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DRAWINGS OF SHAFT-HOLE AXES OF THE ANDRONOVO PERIOD FROM THE PERSONAL ARCHIVE OF M. P. GRYAZNOV

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Abstract. The article is devoted to the study of materials on the Bronze Age contained in the personal archive of M. P. Gryaznov, which is stored in the Museum of Archaeology and Ethnography of Omsk State University. The author drew attention to the information collected by M. P. Gryaznov about shaft-hole axes found in the late 19th — first half of the 20th centuries in Altai, Kyrgyzstan, and Kazakhstan. Unfortunately, these items were found outside complexes and not by archaeologists. Some ended up in private collections of antiquities enthusiasts, while others ended up in museum collections. Most of them, for some reason, are not used by modern scientists. However, it is known that in the last decade, about one and a half dozen publications by scientists from Barnaul, Kemerovo, and Novosibirsk have been devoted to shaft-hole axes of the Ob, Tomsk, and Baraba forest-steppe regions. Specialists considered various aspects related to shaft-hole axes. However, the author believes that the use of information about the axes collected by M. P. Gryaznov would increase (at least a little) the source base of researchers, which always leads to an increase in the reliability of the results of the work. The author draws the attention of colleagues to the fact that scientists do not always pay attention to collections stored in museums of different levels and departmental affiliations, as well as in private collections. As for the information system “State Catalog”, which is supposed to facilitate access of scientists to collections, it does not always contain comprehensive information about ancient objects. Therefore, the author hopes that the publication of drawings from the archive of M. P. Gryaznov will at least slightly increase the source base of shaft-hole axes, and attract the attention of archaeologists to the study of old collections stored in museums.

Keywords: shaft-hole axes, Bronze Age, Siberia, Altai, Kazakhstan, museum collections

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РИСУНКИ ВИСЛООБУШНЫХ ТОПОРОВ АНДРОНОВСКОГО ВРЕМЕНИ ИЗ ЛИЧНОГО АРХИВА М. П. ГРЯЗНОВА

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Резюме. Статья посвящена изучению материалов по эпохе бронзы, содержащихся в личном архиве М. П. Грязнова, который хранится в Музее археологии и этнографии Омского государственного университета. Автор обратил внимание на собранные М. П. Грязновым сведения о вислообушных топорах, найденных в конце XIX — 1-й половине XX в. на Алтае, в Киргизии и в Казахстане. К сожалению, эти предметы были найдены вне комплексов и не археологами. Некоторые поступи-

ли в частные коллекции любителей древностей, другие попали в музейные коллекции. Объединяет их то, что большая часть по каким-то причинам не используется современными учеными. Однако известно, что в последнее десятилетие вислообушным топорам Приобья, Притомья и Барабинской лесостепи посвящено около полутора десятков публикаций ученых из Барнаула, Кемерово, Новосибирска. Специалисты рассматривали разные аспекты, связанные с вислообушными топорами. Но автор считает, что привлечение сведений о топорах, собранных М. П. Грязновым, увеличило бы (хоть и немного) источниковую базу исследователей, что всегда ведет к повышению достоверности результатов работ. Автор обращает внимание коллег на то, что ученые не всегда обращают внимание на коллекции, хранящиеся в музеях разного уровня и разной ведомственной принадлежности, а также в частных коллекциях. Что касается информационной системы «Госкаталог», которая, как предполагается, должна облегчить доступ ученых к коллекциям, то она не всегда содержит исчерпывающие сведения о предметах древности. Поэтому автор надеется, что публикация рисунков из архива М. П. Грязнова хоть немного, но увеличит источниковую базу вислообушных топоров и привлечет внимание археологов к изучению старых коллекций, хранящихся в музеях.

