

Ceramics culture: a real system and a source of historical information

■ Y. B. TSETLIN¹

ABSTRACT Modern scientific approach in study of ancient pottery production elaborated in Russia has some specific features in comparison of European one. It is not well known abroad.

The paper is dedicated to the description of this approach, of recent possibilities in ceramic investigations and of main results, received by Russian scholars.

The following three questions are considered here: 1) Structure of pottery production as a real system and as a source of historical information; 2) Main features of historical-and-cultural approach in ceramic studies; and 3) Recent possibilities of its application and main results received by Russian scholars.

Real pottery production consists of three subsystems (Fig. 1): first subsystem is a pottery production itself including raw materials, pottery technology, tools and equipment, and finished clay vessels; second subsystem (social relations in pottery production) includes the relations between potters, between potters and users of vessels, and between users of them; and third subsystem (spiritual culture in pottery production) includes potters' and users' customs and beliefs in each of these seven components. The first seven components are invariable in any production systems, but the eighth one (customs and beliefs) could be lost in late-medieval and in modern communities.

Ancient pottery production is interesting not only itself but first of all as a special historical source of information about communities where it functioned (Fig. 1). In that case these components turn into special research subjects (Tsetlin, 2000a).

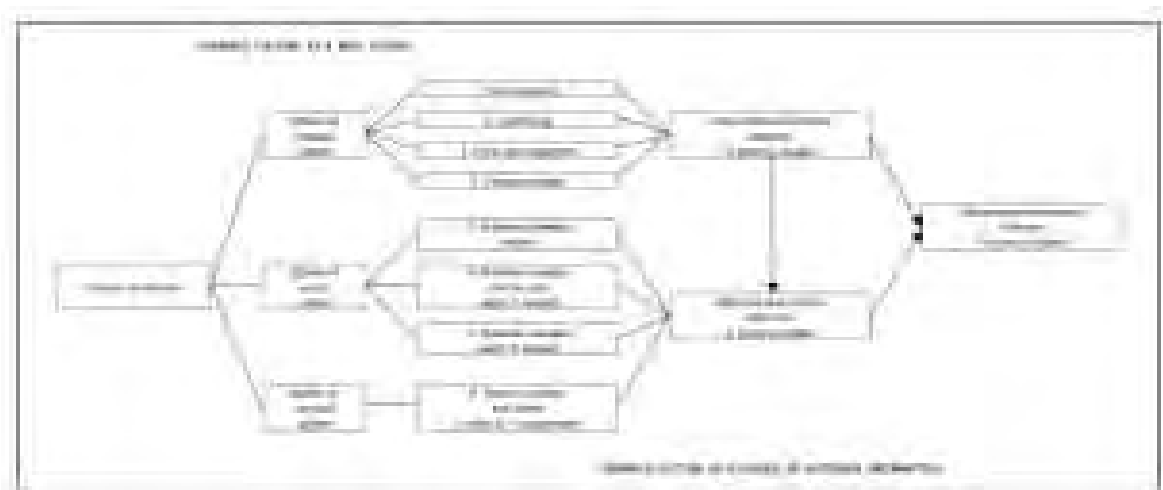


FIG. 1 – Structure of pottery production as a real system and as a source of historical information.

There are three main directions in pottery studies: *'Historical-and-technical'* direction includes the first four components, *'historical-and-cultural'* one combines the rest of them, and *'historical-and-evolutional'* one considers an evolution of each component. Such is a “pottery production system” as a source of historical information.

In archaeology there are only three main scientific approaches in ceramic studies *Emotional-and-Descriptive*, *Formal-and-Classification*, and *Historical-and-Cultural*. These research approaches reflect three successive steps in evolution of ancient ceramic investigations. Important positive feature of the latest of them consists in studying each components of pottery production as a **natural system** based on **systematic nature** of cultural traditions, of pottery skills, and of a human labor activity as a whole (Tsetlin, 1999, 2001).

There are next modern possibilities and main results of pottery studies under Historical-and-Cultural approach. In 1978 Alexander A. Bobrinsky in his book “Pottery of the Eastern Europe. Sources and Methods of Study” (Bobrinsky, 1978) proposed a new general system of technical-and-technological investigation of ancient ceramics. Later it was further developed in his work “Pottery Technology As a Subject of Historical-and-Cultural Study” (Bobrinsky, 1999) and in some books and papers of his followers. The main features of this system beginning from Historical-and-Technical direction will be described very shortly here.

