The Mazovian Centre of Ancient Metallurgy (Mazowieckie Centrum Starożytnego Hutnictwa, hereinafter MCSH) was the oldest and second largest iron production centre in barbarian Europe in the late pre-Roman period and the Roman period (2nd century BCE–4th century CE). Located to the west of Warsaw, its area covers mainly the eastern part of the Łowicko-Błońska Plain.

The metallurgical centre in Mazovia was discovered in the late 1960s by Stefan Woyda. During his pioneering archaeological program of field surveys, he recorded about 1000 new archaeological sites. Traces of iron smelting were discovered at more than 200 of them. As a result of later excavations at selected settlements of the people of the Przeworsk culture, traces of thousands of furnaces were discovered in the form of slag blocks, which remained at the smelting site as post-production waste. It is estimated that the total number of furnaces in the MCSH area falls between 120,000 and 150,000. The main ingredient in iron production was bog iron ore. Other requirements included charcoal for fuel during the smelting process, clay for the construction of the chimney, and water, which was used to prepare ore for smelting and to build the furnace chimney.

The research under the project will focus on two aspects. The first one will involve investigation of Przeworsk culture settlement in the MCSH region. Spatial relations of said settlement in relation to local deposits and other environmental conditions will be examined. This will make it possible to answer the question of whether the formation of the centre of specialised iron production in western Mazovia was determined by the natural environment, or whether the genesis of the MCSH is instead related to other factors. In addition, the settlement pattern, defined as the way in which people distribute themselves in space, will be studied to understand the relationships that existed between the various settlements, production settlements and cemeteries, and, as a result, to identify the most important points on the map of the MCSH. These analyses will be conducted using a Geographic Information System (GIS).

The results of preliminary research have shown that the geographical extent of metallurgical activity reaches well beyond the previously established boundaries. The ever-growing database indicates that 283 sites with confirmed metallurgical production are currently known in the defined area. New clusters can be distinguished in the vicinity of Nadarzyn, Piaseczno, Łomianki, on the Jeziorka River and by the mouth of the Bzura River. In view of the above, a new attempt at identifying and defining the limits of the iron production phenomenon in ancient Mazovia will be made.

Other research questions are devoted to the issue of smaller settlement units within the MCSH structure. A study of the selected micro-region will help determine whether individual settlements functioned simultaneously, or whether the location of individual points changed over time. A thorough investigation of settlement points will also allow an attempt at specifying the dating of the Mazovian metallurgy, which currently falls on a broad chronological range.

The project undertaken will fill the gap in the study of the Mazovian metallurgy, as well as yield new information concerning the very phenomenon of iron production in late antiquity in European *Barbaricum*.