Ключевые слова: вислообушные топоры, эпоха бронзы, Сибирь, Алтай, Казахстан, музейные коллекции

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Introuduction

Bronze Age shaft-hole axes found in the Tomsk region (Borodovsky, 2022, pp. 41–48; Kovtun, 2021, pp. 157–164; 2022, pp. 42–58), Altai (Tishkin, Frolov, 2015, pp. 135–144; 2016, pp. 124–128; 2017, pp. 87–96; Frolov, Tishkin, 2021, pp. 188–193), Baraba (Molodin, Ermakova, 2009, pp. 334–336; Molodin, Novikov, Sofeikov, 2000; Molodin, Shatov, Sofeikov, 1999, pp. 462–466), Kyrgyzstan (Ivanov, 2013, pp. 485–488; 2014, pp. 91–100) often become the subject of research by scientists. Unfortunately, despite the rather long and sometimes active study of these items, there are practically no general works on its, with the exception of a part in the monograph by N. A. Avanesova (Avanesova, 1991, pp. 10–18) and reviews by A. A. Tishkin and Ya. V. Frolov (Tishkin, Frolov, 2016, pp. 124–128; 2017, pp. 87–96). I will also draw attention to the fact that shaft-hole axes are often found by chance, as a separate find, or as part of a hoard (Tikhonov, 2025, pp. 353–357). Therefore, some information is lost. In addition, some items are placed in private collections (Ivanov, 2014, p. 91), and are not always available for study.

Problem

I believe that the success of scientific research largely depends on the state of the source base, including materials stored in museums and archives. Unfortunately, access to them is not always possible, if only because the scientist may not know about them. Therefore, I believe that the study of archival and museum collections and their publication are no less important than excavations of archaeological sites.

Therefore, the **purpose of the publication** is to introduce into scientific circulation information about the shaft-hole axes collected by M. P. Gryaznov. All of them belong to the Andronovo culture. It is impossible to give an exact absolute date yet, since they were found outside the complexes. The axes, the images of which are published, were found in the eastern part of their distribution area (Priobye, Eastern Kazakhstan, Kyrgyzstan). Similar items are known

in Central Asia, Central Kazakhstan, the Southern Urals, and the forest-steppe of the European part of Russia. The most complete summary of these items was made by N. A. Avanesova (1991), and the researcher can find in them drawings of some of the items published by the author. However, there is one nuance. The drawings made by M. P. Gryaznov have notes that allow us to better understand the procedures of the scientist's work, who collected all possible information about the items that was absent from the generalizing publications, and serve as a basis for the attribution of things conducted by the author ³. I hope it will allow us to establish the exact location of the axes and learn the circumstances of their discovery.

Source

The Museum of Archaeology and Ethnography of Omsk State University (MAE OmsU) houses a part of the personal archive of M. P. Gryaznov, given by M. N. Komarova to his colleague V. I. Matyushchenko. These are about fifty folders containing drawings, photographs, notes, etc., collected on various topics. The fact is that from the first years of his work in archaeology M. P. Gryaznov carefully sketched objects from his own excavations, museum collections, collected clippings from scientific and popular science publications, kept drawings, photographs and letters of his friends and colleagues concerning the archeology and culture of ancient and medieval peoples. Over time, a solid archive was collected on a wide variety of topics. One of the folders has the inscription "Central Asia" (MAE Archive, f. III, d. 30). Among other materials, it contains drawings of shaft-hole axes found in different years in the Ob region, Altai, Kazakhstan, and Kyrgyzstan. All the drawings are life-size, have various notes about the features of the object and the place where it was found, as well as museum stamps confirming the identity of the image. These materials were collected by M. P. Gryaznov in museums at the end of the 1920s, as reported to me by L. S. Marsodolov (Tikhonov, 2024, p. 176) and the article by M. P. Gryaznov about Andronovo burials in Western Kazakhstan (Gryaznov, 1927, pp. 172–221; 1930, p. 162) testify to this, where all the axes mentioned below were noted. Unfortunately, M. P. Gryaznov did not provide any drawings or descriptions of the axes, mentioning that they were all yellow (the drawings themselves have inscriptions in red. — S. T.), except for one copper one (Gryaznov, 1930, p. 162). Since then, several scientists have mentioned these items, although no one has provided high-quality drawings. M. P. Gryaznov himself continued to collect materials about the axes, the last entry is dated 1955, but I am not aware of any publications he has made about them.

