

МИНИСТЕРСТВО НА ОБРАЗОВАНИЕТО И НАУКАТА НА РЕПУБЛИКА БЪЛГАРИЯ  
КИРИЛО-МЕТОДИЕВСКИ НАУЧЕН ЦЕНТЪР ПРИ БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ  
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и информационните технологии**

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## **Multilingual Digital Collections in Cyrillic and Their Value for the Comparative History of Medieval Europe: Content, Accessibility, and the Problems of Future Development**

**Svetlina Nikolova**

*Multilingual Digital Collections, Cyrillic script, Medieval Europe, Comparative history of culture, Cyrillo-Methodian cultural Heritage*

The report briefly presents the existing digital collections of materials related to Cyrillic written cultural heritage of the Middle Ages and their inclusion in the Virtual Centre for Medieval Studies (VCMS), which is now in preparation under the “Medioevo Europeo” COST action. This Centre is important not only to clarify the problems of Slavic studies, which are unclear to scholars in the field of primary and secondary materials written in other European written systems and languages. It is also essential for specialists in the field of Slavic studies for problems of the Slavic Middle Ages which cannot be resolved using written sources in Cyrillic. There are two levels of access to the materials. The first level—access to the multilingual digital materials themselves, their description and internal links—has not caused any technical difficulties so far but instead only institutional difficulties related to the preparation of the materials. The second level—the level of understanding Cyrillic materials by interested users—cannot be ensured through the process of transliteration and instead requires new technological solutions, especially when it comes to linguistic research. This will be one of the challenges facing the future development of VCMS.

Multilingual digital collections in the Cyrillic script are important for research on the comparative history of medieval Europe because: 1. Since the 6<sup>th</sup> century the Slavic peoples have inhabited a large part of the territory of Europe, and the first state of the Slavs (the First Bulgarian Empire) was founded as early as the year 681; 2. Since the middle of the 9<sup>th</sup> century they have had their own script (initially Glagolitic, created by St. Cyril and Methodius in Byzantium, and later Cyrillic, created at the end of the 9<sup>th</sup> century in Bulgaria); 3. This script allowed them to integrate more easily into the written culture of the Christian nations in Europe using the Latin and Greek alphabet; 4. From that moment until today, a large part of them have developed their written culture in Cyrillic in the framework of European Christian civilization but with local peculiarities; 5. Modern development of European nations cannot be understood without a detailed knowledge of their overall historical development up to the present day, which is largely based on the characteristics of their development in the Middle Ages; 6. This statement is also perfectly valid for the development of their written culture at all levels, the more that several Slavic countries are already members of the European Union, one of them using the Cyrillic alphabet since the 9<sup>th</sup> century to the present day, while several others are about to become members; 7. During the Middle Ages, this different

alphabet facilitated historical contacts between the Slavic peoples and somewhat slowed down contacts with the peoples using other writing systems (especially those using the Latin alphabet and speaking non-Slavic languages), though the alphabet has never been an obstacle for the contacts of the Slavic peoples with the peoples of Western Europe; 8. Due to the current extremely large differentiation of scientific knowledge and consequently the vast separation of specialists in the various fields of knowledge and due to the lack of sufficiently qualified training and work on the extremely quickly increasing knowledge, today it is practically impossible to conduct comparative studies on all available primary sources, or to fully take into account the results found in comparative historical studies; 9. I believe that this particular shortcoming can be overcome only by the creation of multilingual digital collections of all the writing systems used in Europe during the Middle Ages; 10. Therefore, the inclusion of Cyrillic written heritage of the Middle Ages in such a collection as the Virtual Centre for Medieval Studies (VCMS) being built currently under the COST domain “Individuals, Societies, Cultures and Health”, as part of action IS 1005 “Medioevo Europeo – Medieval Europe – Medieval Cultures and Technological Resources”, would be very important both for the researchers of Cyrillic written heritage itself as well as for scholars who study the Greek and Latin written heritage of this period; 11. The inclusion of the Cyrillic written cultural heritage in VCMS is important not only to clarify the problems of Slavic medieval history and culture, which are unclear to scholars in the field of primary and secondary materials written in other European written systems and languages; 12. It is also essential for specialists in the field of Slavic studies for problems of the Slavic Middle Ages which cannot be resolved only using written sources in Cyrillic. In this respect one interesting example is the case of the earliest document mentioning the names of the creators of the Slavic script (Sts. Cyril and Methodius and some of their disciples), Codex Fraternisation of Reichenau, Zürich, Zentralbibliothek, Ms. Rh. hist. 27; Parchment, A + 99 ff., Reichenau, early 9<sup>th</sup> and 10<sup>th</sup> centuries. The earliest entries in this codex have been continuously updated for several centuries (probably till the 15<sup>th</sup> century). Research using the digital images in the Virtual Manuscript Library of Switzerland (<http://www.e-codices.unifr.ch>), where they appeared on March 3, 2011, can provide more exact answers to questions about the presence of these names than the phototype facsimile edition<sup>1</sup>.

