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ZENON WOŹNIAK

ON THE PROGRAMME OF RESEARCH ON THE LATENIAN CULTURE POTTERY (ON THE MARGIN OF THE "AULNAT PROGRAMME")

A wide-spread discerned fact is that the progress in archaeological research, consisting in the expansion of the source basis (due to new excavation), in a more diligent reading out of the contents of cultural levels (due to improvements in the technique of excavation and the application of a broad programme of natural-science analyses), and also in the intensified knowledge of monuments (due to continuous improvements in archaeological analyses and an extension of the range of natural-science analyses), was not accompanied by equally significant progress in the cognition of the history of European communities which used to inhabit the European continent in the past. One of the main reasons for this is no doubt the insufficient progress in the development of the theory of archaeological research, in the improvement of the archaeological research workshop and perhaps above all the slight effect of the theoretical achievements of theory in these ranges on the practical research activity carried out by most archaeologists.

Beginning with the Neolithic, pottery has been the basic mass of archaeological sources. Naturally any attempt to deepen general knowledge of this category of sources and also attempts at its broader use in studies on prehistory evoke a special interest. The real progress in this range should be reached by objectization of description and classification of vessels which is necessary for the computer analysis of the data. It should be noted that a long time ago detailed methodological assumptions were prepared for the translation of a description of pottery into mathematical language, with reference to the Latenian culture pottery¹, and also in Polish archaeology (see, e.g., A. Buko 1976; M. Parczewski 1977). However, the latter programmes were not implemented with respect to mass material, because of the fact that it would involve enormous work on the preparation of the data bank.

A new project of this type was undertaken at the University of Sheffield by Ch. Cumberpatch with respect to the rich set of pottery from the late Latenian settlement in Aulnat, France,

¹ The programme prepared by Prof. Dr. L. Berger and Dr. A. Furger-Gunti in the early 1970's at the University of Basel, concerned with the processing of the pottery from the late Latenian settlement in Basel-Gasfabrik, the result of which is still only the publication of a catalogue of materials from this site (see A. Furger-Gunti, L. Berger 1980).

in the lands of the Arvernian tribe, one of the major ones in Gaul, close to their main oppidum of Gergovia and its later continuation – Augustoneum. Ch. Cumberpatch presented the assumption of this project in a study (1989) featured in this issue. A distinctive feature of this project, when compared with other programmes of studies on pottery usually aimed at either knowledge of the production technology or a cultural and chronological analysis, is that its purpose is to know “the modes of production”, in the understanding of this term as defined by K. Marx (namely with regard to the socio-organizational sphere of activity of potters), by use of the detailed proposals by D. P. S. Peacock and S. E. van der Leeuw.

The study by Ch. Cumberpatch contains the theoretical assumptions of the program, formulated by using the theoretical achievements of the Anglo-Saxon science which leads in this respect. In general, these assumptions seem to be valid. Slight doubts can raise the definition of type proposed by the author (NB: in this range, just as much important as a proper definition is its practical use in elaboration of classification systems), and the role attributed to the “type” by Ch. Cumberpatch in the course of the research. The further part of the study contains very summary information on the proposed methods meant for the implementation of the assumed purposes. Namely, a broad programme of physico-chemical analyses, the coding of material on special cards and its elaboration by a computer is announced. However, the data on the elaboration of the description code is so much general that they do not ensure that one would have an idea of the particularity of the description of vessels and the substantive principles of the structure of the code. The author stresses the distinct importance of the technological properties of vessels as broadly conceived (both the properties of the potter’s mass, the technique of vessel formation and, presumably, the firing technique). However, the criteria involved in the distinguishing of the lowest taxonomic units and their relation to the type are not specified. Nothing is known about the significance of the criteria of vessel shape (see Fig. 1 in the study in question) in terms of the distinguishing of types or the smallest taxonomic units. One has the impression that properties of the form should be introduced into the code according to subjective impressional criteria rather than objectivized metrical criteria.

Certainly, the study does not contain data on the results to be obtained on the basis of the proposed theoretical assumptions and methods, since the programme of research on the Aulnat pottery is, as follows from the content of Ch. Cumberpatch’s study, at the stage of formulating assumptions. In this study it lacks references to other, more advanced programmes of research on Celtic pottery, like for example the broad research programme on the technology of Celtic pottery implemented in Poland (M. Wirska-Parachoniak 1980). During his two long fellowships in Poland, Ch. Cumberpatch was become acquainted with the whole of Celtic painted pottery found in Poland. This set, together with the results of Polish research on technology, could be used to verify at least part of the assumptions and research programme envisioned for the Aulnat material. Unfortunately, the author did not try to do so. E.g., the fact is that the technological, and formal properties of the Polish set of painted pottery make it possible to distinguish 3 workshops which produced this specific kind of vessels².