Discussion

So, in the museums of Siberia, Kazakhstan and Moscow there are shaft-hole axes found at the end of the 19th century in Up Ob region, Altai, Kazakhstan, which have not been fully introduced into scientific circulation. It is a shame that the materials are scattered. This may present difficulties in their inspection and study. In the archive of M. P. Gryaznov there is also

³ For example, it has been established that the axe in Fig. 2. — 1 was found in the Samai tract on the lands of the village of Bolshe-Vladimirskaia, Aleksandrovskaya volost, Semipalatinsk district. There is information about large burial mounds, which are located in groups in the tract. During the excavation of one of them, a bronze axe weighing about 2 kg and other items were found. Priest Gerasim Vasiliev, who delivered the axe and the museum, was an active member of the Semipalatinsk subdivision of the West Siberian department of the Imperial Russian Geographical Society, chairman of the administrative committee, who did much for the development of archeology, ethnography, and history in Semipalatinsk.

information about axes with one side flat. But I will move on to the description of shaft-hole axes and the mold for their casting.

Casting mold (Fig. 1.-1). Schematic drawing of the object found by B. A. Litvinsky in 1955 on the right bank of the Syr-Darya near Leninabad (modern Khunjand, Sogd Region, Tajikistan) during excavations of the Kayrak-Kum complex. The shape of the axe is recognizable, but M. N. Gryaznov did not provide the dimensions. It is indicated that on the back of the blade (approximately in the middle) there was a sprue for pouring metal. Interestingly, on the casting mold from the OGIK Museum (Omsk) there is a recess in approximately the same place (Tikhonov, 2025, Fig. 1.-1, p. 355). On the axe (not a shaft-hole one, but simply an eye-shaped one, with a well-defined socket), found in 1934 by engineer Vishnevsky on the western slope of the Koridya boma (?), the casting hole was on the butt. The object is kept in Gorno-Altaysk, and the drawing is in the archive of M. P. Gryaznov. Along with the axe, M. P. Gryaznov also schematically drew a mold for casting a pick (Fig. 1.-1).

Axe (Fig. 1.-2), found in the Aldzhan Mountains, 150 miles south of Semipalatinsk. These mountains, like the parallel low ridges of Arkalyk and Arkat, run from east to west in the deserted area in the 19th century between Semipalatinsk (now Semey, the administrative center of the Abay region) and Sergiopol (now Ayagoz, a town of district subordination of the Abay region). Made of reddish bronze. Judging by the drawing, the blade has a hexagonal shape, and its working part is widened. There is a projection on the spine, which could have been a striker. But it is excluded that it was formed in the place where the bronze was poured into the molds. The object is kept in the Semipalatinsk Museum.

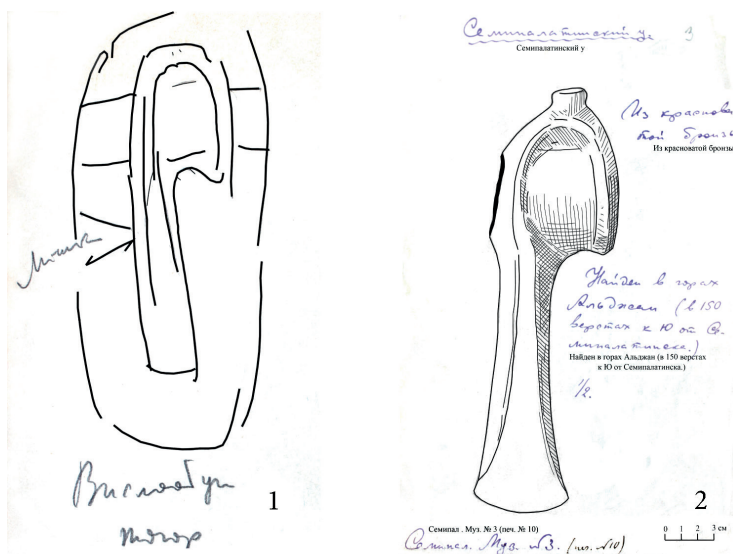


Fig. 1. Drawings from the archive of M. P. Gryaznova:

1 — casting mold for an ax (Kairak-Kumy); 2 — ax (Aljan Mountains, Kazakhstan)

Рис. 1. Рисунки из архива М. П. Грязнова:

1 — литейная формы топора (Кайрак-Кум); 2 — топор (горы Алджан, Казахстан)

The axe was found to southeast of Lake Zaysan near the village of Bolshe-Vladimirskoye or the village of Vladimirovka brought by the priest father Vasiliev (Fig. 2.-1). Made of red copper. The blade, judging by the ribs in the drawing, may be hexagonal. The striker protrudes from the butt by 2 cm, its thickness is 1 cm. The axe is kept in the State Historical Museum. Its number is 38737.

