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CONSOLIDATED CATALOG OF CARTOGRAPHIC MATERIALS ON THE HISTORY OF KAZAKHSTAN OF THE XVII – EARLY XX CENTURIES: PROBLEMS

The article is devoted to the review and methodological problems of preparing a consolidated catalog of cartographic materials on the history of Kazakhstan of the XVII – early XX centuries. Despite the importance and prospects of creating consolidated catalogs, at present there are no generalizing methodological solutions in this direction of the development of cartographic research and there is no software package that meets all the requirements for the design of a consolidated catalog of cartographic materials.

The consolidated catalog of cartographic materials stands out among other types of catalogs by the complexity of the structure of construction and content. This undoubtedly leads to long-term design and various problems in its preparation. This circumstance directed the study towards the development of an interdisciplinary methodology for researching the consolidated catalog, which makes it possible to efficiently process and prepare «old» maps for the consolidated catalog of cartographic materials of the XVII – early XX centuries in the period of information technology.

The article shows the main achievements, ways of solving methodological problems in the preparation of a consolidated catalog, consisting of 282 cartographic sources of high scientific and social significance, identified in the archives and libraries of Moscow and Orenburg during an interim study.

The functionality of the developed consolidated catalog of «old» maps has been substantiated. The consolidated catalog of cartographic materials can be viewed as a kind of «guide» with the help of which the user can get answers to the following questions: in which of the archives, libraries and museum – there is the cartographic material necessary for the user (by title, chronology and territory); How does the administrative-territorial division change over time; The history of the location of socio-economic facilities in Kazakhstan of the XVII – early XX centuries.

The consolidated catalog of cartographic materials can be used by scientists of the humanities and interdisciplinary areas in applied and scientific research, as well as by the general population in order to study the history of Kazakhstan in modern times.

Key words: problems, methodology, consolidated catalog, cartographic materials of the XVII – early XX centuries.

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XVII – XX ғғ. басындағы Қазақстан тарихы бойынша картографиялық материалдардың жиынтық каталогы: мәселелері

Мақала Қазақстан тарихы бойынша XVII – XX ғғ. басындағы картографиялық материалдардың жиынтық каталогына шолу жасау және дайындаудың әдіснамалық мәселелеріне арналған. Жиынтық каталогтарды құрудың барлық маңыздылығы мен келешегіне қарамастан, қазіргі уақытта картографиялық зерттеулерді дамытудың осы бағыты бойынша жалпылама әдістемелік шешімдер жоқ және картографиялық материалдардың жиынтық каталогын жобалау бойынша барлық талаптардың орындалуын қамтамасыз ететін бағдарламалық кешен жоқ.

Картографиялық материалдардың жиынтық каталогы каталогтардың басқа түрлерінің ішінде құрылымы мен мазмұнының күрделілігімен ерекшеленеді. Бұл, әрине, ұзақ мерзімді жобалауға және оны құрастырудағы әртүрлі мәселелерге әкеліп соғады. Бұл жағдай зерттеуді ақпараттық технологиялар кезеңінде XVII – XX ғғ. басындағы картографиялық материалдардың жиынтық каталогына «ескі» карталарды тиімді өңдеуге және дайындауға мүмкіндік беретін жиынтық каталогты зерттеудің пәнаралық әдіснамасын жасауға бағыттады.

Мақалада негізгі жетістіктер, аралық зерттеу барысында Мәскеу және Орынбор қалаларының мұрағаттары мен кітапханаларында анықталған жоғары ғылыми және әлеуметтік маңызы бар 282

картографиялық көздерден тұратын жиынтық каталогты дайындаудағы әдіснамалық мәселелерді шешу жолдары көрсетілген.

«Ескі» карталардың әзірленген жиынтық каталогының функционалды мүмкіндіктері негізделген. Картографиялық материалдардың жиынтық каталогын өзіндік «жолсілтеме» ретінде қарастыруға болады, оның көмегімен пайдаланушы келесі сұрақтарға жауап ала алады: архивтердің, кітапханалардың және музейдің қайсысында пайдаланушыға қажетті картографиялық материал бар (атауы, хронологиясы және аумағы бойынша); әкімшілік – аумақтық бөліністің динамикадағы өзгерісі; XVII–XX ғғ. басындағы Қазақстанның әлеуметтік-экономикалық объектілерінің орналасу тарихы.

