obols a day for an average builder, so that far fewer men must have been employed (137-9). K.'s own basic method is to estimate from above the number of the builders: this number cannot exceed the figure after which each man's earnings would be lower than one to two drachmae, the usual wage per day of a not too skilled worker. Sometimes, it seems that fewer men could have finished the known amount of work (64, 103-4, 141-3, 177-81, 212, 329-30, 427-8, 430-1). In my opinion, K. tends to overestimate the artisans' incomes and to underestimate the number of their assistants. Work paid for in a given month could have started earlier (and sometimes we have hints that it had). So too the assistants need not have been partners getting equal shares (the last point is admitted on 103-4, 433 in order to accentuate the contractors' possible earnings, without the necessary inference about the number of workers employed; see, particularly, 141-3, 214-5 and 330). The possibility of artisans paid by piecework having unmentioned assistants should not be ruled out, and is sometimes implied by comparison of their earnings when working in a group (when every craftsman was recorded) and alone (cf., e.g., *IG I³* 475.31-51 and 476.192-218, 223-48; K. ignores this option, 64).

The concept of 'conventional', or 'nominal', wages unconnected to economic conditions and interests finds little sympathy in the monograph. The (free) builders worked primarily for money's sake, not for honors or other civic values,²⁰ and their earnings depended on the cost of living (175, 427-30). Even for the fifth century, with its purportedly egalitarian wages, K. adduces an example of work which required higher skill being rated higher (64).²¹ He does not ask why the *per diem* was equal for carpenters and laborers at the Erechtheion, but not at later projects.²²

K. is obviously irritated by the constant talk of citizens, metics and slaves working side by side at the Erechtheion, performing equal jobs for equal pay. This, as he correctly observes, should cause no surprise, especially as the slaves follow the profession of their masters. And the slaves were usually supervised by their owners who also pocketed their equal wages (67, 432-3). Nevertheless, I feel that these accounts *are* remarkable in at least two important senses: 1) From the employer's point of view, the slaves seem to have been independent recipients of their wages, while their masters, whether present or not during the work, are not even always mentioned after the slaves' names; 2) Free artisans, including Athenian citizens, not only do the same work on the same level of skill together with slaves, a fact that is acknowledged by the same pay (an unthinkable thing,

²⁰ Cf. D.M. Schaps, 'Builders, Contractors, and Power: Financing and Administering Building Projects in Ancient Greece', in: R. Katzoff, Y. Petroff and D. Schaps (eds.), *Classical Studies in Honor of David Sohlberg*, Ramat Gan 1996, 86.

²¹ In fact, I suspect that truly conventional distribution would not give equal shares to citizens and metics. Cf. Loomis, *op. cit.* (above, n. 3), 236ff. As for K.'s example, it might be argued that the difference in the pay rate was due to the different amount of time needed, not to the skill level, so that the supposed per-day earnings would be more or less equal.

²² It is also not clear (to us!) why, for the same project, the masons received only one obol more for laying twelve cubic feet of the Aeginetan stone than for laying 5 ½ cubic feet of the Pentelic backing stone (see Randall, 209), but the approach does not seem to be egalitarian.

for example, in a caste society on the Indian model), but apparently do not mind the fact being commemorated in an official inscription.

