Monuments and More - Archaeological Geodata in Saxony
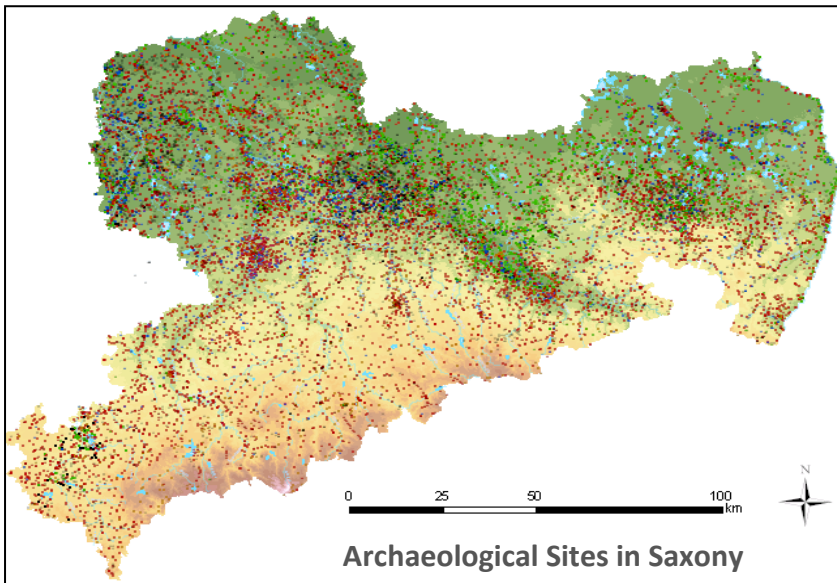

Archaeological Sites in Saxony

The **information system** of the Saxon Archaeological Heritage Office was developed with the aim to record, store and present archaeological data from Saxony (Germany).

Because of their geographic reference these information are managed with a geographic information system (**GIS**) in cooperation with a powerful database.

The current structure of **archaeological geodata** is the result of many years of experience. It contains archaeological survey areas, archaeological sites and monument areas.

Archaeological survey areas are areas that were surveyed with archaeological methods, not regarding any results and so rated as archaeological neutral.
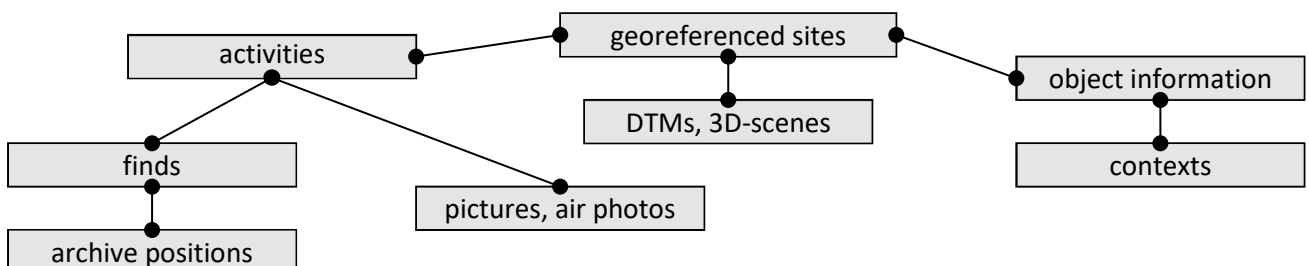
Archaeological sites are areas that yielded archaeological knowledge in an archaeological positive or negative sense:

- **Positive sites** are areas where traces of human life were detected, with proven extent and independent of the current preservation status. Find spots (not invasive surveyed) and excavation sites (invasive surveyed) belong to positive sites.
- **Negative sites** are intensive surveyed areas without any traces of human life.
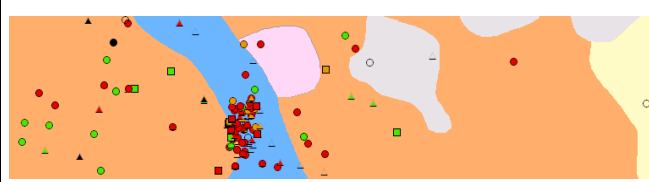
Monument areas indicate a supposed extent of on-site preserved archaeological traces, representing heritage protection as stated by law.

survey areas (yellow) with excavations (violet) and single find spots (orange) *

monuments ensemble at the river Elbe *

Beside the directly geographically related data there is a large amount of further textual data, closely related to the sites. These are e.g. object information (type, dating …) and activity information (surveys, excavations …) as far as information on finds, documentations, pictures, air photos and 3D scenes:

