

Geophysical Mapping of Archaeological Structures in Sachsen-Anhalt/Germany

In August 1993 the section "Geophysics" was established at the Landesamt für Archäologie (LfA) as part of the section "Naturwissenschaften" (Sciences). Legal basis for the protection of archaeological monuments in Sachsen-Anhalt is the "Denkmalchutzgesetz" (the law for protection and preservation of ancient monuments).

The geophysicist at the LfA supports the archaeologists before and during exvacations with detailed mapping of archaeological structures indicated by archaeological aerial photographs. Main objective of geophysical mapping is to locate and document monuments with high precision in order to support their protection

Geomagnetic and resistivity mappings are carried out with a fluxgate-gradiometer FM 36 and a resistance meter RM 15 (Geoscan Research, Bradford, England). Since 1993 nearly 20 monuments have been mapped.

Following projects will be presented in detail:

Geomagnetic plots reveal a circular enclosure with three entrances and two interior palisades at Goseck, Landkreis Weißenfels. The circular monument has a diameter of approximately 36 meters and is probably of Early Neolithic Age (Trace Plot).

A curvilinear double ditched enclosure (Late Bronze Age?) was discovered beside the River Bode near Wegeleben, Landkreis Halberstadt and geomagnetically documented (Shade Plot).

The site of the totally vanished castle "Gottau" in the Elbe river plain at Ranies near Magdeburg, perhaps 12th-15th century A. C., was geoelectrically mapped with a method 1m-twin with a raster of 1 meter (Special Shade Plot).

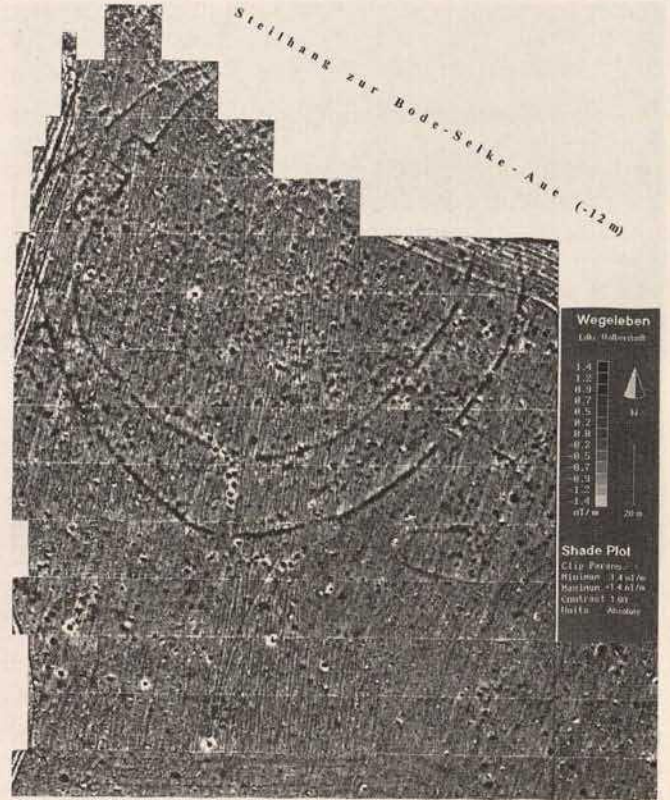


Fig. above. The curvilinear double ditch enclosure beside the river Bode near Wegeleben, Landkreis Halberstadt, probably Bronze Age; shade plot of the geomagnetic mapping

