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WAGE PAYMENTS IN ITALY BEFORE THE INTRODUCTION OF THE «MONETA GROSSA»,
11th - 12th CENTURIES

During the reign of the doge Enrico Dandolo (1194-1205), Venice introduced a new coin that was destined to change the pattern of the whole Western coinage: the silver ducat or *grosso* (groat), later called also *matapan* (1). Struck in almost pure silver, it was the first coin to be minted in Europe as a multiple of the penny (1). Thanks to its immediate and large success, it was taken as a model by almost all the mints in Italy and later elsewhere in Europe, thus giving rise to that distinction between *moneta grossa* (white money, i.e., coins in good silver as the Venetian groat) and *moneta piccola* (black money, i.e., debased pennies) which marks all the succeeding coinages of Europe.

The point of departure for this essay is the earliest piece of evidence describing the birth of this new silver coin. Martin Da Canal reports that it was introduced in 1202 to pay the wages of the workers in the Arsenal of Venice who were building the ships for the Fourth Crusade:

*... et fist erraument faire mehalles d'argent por donner ai maistres la sodee et ce que il deservoient; que les petites que il avoient, ne lor venoient enci a eise* (2)

This very likely isn’t an accurate reflection of reality, however, in as much as the Venetian *grosso*, as the other early *monetae grossae* of Italy,

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(3) MARTIN DA CANAL, Les estoires de Venise: Cronaca veneziana in lingua francese, dalle origini al 1275, ed. A. LIMENTANI, Florence, 1972, p. 46. The chronicle was compiled around 1275. For an English translation of the passage, see L. BUENGER ROBERT, *The Venetian Money Market, 1150 to 1229*, in Studi Veneziani, 13, 1971, p. 3-94, at p. 43: *... and he (the doge Henry Dandolo) immediately ordered a silver piece made, to give wages to the masters and to the workers, since the *piccoli* which they had were not convenient*. 
was introduced mostly for commercial reasons rather than for paying salaries (4). It nevertheless suggests that wage labour was already well developed at the beginning of the 13th century and that workers were paid in specie, at least in Venice. It also suggests that the wages of skilled workers (*magistri*) were sufficiently high to make their payment in very debased pennies inconvenient. It seems unlikely that Da Canal could have completely invented even this detail, having lived only a few decades after the episode, when the monetary system and perhaps price levels were more or less the same as before. Such a high level of wages can be confirmed by later evidence, which attests that the weekly wages of workers in the Arsenal in 1236 were already higher than about 26 pennies, the equivalent of one groat (5).

Da Canal's passage on wages in the Arsenal can be compared with two other sources, almost contemporaneous, both of which seem to confirm its reliability. The first is the *Liber Abbaci* of the mathematician Leonardo Pisano (Fibonacci), a handbook intended as an instruction manual for the use of Arabic numerals (6). It was originally compiled in 1202, and some corrections were added in 1228, but the codex used as the basis for the standard edition did not incorporate the 1228 corrections (7). In the chapter devoted to proportions, Fibonacci proposed the following exercise:

*De laboratore laborante in quodam opere*

« Quidam erat recepturus in mense causa sui laboris bizantios 7; et si aliquot tempore a labore cessaret, erat redditurus ad rationem mensis bizantios 4: stetit per mensem, ex quo quandoque laboravit, quandoque non; sic non habuit de eo, quod laboravit, bizantium 1, discomputato eo quod non laboravit. Queritur quantum laboravit, et quantum non ex ipso mense: ... » (8).

(4) This may be inferred from its typology, which is clearly inside the Byzantine tradition. Its Byzantine typology made the new coin more acceptable in international trade, where the Byzantine coins were well known, than in the local market of Venice. Even the dating of the groat to 1202 is doubtful, and the date of 1194, reported in the chronicle of Andrea Dandolo, now is generally preferred. See STAHL, Zecca, 2001, p. 17.


(8) *About the worker working on some work.*

« Someone should have earned 7 bezants per month for his labour, but, if he stopped working for a time, he had to give back a sum at a ratio of 4 bezants per month (i.e. 4/30 bezants for each day he didn't work); he stood a month, sometimes working, sometimes not; thus he earned for his labour 1 bezant, being subtracted the sum for the period he didn't work. The question is: how long was he at work, and how long wasn't he, during that month? ».
Apart from the mathematical problem (9), the example given by Fibonacci is important for other reasons. It suggests that contracts of this type, comprehending even fairly complex clauses, were well known at the beginning of the 13th century, at least by the merchants to whom Fibonacci for the most part was addressing his handbook. It seems likely that the examples used by Fibonacci were drawn from ordinary experience to limit the difficulties for the reader to those of the mathematical sort.

