D. W. MAC DOWALL, A.V.M. HUBRECHT and W.J.A. DE JONG, *The Roman Coins: Republic and Empire up to Nerva*, Description of the Collections in the Provincial Museum G. M. Kam at Nijmegen, XII, Nijmegen, 1992, 166 p.

The ancient Noviomagus (the present Nijmegen) was situated on the Lower Rhine and was included in the Roman Empire ever since the early Augustan period; it became quickly an important military, economic, political and cultural center which spread far around its elements of civilisation. Shortly after the setting up of the Roman camps and the appearance of the canabae, the Roman settlement knows a spectacular development, due to its strategical - military role and its geographical position favorable for the trade. These facts brought about a great increasing of the population and a rapid growth of urbanism. The result of an intense and long ancient habitation was a great number of monuments, from which - even if most of them are now lost for the science - the recovered ones allow the forming of a clearer image of the Roman Nijmegen. The scholars of the town began, ever since the 17 c., to collect and publish the antiquities from Nijmegen and its surroundings. Today their collections are in Rikksmuseum G. M. Kam. The publication of different categories of objects from the museum (the bronze vessels, rush lights, the figural bronzes, terra sigillata, the mirrors, the engraved gems etc.) is performed systematically and very carefully reaching the XIIth volume which treats the Roman Republican and Imperial coins up to Nerva.

This last book, dealing with the above-mentioned numismatic materials, was published – like the previous ones – in excellent printing conditions. The contents have, after a few pages at the beginning, absolutely necessary for the reader's guidance, the following main chapters we shall insist on: The Coin Collections of the Museum G. M. Kam: The Gold and Silver Coinage of Early Nijmegen; The Aes Coinage of Early Nijmegen; The Currency of Early Nijmegen; The Find Spots of Roman Coins in the Collections; The Distribution of Roman Coins in Nijmegen: Excavations Coins from Nijmegen; Currency Patterns; Counter marks at Roman Nijmegen and Catalogue (I. Gold and Silver; II. Aes). The book ends with a concordance table (CRR, RRC, RIC I¹, I² and II), two appendices, bibliography and abbreviations.

From the very beginning the authors present and discuss the difficult problems of the origin and authenticity of the monetary fund, on which the numismatic analysis is based. For a more complete understanding of its features each collection was analyzed very carefully and one could notice that all of them, generally, could be regarded as a whole; it has also resulted that even if the coins with unspecified provenance place (listed separately in the Catalogue) follow a pattern similar to those that were certainly found in or near Nijmegen.

The investigation of the hoards of denarii reveals some problems which are worth insisting on. Thus the hoard from Bijlandse Waard, ended with Augustus issues (C L CAESARES, 2 B.C. – A.D. 14) and those from Onde Horne – Friesland and Onna – Overijssel make up a series, that confirms once again Tacitus' words (De origine et situ Germanorum, V, 3): "... in them we see denarii drawn from the general stock of silver coinage current in the Empire at the time, but with some selection both in coins offered by traders and in the categories accepted by the tribes". The authors admit that the hoard could be buried later than the date of its last coins; its composition (the republican denarii are maintained in a proportion of 64% in Flavian hoards, too), and its average weight (= 3.1547 gm.) close to the general pattern of silver coinage after Nero's reform, make possible the dating of its hiding even 70 years later. That is why we

think the region the hoard was found in (north-east of Nijmegen) was probably included in the Roman Empire a little later. Otherwise, we should accept that in the boundary regions of the Empire there was also the same preference for the Republican denarii. Or, how else could we explain the data we possess on a late burial of the hoard from Bijlandse Waard?

In the Catalogue there are also published the denarii of the 1st c. A.D., that belonged to the hoards ended later (Gemeentelijk Slachthuis: Vespasian to Septimius Severus; Berg en Dal: Mark Antony to Postumus), fact that put us a question of method. First of all we do not know what kind of hoards they were (circulation or hoarding ones). Then, these coins will have to be discussed again when the period of burial of the hoards they belonged to is analysed. At last, the inclusion of these denarii in the first century A.D. statistics could alter the conclusions regarding the monetary circulation of that time.

Another matter we will deal with, is that referring to the effect of Nero's and Vespasian's currency reforms. The hoards of denarii from the west of the Roman Empire and from India are analysed and the conclusion is that the effect of these reforms was to drive out of circulation the coins issued before A.D. 64, which were melted down by the authorities or exported. In the author's opinion this is the way the scarcity of Julio-Claudian denarii in the hoards could be explained. This situation is real only when one could prove that the Julio-Claudian emperors did not practice a deflation policy. On the other hand, if the coins had been exported where would they have gone? Only to India? Because in free Europe they are as scarce in discoveries as in those from the Empire. Or maybe the hoards from free Europe belong to a very late chronological level?

Single find of denarii shows that, though the Romans arrived in Nijmegen only during Augustus' reign, the number of Republican issues is much greater than that of Julio-Claudian ones. This assertion coincides with that referring to denarii hoards, even in the ease of the most recent ones. The aes coinage also proves the keeping in circulation of the old coins. Moreover, many old Celtic coins made of inferior metal are still used in Nijmegen in early Imperial period, too. As a matter of fact, the lack of change required the utilization even of the barbarous imitations or of fragments of coins; even the very worn out coins were not withdrawn of circulation, but, being countermarked, they were revalued according to the inferior nominal. A high quality analysis of the monetary material and a complete knowledge of the discoveries from the west of the Empire allowed the authors to try, using arguments from the metrology, to establish the length of circulation of a coin. At the same time there was established that aes coinage from Nijmegen, in the researched period, came from Gaul, Rome and other western provinces of the Empire.

