Social Position of Craftsmen inside the Stone and Marble Processing Trades in the Light of Diocletian's Edict on Prices

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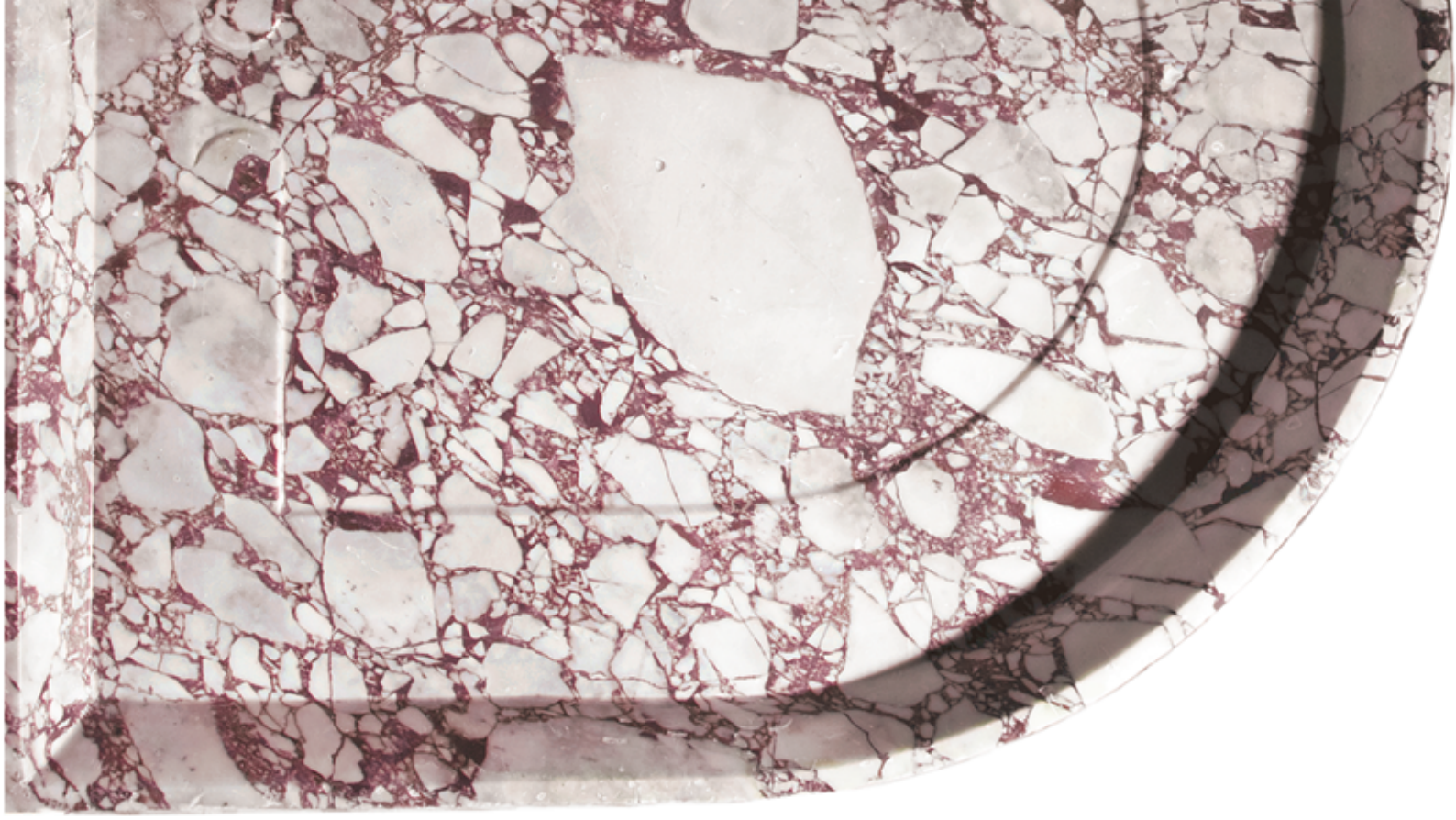