The amount given by Fibonacci for wages seems fairly high and conveniently payable with the new *grosso* coins, especially if accounted on a monthly basis as it was. From other passages in the book, it's possible to deduce that 1 bezant was worth more or less 88 pennies of Pisa (10), whose exchange rate with the groat of Venice was ca 12:1 (11). Therefore even that single bezant could be paid with more than 7 groats.

Fibonacci's use of the bezant to express wages seems fairly strange. In all the other exercises in the *Liber Abbaci*, the unit of account most commonly used is the *libra denariorum*, which was well known in Northern Italy. Bezants, by contrast, are used for the most part by Fibonacci only in the mathematical problems concerning some activity relating to Levantine trade, very expansive commodities (as horses or gold), commercial partnerships or the finding (and the subsequent subdivision) of treasures. An explanation could be that the bezant, an Oriental gold coin, had a more stable value than the Italian penny, which had been frequently debased. The passage of the *Liber Abbaci* perhaps indicates that wages were reckoned in bezants to safeguard their purchasing power. In this exercise, however, the author may have used the bezant more for arithmetic reasons. The bezant had a value much higher than the penny, and its use instead of the penny made it more complicated to calculate.

(9) The solution, as given by the author (1 bezant for *ca* 14 days in which the worker was at work and 16 in which he wasn't) is very unfavourable to the worker: the amount to give back for the days he wasn't at work has not been subtracted from the entire monthly wage (7 bezants), but only from the wage due for the days he was actually at work (*i.e.* 7/30 bezant per day). According to this procedure, if the worker stopped his activity for more than 20 days, it he would have had to pay back his employer. Is this a mathematician's mistake or is it a kind of existing contract, which actually prevented the worker from being absent from his job? Even worse, is it simply a kind of accounting trick which Leonardo was suggesting to the employers?

(10) In one problem (*Liber Abbaci*, 1857, p. 180), the price of the pepper is given as 50 bezants per *cantaro* (= 158 pounds); in another one (Ibid., p. 124) as 11 pounds and 11 shillings of Pisa per *centenario* (= 100 pounds). The exchange rate between the bezant and the pennies of Pisa is thus expressed by the equation 50/158 = [(11 x 240) + (11 x 12)]/100; in other words, 1 bezant = 88 Pisan pennies.

(11) *Ibid.*, p. 106. The exchange rate here given between the pound of Pisa and the pound of Venice (12:1) clearly indicates that Fibonacci was writing about a Venetian pound of the new groats, not of the pennies; see Stahl, Zecca, 2001, p. 17.
the solution, since it often necessitated the use of a larger number of fractions.

In another chapter of the book, Fibonacci proposed an exercise, bearing the title _De homine retento in obsequio_ (About a man kept in service) (12), which concerns the wages of a worker (operarius) expressed in terms of _librae denariorum_. The wages given for this worker are much lower than those given for the former one, only 25½ pennies per month, or about 1 penny per day, excluding Sundays. The difference seems greater than might be explained by the fact that the former exercise was dealing with skilled workers and the latter with unskilled workers. This exercise more likely deals with workers who were paid in coins only in the case of rewards (13), but were usually remunerated in kind or even not at all, being subject to some feudal duty (14).

This leads us to another important source from the beginning of the 13th century that greatly concerns the history of wages: the _Reiserechnungen_ of the Bishop Wolfger, the original of which resides in the Museo Nazionale di Cividale (Udine) (15). This document contains a complete account of the expenses of the bishop of Passau, Wolfger of Erla, and his retinue in Germany and Italy in the year 1203/04, when the bishop was travelling to Rome to assume the position of Patriarch of Aquileia, to which he was appointed in 1204. The account systematically registers all the different currencies used in payments as well as the numerous exchange operations necessary to obtain the coins, and the currencies to which the source referred almost certainly corresponded to actual coins, not merely to standards of value.

