

Summary of the main results

Between October 2017 and December 2018, the gas pipeline operator Open Grid Europe GmbH (OGE) constructed a 75 km long loop line between Forchheim in the municipality of Pförring, administrative district Eichstätt, and the municipality of Finsing, district Erding. The installation of this 1 m diameter pipe was subject to a cultural heritage preservation order, as the construction endangered known and suspected archaeological sites. It was therefore classified as a "linear project" requiring archaeological supervision and excavation where necessary, by the Bavarian State Heritage Office. For this project, bearing the name "Loop Line Forchheim-Finsing" (LFF), three private archaeological excavation companies joined together to form a consortium (ARGE), namely the ADILO GmbH Archäologische Dienstleistungen F. Loré, the Büro für Ausgrabungen und Dokumentationen Heyse GmbH & Co. KG and the Pro Arch Prospektion und Archäologie GmbH. The project was preceded by a section of the same operator's route ("Loop Line Schwandorf-Forchheim" LSF) between Schwandorf in the Upper Palatinate and the aforementioned Pförring, district Eichstätt. While the majority of the individual route sections contained only isolated, relatively small archaeological sites, section 26, excavated by the Pro Arch Prospektion und Archäologie GmbH under the direction of Johannes Gilhaus and Sebastian Hornung, provided an insight into a complex Bronze Age cultural layer.

The site is located on a slight natural elevation in the gravel floodplains south of the Danube. It extends the entire width of 25 meters of the examined area and was approximately 60 meters long. Geologically, the site is unusually located between two oxbows of the Danube, of which the southern one is silted up and the northern one remains only as a trickle. It has been shown that the area was repeatedly flooded and finally covered by younger sediment, thus preserving it. Approximately 400 m southwest of the site, an excavation in 2007 already revealed what is most likely the same cultural layer. This site was located between the same Danube oxbows which are easily recognizable as incisions in the landscape. The densely packed pottery sherds of this layer were at the time dated into the Late Early Bronze Age to Early Middle Bronze Age (c. 2000–1650 B.C.), which was confirmed by the current project. However, it remains unclear whether this is the same, perhaps slightly displaced settlement layer, as, if it were part of a single, continuous settlement, it would have been extremely large.

In order to adequately document the considerable amount of finds in the examined area, the excavation employed a 2 x 2 m quadrant method. The aim was to document and analyse the spatial distribution of finds and features within the layer. The excavation yielded dozens of post holes, some burned areas and large pottery concentrations, testifying to a Middle Bronze Age site with above ground buildings and some intensively used areas.

One particularly valuable aspect of the excavation is intense archaeobotanical sampling of the cultural layer, which was conducted in at least every second quadrant. At this stage the results have not been fully evaluated. Nevertheless, the procedure employed, enables important insights into the environment and surroundings of the site and human landscape usage in the Bronze Age. A preliminary analysis of the archaeobotanical samples revealed that extensive cereal cultivation was practiced (emmer, naked wheat, spelt).

Their charred remains were discovered in an area interpreted as a possible "pot sherd pavement". The pottery sherds, partly belonging to almost complete vessels, were distributed in a carpet-like fashion over a relatively large area. Within this area, an elongated almost rectangular concentration of deliberately positioned stones (marker?) was documented, and became to be interpreted as the possible centre of a square. Similarly to the rest of the area, minute fragments of calcined bone were observed amid these stones. Although the stone "marker" was unique at the site, six other hearth/like features without stones, were also discovered. Common to all of these was the close proximity to areas of "pot sherd pavements".

The analysis of the spatial distribution of finds revealed striking patterns. Some zones displayed a significantly higher density of finds. Even more striking was the separation of agglomerations of pottery and animal bones: Concentrations of pottery, were frequently accompanied by corresponding, yet slightly separated concentrations of bones. This contrasts the burnt areas, which were always characterized by a considerable density of both bone and pottery. This results in a picture of about six scattered "activity zones", which each include three criteria - a high density of pottery, a high density of animal remains and hearth-like features.

Post holes identified at the site did not contain finds and their positions do not form clear patterns offering indications of the types of constructions they belonged to. However, some proved to be remarkably deep.

Finally, the character of the site can be discussed as a whole: While apparently selected shattered pottery, the presence of calcined animal bones (probably not skulls, but teeth) and burnt areas as well as stone "markers" may at first glance appear to indicate a ritually used site, they could, on the other hand, also equally conceivable, be the ordinary remains of processing foods such as meat, fish and plants. The lack of tools does not necessarily refute this assumption, as metal tools would presumably have been too valuable to simply dispose of. Their lack may even signify a "non-cultic" character of this site.

The unusual location of the site in the Danube floodplain, the method of excavation and the high number and density of archaeometrical samples taken for further scientific investigations, also offer excellent avenues of future research with the potential to make significant contributions to the study of Bronze Age sediments in Bavaria.