Study of raw materials and pottery technology (components 1 and 2). The whole pottery technology process consists of preliminary, constructive, and fixative stages and includes ten permanent and two additional steps. Each step is a special technological task, which was always solved by a potter during pottery making. Various modes of its decision reflect different technological traditions in pottery production. For example, a permanent task in study of pottery temper is to divide natural and additional kinds of tempers in ancient ceramics. Among the last kind of temper the investigation of organic one is very important (Bobrinsky 1978, 1989, 1999, Tsetlin 2003).

Study of tools and equipment (component 3) is based on their traces on surfaces and in fractures of vessels compared with experimental samples. Now one can study smoothing of vessel's surfaces by fingers, fabric, leather, wooden and metal knives, and so forth; beating of vessels by various kinds of paddles; using of special convex and concave form-moulds for pottery making; functions of pottery wheel including seven steps of their development - from “using of turntable” to “throwing vessel of one peace of clay on pottery wheel” (Bobrinsky, 1978); and constructions of ancient pottery kilns and bonfires (Bobrinsky, 1991a, Bobrinsky et al, 1993).

Study of vessels' shape (component 4) includes the analysis of its total proportion, natural structure, and curved line of vessel's contour. By the total proportion Bobrinsky selected three main classes of vessels (high, middle and low) and two intermediate classes of vessels (high/middle and middle/low). The main classes reflect unmixed traditions of shaping, and the intermediate ones fix mixed traditions characterized by making of imitation-shapes (Bobrinsky, 1984, *unpublished*).

The structure of vessel's shape is usually reconstructed by so called “characteristic points” which subdivide a shape into a set of abstract geometrical figures. Bobrinsky was the first who proposed a principally new method, which consisted in study of potter's “emphasized efforts” on clay during making of vessel. Exactly these points (or narrow zones), where the “emphasized efforts” are changed, mark the bounds between various functional parts of the vessel. Depending on the power of “emphasized efforts” the functional parts of vessels can have an “unformed”, “partly-formed”, or “fully-formed” state. So, the natural structure of vessels is hierarchical. This approach allows discovering the concrete cultural traditions in making of vessels' structure (Bobrinsky, 1986, 1988, 1999).

Later by the study of curved lines of vessel's contours he proposed a method to identify the vessels made by young, middle-aged, and older potters. He found out that the older potters had more rigid system of emphasized efforts than the younger ones that was reflected on the contours of vessels (Bobrinsky, 1991b).

Besides, Helena Volkova, studying the vessels from the cemetery of the Bronze Age Fat'yanovo culture, proposed a method to identify vessels made by the same potter (Volkova, 1998). Yuri Tsetlin found out a structure of pottery decoration traditions (Tsetlin, 1996), 5 directions of their development including about 15 main modes of their reproduction, and proposed the definition criteria of undecorated, technologically-decorated, and purposeful decorated vessels (Tsetlin, 2000b).

Historical-and Cultural direction.

In 1950th–70th Bobrinsky collected tremendous ethnographic data from about 1000 of recent pottery production centers in eastern Europe (Fig. 2 – from Bobrinsky, 1978, pp. 14/15). It became a basis of all our methodical ceramic studies.

Relations between potters (component 5) include an inheritance of “labor skills” between various generations and the contacts of potters from the same generation. Potters’ knowledge and skills were inherited in unchanging state from father to son or from mother to daughter in 70 or 80% even in 19th and 20th centuries. This percent could be still more in antiquity. But it's well known that unmixed and mixed traditions were widely spread all over the world. Mixed traditions are formed when a potter moves from one place to another and enters into marriage with native potters. That is why mixed pottery technological traditions can reflect the process of biological mixing of potters. Among all technological traditions Bobrinsky discerned the adopted ones changing during living of the first generation and the substratum ones changing over about five or six generations of potters. Thus, the study of mixed pottery traditions permits to reconstruct a process and inner steps of cultural and ethno-cultural mixing of various groups of potters (Bobrinsky, 1978, 1999).