Картографиялық материалдардың жиынтық каталогын гуманитарлық ғылымдардың және пәнаралық бағыттардың ғалымдары қолданбалы және ғылыми зерттеулерде, сондай-ақ халықтың басқада топтары Жаңа уақыттағы Қазақстан тарихын зерделеу мақсатында қолдана алады.

Түйін сөздер: мәселелер, әдістеме, жиынтық каталог, XVII – XX ғасырдың басындағы картографиялық материалдар.

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Сводный каталог картографических материалов по истории Казахстана XVII – начала XX вв.: проблемы

Статья посвящена обзору и методологическим проблемам подготовки сводного каталога картографических материалов по истории Казахстана XVII – начала XX вв. Несмотря на всю значимость и перспективность создания сводных каталогов, в настоящее время отсутствуют обобщающие методические решения по данному направлению развития картографических исследований и не существует программного комплекса, обеспечивающего выполнение всех требований по проектированию сводного каталога картографических материалов.

Сводный каталог картографических материалов среди других видов каталогов выделяется сложностью структуры построения и содержания. Это, несомненно, приводит к долговременному проектированию и различным проблемам при его составлении. Данное обстоятельство направило исследование к разработке междисциплинарной методологии исследования сводного каталога, которая позволяет эффективно провести обработку и подготовку «старых» карт в сводный каталог картографических материалов XVII – начала XX вв. в период информационных технологий.

В статье показаны основные достижения, пути решения методологических проблем при подготовке сводного каталога, состоящего из 282 картографических источников, имеющих высокую научную и социальную значимость, выявленных в архивах и библиотеках г. Москвы и г. Оренбурга в ходе промежуточного исследования.

Обоснованы функциональные возможности разработанного сводного каталога «старых» карт. Сводный каталог картографических материалов можно рассматривать как своеобразный «путеводитель» с помощью которого пользователь может получить ответы, на следующие вопросы: в каком из архивов, библиотек и музее – имеется необходимый пользователю картографический материал (по заглавию, хронологии и территории); Как в динамике меняется административно-территориальное деление; История расположения социально-экономических объектов Казахстана XVII – начала XX вв.

Сводный каталог картографических материалов может применяться учеными гуманитарных наук и междисциплинарных направлений в прикладных и научных исследованиях, а также широкими слоями населения в целях изучения истории Казахстана нового времени.

Ключевые слова: проблемы, методология, сводный каталог, картографические материалы XVII – начала XX вв.

Introduction

Currently, a gap has formed between the theory of the «classical period» of creating consolidated catalogs of historical maps and the requirements of modern information technologies. But how, then, is it possible to conduct the identification, research and further storage of cartographic material in the

consolidated catalog and develop digital mapping? When there is no software package that meets all the requirements for the design of a consolidated catalog of cartographic materials.

This formulation of the problem draws attention to the fact that historical science has not studied the problems of preparing a consolidated catalog of «old» maps on the history of Kazakhstan in modern

times. The proposed analysis of the problems of preparing a consolidated catalog on the history of Kazakhstan in the XVII – early XX centuries and their solutions are based on foreign experience, scientific principles and ideas in the field of creating consolidated catalogs, as well as classical works on “old” maps.

The work on the creation of a consolidated catalog is carried out in two directions: firstly, the shooting of catalogs, card files and directly from archives and museum collections; secondly, the study of written scientific sources (materials on historical and statistical description, encyclopedias, surveys, travel diaries, scientific literature) in libraries, books, maps related to history Kazakhstan in the XVII – early XX centuries. Synthesis of these specified directions, revealed the problems of methodology, their solutions and eventually allowed to create a base data from the consolidated catalog, consisting of 282 cartographic sources, based on the results of the first year of research.