Many payments concern the acquisition of goods and services for the bishop and his retinue (such as bread, wine, wax, lunches, dinners, lodge, clothes, shoes, hay, shoeing for the horses, etc.), but payments were also made to individuals for other reasons. A number of them can be easily interpreted as charity (for example when an amount of money is given to a «fat one», to «a blind one» or to a «poor one»), but others are clearly wages. Among the latter, the most frequent are definitely payments to armed guards (scolares), servants (garciones, servi), heralds and messengers (nuncii, cursores), and sentinels (vigiles). There then follow

(12) _Liber Abbaci_, 1857, p. 186.
(13) The way in which this particular mathematical problem reads suggests that it is referring not to regular wages but to rewards. The reader is asked to calculate the monthly wages of a worker, on the basis of four different payments (some of them known, some unknown), completely independent from the days the worker was actually at work.
(14) This could be the suggestion of the title of the exercise, in which the words _retento_ (hold, kept) and _operarius_ (sometimes: a man obliged to do some works, _i.e._ _operae_, for is lord) seems related to a certain kind of coercion.
payments to workers employed to entertain the court, as singers (*cantatores, discantores, cantantes*), actors (*istriones, vociferatori*), mimes (*mimi*), jugglers (*ioculatores*), and « violinists » (*gigarii*). Among the other workers mentioned are sailors who were probably enlisted to negotiate river-crossings (*nautae*), washers (*lotrici, lavatrici*), barbers-surgeons (*minutores*), bath attendants (*balneatores*), and turners (*tornatores*).

For the portion of the journey through Italy (in 1204, with Rome as the destination), the wages seems as a whole fairly high. Before illustrating some of them, however, it’s necessary to give an account of the exchange rates among the various currencies, at least approximately. According to the source itself (16) and to what is already known through the literature (17), the various currencies mentioned could be set more or less inside the following equivalence:

1 *friesacensis* (penny of Friesach and of Aquileia) = 1.5 German penny (various mints) = 2 *imperiales* or 2 *provisinenses* (pennies of Milan and of Provins) = 4 *mezant* (Lombard pennies) = 6 *bononienses senenses* or *pisani* (pennies of Bologne, Siena and Pisa) = 12 *veneti, veronenses* (pennies of Venice and Verona).

On the basis of these exchange rates, the lower payments, on the average, were those made to the washers (from 17 pennies of Bologna to 44 pennies of Verona), while the higher ones were those made to the heralds (from 3 shillings of Bologna to 1 *marea numerata* of Friesach, *i.e.*, a unit of account corresponding to 160 pennies). More varied were the wages to the armed guards, who were the workers most frequently remunerated (from 17 pennies of Verona, the lowest wages registered in the *Reiserechnungen*, to 3 silver marks). As a whole, wages were sufficiently high to make it convenient even in this case the use of the new groats introduced in Venice. Permanent members of the bishop’s suite, such as the *scolares, garciones*, and *cursors* (18), received wages differing from the accustomed type that are paid regularly after a fixed number of working days. The wages of these workers seem to have been gratifications given in recompense for accomplishing a certain duty. This can be deduced from the fact that the reason of the payment is often mentioned explicitly, as in this passage: « Apud Bononiam ... Burchardo scolari Romam precurrentj pro calciis VIII (?) den. imperial. et ij. tal. Veron. » (19), where the word


(18) As attests the repetition of certain names of *scolares and garciones*, as Burchardus, Wilhelmus, etc.

(19) Heger, *Das Lebenszeugnis*, 1970, p. 100, V, 75-78 (20-21 April): « At Bologna... to Burchard the guard, going ahead to Rome, for his expenses 8 (?) Imperial pennies
calcis doesn't mean « shoes » but peculium, the pay of the soldier, according to a Latin tradition. Nevertheless, it is probably reasonable to assume that the men in Wolfger's retinue went through footwear rather quickly, as other passages indeed suggest (20).

As in the second exercise in the Liber Abbaci, this usage can be explained by the fact that the bishop himself provided for all the essential needs of the workers, to which the bishop's expenses for food and lodging for the entire retinue indeed attest, not to mention remittances for purchases such things as a sword, a tunic, or a pair of trousers. These gratuities are mentioned very often, perhaps because they took the place in some way of real wages, as today in many countries, for example, where workers in the service sector depend largely on gratuities or service charges for their salary. It thus seems certain that these wages were paid in specie. The several exchanges documented and the variety of the currencies recorded, even in a single payment, leave little doubt about the issue. The advance payments to messengers, for example, would make little sense if they didn't also imply the use of the « coins » during the travel.