Relations between potters and users (component 6) are reflected in a distribution of vessels. By ethnography data the stable connections were developed between economic forms of pottery production, degrees of pottery wheel's functions, and areas of vessels' distribution. That is why, knowing the degree of wheel's function, we can approximately estimate the economic forms of pottery production and the areas of vessels' distribution. Vessels from household and custom-made productions were spread usually within the same cultural groups, in other words, among the related population. On the contrary, the vessels from craft industry could be distributed outside this kind of population. So, in the first case mixing of various technological traditions reflects not only mixing of potters themselves but at the same time mixing of various cultural groups as a whole (Bobrinsky, 1978).

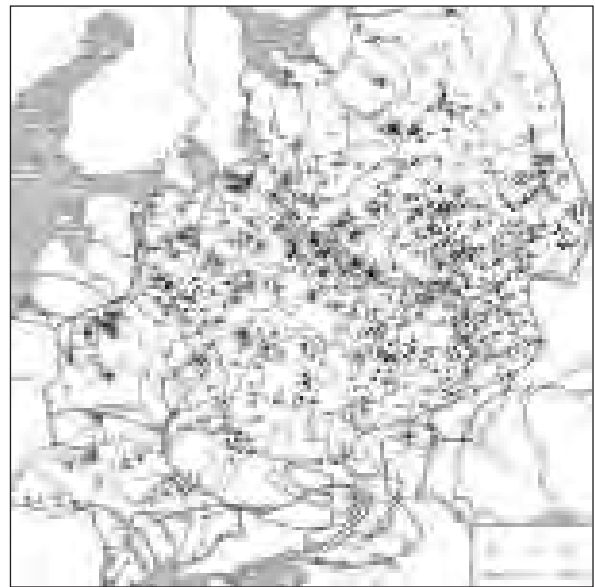


FIG. 1 – Ethnographic Pottery Production Centers of the Eastern Europe in the 2nd part of 20th Century (from Bobrinsky, 1978, pp. 14/15): 1 – by fill-in-the-blank requests, 2 – by Bobrinsky's personal inspection, 3 – by archival and published data.

Relations between users of vessels (component 7) are reflected in the degree of cultural homogeneity in shapes and in decoration of vessels. The failure of users' cultural homogeneity is caused by using of imported pottery and by making of imitation-shapes when local potters used both local and foreign traditions. A full circle of mixing process includes four steps: cultural borrowing, cultural infiltration, cultural integration, and cultural assimilation. After finishing the whole circle of the process a new cultural homogeneity have appeared again (Tsetlin 1998).

Pottery customs and beliefs (component 8) are very difficult to study now by archaeological data. I think that main scientific task consists now in collection and systematization of appropriate ethnographic and archaeological data.

Historical-and-Evolutional direction of pottery studies is now at the beginning stage. In 1980 he elaborated a general evolution of updraft pottery kilns and some later (together with Volkova and Gey) an evolution of pottery bonfire's constructions (Bobrinsky, 1991a; Bobrinsky et al., 1993). Later he showed that the origin of pottery wheel had been a natural process caused by successive changing in form of turn-table's rubbing elements. The history of pottery wheel itself began only from the purposeful coping of already changed forms of those elements by ancient potters (Bobrinsky, 1993a). Besides Bobrinsky developed that the origin of pottery production had been determined by the evolution of potters' views on raw materials, on added tempers, and on modes of making durability and watertightness of clay vessels. On this basis he found out pre-pottery, proto-pottery, archaeo-pottery, and neo-pottery kinds of productions (Bobrinsky, 1993b, 1999). Tsetlin (2002) showed that the origin and development of graphic pottery decoration had evolved in two directions: making of technologically-decorated vessels (including 3 steps) and of purposeful decorated vessels (4 kinds of modes).

In conclusion I would like to note that an application of Historical-and-Cultural approach in pottery studies have embraced now a reconstruction of pottery traditions of various cultural groups in eastern Europe, Kazakhstan, Near East, and in some other regions from the Neolithic to the Middle Ages. In spite of these results an application of Historical-and-Cultural approach is yet at the very start. There are many questions that cannot be solved successfully without using of the recent methods of natural sciences, but it is a subject of special discussion.

