



## Human Osteology

Human osteology or osteoarchaeology is the study of human biological variation in the past. Researchers within this field are not only interested in the physical aspect of the body, but also how biology, culture and environment interact to produce variation. Part of this variation is found in the bones and teeth. Since these are the hardest parts of the body, they have the greatest chance of being found in the archaeological record. Thus they form the bulk of direct information about the biological course of human evolution.

The shape of the skeleton is a reflection of the functions that it performs. Like the steel girders in a skyscraper, it provides a framework and support for the body. Vital organs (such as the brain) are protected by being enclosed in bone. Movement is accomplished by combination with the muscular and nervous system. The muscles attach to the bones and form a system of levers. As the muscles grow, they influence the shape of the skeleton. Most of the projections, nodules, and ridges that you will see were created by the muscles sculpturing areas for attachment. The skeleton is also responsible for the manufacture of blood cells and for the storage of various minerals so that the body can obtain them even if the diet is temporarily deficient.

The estimation of biological sex is one of the most important steps in the analysis of the archaeological skeleton and osteoarchaeologists use differences in male and female skeletal anatomy to do this. Humans are sexually dimorphic, although overlap in body shape and sexual characteristics is possible. Not all skeletons can be assigned a sex, and some may be wrongly identified as male or female.

In this webinar we will focus on what biological sex is and why this is important to estimate, how it differs from gender, and which bones and features we can use to estimate sex. In preparation for this class, I would like you to think about (without using Google) which bones and which aspects of bones would be different between males and females. You can compare your own skeleton with male/female relatives or friends. Please come up with three differences and write them down below.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_