As **spatial base data** we particularly use data of the surveying department, mostly topographic maps with scale 1:25000 or orthophotos. Because of better performance we hold a copy of the topographic maps data, but we can also receive them as web map service directly, just as the orthophotos and many other map data.
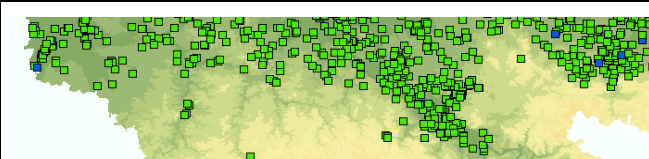

archaeological find spots and soil type overview * | archaeological find spots and conservation areas *

Based on these combination of spatial and textural data many different kinds of **queries** are possible. You can easily create thematic maps, e.g. with find spots of special epochs or with activity sites of a given year. Of course you can find all information on regional find spots, for example within a given distance to a planned new road. Heritage protection statements regarding municipal building plans can be created fast and easily as traditional map or as **digital spatial data** to be sent by e-mail.
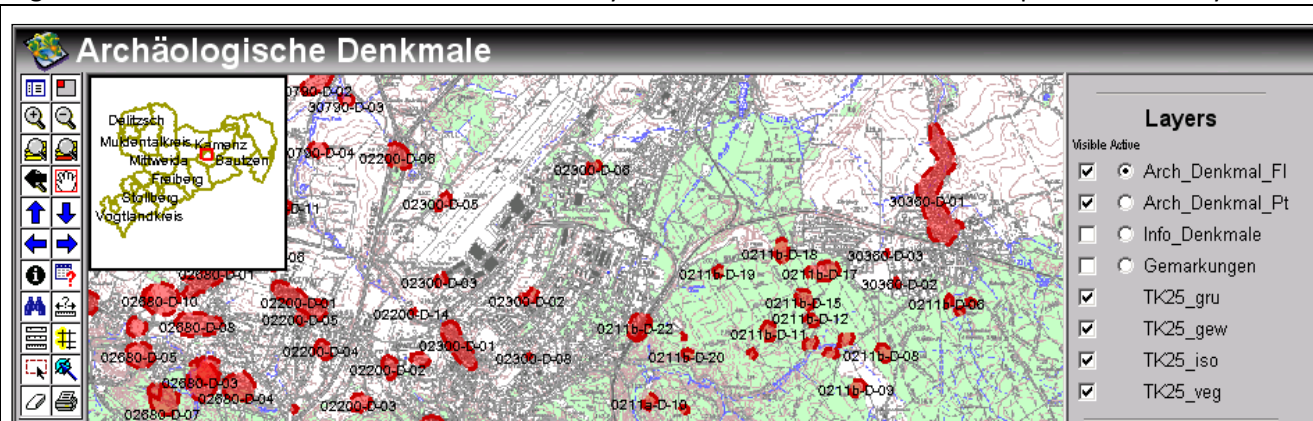

selection: bronze age burials, elevation levels | selection: excavations in the year 2000, overview map

Within our department the spatial archaeological data is available via network access to all colleagues. It is available as **web map service** (WMS) and can be displayed by WMS viewers. These services are compatible with the standards of the Open Geospatial Consortium (OGC) and can be used to publish archaeological heritage areas at the World Wide Web as demanded by the **INSPIRE** initiative of the European Community.
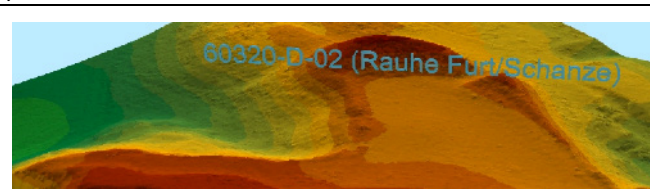

WMS viewer with presentation of archaeological monuments *

Digital terrain models (DTM) support **3D views of archaeological scenes**. With the help of high precision airborne laser scans it is now possible to improve the documentation of preserved archaeological structures over ground and even to discover objects (e.g. grave-mounds) that where unknown until now.

bronze age grave-mounds (shaded relief) * | bronze age wall (digital terrain model) *

* The figures show map details that were created using our own archaeological spatial data, publicly available web map services of the "Landesvermessungsamt Sachsen" and the "Landesamt für Umwelt und Geologie Sachsen" respectively airborne laser scans of the "Landestalsperrenverwaltung Sachsen".