The axe from Issyk-Kul lake (Fig. 2.-2). Possibly, the blade adjacent to the butt has the shape of a hexagon. Its working edge is flattened and widened. The item is kept in the State Historical Museum. It is published in the catalog in 1893, and has the number 406–415. It is possible that this is the number not of this specific item, but of the collection.

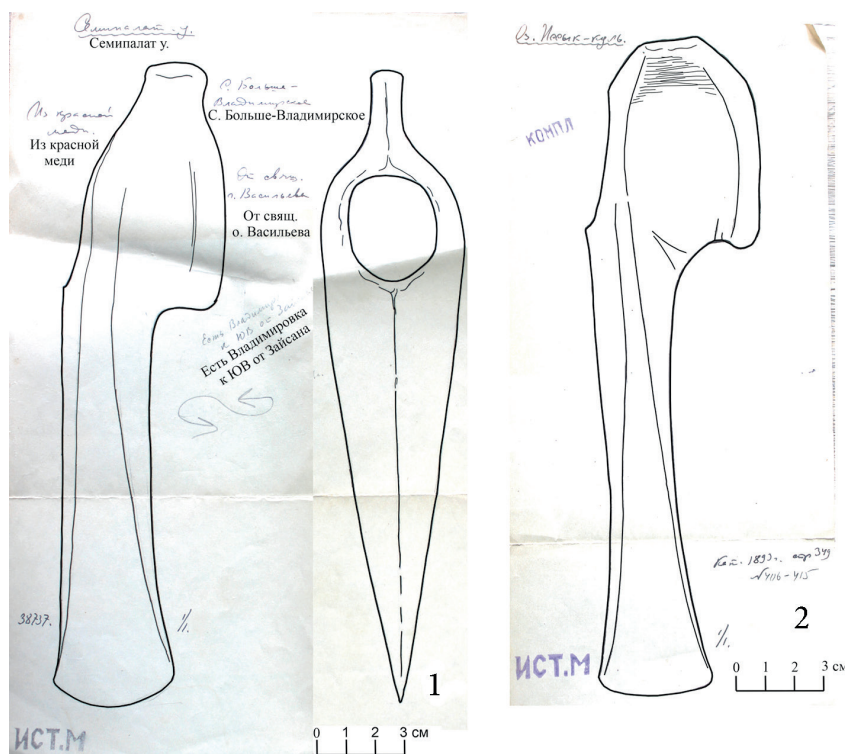


Fig. 2. Shaft-hole axes. 1 — Semipalatinsk district; 2 — Issyk-Kul lake

Рис. 2. Вислобушные топоры. 1 — Семипалатинский уезд; 2 — оз. Иссyk-Куль

The axe with an ornament (Fig. 3.-1) was found at Lake Issyk-Kul and included in the catalogue of the State Historical Russian Museum (since 1921 — SHM) in 1893. It is cast from red copper. The butt is decorated with a herringbone pattern. Brief information about the axe was published (Levitsky, 1941, p. 27, fig. 11, p. 28).

The axe without an ornament (Fig. 3.-2) was found at Lake Issyk-Kul and has been known in the GIM collections since 1893. For the first time the axe was mentioned in the brochure by L. P. Levitsky (Levitsky, 1941, p. 27, fig. 11, p. 28). The images of the axes from the archive of M. P. Gryaznov look better than in publication.