In my opinion the reconstruction of the “modes of production” in the framework of the Aulnat programme is unrealizable. Namely, I am convinced that the real progress in the research on the socio-organizational aspect of pottery production and the forms of its distribution is impossible just on the basis of an analysis of the vessels, the products of pottery making.

It is necessary to include, in the first instance, in the programmes of this type the results of research on potters’ workshops, and also, as far as possible, on the dwellings of them. But in Aulnat programme is unrealizable. Namely, I am convinced that the real progress in the research programme, its implementation requires not only the proper formulation of the theoretical assumptions, the research purposes and the selection of appropriate methods, but also a good

² This thesis will be documented in the monograph study by the author (Z. Woźniak, *Osada grupy tynieckiej w Podłężu, woj. krakowskie*) which is now being prepared for publication.

source basis. And the basis at Ch. Cumberpatch's disposal does not include the most important element for the set purposes to be met, namely the remains of pottery-making workshops.

The pottery materials from Aulnat and the further smaller series obtained from other local sites can be greatly significant for knowledge of the distribution of pottery and the structure of the pottery production, it is the proportion of particular vessel kinds in it (differentiated because of its function or applied production technique). Physico-chemical analyses of pottery and, possibly, of clay samples from deposits, can be greatly significant not only for knowledge of technology, but also (in fortunate circumstances) for the identification of the distribution of the products of some pottery workshops. However, at least part of the workshops cannot be identified in this way³. An additional opportunity of getting to know the distribution of products of various workshops, can, however, be offered by traditional archaeological analysis, on the basis of which, sometimes, second-rate or third-rate features of form, decoration or technology can be attributed to a given workshop. However, this requires that details of this kind should be included in the analysis. Therefore, statistical analysis should cover not only types, as Ch. Cumberpatch proposes, described by a set of characteristics, but also by single features.

Finally, an integral part of the programme of research on pottery should be knowledge of the degree to which particular workshops knew the art of pottery. In this case, what is involved is the ability to seek out clay deposits with desired properties, the ability to transform them (possibly, while using certain admixtures) into pottery mass with features ensuring the production of vessels satisfying their future destination (refractoriness and impermeability in the case of "kitchen" pottery; the preservation of aesthetic values in the case of decorated pottery, etc.), the ability to form vessels and to make further operations prior to the firing, and the ability to control the firing and cooling in a way which ensure that the products will have the desired properties, all this for a low percentage of production waste. It is only possible to recognize the latter property, characterizing the efficiency of pottery production, due to excavations on a broad scale on potters' workshops. Also, only due to the discovery of pottery workshops, it is possible to define the size of a single firing, since it is known that at that time potters' ovens with various size and thus different yield were used.

In the light of my previous considerations, it can be said that the programme proposed for research on Aulnat pottery, if it were to satisfy the assumed, difficult to obtain aims, should be extended with excavation work in the area of the local settlement (settlements) of pottery workshops. It should be added that it would be significant, in the context of the research purposes of the programme, to investigate the housing of the potters (if one were fortunate enough to identify it) and compare it (in terms of construction, dimensions and plentitude of finds) with the buildings inhabited by representatives of other population groups. Probably on a scale wider than planned in the assumptions, the programme should include the elements of vessel forms which were distinct for particular workshops and can, therefore, provide very valuable data for knowledge of the distribution of their products.

It should be said that when summing up the results of the implementation of the programme, one should also include the possible changes in the economic role of pottery in the life of the Gallic population during the studied epoch. What is meant here is the competition between pottery and metal and wooden vessels. The well known characteristic property of the Celtic pottery of the Latenian period is the lack of handles. This means that among the Celts certain functions fulfilled among many nations by clay vessels were most probably met by wooden ones. This agrees with the data from written sources confirming the high level of Celtic cooorage. Also, the dissemination of bronze vessels and iron cauldrons limited to some degree the demand for pottery products.

³ Most clay deposits are not uniform. Particular parts of the same deposits can be distinctly different both in mineralogical structure and chemical composition.