The Consolidated Catalog is a retrospective cartobibliography of cartographic materials, the main task of which is the most complete accounting of «old» maps, seeks to make it accessible to modern and future users. This was already the main methodological problem. How to develop the structure of the cartobibliography of «old» maps, so that it would be more effective and necessary for a potential consumer? In this regard, for the consolidated catalog, a catalog description was developed and a structural division of the catalog was prepared, which is primarily associated with the composition of the collections of cartographic material, the purpose and objectives of the study. The prepared consolidated catalog of cartographic materials of the XVII – early XX centuries is a thematic catalog, while events occurring in the history of Kazakhstan in this period are considered as the main topic, but, nevertheless, regardless of the profile, the consolidated catalog is considered as an integral object of the past. When preparing a consolidated catalog, cartographic materials on the history of Kazakhstan are divided chronologically according to the XVII, XVIII, XIX and XX centuries (until 1917).

Materials and methods

The methodology of research problems is aimed at identifying, analyzing, preparing cartobibliography and structuring «old» maps into a consolidated catalog of cartographic materials on the

history of Kazakhstan in modern times. The problem methodology is based on an interdisciplinary approach. The interdisciplinary nature of the work has led to the use of various research methods.

The methodology of the research is based on a systematic method: which allows you to establish cause-and-effect relationships between historical phenomena in a general historical movement, as well as to track historical development within the framework of general processes occurring in a given period, and effectively analyze the problems of the consolidated catalog.

The method of historicism is very important for the analysis and evaluation of “old” maps, because it allows you to trace the dynamics of the process of surveying and mapping the territory Kazakhstan as a result of administrative-territorial transformations of tsarism, etc.

As a special method for preparing a consolidated catalog of «old» maps and assessing methodological problems, a cartographic approach is used, aimed at representing the dynamics of spatial historical changes in socio-political processes in Kazakhstan in the XVII – early XX centuries. Currently, the cartographic method is being modernized under the influence of information technology. To study the phenomena by their images on the maps, various techniques of the cartographic method are used, including comparative analysis, which makes it possible to compare maps of different times and effectively assess the historical events of Kazakhstan. The method of describing cartographic material allows for a systematic, logical and orderly search for interesting historical facts.

The general geographic method contributes to the objective analysis and evaluation of the physical and geographical data of cartographic materials of the present, allows you to localize certain historical events, trace the geography of the development of historical phenomena and determine the classification of maps by subject and purpose. All of the above methods were used in the main complex, which will effectively prepare a consolidated catalog of “old” maps and analyze the methodological problems of preparing a consolidated catalog that takes into account individual events in the history of Kazakhstan in the XVII century- the beginning of the XX century. The use of an interdisciplinary approach will allow reconstructing the history of Kazakhstan in the period under review at the intersection of research areas of disciplines with various structural organizations and solving all methodological problems.

In modern historiography, the question of preparing and solving methodological problems of preparing a consolidated catalog of cartographic materials of the XVII – early XX centuries. on the history of Kazakhstan has not been studied. Nevertheless, various particular issues and methodological positions of the preparation of catalogs, the use of «old» maps were carried out within the framework of the study of the history of cartography of foreign and Kazakh scientists.

Important information on the geography of the area and the boundaries of the settlement of the Kazakh people of the XVII century can be borrowed from the book and map of «Great Tartary» by F.I. Stralenberg, prepared simultaneously in 1730 (Stralenberg, 1730). The experience of preparing a description and studying cartographic material can be gleaned from the French scientist A.F. Santarema, who prepared explanations for an atlas of medieval maps and coined the term «cartography» (Santarem, 1850). The famous Swedish researcher A.E. Nordenskjöld. By identifying and publishing, he prepared a source base for the main groups of «old» maps (Nordenskjöld, 1889).

In the second half of the XX century, there was a comprehensive interdisciplinary approach to the problems of studying medieval maps and recognizing their great source value. The problems of the socio-cultural content of the map were considered within the framework of the study of mental space in a specific historical epoch by E.S. Tolman (Tolman, 1948). The work of the American scientist L.A. Brown's «History of Geographic Maps», which examines maps from ancient times to the 40s. XX century (Brown L.A., 1950). The history of cartography by L.S. Bagrova and R. Skelton is devoted to the methods of studying the «old» maps, has an extensive reference apparatus and cartographic material. The authors quite rightly emphasize the need for a thorough critical assessment of the content of the «old» maps (Bagrow, Skelton, 1964). The French scientist François de Dainville conducted a study during which the terms, conventional signs, inscriptions, letter designations used by cartographers from 1500 to 1800 were collected to display different geographic realities (Dainville, 1964: 10-15). The work of the British cartographer D.B. Harley «Evaluation of Early Maps. About the methodology» where he examines the methodology of researching «old» maps. Among the external sources that could shed light on the old maps, the author names a wide variety of materials such as catalogs, publications, brochures and other