Taking into consideration everything mentioned so far, I will present briefly the contents of the most comprehensive multilingual digital repository in Slavic countries in the field of Cyrillo-Methodian studies, built at the Cyrillo-Methodian Research Center (CMRC) of the Bulgarian Academy of Sciences (BAS), and also identify some digital repositories of Cyrillic primary source materials existing today in Bulgaria and in other Slavic countries.

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<sup>1</sup> Das Verbrüderungsbuch der Abtei Reichenau. Hrsg. Von J. Authenrieth, D. Geuenich, K. Schmid, 1979.

At the beginning I will present *Cyrillo-Methodian Cultural Heritage and Its Bulgarian and European Dimensions*, a project of the CMRC. It has been developed since the beginning of 2009 under a contract with the Bulgarian Scientific Research Fund. The main objective of the project is acquiring new knowledge through investigation of new materials on the cultural heritage of Cyril and Methodius as part of the European Christian cultural model, providing them through publications of future research to the scientific community in Bulgaria and abroad and disseminating both the primary and secondary sources for the study and understanding of the activity of Cyril and Methodius and its traditions, both among scholars from Bulgaria and abroad, and among the wider social circles. The project has been developed in collaboration with the private company *Sirma Media*, which handles the project's software, and with the Scientific Archive of the BAS, which contains one of the largest collections of medieval Slavic Manuscripts in Bulgaria. The participants include both experienced scientists and specialists in the field of Cyrillo-Methodian studies and archival work, as well as young scholars and specialists in the field of information technology.

So, the main task was to build a digital repository for primary and secondary sources for research. In this respect, we faced a tricky question: whether to limit ourselves to digital representation only in the area of Cyrillo-Methodian cultural heritage in Bulgaria and Europe or to present more broadly the materials that we will have available for digitization. Of course, we had to take into account the fact that our colleagues are interested not only in the Cyrillo-Methodian cultural heritage from the 9th century until today in Bulgaria and Europe but also in quick and easy access to materials for the study of the history and culture of Europe during the Middle Ages as a whole. That is why the decision we took was in favour of the broader presentation. So we started building a web-based digital repository for archiving, editing, and preserving primary and secondary materials (medieval manuscripts, archival documents and scientific studies). The repository was built during the first stage of the project. Then we started filling in the metadata for each document. In the repository's construction we took into consideration the fact that specialists will be interested in the range of literature we use, so we should present it in its entirety. We have included in the digital repository several groups of materials: original Slavic manuscripts, copies of the Slavic, Greek and Latin manuscripts (photocopies and microfilms), archival materials and publications (journals, series, books, inventories of manuscripts). The best methods and the most appropriate and available filming technology in Bulgaria has been chosen for each type of document. Also, depending on these specifics, the parameters of the accompanying information have been developed—metadata providing information about the document and search capabilities in the digital repository. Thus today the repository has 1,066 separate digitized documents that are represented in 62,737 images (each images has two pages, so there are 125,474 digitized pages). Given the constantly increasing avalanche of digitized materials in the field of the European Middle Ages, this number is not very large. However, if it is compared to the digitized materials in the global network, which relate to a specific area such as the Cyrillo-Methodian

problems and medieval studies in the field of Slavistics and compared to the different types of materials included in the repository, I think it is quite impressive and unique in Bulgaria, and perhaps in Europe as well.