In conclusion, I should like to return again to the distinguishing of types as proposed by Ch. Cumberpatch. I share the author's view that in elaborating the taxonomy of Celtic pottery the broadly conceived technological criteria ("fabric and manufacture technology") must play an essential, and even – for general division – a deciding role. This way of classifying pottery must be applied to all sets of pottery consisting of vessels made using distinctly different technologies. However, there are in archaeology pottery sets (e.g., the Slavonic pottery from the 9th-13th centuries) in which the pottery mass was prepared according to a uniform prescription, and also the further production procedure ran according to the the same pattern. In this case, the criteria of vessels shape must play a deciding role in classification. On the other hand, the possible small technological changes (partly incidental) are secondary in significance.

It should be added that the operations aimed at ordering (grouping) of the set of archaeological materials (distinguishing types, subtypes, varieties etc.), which are necessary for their scientific use, can be carried out according to the viewpoint of a particular programme and then it is possible to apply in the taxonomic operations a system of special criteria. Moreover the multifunctional taxonomic systems of general value should be built, systems which could be used in many research programmes constructed for the implementation of various research purposes. The taxonomic units ("types") distinguished in the framework of divisions of this type become elements of the specific scientific language of archaeology. The best examples here are the typological classifications of fibulas carried out by J. Kostrzewski (1919) for the the earlier Roman period and by O. Almgren (1897) for the Roman period.

General taxonomic systems for the pottery of particular cultures or epochs should take into account not only the technological criteria but also the criteria of the function of vessels (manifested in the size, shape and technical properties of vessels) and their form, and eventually the decoration. Considering the fact that each type and also smaller taxonomic units are defined by a set of properties, it would be useful to use statistical methods even at the stage when types are defined – types should form sets of strongly correlated features. Moreover, this would make possible the consideration in typological divisions of particular measurable properties rather than sensual criteria. However, the implementation of the purposes of the programme of research on Aulnat pottery does not require the formation of a multi-function system of classification of Gallic pottery. What is enough is a classification system adapted to the purposes of the programme.

The remarks presented here, which came to my mind as I read Ch. Cumberpatch's study, were mainly caused by the excessively sketchy presentation of the ways of implementing the intended research aims. My experience shows that optimism in evaluating the chances of carrying out the intended research aims seldom comes true in practice, and more often than not the results are far from expected. I also dared to recall several quite obvious matters, which were, unfortunately, not sufficiently pointed out or fully neglected by Ch. Cumberpatch.

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ZENON WOŹNIAK

W KWESTII PROGRAMU BADAŃ NAD CERAMIKĄ KULTURY LATEŃSKIEJ (NA MARGINESIE PROGRAMU AULNAT)

Streszczenie

Inspiracją do przedstawienia kilku uwag są zaprezentowane przez C. Cumberpatcha (1989) założenia teoretyczne programu studiów i badań nad bogatą serią ceramiki późnolateńskiej, wydobytą w czasie prac wykopaliskowych przez ekipę Uniwersytetu Sheffield w Aulnat, w środkowej Francji, na ziemi Arvernów. Program ten powinien doprowadzić do poznania stosunków produkcji w dziedzinie garncarstwa dzięki uwzględnieniu szerokiego programu analiz fizykochemicznych i przetworzeniu zbioru danych przy użyciu komputera.

Elementy krytyki nie dotyczą założeń teoretycznych, lecz głównie szans osiągnięcia założonych celów. Szczególnie dobitnie zaznaczono konieczność włączenia do programu badań bezpośrednich na terenie pracowni garncarskiej, tylko bowiem poznanie obiektów tego typu umożliwi konkretne studia nad wieloma aspektami garncarstwa (np. wielkość i wydajność produkcji), a zwłaszcza nad jego stroną społeczno-organizacyjną. Innym poruszonym obszerniej problemem jest pojęcie „typu” w ceramice jako czynnika porządkowania zbioru i generalizującego elementu kodu dla banku danych, które to zagadnienie zostało przedstawione przez C. Cumberpatcha niejasno. Autor, nie negując podstawowej roli technologii przy wyróżnianiu typów w ramach ceramiki późnolateńskiej, podkreśla konieczność wypracowania obiektywnych kryteriów różnicowania form naczyń.

Adres Autora:

Doc. dr hab. Zenon Woźniak

Zakład Archeologii Małopolski IHKM PAN

ul. Sławkowska 17, 31-016 Kraków