documentary, graphic and oral sources (Harley, 1968: 62-74). N. Thrower is a representative of the complex study of «old» maps. The American historian pays significant attention to identifying the possibilities of using maps, who believes that for an in-depth study of the content of «old» maps, it is necessary to study the development of a cartographic sign system – the language of maps (Thrower, 1972).

The research of the American professor, Dr. Mark Bassin (Bassin, 1999) is devoted to the problems of Russian cartography and historical geography. The modern American scientist W. Kivelson examines the maps of the XVII century. The author notes that the cartographic materials of this period have a certain degree of standardization of technical and artistic methods: the same color palette and similar signs are used to designate villages, forests, roads, rivers and fields (Kivelson, 2006). The German researcher D. Dalman fragmentarily analyzes the «old» maps, notes that changing scales were used in the preparation of maps as early as the XVIII century, even if they were made in the workshop of such a cartographer and engraver as Johann Baptist Hohmann in Nürnberg. In his historical research, he comes to the conclusion that territorial divisions in Asia were formed as a result of the struggle for power and hegemony between the British and Russian Empires (Dalman, 2009). In modern Russian historiography, considerable attention is paid to the systematization and analysis of «old» maps and the compilation of cartographic bibliography.

In modern Russian historiography, considerable attention is paid to the systematization and analysis of «old» maps and the preparation of map bibliography. The works of V.S. Kusov, a historian-cartographer, researcher of ancient Russian drawings, who laid the foundation for many scientific directions, including the description of maps in the consolidated catalog of cartographic materials, covering the period only up to the XVIII century. (Kusov, 2007: 22). The closest to our problems and ways of solving them are studies of Russian Novosibirsk scientists under the guidance of Doctor of Historical Sciences, Professor O.N. Kationov, who study historiography, methodology and basic methods in the preparation of a catalog of cartographic materials of the Urals, Siberia and the Far East (Kationov, Smagin, Lobanova, 2012). Perm The experience of Russian scientists N.I. Smirnova, R.K. Abdullina, Y.A. Kashaeva and P.S. Foteev, who developed the information web resource «Heritage of the Urals cartographers

in the mid XVIII – early XX centuries» (Smirnov, Abdullin, Kashaeva, Foteeva, 2018:115-126).

The work of Kazakhstan historians Zh.B. Abylkhozhin, K.Sh. Alimgazinov, I. V. Erofeeva, S.A. Zhakishева, S.F. Mazhitov and B.M. Suzhikov «Essays on the historiography and methodology of the history of Kazakhstan», which raises theoretical and methodological problems related to the methods of historical and geographical research (Abylkhozhin, Alimgazinov, Erofeeva, Zhakishева, Mazhitov, Suzhikov, 2007).

The general situation in the preparation and assessment of methodological problems of consolidated catalogs of cartographic materials is characterized by the presence of subjective contradictions between new possibilities for collecting and processing data, as well as the lack of theoretical foundations for the creation and use of consolidated catalogs of cartographic materials.

Results and Discussion

One of the most basic problems in the preparation of the consolidated catalog was the complexity and laboriousness of identifying cartographic materials of the XVII – early XX centuries on the history of Kazakhstan. Cartographic materials are scattered across various foreign archives, museums and libraries of Russia, Uzbekistan and far abroad. Nevertheless, the cartographic materials in the consolidated catalog on the history of Kazakhstan in the XVII – early XX centuries should be lined up in chronological order, consistent and show the dynamics of historical processes.