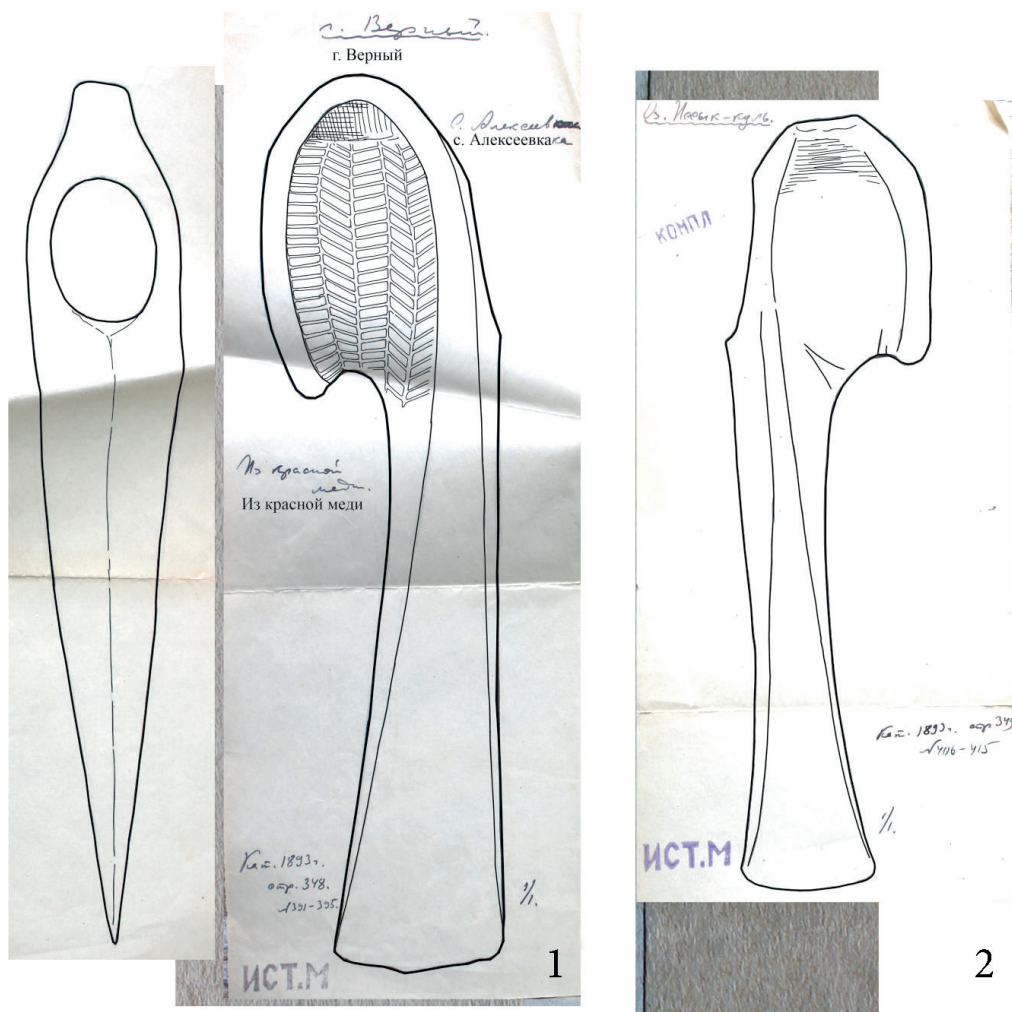


Fig. 3. Drawings of axes found on Issyk-Kul lake

Рис. 3. Рисунки топоров, найденные на оз. Иссик-Куль

The axe from the Altai Mountain District (Fig. 4.-1). Found at the Zmievsky mine, it was kept in the Florov collection and published in a catalogue from the second half of the 19th century in French (This is I. R. Aspelin's book "Antiquités du Nord Finno-Ougrien". 1877. — S. T.). The butt is decorated with vertical and inclined lines forming five bands. The blade is hexagonal in cross-section. The working end of the blade is widened. If we take the ratio of the total length of the axe/the height of the butt, then in proportion it is shorter than the other axes.

The axe of unknown origin. (Fig. 4.-2). The file contains several identical photographs of the object, but without any explanatory inscriptions. Oblique lines are visible on the bushing of the axe when enlarged.