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CONTENT

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SOCIAL POSITION OF CRAFTSMEN INSIDE THE STONE AND MARBLE PROCESSING TRADES IN THE LIGHT OF DIOCLETIAN'S EDICT ON PRICES

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Abstract

This paper examines Diocletian's edict on maximum prices, a decree made with the goal of controlling inflation in the time of the tetrarchy. Other than prescribing maximum prices for certain goods, it also prescribes wages for certain services. This information, compiled from several sources, is necessary for an understanding of the social position of people included in the industry of the extraction and processing of stone.
Here, based on the sources displayed and the order of emphasized questions, the prescribed wages of physical workers (stonemasons, floor-layers and mosaic-makers) are compared, with special emphasis on mosaic workers. In addition, references that give us a better image of the workers' standard of living, as well as their social position, are provided.

Keywords
mosaic, edict on maximum prices, purchasing power

Introduction

During any consideration of the life of Roman mosaic artists, or craftsmen, any generalizations about their wealth are, of course, disputable, since the individual differences varied not only according to their skills, but also their management abilities and acquaintances. Nevertheless, it is logical to assume that differences in social position among them did not range from extreme poverty to prodigious wealth. As mosaic conservators, we pay special attention to the social position of the mosaicists of antiquity, in order to understand their work better.

Addressing this research question while trying to include modern quantitative approaches for the estimation of the wealth of the described group can be somewhat difficult.[1] Also, sources on mosaicists from antiquity are not very abundant and come down to a couple of mentions in classical literature, a few inscriptions on stone, and some images (wall paintings, mosaics themselves, stone sculpture). The reasons for this seem fairly obvious; the mosaic maker, like all the other artists and craftsmen in the stone industry, belonged to the inferior social class of labourers and was not interesting to the writers of the age. Moreover, most of the more common materials that they used were available as scrap materials of other artists and craftsmen (such as sculptors or stone masons), or found locally,[2] so there were fewer contracts regarding their purchase (unlike buying larger stone blocks, dealing with quarries, or ship transport) capable of providing us a clearer image of how the workshops were managed.

There are several recent hypotheses relying on the assumption that the social position of a certain group of workers can be estimated according to their purchasing power. As proposed by Allen in 2007[3], studying the purchasing power of an unskilled, free male labourer can be helpful. [4] Once estimated, that piece of information can be related to the purchasing power of a skilled, free male labourer (working in a mosaic workshop), or even an artist (leading the workshop), based on the prices enumerated in Diocletian's edict.[5]

The purchasing power of a worker can be calculated by taking into consideration a worker's daily/yearly wage, costs of his own maintenance or supporting a

1 FINLEY 2011, 23-24.

2 COOKSON 1984, 6-9.

3 ALLEN 2007, 1.

4 The ineffectiveness of more common approaches, such as calculating the average income per capita, or skeletal evidence, and then using them for the given purpose, was already explained by the Allen in the aforementioned work. A possibility remains that those methods will be usable in the future, once we acquire means of registering more precise input data.

5 During 301 AD, Diocletian's edict on maximum prices, made with the goal of controlling inflation in the time of the tetrarchy, started taking effect.

family, and by comparison of his income to living costs.[6] In order to be able to utilize that kind of formula, we have to operate with proper input data of the prices of work and goods, which can be accessed through the study of Diocletian's edict on maximum prices, respecting certain constraints, which will be explained.

Diocletian's Edict on Maximum Prices

The scope and effect of Diocletian's Edict is yet uncertain; we don't know if it was proclaimed as a law in the whole empire or just in some provinces, since the material evidence is limited. Furthermore, Arnaud in 2007 thought that the idea of price equality for the whole empire resembled an ideological premise more than economic reality. Some scholars advocate the possibility that the prices stated were completely arbitrary, whether it was due to an attempt to equalize the provinces by resetting the prices, or due to haste in compilation.[7] In addition to that, we must not overlook the fact that the prices listed in Diocletian's edict present the upper limit of possible prices, while lower prices were, of course, allowed.[8]