Thus, according on the basis of the sources cited, wage labour at the beginning of the 13th century was well developed and many workers were paid in specie. We must therefore conclude that the diffusion of monetized wages, in Italy, preceded the innovation in the monetary system to which the introduction of the groat attests. Prior to the introduction of this coin, a single denomination, the denarius (penny), was used indifferently as a unit of account and as an actual coin, which makes it difficult to analyze the first step in the dissemination of monetized wages. We cannot be certain, for example, whether evidence for wage payments in the documentation for before 1200 refers to actual coins or only « values » for which payment may have been rendered in kind or perhaps in another form of coinage altogether.

Before discussing this issue, however, it's necessary to determine whether the supply of specie was sufficient to permit wage payments in specie. In absence of a rich body of documentary evidence, perhaps the best way to estimate the monetary stock available at any given period is through the analysis of the coins themselves, coin dies, and coin finds. As for the coins themselves, Italian coinages of the 11th-12th centuries are still not very well studied, mostly owing to the fact that surviving speci-

and 2 pounds of Verona. On the way back from Rome, Burchard was sent again to Rome, but with different kinds of currencies, perhaps because the cash reserves of the bishop in the meantime had changed: « Aput (sic) Mutinam... Burchardo Romam correnti tal. Bon. et V longos sol. Anasen »; « At Modena... to Burchard going to Rome, 1 pound of Bologna and 5 long shillings (shillings of 30 pennies) of Enns »; Ibid., p. 195, VI, 125-127 (7 June 1204).

(20) In some passages, the term calcari or calciamenti is used rather than calcei, and in these cases, the reference very probably is to « shoes ».
mens are usually very badly struck. This makes it difficult to identify the dies used to strike the coins and to establish die-links. Nevertheless, I have personally carried out die studies on two hoards dating from the 12th century: one containing about 300 pennies of Verona and Venice from the first half of the century (21), and the other with more than 5500 pennies of Verona from the last quarter of the century (22). In both groups, the number of individual dies that could be identified was relatively small, which led me to the conclusion that these coins were produced on a very large scale.

The coin finds alone further suggest that coined money was widely available. Throughout Northern Italy, hoards of pennies belonging to the period (denarii enriciani (23)) are relatively common, often containing many thousands of pieces (24). To see a similar pattern in an earlier period, we need to go back to the times of Ancient Rome. In excavations and stray finds, a similar pattern emerges. Numerous finds of coins dating from the end of the 11th through the 12th century point towards an enormous increase in the presence of coins almost everywhere. In fact, most sites contain only denarii enriciani of the mints of Lucca, Pavia, Verone and Venice, which attests to the revival of monetary activity after a long break in the early middle ages (25). In the area in which I specialise, the Northern Adriatic regions, the number of the pennies dating from the 11th-12th century, on archaeological sites, exceeds that of the pieces from the 8th-10th century by at least 50 times (26).
1139, moreover, the opening of several new mints in Northern Italy in Genoa, Asti, Pisa, Mantua, Ravenna, and Ancona certainly fostered the circulation of coins (27). The evidence from the coins themselves thus suggests that the monetary stock at the end of the 12th century was sufficiently large to allow at least the possibility that wages could be paid in coined money.

Despite the paucity of the written sources for wage labour during the period before 1200, it is still necessary to give due consideration to the documentary evidence. The scarcity of references to wage labour in the sources indeed give the impression that it had only a marginal role in the economy before the beginning of the 13th century. It's enough to read the long list of the trades and professions in Davidsohn's Forschungen for Florence (28), for example, to realize that it refers exclusively to the names of craftsmen who sold their products rather than to workers who « sold their labour ». The absence of an index entry for « wages » in recent monographs on the social and economic history of certain Italian regions before the 13th century is also symptomatic of the paucity of the documentation for wage labour (29). The dearth of evidence is perhaps misleading, however, and wage labour may have been fairly widespread already at the beginning of the 12th century, that is, if one of the few pieces of evidence for wage labour before 1200 is any indication. The Statutes « of the Consuls » of the Commune of Pistoia, which date from 1117, are unique in that they precede by at least a century other documents of this sort in Italy (30). The Statutes are also unique in that some of their chapters deal specifically with wage-earning workers. Because of exceptional character of this evidence in Italy and perhaps in Europe, it seems appropriate to quote the pertinent passages in full (31):