Revealing cartographic materials of the XVII – early XX centuries on the history of Kazakhstan for the consolidated catalog was carried out in the following archives and libraries: Russian State Military – Historical Archive (RSMHA, Moscow); Russian State Archive of Ancient Acts (RSAAA, Moscow); State Historical Museum (SHM, Moscow); Russian State Library (RSL, Moscow); State Public Historical Library (SPHL, Moscow); State Archives of the Orenburg Region (SAOR, Orenburg), Orenburg Regional Universal Scientific Library named after N.K. Krupskaya (ORUSL named after N.K. Krupskaya, Orenburg). During the search in the funds of foreign archives, museums and libraries of Russia (Moscow and Orenburg cities), «old» maps were revealed and a consolidated catalog of cartographic materials on the history of Kazakhstan in the XVII – early XX centuries was prepared.

A serious problem in preparing a consolidated catalog of «old» maps turned out to be: the impossibility of scanning and photographing rare handwritten maps published before 1830 (RSL, cartography department); The closure of some funds as a result of the repair of the archive of the State Autonomous Public Organization of the city of Orenburg. Nevertheless, in spite of the existing difficulties, the base of the consolidated catalog based on the results of the first year of the study included 282 cartographic sources of Russian and foreign XVII – early XX centuries. Different in thematic direction, but reflecting the multidimensional dynamics of the historical development of Kazakhstan in modern times. Most of the cartographic materials of the early XVII century are mainly of foreign origin.

Statement of the problem of effective search for cartographic materials on the history of Kazakhstan in the XVII – early XX centuries in archives, libraries and museums requires a commentary on the general methods of methodology for their identification, which were associated with the difficulties of their detection. Due to the fact that not a single, even a large map depository, has a complete set of them. The collections of cartographic materials of any of the above-mentioned map depositories are extensive and number tens and hundreds of cases. As you can see, the number of cartographic sources to be analyzed is quite large. All this makes a substantive search for cartographic materials difficult and extremely laborious. Nevertheless, the heuristic algorithm will speed up the solution of this problem. Assistance in solving this problem will be helped by the fact that, the formation of the funds of most of the well-known archives and libraries, their materials are collected in cases according to certain qualification principles (chronological, territorial, thematic), etc. In order to successfully solve the search problem, it is necessary to develop techniques for successful and effective identification, based on the application of the general scientific principle of analysis – movement from the general to the particular. In this particular case, it is implemented in performing certain search techniques, including: familiarization with the archive guide, which gives an initial orientation, but not so much by the nomenclature and numbers of funds, but by additional information related to the history of the formation of certain funds and their general annotation. The next stage involves the transition to the analysis of inventories of funds of interest to the researcher. Here, all the inventories will be viewed except for those that cannot be classified as containing search information either by

chronological or territorial or historical information. Then comes the difficult stage of selecting cases of cartographic materials that are of interest from the point of view of the history of Kazakhstan in modern times.

Many problems and questions arise at the stage of compiling a bibliography of maps of the consolidated catalog, their description, systematization and cataloging. According to the rules for compiling a map-bibliography, it is necessary, before compiling it, not only to identify the output of the map, but also to analyze the content of the cartographic image, as well as to get acquainted with all the elements of the design and equipment of the map, which allow reading the map, helping to use it and obtaining the necessary information. The elements of the map equipment include a legend (conventional signs), additional maps and frames, texts, tables, diagrams, graphs, profiles, illustrations, an index of geographical names to the map, etc. As a basis for the systematization of cartographic materials when cataloging them, we use territorial and chronological approaches. The studied maps are different not only in the time of creation, but also in topics (political, economic, historical, geographical, military), technique of execution, author's style, etc. When creating a consolidated catalog, a unified catalog description of cartographic materials was developed based on the structure, which is primarily associated with the purpose and objectives of the study. When compiling the cartobibliographic information in the consolidated catalog, we used the following structure: Map dating; Card name; Authorship; The originality of the card; Scale; Place of publication; Volume in sheets; Card size; The material on which the image is applied; Technique of drawing an image; Contents of the map; Text notes; Additional Information; Decor; Safety of the map. At the end of the bibliographic description, the address of the storage of the copy is indicated.

A sample of the design of the cartobibliography for the consolidated catalog has been developed, for example:

1846

«Western Siberia. Map of the quarters' disposition of troops in Western Siberia» /Compiled by Prince Gorchakov. – [Russia, Omsk], [1846]. – 1 sheet: color.

Manuscript.