The Role of Building Contractors

Time and again K. seeks to dispel the notion of building contractors — at least those operating on the largest scale — as ‘entrepreneurs’ (29, 34, 116, 173-5, 202-3, 215-6, 271, 291, 327-8, 434-6). The latter are defined by K. as professional middlemen for whom it does not matter what material was used in the work, since they were merely organizers. However, the modern definition of an entrepreneur surely does not exclude specialization, nor even (to some degree at least) direct involvement in the production process. Still, there is a question of extent. The author’s approach stems from his view of the contractor as invariably a craftsman, generally skilled, engaged in manual labor with little or no help. It is then reasonable to count the contract as but a form of hiring; to tend to assume fewer assistants and larger incomes even for an ordinary artisan working with his own hands; to see the contractors as necessarily sticking to their respective fields of specialization unless compelled to do otherwise. Furthermore, given that it was easy for a free artisan to enter into a contract directly with the building commission (so K. surmises), why should he agree to be hired by a contractor in the light of the supposed Greek unwillingness to be subject to anyone? Hence the tendency to see the contractors’ hired workers mostly as their dependents (besides 83, 98, n. 256, 432, mentioned above, see 308, 320-2, 345-6, 407, 417; on 345 it is admitted that the dependence can be economic, which of course can be said of every hired worker). Not surprisingly, the words ‘contractors’ and ‘craftsmen’ are frequently used interchangeably and the contractors’ pay is called ‘wage’ (зарплата). Conversely, the craftsmen’s tasks are sometimes called ‘contracts’, even when this is obviously incorrect (e.g. 303).

I feel that the evidence painstakingly assembled by K. often contradicts his conceptions of the contractors and their workers. The building inscriptions do mention contractors working with various materials, and they are typically those receiving the largest payments (144-5, 147, 198-201, 205-6; *pace* 435). The same men were typically responsible for quarrying (not necessarily in their native area), transporting and setting the stones in place, for very considerable remuneration. Sometimes, they delivered other materials, too (144-7, 152, 173-4; see also an acute analysis for Delos, 255-62). The carpenters were frequently required to use their own wood (275-6, 328). A man who had to finish a mason’s work as a guarantor also served as a guarantor for a carpenter (224-5). It is difficult not to receive the impression that the providers of these services were organizers with some capital and connections, rather than simple craftsmen. Sometimes a contractor performed an unskilled job for a considerable sum of money (91, 322-3, 414; cf. 160). Based on K.’s definition and logic, these contractors should be seen as laborers — which is indeed stated in the case of an Eleusinian contractor (91), who, as K. admits, ‘obviously was aided by some assistants’.

K. resorts to the following counterarguments: 1) Many large-scale contractors are also known to have performed petty jobs for insignificant sums, thereby proving the manual character of their work; 2) In Epidaurus and Delphi, some contractors who could be classed as ‘entrepreneurs’, are attested as receiving travel expenses (174, 203, 210-1, 216, 270-1, 291ff, 435, 447). Re 1): it seems much more plausible that a group leader

sometimes undertook to perform (not necessarily with his own two hands) some small job, than that a modest craftsman, not above doing cheap and sometimes trivial work, obtained the guarantees and advance payment for an expensive and significant project. Re 2): the Athenian ambassadors, even if very rich, were granted *ephodia*. Literary sources, utilized by K. as a proof of significant incomes for some artisans (429), fail to convince me that manual labor was often so lucrative that everyone who was an experienced specialist could meet the requirements needed to get a contract. We cannot exclude the possibility that the men referred to by Xenophon and Aristotle were no more craftsmen than were Kleon or Kleophon.

Although K. concedes in one passage that some free artisans may not have succeeded in getting a contract (345-6), this is in practice ignored, and sometimes denied, throughout the book. In fact, even under the most equitable conditions, some participants in the auctions were doomed to lose, while others would not wish to bear the responsibility of a contractor.

One of K.'s arguments for the predominantly slave status of the workers (especially the unskilled ones) hired by the building contractors is their designation as *σῶμα* in some literary and epigraphic sources (346, 417, 432). But, here the Russian historian is on shaky ground.²³ Sometimes K.'s conclusions become firmer as he moves away from their evidentiary base: thus, a Delian inscription using the word *σῶμα* is referred to three times (229, 346, 432). The second time it is suggested that the word indicates the slave status of some of the workers. Only on 432 (where, unlike the two previous occasions, the inscription is not quoted at all) does K. state definitely that the word denotes slaves. In fact, the contract in question mentions the contractor's employees as belonging to two categories: *τεχνῖται* and *ὑπηρέται*, and it is only the former — skilled craftsmen — who are called 'bodies', refuting the alleged affinity between slaves, unskilled workers and those termed *σώματα*.