What is certain is that the economic welfare of the time was severely disrupted. Some researchers accredit this to Diocletian's second monetary reform, which doubled the value of *argenteus*, consequently causing the prices to double, quadruple or even octuple. Many events or documents from ancient history attest to a very basic, simplified and rudimentary understanding of economic principles,[9] but the preamble of the Edict blames wild avarice for rampant inflation (rather than the excessive issuing of state currency), using a very emotional, indoctrinating rhetoric.[10] While studying the events of the third century on a broader scale, Wassink presents a series of events leading to the outcome of severe inflation, noticing that problems with regulating currency started significantly earlier, and climaxed after the murder of Aurelian in 275. At that time the Empire started to issue free food and clothing to the military. That placed the same mass of money in circulation against a smaller quantity of goods, causing the rise in inflation.[11] Although Diocletian's monetary reforms were obviously not the only disruptive factor, some of his other actions also contributed to the economic problems.

The introduction of the price ceiling did have a consolidating effect on the Roman economy over the short term. Despite questions yet to be answered about the Edict and its economic role, it is a fact that it still represents the most complete price overview of more than 1200 usual commodities and services in the late empire. The currency in the edict is not specified within the fragments that are known today, but we are to assume that denarii were implied.[12] Due to the high inflation at the time, the wages can be compared strictly to other wages within the Edict, and not with those paid earlier or later than a decade of its issue.

Structure of mosaic workshops

There is a great deal of uncertainty regarding the exact structure of mosaic workshops. According to the Edict, we can see that mosaic workers were paid by the day (as were most of the skilled workers), but the wages inside the mosaic workshop varied significantly. The structure of these workshops was proposed earlier, but is also assumed mainly in the same edict. It seems logical that a production as massive and complex as that of the mosaic industry required proper work distribution to remain efficiently operational. One of the widely accepted propositions of mosaic workshop structure was made by Farneti in 1990[13], who suggested a division of the workshop into the artists and the labourers. The chief person in the workshop would have been the *pictor imaginarius*[14] - the artist who conceived the idea of the mosaic decoration, materialising it in a cartoon. Second in the production line was the *pictor parietarus*, responsible for the transfer process of the cartoon to the execution surface (wall or floor)[15]. The *musivarius (musearius)* was the

6 This method is explained in more detail in ALLEN 2007, 2. Once the purchasing power data is obtained, it is then compared to later, better documented periods in history.

7 ARNAUD 2007, 321-336.

8 JOVANOVIĆ 2009, 553-555.

9 FINLEY 2011, 17-34.

10 JOVANOVIĆ 2009, 556-561.

11 WASSINK 1991, 485.

12 For a broader context on this, see: KENT 1920, 45; WASSINK 1991, 466-468.

13 FARNETI 2001, 83.

14 There are also different interpretations of this title; one is, for example, that the pictor imaginarius was actually any painter of images. Neither of the authors consider his role in a mosaic workshop as the maker of emblemata, central panels with figure representations, usually made in workshop, and then transferred to the site.

15 The task is actually more delicate that it may seem at first, and it is understandable why would it require a specialisation. There are a lot of examples in archaeological findings where a complex geometry of a mosaic pattern was previously completely drawn onto wet mortar, while there is also an example of contract for

artist that actually executed the mosaic. The same author makes mention of the *lapidarius structor* as the labourer which prepared the foundation or the bedding for the mosaic, and the *calcis coctor* whose general responsibility was the mortars and their mixing, adding that both of the labourers were responsible for the preparation of glass and stone material, while disregarding the role of *tesellarius*, also mentioned in the edict.[16]

There are also other suggestions of how the nomenclature in the edict can be interpreted. For example, in 1999. K. Dunbabin suggested that mosaic workshops were shaped mostly as small, family workshops, where the knowledge was passed through the generations.[17] Due to that conceptualisation, the only two types of workers that the author took in consideration as mosaicists were the *musearius* (paid sixty denarii a day, with maintenance – accomodation and meal) and the *tesellarius* (paid fifty denarii a day).[18] It would not be unthinkable for a mosaic workshop to have been organized as a family business, considering that there were already a lot of hereditary castes and guilds (such as those of the bakers, butchers, carters, or shipmasters - *navicularii*).[19] In accordance with this, it is important to note that narrow specialisations among ancient crafts were frequent, but written evidence of their existence among mosaic artists is scarce, as is the evidence of the existence of a guild (*collegia*). Some of them were presented by Dunbabin.[20]