Scale: 85 versts in English inch. There is no nautical scale.

Shown: The map shows the hydro-network of the region: the Irtysh, Ishim, Ayaguz, Ili, Karatal rivers. Lakes: Dengiz, Balkhash, Ala-kul, Sysykul, Lepsy. Fortifications, orders, military roads. The map shows the territory of the

deployment of troops in Western Siberia, which is bounded from the west by the region of the «Kyrgyz of the Orenburg department», the border of the Orenburg province and the Perm province; from the north of the city of Tobolsk (Tobolsk province); from the east by the border of the Yenisei province; from the south – east by the Chinese Empire; from the south – west by the Tashkent possessions.

Texts: «Made in the printing house of Omsk «Korpusnaya kvartir»». Military card. The apartment schedule of the troops of the Siberian corps, executed by the commander of the separate Siberian corps, General Prince Gorchakov».

Additional information: This map contains an explanatory note, which contains data on the number of military forces and locations of military forces of the Russian Empire in Western Siberia (the Siberian Kazakhs' Region).

State of preservation: good.

RSL. Dept. cartographer. ed. Ko 12 / X-13.

During the preparation of the consolidated catalog, there were methodological problems regarding the unification of map descriptions. This is due to the fact that there is no information on the map or additional information appears. For example, watermarks, side panels, card covers, explanatory notes, etc. Therefore, all this information is included in the additional information section due to its uneven presence on all maps.

With all the variety of map design, the following parts of the publication can serve as sources of map and bibliographic information for compiling a description: a cartouche (special frame) serves, as a rule, as a source of information about the title (title) of a map, subtitle data, scale, year of map compilation, etc. The upper field of the map can be a source of information about the title of the map and subheading data (subject, purpose), scale, overhead data, private titles and the nomenclature of individual sheets of multi-sheet maps; The bottom field of the map serves as a source of information about the institutions and persons who participated in the creation of the map and additional maps, about the time of compilation and correction of the map, about various types of scales, about cartographic projection and other elements of the mathematical basis of the map, about the output and output data; The reverse side of the map is a source of information about additional maps, about indexes of geographical names, texts, illustrations, about release data; A cover or folder (first, second, and last page), as well as an envelope, wrapper, cuff, etc. serve as a source of basic data about the publication – its title, part of the subtitle data, scale, imprint and overhead data. The elements of the map equipment, placed in a place free from the cartographic image (legend, tables, graphics, text,

etc.), serve as a source of information for disclosing additional material on the map in the description of the composition of the map, for characterizing the content of the map, as well as on the dates of state and change. cartographic image and its individual elements. The map appendix is, in some cases, the only source of output for the publication as a whole. For atlases and maps published in the form of books and albums with title pages, the source of description is mainly the title page and its back. The most complete source for describing the map is the entire map as a whole, for an atlas – the title page.

There were serious problems in the systematization of the description. The method of describing cartographic materials makes it possible to find out and analyze the patterns of historical events in the history of Kazakhstan in modern times. For this purpose, an algorithm for describing cartographic material has been developed, which consists in the following sequence: elements of hydrography (seas, rivers, lakes), relief (flat, hilly or mountainous), settlements (cities, fortifications, villages), road network (iron, caravan, cattle driving, nomadic, military, etc.), archaeological sites (fortified settlements, ruins, mausoleums, graves), socio-economic sites (mines, factories, mosques, churches) and borders (state, administrative).

When describing cartographic material, it is necessary to know a number of methodological features of “old” maps, especially of the early period – drawings. In historical science, maps that were created before the beginning of the XVIII century are usually called “drawings”, since in the modern sense they cannot be defined as maps due to the lack of a strict mathematical basis, constant scale and great attention to the symbolic representation of the terrain, i.e. the identification of its features.

Since the main thing for the draftsman was to convey the qualitative rather than quantitative characteristics of the object, he could compositionally highlight the most important elements of the image, combine different points of view in one image, and resort to using reverse perspective techniques (Milchik, 2017).

To overcome inaccuracies in the transmission of quantitative features, the authors of the drawings often resorted to the use of explanatory notes. Such inscriptions contained information that could not be conveyed graphically: for example, information about the size of lands, their area and extent, and the distance between objects.