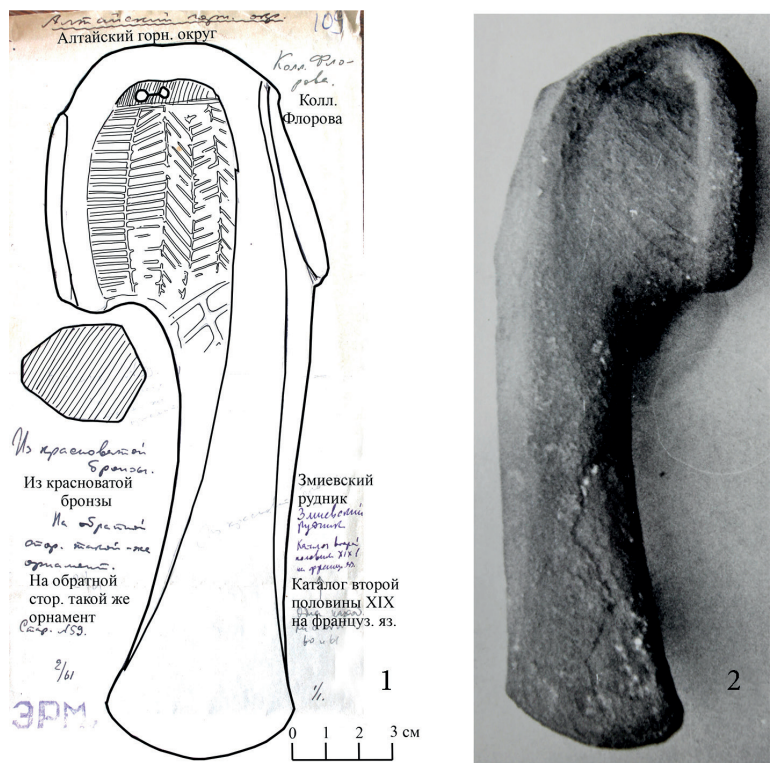


Fig. 4. Axes with an ornamented socket:
1 — Altai mountain district; 2 — the location of the axe find and scale are not indicated

Рис. 4. Топоры с орнаментированной втулкой:
1 — Алтайский горный округ; 2 — место находки топора и масштаб не указаны

The sizes of the axes are summarized in Table 1. It shows that the total length of the axes varies from 215 to 250 mm, but the length of about 220 mm predominates. The remaining sizes vary proportionally to the length. Of course, the sample is too small to make indisputable conclusions. But you can get a general idea of the sizes of the axes.

Sizes of axes and its parts, mm
Размеры топоров и их частей, мм

	Length			Width		Height of Butt	Dimensions of lug
	Total	Blade	Head	Blade	Knife Blade		
Axe Aljan (Fig. 1.-2)	252	152	10	36	57	73	53
Axe Vladimirovka (Fig. 2.-1)	218	134	20	26	40	49	35
Axe Issyk-Kul (Fig. 2.-2)	223	144		18	39	54	40
Axe Issyk-Kul (Fig. 3.-1)	252	165	15	32	50	64	40×32
Axe Issyk-Kul (Fig. 3.-2)	224	145		24	40	52	37
Axe Altai mountain district (Fig. 4.-1)	215	132		35	56	80	45

Based on the drawings of M. P. Gryaznov, it is possible to determine the size of the axes and their parts, as well as to classify the axe to a certain type. The researcher talks about the color of the bronze, which suggests that the axes were made of high-quality metal. Information about the places of their finds complements the system of their distribution. Unfortunately, information about the circumstances of the finds, their connection with any archaeological complexes has been lost. Most likely, M. P. Gryaznov himself knew more about the finds than is recorded on the archival sheets. But this information has also been lost.

Conclusion

I believe that the study of the axes should be carried out on a wide territory from the Yenisei to the Desna, since it is between these rivers that the overwhelming majority of axes have been found. Probably, we can talk about some centers of their functioning (Semerechye, Kazakhstan, Kyrgyzstan, the Southern Urals, Podesenye and others) (Avanesova, 1991, p. 12; Chubur, Shafenkova, 2020, pp. 73–78). In this case, we can assume that the population that occupied vast territories of Eurasia had a need to create powerful melee weapons with which to defeat an enemy in armor. However, not all materials on the finds and distribution of axes have been published. And this gap can be filled by studying the materials of museums (Tikhonov, 2025, pp. 353–357), private collections and archives of scientists.

The study of the materials of the personal archive of M. P. Gryaznov allows us not only to understand the process of the researcher's work with archaeological collections, which he began in the early 1920s and brought to perfection by the 1970s. It is known that many collections, especially those of Siberian museums, were de-passported during the war, and only scant information remained about their origin. M. P. Gryaznov's notes in the margins of the drawings can help to restore this information. Finally, M. P. Gryaznov's drawings are in some cases more informative than the materials published by researchers.

In any case, the study of archives and collections can be no less fruitful than archaeological excavations.

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