NOTES

¹ History of Ceramics Laboratory, Institute of Archaeology, Russian Academy of Sciences, Moscow, Russia (yu.tsetlin@mtu-net.ru).

REFERENCES

-
- BOBRINSKY, A. A. (1978) - *Pottery of the Eastern Europe. Sources and Methods of Study*. Moscow. (In Rus.)
- BOBRINSKY, A. A. (1984) - *Shapes of Clay Vessels of Cherniahovskaya Culture (Methods of Study and Classification)*, unpublished (In Rus.)
- BOBRINSKY, A. A. (1986) - On the Method of Study of Vessel's Shape From Archaeological excavations. In *Culture of Eastern Europe of 1st Millennium AD*. Kuibyshev, p. 137-157 (In Rus.)
- BOBRINSKY, A. A. (1988) - The Functional Parts of Vessel's Shape. In *The Problems of Study of Archaeological Ceramics*. Kuibyshev, p. 5-21 (In Rus.)
- BOBRINSKY, A. A. (1989) - Technological Description of the Ceramics from Tell Sotto and Kül Tepe. Supplement 9. In N.O.Bader. *Earliest Cultivators in Northern Mesopotamia*. Moscow, p. 327-335 (In Rus.)
- BOBRINSKY, A. A. (1991a) - *Pottery Workshops and Kilns in Eastern Europe (by the materials of 2nd-5th centuries AD)*. Moscow. (In Rus.)

- BOBRINSKY, A. A. (1991b) - The envelopes of clay vessels' functional parts. *Archaeological Studies in Forest-Steppe Zone of Volga Basin*. Samara, p. 3-35 (In Rus.)
- BOBRINSKY, A. A. (1993a) - *Pottery wheel and its origin*. Ekaterinburg. (In Rus.)
- BOBRINSKY, A. A. (1993b) - *The origin of pottery production. Ukraine's pottery production*. V: 1. Kiev, p. 39-55 (In Rus.)
- BOBRINSKY, A. A. (1999) - Pottery technology as a subject of historical-and-cultural study. In *Actual Problems of Ancient Pottery Production Studies*. Samara, p. 5-109 (In Rus.)
- BOBRINSKY, A. A.; VOLKOVA H. V.; GEY I. A. (1993) - Pottery bonfire's constructions. In *Archaeological Studies in Volga Region*. Samara, p. 3-44 (In Rus.)
- TSETLIN, Y. B. (1996) - The general principles for decoration of the ancient pottery (First Approach to the Problem). *Tverskoy arkheologicheskoy sbornik*. 2, p. 39-49 (In Rus.)
- TSETLIN, Y. B. (2000a) - Pottery-making as a system. *Tverskoy arkheologicheskoy sbornik*. 4:1, Tver, p. 245-250 (In Rus.)
- TSETLIN, Y. B. (2000b) - Criteria for description of "ornament" and "non-ornament" on Earthenware. *Tverskoy arkheologicheskoy sbornik*. 4:1, Tver, p.251-259 (In Rus.)
- TSETLIN, Y. B. (1998) - Cultural contacts in Antiquity (General Systematization and Reflection in Cultural Traditions of Ancient Potters). *Tverskoy arkheologicheskoy sbornik*. 3. Tver, p. 50-63 (In Rus.)
- TSETLIN, Y. B. (1999) - Scientific approaches in the study of ancient ceramics. *The Old Potter's Almanack*, 7:3. November, p. 5-8.
- TSETLIN, Y. B. (2001) - Evolution of research approaches to the study of ceramics in Archaeology. In *Ancient Craftsmen of Uralside Region*. Izhevsk, p. 54-75 (In Rus.)
- TSETLIN, Y. B. (2002) - The origin of graphic pottery decoration (the problem setting). *Tverskoy arkheologicheskoy sbornik*. 5. Tver, p. 231-240 (In Rus.)
- TSETLIN, Y. B. (2003) - Organic temper in ancient ceramics. Ceramic in the society. In *Proceedings of the 6th European Meeting of Ancient Ceramics, Fribourg, Switzerland, 3-6 October 2001*. Fribourg, p. 289-310.
- VOLKOVA, H. V. (1998) - *Ceramics from Volosovo-Danilovo Cemetery of Fat'yanovo Culture as a Historical Source*. Moscow. (In Rus.)