[19]

Et statuimus ut maiores consules infra .XV. dies proximos post sacramentum eorum prestitum mittant bannum su[b] pena .XII. denariorum, ut nullus laborator terrarum a kalendis novembris usque a[d] kalenda aprilis accipiat in die pretium ab aliquo cive Pistoriensi ultra duos denarios, nisi quando laborat cum

(27) On the opening of new mints in Italy from the early 12th century, see F. Panvinì Rosati, La moneta comunale in Italia, Bologna, 1963.


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vanga, preter victualia, vel nisi faciat fossam: tunc accipiat denarios .III.; et a kalendis aprilis usque ad kalendas novembris denarios .III., preter victualia. Et si quis laboratoris tenuerit suam mercedem ultra dies octo postquam laborator sibi peterit, tollunt ei denarios .XII., nisi per laboratorem steterit. Similiter puniatur qui plus dederit, ut supra dicitur. (32)

[20]

Item, ut nul/us asinarius a kalendis novembris usque ad kalendas aprilis pro dieurna mercede accipiat ultra denarios .VI. in die, et a kalendis aprilis usque ad kalendas novembris denarios .VIII., preter victualia. Qui contra hoc dederit vel acceperit, et cognitum fuerit, componat denarios .XII. Et hoc idem spectet ad officium rectoris duplum mercedis puniendi. (33)

[21]

Et statuimus ut null/us maister lignaminium a kalendis novembris usque ad kalendas aprilis ultra denarios .V. in die pretio accipiat, et a kalendis aprilis usque ad kalendas novembris ultra denarios .VII., preter victualia. (34)

[22]

Idem dicimus de maistris petrarum. Et iuret rettor cappellanus observare et habere curam et studium inveniendi si plus acceperit/n/lt. Hoc faciant consules super eorum sacramentum. (35)

These Statutes suggest that wage labour was far more advanced than other documentary sources appear to indicate. This is no doubt because most of the written evidence comes in the form of contracts for the conveyance of property, and activities such as wage labour are under-repre-

(32) « And we decree that the Major Consuls, in fifteen days since their swearing day, proclaim that no farm worker, under the penalty of 12 pennies, could earn from the citizens of Pistoia more than 2 pennies, as daily wages in the period from the 1st November to the 1st April; when he uses the spade, or digs a ditch, the wages will be raised to 3 pennies. In the period from the 1st of April to the 1st of November the wages will be 4 pennies, in addition to the food. And if someone will delay the payment to the worker more than 8 days after he had been asked by the worker, he will be fined 12 pennies, unless it was the worker who caused the delay; similarly will be fined whoever paid a higher wages than above decreed ». See Lo statuto, 1977, p. 56.

(33) « Moreover, that no donkey driver in the period from the 1st November to the 1st April earn more than 6 pennies per day, as a daily wages, and in the period from the 1st April to the 1st November, 8 pennies, in addition to the food. Who will pay or will earn in contravention of this rule, and it will be proven, will be fined 12 pennies. And it is the responsibility of the Rector to fine him also the double of the wage amount ». See Lo statuto, 1977, p. 56.

(34) « And we decree that no joiner in the period from the 1st November to the 1st April earn more than 5 pennies, and more than 7 pennies in the period from the 1st April to the 1st November, in addition to the food ». See Lo statuto, 1977, p. 56.

(35) « The same we decree for what concerns stone-cutters. And the rector chaplain will swear to respect this rule and to take care in finding out if they earned more than allowed. The Consuls will proclaim this rule under their oath ». See Lo statuto, 1977, p. 57.
sented in these contracts. The Statutes do not establish, however, that the wages to which they refer were paid in coined money. On the contrary, the fact that the amount of the wages was fixed by the law could have fostered the use of alternative kinds of money as a means of circumventing the law. In contracts concerning land rents, for example, there can be seen during the 12th century the development of standards of value totally theoretical (the so-called ghost money), mostly based on obsolete coins which didn't circulate anymore and had became « frozen » units of account. Evidently, the rapid debasement of all Italian coins in that period (see below) forced the landowners to seek payment « in kind », in order to avoid the devaluation of rents (whose nominal value necessarily remained stable, being fixed by the contracts). Many of the currencies recorded in the contracts therefore lost any link with real coins and became mere standards of value, usually corresponding to a fixed quantity of a given commodity such as grain (36).

