

**MODERN RUSSIAN FACIAL RECONSTRUCTION SCHOOL**

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Mikhail Gerasimov was the first who invented scientifically substantiated method of individual facial reconstruction based on subjacent cranial structures analysis. Nowadays, the Laboratory of Anthropological Reconstruction of Russian Academy of Science is proceeding with his research concerning the problem of correspondence between facial structures and cranial elements. A large database containing information on facial soft tissues thickness of different ethnic groups (Mongoloids and Caucasians) has been created. The craniofacial correspondence program was also created, being an algorithm of transition from cranium dimensions and characteristics determined to corresponding facial dimensions and characteristics. A system of regression equations has been produced to calculate such characteristics as ear height and physiognomic facial height, nose and mouth width. Regression equations are also used to estimate such characteristics as nasal labial fold width and eye fissure dimensions. High correlation coefficient rates between mouth and dental arch width, orbit and eye fissure dimensions, nose width and juga alveolaria are demonstrated both for Mongoloids and Caucasians. Anthropological reconstruction today is successfully used in many fields of research, particularly in the historical persons' identification. For example, craniofacial reconstruction was used to identify the skull found in Ermolov's crypt. Alexey Ermolov was a Russian military leader, who took part in many great wars. According to historical records, the crypt contained the remains of A.P. Ermolov, his father and his son. Unfortunately, only one skull was found there. Another case was the identification of the skull found in Novoierusalimsky monastery, which presumably belonged to Arkadiy Suvorov, the son of the famous commander Alexander Suvorov. The method of craniofacial reconstruction is used to visualize anthropological data. A number of sculptural portraits of the ancient city of Palmira inhabitants was produced and matched to sepulchral images. The Laboratory also completed a number of early hominids' reconstructions, such as *Australopithecus afarensis*, *Homo habilis* OH24, *Homo rudolfensis* 1470. The above-mentioned method is widely used in forensic science (undefined remains identification). Special procedures have been worked out to reconstruct the appearance basing on mummified materials. The method makes it possible not only to reproduce main facial features, but to make a precise facial reconstruction, showing persons' individual characteristics.

**Key words:** *facial reconstruction, craniofacial identification, forensic science*

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