

C1. Popular science abstract of a research project

Bioarcheology is a field of science combining traditional archeological research methodology with modern accomplishments of chemistry, biology and genetics. This allows to track down biological and health condition as well as the diet of ancient societies in regards to their socio-economic status. It furthermore enables to fully reconstruct the living conditions prevalent in the past.

In spite of many written sources describing the lifestyle of urban agglomerations preceding the times of Industrial Revolution (16th-18th century), there is still lack of complete information concerning the effects of direct social, cultural and economic changes on the health of preindustrial city dwellers.

In the conducted research we are utilizing modern bioarcheological methods to reconstruct domestic conditions and health profiles of Wrocław residents before the time of Industrial Revolution. Living conditions in the restricted area of the city were quite unique. Constantly increasing population density exacerbated by the lack of organized municipal services and primitive healthcare facilitated epidemiological hazards. Those risks were further potentiated by the specific microclimate resulting from a developed network of canals related to the former city moat.

The project is being pursued by the team of anthropologists, archeologists, historians, radiologists, chemists, histologists and molecular biologists, basing on the newest research technologies. The use of macroscopic anthropological methods will allow to determine the structure of sex and age as well as the initial evaluation of health condition. The analysis of the most intriguing cases will be complemented by histopathological and biochemical research results, while the analysis of elemental and isotopic composition of bones, teeth, dental plaque together with the study of microtraumas and defects in enamel will allow to fully investigate the dietary habits of Wrocław's population.