M. Garčević mainly agreed with the interpretation of Farneti, while further explaining the role of the *tesellarius* as the worker who executed simpler portions of a mosaic, while the *musivarius* executed more complicated ones - which corresponds with Dunbabin more than the original premise.[21] Still, Dunbabin allowed for the possibility of a more complex type of workshop, organised by the level of specialities, giving several examples, among them a mosaic inscription in Thebes (Greece), that described the division of work.[22] We belive that, having in mind the production rates of mosaic workshops and the demand for mosaics throughout the empire, a model of narrow specialisation and the existence of *collegia* are highly probable. There is also a possibility that both of the presented types of workshops existed, but the more complex and organised model, with the *pictor imaginarius* as the head of the workshop existed only in *coloniae*, following the high demand for mosaic within them, although we will have to search more extensively for archaeological or written evidence of such a thesis.

Comparison of prescribed wages

Whichever explanation we may prefer, it is indicative to compare the mosaic worker's wages to those of other craftsmen. For example, the *pictor imaginarius* was paid one hundred and fifty denarii per day, which was the highest daily wage for a group of skilled labourers, and also double the wage of a *pictor parietarius*, who received seventy five. The *musearius* was paid the same as the marble paving and walls custodian, or the shipwright of a seagoing vessel (sixty denarii, with maintenance), while the *tesellarius* received the same daily wage as the lime burner, cabinet maker, stone mason, wagon wright or other plaster workers (fifty denarii, with maintenance).[23]

Having the meals provided by the employer was very important[24], as we can witness very high food prices in the Edict. Compared to the food prices, we can conclude that the wages were actually very low, which was, among other factors, also a consequence of slavery.[25] Another note of import is that the maintenance of the worker was a factor

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the laying of mosaic, in which even the insignificant details, such as the width of certain borders are discussed, thus requiring a special type of worker to execute properly. See: DUNBABIN 2012, 278.

16 http://droitromain.upmf-grenoble.fr/Constitutiones/maximum_lauffer.gr.htm, (accessed February 2016.) Farneti eventually mentions the tesselarius, but in a completely different context, as a specialist in making floor mosaics (while the musearius made wall mosaics) deriving that interpretation from the Codex Theodosianus, a compilation of laws published significantly later than the Edict.

17 DUNBABIN 2012, 275-276.

18 Although it is correct that the distinction between wall and floor mosaicists was usually made based on those titles (musivarius being the wall mosaicist, and the tesellarius being the floor mosaicist), Farneti suggests that the distinction was defined somewhat later, towards the end of the 4th century. Dunbabin also suggested that the musivarius could have been the maker of the fine decorative mosaics, while the tesellarius made plain tesselated pavements; DUNBABIN 2012, 275-27, further explaining the same attitude on p. 286.

19 WASSINK 1991, 486.

20 DUNBABIN 2012, 275.

21 GARČEVIĆ 2009, 277.

22 DUNBABIN 2012, 276, 285.

23 FARNETI 2001, 83; DUNBABIN 2012, 276. It is interesting to note that Farneti interprets the prices in sesterces, without special explanation.

24 KENT 1920, 46.

25 Demographic factor was almost always in history inversely proportional to the purchasing power. See: KEHOE 2012, 125-128, also referring to ALLEN 2007. Allen however, calculated the daily allowance was worth 11.1 denarii on a daily basis. See: ALLEN 2007, 3.

whose price varied significantly, because the wheat prices, for example, following the law of supply and demand, could not have been the same for the whole Empire,[26] nor could the prices of raw materials, affecting the quality and price of the final products in provinces directly.