The drawings that have come down to us allow us to identify several dozen types of symbols.

Each of the authors could make their own changes, thereby emphasizing the specific features of the depicted object (Kusov, 1989).

The effective use of «old» maps in scientific research is based, as far as possible, on the full identification of all available cartographic materials on a specific issue, and at this stage, the method of searching for cartographic materials should be used.

The problem is source analysis and map evaluation, which are the most complex techniques of the cartographic method. Analysis and evaluation of cartographic materials is based on deep study, knowledge of the history of cartography and a comprehensive analysis of «old» maps.

In order to conduct a reliable and effective analysis of «old» maps, it is necessary to know the methods of their creation, conventions, terminology of cartographic materials, that is, to be able to read maps. To reconstruct the methods of creating a map, it is necessary to identify the entire list of documents accompanying the topographic survey and the publication of the map: instructions, regulations, tables of conventional signs, field journals, survey reports, etc. This allows us to assess its reliability in displaying the history of Kazakhstan in modern times. It should always be remembered that it was the practical need for an accelerated topography of the territory of Kazakhstan, for the purpose of colonial conquest, that determined the content, scale, graphic techniques, the degree of generalization, and the legend of the maps. The legend largely reveals the purpose of the map and makes it possible to assess its suitability for solving specific research problems (Ksenzshik, 2020: 85 – 98).

In the source analysis of «old» maps, one should distinguish between originals and copies. As a rule, the original does not have an indication of the authenticity, then the copy often contains the relevant information. If there are no indications of authenticity, it is necessary to involve in solving the issue data on the history of the map, the fund in which it was preserved, use paleographic data and inscriptions (Medushevskaya, 1957: 22-24).

When using cartographic material as a toponymic source, it should be borne in mind that when transferring the names of settlements on Russian maps in the second half of the XIX – early XX centuries the compilers were guided by the transcription of geographical names presented in the lists of settlements of the Russian Empire of the Ministry of Internal Affairs (RSMHA F. 401. Op.12/959. D 10:191-196).

A certain difficulty in the preparation of the consolidated catalog was caused by the placement of «old» maps without dates of publication or compilation in chronological order. It was necessary to carry out additional source analysis, allowing to reveal an approximate dating, relying mainly on the administrative division, the image of fortification lines, fortresses, etc. Identification of accompanying office-work documentation also makes it possible to clarify the dating of the map. Only a joint study of the map and its accompanying texts allows one to fully familiarize oneself with the totality of geographical and cartographic representations of the studied time.

When analyzing the source, it is necessary to take into account the scale of the map. The larger the scale of the map, the, as a rule, the greater the amount of historical information from it can be obtained. Primary, basic cartographic materials are usually large-scale and have the greatest value as historical sources. In terms of scale and area covered, maps of Kazakhstan can be divided into two main varieties: general and separate regions. General – these are overview, small-scale maps of the entire territory of Kazakhstan or individual regions where there are border lines. Maps and plans of individual territories of the lands of Kazakhstan are of a large scale and, as a rule, were drawn up for military or resettlement purposes.

Answering the question about the source analysis of “old” maps, one should take into account the fact that the date of drawing up the map never coincides with the date when its main content was given. And it should also be noted that the older the cartographic work, the longer the time interval can separate the various elements of its content. On average, on maps of the XIX century, the “age” of these intervals reaches 50 years. Closely related to this is the question of the time spent by the compilers working on the map, and for a printed map, the time needed to prepare for its publication. Here, the study is impossible without involving the entire mass of materials accompanying the survey

and mapping, and for printed maps – without determining the age of printed forms: some engraved copper forms lasted up to 200 years, they were changed, but this didn't exclude the possibility of data appearing on printed cards. Two hundred years ago. Paleographic studies play an important role in the analysis of “old” maps – the study of the nature of inscriptions, the style of ornaments, drawings, cartouches, paper watermarks, etc. On maps in the XIX – early XX century, the scale is almost always indicated, but in some cases it must

be verified by comparison with modern maps. A similar method is used to determine the scales, if they are not specified, as well as to identify very common multiscale images of individual sections of old maps. The compilation of small-scale maps in the XIX – early XX centuries was carried out by consistently reducing and generalizing large-scale ones. This was considered the most scientifically sound method of creating maps. With a reduced scale generalization the image of socio-economic elements and the natural landscape was carried out, while the selection and generalization were often carried out insufficiently objectively (Postnikov, 1985: 15-20).

