

CURRENT TRENDS IN THE DEVELOPMENT OF MAPPING OF CULTURAL HERITAGE OBJECTS

Anastasiya O. Lebzak

Siberian State University of Geosystems and Technologies, 10, Plakhotnogo St., Novosibirsk, 630108, Russia,
Ph. D. Student, Department of Cartography and Geoinformatics, e-mail: a.o.lebzak@mail.ru

Svetlana S. Yankelevich

Siberian State University of Geosystems and Technologies, 10, Plakhotnogo St., Novosibirsk, 630108, Russia,
Ph. D., Vice-rector for Educational Work, phone: (383)343-39-51, e-mail: ss9573@yandex.ru

The article examines the current trends of the development of mapping of cultural heritage objects. The purpose of the study is to identify these trends in the development of mapping of cultural heritage objects. The analysis of modern domestic and foreign approaches in the field of mapping cultural heritage objects is given, on the basis of which modern requirements for the functionality and content of the cartographic web service of cultural heritage are determined. The main problems that arise when mapping cultural heritage objects are identified, and options for their solutions are proposed. The conclusion about the latest trends in the field of mapping cultural heritage objects, such as the use of crowdsourcing platforms for collecting information about cultural heritage objects; the creation of interactive cartographic web services of cultural heritage objects placed in free access on the Internet; the addition of attribute information about objects with multimedia materials; the introduction of virtual and augmented reality capabilities is made.

Keywords: web cartography, cartographic web service, mapping of cultural heritage objects, cultural heritage, thematic cartography

REFERENCES

1. Basargin A. A. (2021). Creation of a geoservice for an object on the territory of the Novosibirsk region on the example of the sanatorium-tourist complex «Lake Karachi». *Vestnik SGUGiT [Vestnik SSUGT]*, 26(1), 86–97 [in Russian].
2. Lisitsky, D. V., Komissarova, E. V., & Kolesnikov, A. A. (2017). Theoretical foundations and features of multimedia cartography. *Vestnik SGUGiT [Vestnik SSUGT]*, 22(3), 72–87 [in Russian].
3. Map of cultural heritage. (n. d.). Retrieved from <https://heritagemap.ru/> [in Russian] (accessed August 15, 2021).
4. Unified State Register of Cultural Heritage Objects (historical and Cultural monuments) of the Peoples of the Russian Federation. (n. d.). Retrieved from <https://okn-mk.mkrf.ru/maps> [in Russian] (accessed August 08, 2021).
5. Cultural Mapping Heritage Portal – PERICLES. (n. d.). Retrieved from <https://www.pericles-heritage.eu/portalpage/> (accessed September 15, 2020).
6. Milovidov, S. V. (2020). Principles of «augmented reality» and interactive reconstruction in museums. *Hudozhestvennaya kul'tura [Art Culture]*, 4(9). Retrieved from <http://artculturestudies.sias.ru/2013-4/sotsialnaya-filosofiya-i-sotsiologiya/848.html> [in Russian] (accessed September 12, 2021).
7. Borodkin, L. I., Mironenko, M. S., Thistolokhov, V. A., Belousova, M. D., & Khlopikov, V. V. (2018). Virtual and augmented reality (VR/AR) technologies in the tasks of reconstruction of historical urban development (on the example of the Moscow Passion Monastery). *Istoricheskaya informatika [Historical Informatiсs]*, 3, 76–88. Retrieved from https://nbpublish.com/library_read_article.php?id=27549 [in Russian] (accessed September 05, 2021).
8. Agosto, E., & Bornaz, L. (2017). 3D Models in Cultural Heritage: Approaches for Their Creation and Use. *International Journal of Computational Methods*, 1, 1–9. doi: <https://doi.org/10.4018/IJCMHS.2017010101>.
9. Karelina, D. A. (2016). The significance of 3D reconstructions of ancient monuments for modern architectural practice. In *Sbornik materialov kruglogo stola, proshedshego 8 aprelya 2015 goda v ramkah mezhdunarodnoj konferencii "Nauka, obrazovanie i eksperimental'noe proektirovanie" v Moskovskom arhitekturnom institute Sovremennoj arhitektora i klassicheskaya tradiciya: [Proceedings of the Round Table Held on April 8, 2015 within the Framework of the International Conference "Science, Education and Experimental Design"*

at the Moscow Architectural Institute: The Modern Architect and the Classical Tradition] (pp. 27–38). Moscow: MARKHI Publ. [in Russian].

10. Anufriev, S. O. (2020). Crowdsourcing in the field of geodesy, cartography and spatial data. *Internauka [Internauka]*, 1, 30–32 [in Russian].

11. Kazakov, E. E. (2015) Crowdsourcing of geodata in Russia and in the world. In *Sbornik materialov mezhdunarodnoj nauchno-prakticheskoy konferencii: Geodeziya, kartografiya, geoinformatika i kadastry. Ot idei do vnedreniya [Proceedings of the International Scientific and Practical Conference: Geodesy, Cartography, Geoinformatics and Cadastres. From idea to Implementation]* (pp. 229–233). Saint Petersburg: Polytechnic Publ. [in Russian].

12. Mousouris, S., & Styliaras, G. (2016). On the implementation of a digital map for cultural heritage. *International Journal of Computational Intelligence Studies [International Journal of Computational Intelligence Studies]*, 1, 5–30.

Received 27.09.2021

© A. O. Lebzak, S. S. Yankelevich, 2021