One Tegean specification prescribes that contractors (*ἐργῶναι*) should be fined for certain kinds of behavior, while their workers (*ἐργάται*) should be fired for the same behavior (407). This difference between economic and repressive sanctions is seen by K. as a hint at the workers' state of subjection (cf. 415). However, an alternative interpretation is possible: the authors of the inscription believed that the hired workers would be too poor to pay significant fines. In any case, a document from Lebadea requires dismissal of a guilty hired assistant with a prohibition against his ever being employed; if he did not comply, he was to be fined (410). It is certainly not the policy we would expect towards slaves.

²³ Thus, the Aristotelian division of those engaged in hired labor into *βαναύσων τεχνῶν* and *ἀτέχνων καὶ τῷ σώματι μόνῳ χρησίμων* (*Pol.* 1258b 26, exact reference not supplied by K.: 417, n. 1051) is interpreted as describing a division into 'specialists-craftsmen and non-specialists slaves'. The philosopher, however, does not actually say that the unskilled laborers are necessarily slaves in all Greek states, and in the passage in question their civil status is not mentioned at all. From the context of Plutarch's use of *σῶμα* for the Parthenon builders (*Per.* 12.6), we may infer that he means citizens: see Ph.A. Stadter, *A Commentary on Plutarch's Pericles*, Chapel Hill, 1989, 163. Note the contrast between the noble heroes *themselves* and their souls in the opening lines of the *Iliad*. Slaves are explicitly opposed to *σώματα ἐλεύθερα* in *Dem.* 34.10.

By comparing similar jobs performed by (purported) slaves and by a contractor, K. calculates that the slaves were cheaper, and concludes that they were used to economize (n. 265, 105-6). However, I fail to see what could be saved by the use of slaves (even if we agree that the *per diem* workers in question, directly employed by the polis, were indeed slaves), who were paid 2.5 drachmae a day: free workers would hardly get more. In fact, the difference between the sums paid to the contractor and to workers hired directly may be fully accounted for by the contractor's profit in return for shouldering some of the authorities' responsibilities. If the officials in charge of the state-employed workers were remunerated, their salary should be subtracted from the amount the polis could save by hiring these workers directly.

Roux has postulated, on the basis of Delphic inscriptions, the existence of sub-contractors, who were exploited by contractors profiting from the difference in pay rates. K. objects that 1) sub-contractors are unknown to the epigraphic corpus; 2) nothing prevented direct contracts between the potential sub-contractors and the state, given that the former were ready to offer lower prices (215-6, 435-6). However, those free assistants of the contractors who were not equal partners (and their number was limited, sometimes by the authorities: 406) could well be independent sub-contractors, and not hired employees. Whether they received from the polis less than the principal contractors for their share of the work (which seems plausible) is another question, one which cannot be resolved in our present state of knowledge. The silence of the sources in this respect clearly does not represent compelling evidence: in any event, the contractors' assistants are usually ignored, and the sub-contractors may indeed be epigraphically attested, albeit not in Delphi.²⁴

K. rejects (with good reason, in my opinion) Jacquemin's hypothesis that building contractors could use the advance payment they received for the promotion of their political careers (216, 436-7).

Building Contracts, Their Evolution and Form

According to Burford, the methods of employing workers in Ancient Greece developed from direct hire with wages reckoned by the day, through pay based on a piece rate, to contract. These methods generally depended on the availability of skilled labor. As we have seen, K. criticizes this theory, noting, in particular, that these three main forms of payment coexisted throughout the period reflected by the extant documents (57-60, 119, 167, 169-70). In his view, the problem lay in financial resources, not in the availability of skilled workers (171-3).²⁵ I would add that Burford's theory fails to explain the extreme rarity of contracts in the extant accounts relating to the Erechtheion, while this form of organization was already in use in the Periclean era, when surely more skilled builders

²⁴ M.B. Richardson, 'The Location of Inscribed Laws in Fourth-Century Athens. *IG II² 244*, on Rebuilding the Walls of Peiraieus (337/6 BC)', in: P. Flensted-Jensen, Th. Heine Nielsen, L. Rubinstein (eds.), *Polis and Politics: Studies in Ancient Greek History Presented to Mogens Herman Hansen on his Sixtieth Birthday*, Copenhagen, 2000, 604.