The largest in number are the digitized materials from Slavic manuscripts—about 47,000 frames (94,000 pages). Firstly, it includes the entire collection of Slavic manuscripts from the 11th to 19th centuries, which is stored in the Scientific Archives of the BAS. As is known, it consists of 118 manuscripts<sup>1</sup>. These images are of very high quality and provide a complete picture of the status of manuscripts at the time of digitizing them in 2009 and 2010. The repository also contains the microfilms and photocopies of various Slavic, Greek and Latin manuscripts from the 12th to 17th centuries, which have been collected by several generations of Bulgarian scholars from the beginning to the end of the 20th century during their work on a variety of topics in collections held in the book repositories of several European countries (e.g., Russia, the Mount Athos monasteries, Serbia, Romania, Croatia and Ukraine) and then transferred to the BAS. Since 1961, these materials have been separated in a special collection at the Scientific Archives of the BAS (collection V). In this case, a selection of the materials has been completed, and those that have been digitized are mainly copies of works more closely related to Cyrillo-Methodian studies. Unfortunately these digital images are not of high quality: they are just black and white reproductions of the microfilms and photocopies made before color digitization existed. Some of them were made in the first decades of the 20th century with extremely outdated equipment. However, they may be used for scientific work. We have also digitized materials related to several other collections of microfilms, which were purchased during the work of the teams of scholars from the CMRC in foreign repositories, under projects developed between 1995 and 1999 in Russia and Lithuania. These materials are kept in the archive of the CMRC. They contain copies of the works of medieval Bulgarian cultural heritage, whose originals were written in the period from the 13th to the 17th centuries, and are kept in the collection of Alexei Khludov (1818–1882) at the State Historical Museum in Moscow and in the Manuscript Department of the Lithuanian Academy of Sciences in Vilnius. The digital repository also contains images of materials related to the Cyrillo-Methodian problematics of two collections, gathered by two scholars from them CMRC (Prof. Dr. Klimentina Ivanova and Assoc. Prof. Dr. Slavia Barlieva) in their work with the Slavic and Latin medieval manuscripts in the repositories of Austria, the Czech Republic, Germany, Greece, Israel, Italy, Poland, Romania, Russia and Serbia. A small part of the digitized primary materials consists of historical documents from the 19th and 20th centuries stored in the Scientific Archives of the BAS and containing information about the history of Cyrillo-Methodian studies in Bulgaria. As for the digitized secondary sources, the largest place is taken by the corpus of printed editions published by the CMRC—about 9,000 images (18,000 pages). The journal *Palaeobulgarica* (1977–

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<sup>1</sup> Кодов, Христо (1969): *Опис на славянските ръкописи в библиотеката на Българската академия на науките*. София.

2002) and the series Cyrillo-Methodian Studies (1984–2003) are presented in digital form, as well as several individual books.

The project was completed in 2013, and currently we expect the Bulgarian fund “Scientific Research” to give us permission to provide free online access to the materials in the digital repository. During our participation in COST action “Medioevo Europeo” in 2012–2013, we started studying the problems of connecting materials from our repository with other materials in the VCMS, the creation of which is the purpose of the COST action. It turned out that there are no technical problems in this regard. However, in order to have the opportunity to create this connection in a way that makes it effective and useful for transnational research on medieval European history and culture, the necessary data must be translated into English. So we have worked intensively on its translation. We also continue to expand the scope of digitized materials.

In this report the most important Bulgarian websites are presented. I have also tried to present websites built outside Bulgaria, which contain digital collections of Slavic manuscripts that are significant in volume and importance, well-structured and easy to access and also digitized materials in many other European and non-European languages. Perhaps it is a bit strange, but the largest of them was built by the Russian Orthodox Church and the monastic brotherhood of the Trinity Lavra of St. Sergius. The images there are of very high quality, there are no descriptions, but they are accompanied by a brief catalog, and the reader can immediately access a complete list of the available materials. I am not going to talk about the other digital collections presented in the slides. I would like to express my astonishment of the fact that the largest owner of collections of Slavic medieval manuscripts in the world and almost half of those available today in Russia—the Russian State Library in Moscow, which has declared that it has several thousand digitized manuscripts—has developed a search system which is extremely difficult to use.

Beyond the presented websites there are other digital collections of primary and secondary materials for research in the field of Slavic Middle Ages in Bulgaria, in Europe and in the USA. Some of them, however, are currently not available, others are under construction, and yet still others contain only single materials. In my opinion, however, there are good prospects for development because most of the collections presented here are important in their content.