In order to effectively conduct a source analysis of cartographic material, it is necessary to take into account that cartographic materials of the XVIII century had their own specific features. They were more detailed, compared with cartographic sources of an earlier period, expanded, contained comments and explanations to the depicted object. The maps of the XVIII century showed the following information: settlements, rivers, lakes, seas, while conventional signs were used relatively little, mainly to depict relief, sometimes vegetation. One of the first tables of conventional signs was attached to the instructions for surveyors by the head of the Orenburg expedition (1734-1737) I.K. Kirilov in 1732 (RSAAA F. 248, Op 1. D. 1428: 184).

By the middle of the XVIII century, when compiling general geographic maps, about fifty icons were used, specialized in the elements of the geographic situation. Most of the signs were a simple collection of icons that did not have logical connections. The introduction of common signs, most of them similar to the symbolism of Western European maps, brought Russian cartography to the general European level. In particular, it opened up new opportunities for the inclusion of Russian cartographic materials in the pan-European and world atlases. At the end of the XVIII – early XIX century in cartography, conventional signs in land surveying and military departments are standardized, and their application is approved by law. With the progressive development of science, society and economy in the XIX century new historical realities appear that require displaying on maps. There is a need to revise and add tables of conventional signs, which leads to their periodic reprinting. There are unified designations of different years for hydrographic, forest, boundary, military-topographic and many other types of maps (Postnikov, 1989: 130 – 179).

When compiling the «old» maps of the second half of the XVIII – early XIX centuries, first of all, the most reliable materials were applied – the results of continuous instrumental surveys, then – the data of route surveys based on astronomically determined points. In the last turn, we applied the routes adjacent to the previously drawn contours. The remaining places were filled with details taken from military-geographical descriptions, expedition reports, or obtained by interviewing guides and local residents (Vitkovsky, 1907: 149).

One of the main problems of the methodology, which arises as a result of using the catalog of «old» maps, is the unification of terminology. A necessary condition in the research methodology is the definition and specification of terms. For example: a consolidated catalog is a systematically organized set of maps in chronological and territorial order of data with a cartobibliographic description (Milchin, 2003: 33 – 34).

Conclusion

Methodological problems of preparing a consolidated catalog of cartographic materials of the XVII – early XX centuries on the history of Kazakhstan are aimed at identifying, structuring, preparing cartographic bibliography, source analysis, catalog description and evaluation of cartographic materials of the consolidated catalog.

The general situation in the preparation of consolidated catalogs of cartographic materials is characterized by the absence of generalizing methodological solutions in this direction of the development of cartographic research and there is no software package that ensures the fulfillment of all requirements for its design. This leads to a search for solutions to emerging problems in research and orientation towards an open dialogue of various conceptual approaches.

Discussion and analysis of the stated methodological problems of the consolidated catalog of cartographic materials on the history of Kazakhstan of the XVII – early XX centuries made it possible to identify the features of the preparation of the consolidated catalog of «old» maps and ways to solve these problems.

The use in interdisciplinary research in a complex of methods of systemic, historical, cartographic, general geographic, source analysis of maps and information technologies, made it possible to effectively solve all methodological problems and effectively prepare a consolidated catalog of «old» maps, taking into account not only the historical situation as a whole, but also taking into account individual events taking place in the history of Kazakhstan of the XVII – early XX centuries.

The degree of detail of the cartobibliography of the consolidated catalog of «old» maps is not strictly regulated by regulatory documents and depends on the purpose of the consolidated catalog and the author's concept of the compilers. In the consolidated catalog of cartographic materials, the spelling of the name and material on the map sheets must be preserved.

The introduction into scientific circulation of a consolidated catalog of cartographic materials on the history of Kazakhstan in the XVII – early XX centuries will allow the scientific community of Kazakhstan to visually trace the process of the historical development of this or that phenomenon and find the right solution to complex issues of the ethnic, military-political and socio-economic history of the Kazakh people this period.

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