As we have seen, however, the supply of coins had enormously increased in that period, so it seems likely that people preferred to use coins anyway. This was almost certainly the most convenient means by which to pay workers' wages, especially to workers who didn't live necessarily where they worked (for whom payments in kind might have created problems of transport and preservation) or to workers who were employed for variable periods (for whom it was necessary to provide a means of payment that was easily calculated and easily divisible). In addition, the Statutes devote more attention to avoiding that workers were paid too much rather than too little. This suggests that the authorities in Pistoia might have been trying to counteract inflationary pressures that were pushing up wages. All of this supports the claim that those wages were paid mostly in specie, and another important piece of information provided in a later version of the Statutes of Pistoia gives the claim additional weight. In the Breve dei Consoli, dating from 1140-1180, maximum wages are again fixed for workers and magistri (joiners and stonecutters), and these wages are higher than those given in the Statutes of 1117 by a ratio of 5:3 (12 and 7 pennies instead of 7 and 4 pennies) (37).


The coins most commonly in circulation in Pistoia in the 12th century, as in the rest of the Tuscany, were certainly the pennies of Lucca. The metrological characteristics of Lucchese pennies in this period and their chronology are now well known (38). From the beginning of the 12th century through the period from about 1140 to 1180, the debasement of the penny of Lucca varied from 25% to 70%. In other words, the ratio between the later pennies and the earlier ones varied from 4:3 to 10:3 (39). The increase in the «legal» wages as established by the versions of the Statues of Pistoia (5:3) falls just inside this interval, which suggests that the increase was designed to offset the devaluation of the Lucchese currency. This provides further evidence that the wages were paid in coined money.

An important question concerns the degree to which the evidence for wages in the Statutes of Pistoia fits into a more general pattern for the development of wages in Italy during the 12th century. This is not a trivial issue, because the regulation of wages in a period marked by the rapid devaluation of the coinage (40) certainly would have fallen heavily on the wage-earning classes while favouring merchants and employers. Taken together, the two versions of the Statutes clearly indicate that legal wages were subject to change over time, but experience suggests that government policies intended to facilitate recovery from inflation are often largely ineffectual. They are introduced when the damage is done and do little or nothing to protect against the possibility of future damage.

As we have already seen, the shortage of documentation permits no secure answer to the question. Information concerning the wages paid to a stonemason working on the construction of the Cathedral of Modena in the 1160s, which closely resemble those given in the evidence for Pistoia (41), adds little to what we already know. Clauses establishing the maximum wages permissible by law in certain Statutes of the 13th century often give figures that are very close to those dating from more than a century earlier (42). This certainly cannot be seen as the consequence of

(39) Ibid., p. 190-191, types H.3a-H.5.
(42) For example, see the Statutes of Anghiari (Arezzo), dating from the middle of the 13th century, in M. Modigliani, Gli statuti del Comune di Anghiari del secolo XIII, in Archivio Storico Italiano, IV, s. 5, 1879, p. 3-30, at p. 25-26, XCIIC-XCIIf; cf. J.-P.
a policy of wage restriction that kept wages stable for more than a century even in the face of monetary devaluation. Such a policy would have pushed almost the entire «working class» to the level of indigence. A more likely explanation for the apparent stability of wages over more than a century is that wage payments in some communes came to be based on a kind of «frozen» ghost money, as in the land-rents.

To examine this issue further, it will be useful to supplement the documentary record with other kind of information, namely the evidence from coin finds with which we have already dealt. If we carefully analyse the composition of coin finds, we can easily see that there are significant differences between hoards and stray finds. In monetary areas that comprehended more than one State and thus more than one mint (as Lombardy or the Venetia) (43), coins of virtually all those mints are found in both hoards and stray finds, but hoards, which were assembled and deposited as a group, tend to be more homogenous in so far as concerns mint provenance. In the 12th century, the denari enriciani of Verona (44) provide the best example. They are virtually the only coins attested in hoards that have come to light in the regions where they circulated such as the South Tyrol (45) and Trentino (46), and in the territories of Verona (47), Vicenza (48) and Treviso (49). In the excavation finds, however, they are always mixed with other coins of the same period, usually pennies of Venice, as in Levico (Trento) (50), Feltre (Belluno) (51), Castelâr di


(43) On the monetary areas in Northern Italy and their function, see SACCOCCI, Bilon, 1999 (with further bibliographical references).