The monetary circulation analysis also reveals the existence of three periods of maximum development (c. 10 B.C. – A.D. 10; Caligula; after A.D. 70) which correspond to an intense military activity; definition phenomena are found between A.D. 10-37 and 41-54.

The publishers had difficult problems regarding the provenance of the discoveries. Because the place where the coins were found is very often uncertain (a. Coins from surroundings. b. Coins "from Nijmegen". c. Coins with a precise find spot) each coin has an encoded mark for its individual case.

The main zones of Nijmegen which contain Roman vestiges (including coins) are: I. In the west where is the civil settlement identified as *Ulpia Noviomagus* (from the time of Trajan) dating

from the period after A.D. 71, when legio X Gemina was stationed at Nijmegen and the town acquired the status of a municipium after A.D. 150; the cemeteries Hees (the end of the 1st c. - A.D. 270) and Kronenburgerpark are also located here. Among the silver coins, the most numerous are the Republican ones. The circulation pattern from Kronenburgerpark is similar to that of Valkhof, that means that probably the first serves as a cemetery for the settlement of the second. II. Valkhof and Hunerpark correspond to the early civil settlement (probably Oppidum Batavorum) inhabited by immigrants from Gaul. Again Republican coins prevailed among the silver ones. Acs coinage volume declines from the Augustan/Julio-Claudian period until Nerva. III. In Hunerberg there were found a cemetery (Julio-Claudian), canabae and two camps (castra); one of them belonging to legio II Adiutrix and legio X Gemina. The silver coins show the same preponderence of the Republican issues. It seems that from this point of view the conclusions cannot be clearly defined, because, as the authors have remarked, the Republican denarii continued in circulation until the early second century A.D. Acs coinage shows two clear peaks: one under Augustus and another from Vespasian to Domitian. But the pattern of the aes coinage from the castra is different from the other complexes. IV. Kops Plateau with military forts (12 B.C. - A.D. 70) and Kleine Kopse Hof with a cemetery. The silver coins show an identical situation as in other zones, while the pattern of the aes coins is somewhat different.

Comparing the monetary discoveries from the archaeological excavations one can notice that they, generally, follow the pattern of those from the museum collections. Some differences come from the fact that the collectors choose the best coins, so that the series coming from the excavations is more complete and contains many worn out coins, deteriorated or broken ones. It has been made the observation that not all the conclusions are in accord with the archaeological data (see the review by R. W. Reynen, in Nvmaga, XL, 1993, pp. 178-181), though the authors did not get the permission to use the monetary discoveries from the excavations after 1960. On the other hand we have to emphasize again the fact that the archaeologists have often the tendency to use the date of a coin issue as terminus post quem. As a matter of fact this thing is pointed out by the authors in the following statement: "Although we know the date or approximate date at which many coins were issued, in most cases we do not know how long they remained current. The currency patterns that we have constructed for the principal sites of Nijmegen are useful for the relative chronology they suggest".

A complex analysis of the settlements on the Lower Rhine is made and a relative chronology starting from the monetary discoveries is proposed. According to this scheme the *castra* from Nijmegen is dated more recently than Haltern, fact that seems to correspond to the other data

The research of countermarks on the coins from Nijmegen gives the authors the opportunity of a serious and complete theoretical exposé on this difficult chapter of numismatics. Some of the conclusions they reached must be emphasized. Thus it is shown that the countermarks, cleared up, confirmed or changed the status and the value of the coins they had been applied on, and this happened when the old authority was replaced by the new one. The countermarking is greatly connected to the wear of the coins and that is why it is asserted that each class suffered a comparable degree of wear over a similar period of time; but at the same time, the countermarked coins must be classified cautiously because they continued to circulate and could lose weight from circulation and corrosion. Related to the above-mentioned data we have the observation that in giving such appreciations one must take into account the fact that the circulation in certain zones and periods was faster or slower than in other ones. At last, after a convincing demonstration, a centre where aes coinage were countermarked by the military authorities between A.D. 10-23 and about A.D. 70, is identified at Nijmegen. But as we know, countermarks do not appear from Vespasian at least on the acs coins (as it is known on the denarii they appear until Domitian). Thus, it is indirectly confirmed that during the early Empire, until Vespasian a deflating financial policy was practiced.

The Catalogue contains all the coins from the museum collections belonging to the first century A.D., each type or countermarked coin being illustrated. The weight of the Republican denarii is rather reduced and corresponds to the period after Nero's reform. Their average weight is of 3.369 gm. or, if excluding Mark Antony legionary issues, of 3.408 gm. The Republican denarii from Kam's Special Cabinet (Appendix B) have a different situation. Even together with Mark Antony's issues, they reach an increased average weight (3.706 gm.), which demonstrates a special selection.

Many good things can be told about this book. Some results of these researches, especially those of numismatic nature, will be certainly used by the specialists who deal with the history of the Roman Empire. To sum up, we also point out that this investigation is a model of numismatic analysis and utilization of very different information, fact that led to the acquiring of some important historical clarifications.

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