²⁵ K. also denies that there was a shortage of unskilled workers: thus, discussing Megarian laborers in Athens, he comments that 'they arrived on their own initiative' — see above, n. 13. However, they were certainly welcomed by the Athenian authorities.

lived in Athens.²⁶ Nor does it explain why skilled labor was scarcer in Athens at the end of the fourth century than in 479, when the Themistoclean Wall was built. As for K., he explains the direct hiring of workers at the Erechtheion by the difficult war conditions, referring the reader to *Plu. Per.* 12: the aim of the Athenians was to distribute orders among the maximal number of builders (59-60). Whatever we think of the value of this evidence, the Periclean building program was conceived and mainly carried out during the prosperous and relatively peaceful period of the Five Years' Truce and the Thirty Years' Peace. Plutarch aside, it is, in principle, possible that the *epistatai* wanted to divide the benefits equally among the workmen at the Erechtheion, although, in that case, it is strange that most of the beneficiaries were metics.

Another aspect of the building contracts where K. takes issue with Burford's theory concerns the evolution of their form and content. While espousing her overall view of the similarity of the Greek contracts in various Classical and Hellenistic *poleis*, K. appears to believe that the main clauses of the contracts became crystallized by the fourth century BCE (at least) and that the variations we find, when not circumstantial, reflect the changes of modes and fashions of inscribed accounts, rather than real economic and juridical relations among the parties (119-23, 166-7). The full accounts were written on perishable materials and stored in state archives (122, 124). They have been preserved only in part, and so should not be accepted at face value, as Burford does. This applies, in particular, to the ratio of the advance payment to the total sum received by a contractor (127ff).

A close reading of the Delian contracts reveals several standard arrangements for payment by installments according to the amount of work accomplished. K. convincingly argues that numerous cases which on the face of it, seem unique and arbitrary, are in fact variations on the standard arrangements. The deviations in the accounts occurred when a contractor either did more than initially agreed upon, or was fined (230-40).

Political Context and Purpose of the Building Inscriptions

It is taken for granted throughout the book that the relevant *poleis* had democratic constitutions (e.g. 122, 400, 411, 439) and K. argues that building documentation was published — i.e. inscribed — because of the accountability required by Greek democracy. Accordingly, the epigraphic material belongs to democratic states and it is not coincidental that it ends with the elimination of the Greek democracy in the second century BCE (16). As a matter of fact, we know virtually nothing about the Epidaurian, and very little about the Delphic, constitutions.²⁷ In the second century, not only Greek democracy but also Greek independence ended, which may sufficiently account for the changes in epigraphical habits. Yet, we do have some building inscriptions after this time (e.g. *Gr. Mauerbauinschriften* nn. 41-4, 56, 73, 75-6, 80). I see no reason why the (full) citizens of some oligarchies would not wish to be informed about public outlays. In fact,

²⁶ On *IG I³* 35, 45 see Schaps, 'Builders, Contractors, and Power' (as in n. 20) 83, n. 20. For *I³* 435 see Burford herself, *GTBE* 113. But see Schaps, *ibid.*, 82 n. 15.