(44) A similar pattern is given by certain finds containing Lombard coins of the 12th century. See the bibliographical references mentioned in ibid., p. 54.

(45) On the Salurn and Pfatten hoards, see G. CIANI, Di alcune monete della zecca di Verona, in RIN, 8, 1895, p. 77-87, at p. 80.


(51) SACCOCCI, Monete provenienti, 1986, p. 283 with earlier bibliography.
Possagno (52) and Noventa di Piave (53) near Treviso, Verona (54), and Müstair in the Graubunden (Switzerland) (55).

There is an exception to this pattern, which is found in the territory of Padua. Here, both hoards and stray finds of denari enriciani are equally mixed, containing more or less the same percentage of pennies of Verona of Venice (56). This is very interesting, especially in view of the fact that the currency mentioned almost invariably in the documentary record for the monetary area of the Venezie, apart from Venice of course, is the libra veronensis, or pound of Verona. Only in the territory of Padua, by contrast, the pound of Verone and that of Venice were used interchangeably (57). This suggests that hoards rather than stray finds more accurately reflect the so-called caput monetae within a given territory, or its official currency, which of course was the currency most referred to by notaries in the contracts they recorded. If we were to suppose that hoards, like stray finds, constituted random samples of the monetary stock available at any given moment, this would be inexplicable, but it’s also important to note that hoards were often composed by the most valuable coins. Stray finds, on the other hand, usually concern coins of lesser value, and their loss may have occasioned comparatively little regret.

All of this would be easier to explain, however, if we adapt the hypothesis to the conditions that prevailed in the middle ages. It is often suggested for Roman times that hoards were associated with soldiers and their dangerous activities (58), and it is reasonable to suppose that the same held true during the medieval period. Soldiers were perhaps more inclined than others to hide their peculium for safekeeping and, above all, were also more likely to meet their death far from relatives or friends to whom they otherwise would have been apt to reveal the loca-


(53) Saccocci, Monete provenienti, 1986.

(54) Excavations in the court of the Tribunale; the coins of this site have been studied by Antonella Arzone, whom I wish to thank for having communicated to me the data concerning the medieval pieces.


(56) For the Padua and Ponte di Brenta hoards, respectively, see O. Murari, Denari veronesi di un ripostiglio del secolo xii, in Numismatica, 17-18, 1951-1952, p. 19-27, and Jimenez et al., Un ripostiglio cit. Finds from the Excavations of the Banca Popolare and the Via de‘Livello in Padua are still unpublished.


tion of any hoard they had interred. This hypothesis is supported by the normal composition of medieval hoards, which typically contain only coins. This seems fairly odd, especially in view of the fact that the written evidence clearly indicates that other valuables were commonly hoarded, mostly jewellery but even textiles. Hoards thus reflect not the entire monetary stock in a given region, but only the currency that was used to pay soldiers.

If so, it may be concluded that soldiers' salaries, reflected in homogeneous hoards, were paid mostly in coin and in the « official » currency of the state, the caput monetae, rather than in the many different kinds of coins available in trade and on the market. This suggests that soldiers were paid according to the coins' nominal value rather than according to their « market value », or in other words, in pecunia numerata rather than ad pondus argenti. The rapid erosion of the metal content of virtually all Italian coins during this period further suggests that soldiers' salaries were probably also suffering some degree of erosion. It would be useful to determine whether this « devaluation » affected other wages and salaries in Northern Italy during the 12th century.

Low workers' salaries thanks to cheap money indeed may have been one of the sources of economic growth among the Italian communes during the period. A soldier was a very peculiar kind of worker, however, and the experience of the soldiery is not necessarily representative of the broader classe of ordinary workers. The archival evidence is suggestive in certain cases, as we have seen in the Statutes of Pistoia, but it is not conclusive, and further research in this area is still needed.