

ABSTRACT

Human face is one of the elements in which humans' variability and individuality is reflected. This is especially due to a face variability of shape. The aim of this thesis is to evaluate variability of human's face and its sexual dimorphism. The base for the study is a set of 50 females with average age 21,6 and 50 males with average age 21,1. The data set was processed using the methods of geometric morphometrics.

The main outcome is an average surface model of males and females which could be used in biomedical and forensic antropology. In this data set, variability of face is set by differences of size, height and width including characteristics which shows significant sexual dimorphism.

The male's forehead is slightly arched with markedly developed superciliary and the area of glabella. There is deeper position of eyes in an eye socket. Males are also likely to have a wide and flat nose with sharper transition of frontal bone (*os frontale*) into nasal bones (*os nasale*). Generally, males have bigger and relatively more narrow face with slightly prominent zygomatic bones (*os zygomaticum*). Males also have less volume of face soft tissues. On the other hand, males have more massive area of low face with more highlighted musculature around oral cavity which become into a wide prominent chin.

Key words: face; geometric morphometry; sexual dimorphism; Dense correspondence models analysis; PCA; FESA