²⁷ Burford assumes Epidaurus was an oligarchy, *GTBE* 15-6. But, see Schaps, *ibid.* (above, n. 20), 85 n. 28. For the polity of Delphi and its changes, see M. Musielak in: M. Piérart (ed.), *Aristote et Athènes*, Paris, 1993, 303-10 with bibliography.

at least one Attic inscription, mentioned in the book, expresses the will of the oligarchic regime of Phocion (II² 380, mentioned on 389, 391). It should also be remembered that the financing of the Delphic construction program was far from being a purely local task, and most of the Delphic accounts were issued by the Amphictyonic officials, not by the Delphic magistrates (184). The Epidaurian accounts may also be addressed to a wide circle of contributors. The purpose of the building inscriptions and their relationship to democracy has recently been a subject of scholarly debate, a fact that is only partially reflected in K.'s bibliography.²⁸

In conclusion, two general notes: 1) the contents and the findings of other scholars' works are not always accurately reported in the book reviewed;²⁹ 2) the virtual absence of cross-references causes frequent reiterations, not only when the same issue is treated on the basis of the material of previous chapters (which, of course, is typical of this type of book), but sometimes even within the range of several pages.

The book is well edited; misprints, omissions and miscalculations are rare. The few that I have noted can easily be corrected in future editions.³⁰ In this review, I naturally focused on my points of disagreement with the book, which, I hope, will not obscure my appreciation of it. The reservations raised are rather numerous, precisely because the book is so thought-provoking, with its wealth of researched material, clearly posed problems, and the conclusiveness of the answers offered. No doubt, this major work will

²⁸ See, for example, the contributions of Ch.W. Hedrick, Jr. and D. Harris, in: R. Osborne, S. Hornblower, (eds.), *Ritual, Finance, Politics: Athenian Democratic Accounts Presented to David Lewis*, Oxford, 1994; J. Sickinger, 'Review of R. Thomas, *Literacy and Orality in Ancient Greece* (1992)', *CP* 87, 1994, 273-8; Ch.W. Hedrick, Jr., 'Democracy and the Athenian Epigraphic Habit', *Hesperia* 68, 1999, 387-439; *id.*, 'Epigraphic Writing and the Democratic Restoration of 307', in *Polis and Politics* (above, n. 24) 327-35; Richardson, *op. cit.* (as in n. 24), *ibid.*, 601-15.

²⁹ Cf. n. 10 above. Some additional examples: on 77, K. declares that the οἰκοῦστοι are private slaves, basing himself on Gluskina, *op. cit.* (as n. 11 above), and without presenting other arguments. Accordingly, he assumes that they were deprived of economic motivation. However, Gluskina does not insist on this hypothesis. What is more important, she suggests that the οἰκοί in question were the slaves' own, so that these slaves were interested in their earnings. The slave status of μισθωτοί is implied on 72, n. 192 with reference to Noack, 304, 305 (as in n. 5), but the word 'Sklave' does not even appear on these pages. I suspect that the cause of the confusion is the mention of ἐπιστάτη τῶν μ-[μισθωτῶν restored in *IG* II² 1673.58-9 (II 834c in Noack, 305, n. 1), which could signal centralized food purchase for hired workers, as was done for public slaves. However, this line looks different in the new edition of Clinton (above, n. 13), used by K. The paper by Burford 'The Purpose of Inscribed Building Accounts', *Acta of the Fifth International Congress of Greek and Latin Epigraphy*, Oxford, 1971, 71-6, is interpreted as stating that the authors of the inscribed accounts sought to prove their honesty to the public (122, n. 313). In fact, this idea is mentioned, only to be immediately rejected (72-3).

³⁰ Дом instead of дем on 400, n. 1026. Under 'Burford' in the Index of Personal Names add 57-9. Under 'Aristotle' in the same index read 347, not 346. Inopus (mentioned on 322, 414) is absent from the Index of Geographical Names. On 341, Demetrios' earnings are calculated as 'at least 1531 dr.', while I see 'at least 1156 dr.' (165.8-9, 10-3, 17, 27-31). For the sources on Herakleides, read 159A instead of 158A (483).

be a standard reference book in the field of ancient economic history in the Russian-speaking world for a long time to come. Its translation into Western languages is a *desideratum*.

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