In a study from 2009, Schiedel refers to Allen's interpretation of the Edict, and compares the purchasing power of labourers in Roman Egypt.[27] It seems that, according to the results of both studies, a general labourer, such as a farm worker or camel and mule driver, was able to provide what Allen called a "bare bones subsistence basket", and would earn only a half of what was needed to support a family. Since the women and children could not have contributed to income significantly[28], this meant, according to the study, more working hours for men, as well as reductions of expenditure for elementary nourishment. The formula used consisted of converting the earnings plus the allowance value multiplied by the days worked yearly into a weight of silver. Allen takes denarius to be worth .032 grams of silver at the time of the issue of the Edict, while assuming the number of working days to be 250, due to the many festivals.

An example for a general worker would look as follows:

Daily wage (denarii)	Allowance (denarii)	Number of working days	Annual income (denarii)	X 0.032 (denarius value in silver
25	11.1	250	9025	288,8 grams of silver

For a general worker using a "bare bones subsistence basket", the resulting cost of supporting a family was roughly[29] 249 grams of silver per year, while his earnings might come to around 289 grams of silver.[30]

There is also a category called the "respectability basket" in Allen's work from 2007, [31] which was worth 516.352 grams of silver. Following the formula presented, assuming the working days and allowance were the same for all workers, and taking into account the data given by the aforementioned author, the following can be concluded. A respectability basket might almost have been afforded by the lime burner's family, for example, who was also a general worker, because he was able to earn around 488 grams of silver yearly, as much as the stone mason or *tesselarius* – considered skilled workers. While observing the equality in their wages, we have to keep in mind that the lime burner's work is much more physically demanding than the skilled worker's – the average age expectancy of a lime burner was probably somewhat shorter because of the risks involved. Thus, the wage equality among the two different groups of workers is not surprising.

Somewhat better were the earnings of the *musivarius*, and the marble paver, both of whom earned, on average, 568 grams of silver yearly and could easily sustain a family while being provided with a "respectability basket". Following the same calculations, the yearly earning of a *pictor parietarius* would have been around 688 grams of silver, which probably allowed him to experience a sliver of what might be considered luxuries by the rest of the workers. At the same time, the *pictor imaginarius* would have earned around 1289 grams of silver, 2.5 times more than the value of respectability basket. That much of an earning would have certainly provided him a life with some privileges, though there are uncertainties as to how much he would have invested in his business on a yearly basis, since we don't know of written sources that would inform us of the structure of his operating expenses. While analyzing the income of a/the *pictor imaginarius*, it remains unclear if he worked as much as the others, or if his work was more periodic, utilized when needed.

Conclusion

Although the questions about the structure of mosaic workshops are yet to be properly addressed, this paper (at least) contributes to the estimation of the costs and wages of workers, as well as the cost of products they produced. We can see that enduring a general worker's life might have been quite demanding, especially if a worker had a family to support and provide for. Specialising in a

26 KEHOE 2012, 127.

27 SCHIEDEL 2009, 8.

28 ALLEN 2007, while Schiedel states that "Children could contribute as well" and "Child labor was common from an early age", see SCHIEDEL 2009, 8.

29 Due to a lot of variables, like the fact that prices in Edict are maximal allowed, or the fact that the number of working days varied, or the festivals did not apply all over the Empire equally, the values expressed may present only approximate values, but they do give us a general view.

30 ALLEN 2007. Allen however, calculated the daily allowance was worth 11.1 denaris on a daily basis. See: ALLEN 2007, 4, 7-8.

31 ALLEN 2007: "inspired by English and Dutch studies of working class budgets and suggests the spending pattern of 'respectable' workers".

certain craft, for those who had that option available, was a matter of necessity, rather than choice. If certain workers advanced through the structure of a workshop during their years of work, their income would have improved over time. Examining the wages in the edict provides us with a broader image of the social position of a certain group of workers, rather than exact data, as there are a lot of variables to take into account. Even though we have to wait for future discoveries to improve our knowledge of the details regarding the questions presented, we are sure that not even then will the role and interpretation of Diocletian's Edict on Maximum Prices be able to be disregarded; it is certain that we will only understand its meaning in a more thorough manner.

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