

© *Sergey Vasilyev, Elizaveta Veselovskaya, Olga Grigorieva*

## ANCIENT MAN FROM DMANISI 3444. CRANIAL STUDY, CRANIOFACIAL RECONSTRUCTION

*This work is devoted to the study of a skull from Dmanisi locality (Dmanisi D3444/D3900 (Skull 4)), Georgia. The find is represented by a complete skull with a lower jaw. A distinctive feature of the individual is the almost complete absence of teeth in both jaws and significant atrophy of the alveolar processes. The skull was studied using the program of angular morphometry against a wide comparative background of early hominids, including Australopithecus and early Homo and a young individual from the same Dmanisi locality (D2700). The appearance of the individual was evaluated according to the graphic and sculptural facial reconstructions from skulls. The skull has strong well-developed muscular relief, a rather large bizygomatic width and a marked narrowing behind the orbit. Multivariate analysis of a number of craniotrigonometric parameters showed that the skulls of young and old individuals from Dmanisi are quite different and, most likely, they did not belong to a single population. In a number of features, the Dmanisi hominins are similar to the erectoid forms from Africa and to the “Hobbit” from the Flores Island. The appearance on the facial reconstructions is distinguished by a sloping narrow forehead, strongly protruding cheekbones, a long flattened upper lip, and a noticeably protruding nose with a slight hump.*

**Keywords:** *craniofacial reconstruction, appearance, skull from Dmanisi, craniotrigonometry*

**For Citation:** Vasilyev, S. V., E. V. Veselovskaya and O. M. Grigorieva. 2022. Ancient Man from Dmanisi 3444. Cranial Study, Craniofacial Reconstruction. *Herald of Anthropology (Vestnik Antropologii)* 4: C. 338–351.

**Author Info: Vasilyev, Sergey V.** — Doctor of History, Professor, Chief Researcher, the Russian Academy of Sciences N. N. Miklouho-Maklay Institute of Ethnology and Anthropology (Russian Federation, Moscow). E-mail: [vasbor1@yandex.ru](mailto:vasbor1@yandex.ru) ORCID: <https://orcid.org/0000-0003-0128-6568>

**Veselovskaya, Elizaveta V.** — Doctor of History, Professor of the Russian State University for the Humanities (Russian Federation, Moscow), Chief Researcher, the Russian Academy of Sciences N. N. Miklouho-Maklay Institute of Ethnology and Anthropology (Russian Federation, Moscow). E-mail: [veselovskaya.e.v@yandex.ru](mailto:veselovskaya.e.v@yandex.ru) ORCID: <https://orcid.org/0000-0002-2932-9884>

**Grigorieva, Olga M.** — Ph.D. in biology, Senior Researcher, the Russian Academy of Sciences N. N. Miklouho-Maklay Institute of Ethnology and Anthropology (Russian Federation, Moscow). E-mail: [labrecon@yandex.ru](mailto:labrecon@yandex.ru)

**Funding:** The article is published as part of the Research Plan of the Russian Academy of Sciences N. N. Miklouho-Maklay Institute of Ethnology and Anthropology,

project “The evolutionary continuum of the genus Homo”, Subtopic “Anthropology of Ancient and Modern Populations”, and the World Class Research Center project. The article was prepared within the framework of a grant provided by the Ministry of Science and Higher Education of the Russian Federation (grant agreement No.: 075–15–2022–328), as well as with the involvement of materials from the Center for Collective Use “Foundation of Paleoanthropological Materials of the IEA RAS”.

## References

- Alekseev, V. P. and G. F. Debec. 1964. *Kraniometriya. Metodika antropologicheskikh issledovanij*. [Cranio-metry. Methodology of anthropological research]. Moscow: Nauka. 128 p.
- Balueva, T. S. and E. V. Veselovskaya. 2004. Novye razrabotki v oblasti vosstanovleniya vneshnego oblika cheloveka po kraniologicheskim dannym [New developments in the field of restoration of human appearance according to craniological data]. *Arheologiya, etnografiya i antropologiya Evrazii* 1(17): 143–150.
- Galeev, R. M. and S. V. Vasilyev. 2016. Metodicheskie aspekty uglovoj morfometrii cherepov na primere kkhmerov Kambodzhi [Methodological aspects of angular morphometry of skulls on the example of Khmer Cambodia]. *Izvestiya Irkutskogo gosudarstvennogo universiteta, Seriya «Geoarheologiya. Etnologiya. Antropologiya»* (16): 139–156.
- Gerasimov, M. M. 1955. Vosstanovlenie lica po cherepu (sovremennyy i iskopaemyj chelovek) [Reconstruction of the face from the skull (modern and fossil man)]. *Trudy Instituta etnografii AN SSSR. Novaja seriya*. Moscow: Izdatel'stvo Akademii nauk SSSR. XXVIII. 585 p.
- Lebedinskaya, G. V. 1998. Rekonstrukciya lica po cherepu (metodicheskoe rukovodstvo) [Reconstruction of the face from the skull (methodological guide)]. Moscow: Staryj sad. 125 p.
- Lordkipanidze, D., Vekua, A., Ferring, R., Rightmire, G. P., Agusti, J., Kiladze, G., Mouskhelishvili, A., Nioradze, M., Ponce de León, M. S., Tappen, M., and C. P. E Zollikofer. 2005. The earliest toothless hominin skull. *Nature* 434(7034): 717–718. <https://doi.org/10.1038/434717b>
- Vasilyev, S.V. 1997. Trigonometriya mozgovoj korobki iskopaemyh gominid [Trigonometry of the brain box of fossil hominids]. In *Novye metody — novye podhody v sovremennoj antropologii* [New methods — new approaches in modern anthropology]. Moscow: Staryj sad. 68–81.
- Vasilyev, S. V. 1999. *Differenciaciya plejstocenovyyh gominid* [Differentiation of Pleistocene hominids]. Moscow: Izdatel'stvo URAO. 152 p.
- Veselovskaya, E. V. 2015. Slovesnyj portret po cherepu [Verbal portrait of the skull]. In *Paleoantropologicheskie i bioarheologicheskie issledovaniya: tradicii i novye metodiki: materialy Vserossijskoj nauchnoj konferencii (VI Alekseevskie chteniya)* [Paleoanthropological and bioarchaeological studies: Traditions and new methods: Proceedings of the All-Russian Scientific Conference (VI Alekseev readings)]. Saint Petersburg: LEMA. 31–33.
- Veselovskaya, E. V. 2018. «Algoritm vneshnosti» — kompleksnaya programma antropologicheskoy rekonstrukcii [“Algorithm of appearance” — a comprehensive program of anthropological reconstruction]. *Vestnik Moskovskogo universiteta. Antropologiya* XXIII (2): 38–54.