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## 50<sup>th</sup> ANNIVERSARY OF THE HISTORY OF CERAMICS LABORATORY, INSTITUTE OF ARCHAEOLOGY, RUSSIAN ACADEMY OF SCIENCES

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The laboratory was organized in 1963 by Boris A. Rybakov, then Director of the Institute of Archaeology, Academy of Sciences of the USSR. His far-sightedness showed itself on the one hand in an understanding of the importance of specialized work with ceramics, and on the other hand in the appointment of Alexander A. Bobrinsky, who had received his doctor's degree only a year before, and who remained as a scientific leader and Head of the laboratory for 47 years until 2010. The results of the laboratory's work have proved that to be the right decision. Until 1985 the laboratory was part of the Laboratory of Natural Methods, headed by the famous Russian archaeologist Boris A. Kolchin. In 1985 the laboratory and staff became part of the Institute's newly-organised Department of Theory and Methods. Since that time the laboratory members could discuss their ceramic research among like-minded individuals. Among the specialists in ancient ceramics who have worked at the laboratory, we can name Mihail Gusakov (till 1984), Irina Gey

(till 2012), Dr of Science Yuri Tsetlin (since 2010 Head of the Laboratory), Dr Helena Volkova, Dr Olga Sharganova and Olga Lopatina (currently members of the Group; Figure 1).



Figure 1. Permanent staff of the Laboratory History of Ceramics and colleagues. From left to right: Dr. V.G. Loman, Dr. H.V. Volkova, Dr. A.A. Bobrinsky, Dr. Y.B. Tsetlin, Dr. N.P. Salugina, Dr. I.N. Vasilieva, I.A. Gey, and O.A. Lopatina.

From the outset, Rybakov saw the main scientific goal of the laboratory in developing new methods of ancient pottery investigation and their application to archaeological materials. During these 50 years the members of the laboratory have developed:

- 1) a general system of technological investigation of pottery (Bobrinsky 1978);
- 2) new methods of analyzing vessel shapes (Bobrinsky 1987; 1988; 1991a);
- 3) in-depth investigation of special firing constructions: bonfires, ovens, stoves, and kilns (Bobrinsky 1991b; Bobrinsky *et al.* 1993);
- 4) a new theory of the origin and evolution of the pottery wheel (Bobrinsky 1993a) and on the origin and evolution of pottery production (Bobrinsky 1993b; 1999; 2006);
- 5) methods of a) identifying the potters' gender through their fingerprints (Bobrinsky and Gey 1996; Bobrinsky 2008); b) reconstructing the cultural stratigraphy of multi-layer settlements with mixed cultural layers on the basis of ancient ceramics (Tsetlin 1991); and c) historical periodization of ancient cultures on the basis of pottery decoration (Tsetlin 2008).

In addition, investigation of specific cultural groups, such as the Fatyanovo Culture pottery production and society from the Bronze Age in Eastern Europe (e.g. vessel manufacture, their shapes and decoration, social structure and stratification; Volkova 1996;

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1998; 2010); the Dyakovo culture pottery production and decoration from the Early Iron Age in Eastern Europe (Lopatina 2009a; 2009b; 2011), and the Slavonic pottery production, decoration, and potter's wheel constructions of ceramics from Gnezdovo settlement (Sharganova 2010; 2011).

Another important focus was participation in the Samara experimental expedition for the study of ancient ceramics, organized by Drs Irina N. Vasilieva and Natalia P. Salugina (Vasilieva and Salugina 1999; Figure 2).



Figure 2. Work at the experimental expedition, Samara, 2011.

In the course of developing the methods of pottery investigation, a new scientific approach (named 'Historical-and-Cultural', see Tsetlin 1999) was formulated in the laboratory. It considers the origin, evolution and change of all aspects of ancient ceramics (technology, shape, and decoration) as a natural systemic process based on the characteristics of potters' skills and cultural traditions. Under the Historical-and-Cultural approach, the study of ancient ceramics addresses two main questions: 1. What and How historical and cultural events and processes are reflected (recorded, materialized) in the results of a potter's work (primarily in vessels), 2. How is it possible to reconstruct these events and processes through the study of ceramic material? (Multiple authors 2010; Tsetlin 2012).

We have acquired a tremendous foundation of archaeological, ethnographic, and experimental resources. The ethnographic sources were collected from over 2000 rural pottery centres in Eastern Europe, Central Asia and the Caucasus. These include a) publications and interviews with potters from the late 1950's to middle 1960's; b) field investigations at modern pottery centres, real

ethnographic vessels from those centres, photos and drawings of pottery wheels and patterns of other tools collected during expeditions.

The archaeological collections, from about 1000 sites, include whole vessels and potsherds from Eastern Europe, Siberia, the Far East, Central Asia, the Caucasus, and some regions of the Near East, Africa and Central America.

The experimental collection consists of clay samples a) with different kinds of mineral temper in various concentrations (e.g. mixed clays, and sand, rock and grog tempers); and different kinds of organic temper (bird and animal dung, mollusc shells, straw, etc.); b) experimental clay vessels manufactured using different methods; d) clay samples with traces of different tools and treatments on their surface (both mechanical and chemical-and-thermal); e) clay samples with traces of firing in different conditions and regimes (in field and laboratory firing reconstructions); f) the results of field experiments with potters reproducing traditional and nontraditional vessels. Now we have about 20,000 experimental samples and standards for the study of different aspects of ancient pottery production (Figure 3).



Figure 3. Firing of experimental vessels in pit-oven.

All the materials are used for further elaboration of methods for pottery investigation, and for training young scholars in this area of archaeology. Therefore the teaching activity of the laboratory staff is one of the most important areas of work. During the 50 years the laboratory has produced many highly-skilled scientists who are now working in different scientific centres in the Russian Federation, Ukraine, and Kazakhstan. The members of the laboratory take active part in international scientific conferences.

At present the History of Ceramics Laboratory continues to further develop new historical-and-methods of investigating Neolithic, Bronze, Early Iron and Early Middle Age pottery technology and shapes.

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