

# Rural land use and the management of the archaeological historical landscape: a European perspective

M. Strobel, Th. Westphalen, Problems and perspectives of archaeological heritage preservation in agrarian landscapes in Germany - a survey of federal structures



Federal Republic of Germany: Cultural sovereignty of the federal states - federal fragmentation of administration

16 federal states – 16 monument conservation laws – 16 state offices for historical monuments, depending on the federal state government and the political coalition in different departments

16 ministries of agriculture/environment, overlapping of departments

At least 16 special administrative authorities



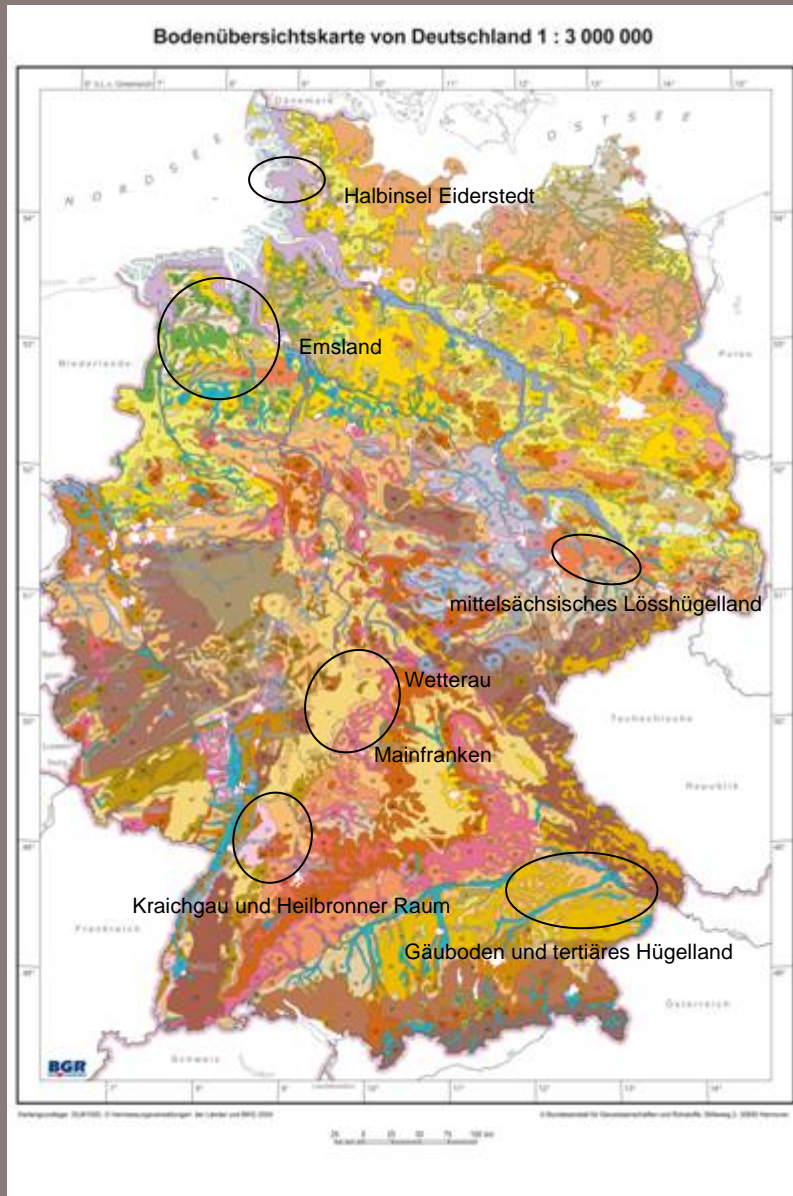
Varying business sizes because of different agricultural developments

„Old federal states“: Northern Germany: average business size: 60 hectares, size of cultivated area: 3 hectares

„Newly-formed states“: agricultural cooperatives (succeeding the Agricultural Production Society) often mixed businesses: 1500-3000 hectares  
Firms that re-established business after the reunification, Market crop businesses : 400-800 hectares  
Special crops: 100-4000 hectares  
Size of cultivated area: 20 hectares

„Old federal states“: Southern Germany: business sizes: 20-60 hectares, size of cultivated area: 1,6 hectares;  
fragmentation of property through division of real estate in real term

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## Different landforms, different problems

Lower Saxony, Emsland: deep amelioration with the marsh plough up to 2,5 metres for gaining new acreage (maize) for pig fattening farms.

About 20 % of the area were destructed.

Schleswig-Holstein: Peninsula Eiderstedt: destruction of prehistoric and medieval cultural landscapes through ploughing up of grassland for the cultivation of renewable resources (biogas plant); destruction of significant structure elements of the historical cultural landscape (dikes, sinuosities, canals etc.) as well as dwelling mounds.

Bavaria, Baden-Württemberg, Hesse, Saxony: Fertile Loess-Landscapes with a high density of sites/monuments. Old settlement landscapes for 7500 years. Significant loss of sites through intense farming, especially water erosion and mechanical shiftings.

Solutions still have be found on a federal state basis and management concepts must even be developed on regional and local terms. Merely methods, proceedings and basic strategies are transferable.

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Lower Saxony, Emsland (Dr. Hennig Hassmann, Dr. Jana Esther Fries)



## Lower Saxony: Emsland

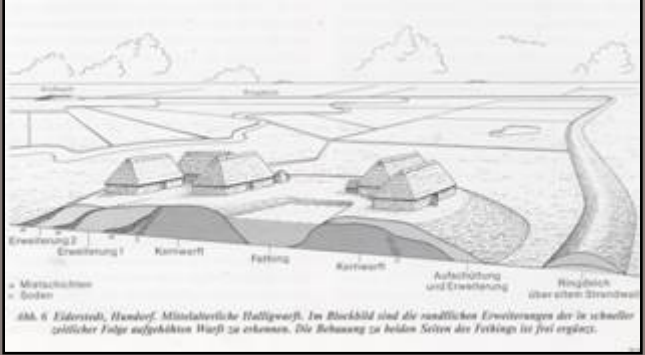
In the Weser-Ems area about 2800 km<sup>2</sup> of marsh and moorlands were ploughed up up to 2,5 meters deep in order to gain acreage as part of an amelioration. This equates to 20 % of the whole area, which must be regarded as archaeologically „dead“ negative sites. Already around the middle of the 20th Cent. the ploughs used for these processes were of huge size.

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Schleswig-Holstein (Dipl.-Ing. Gabriele Schiller)



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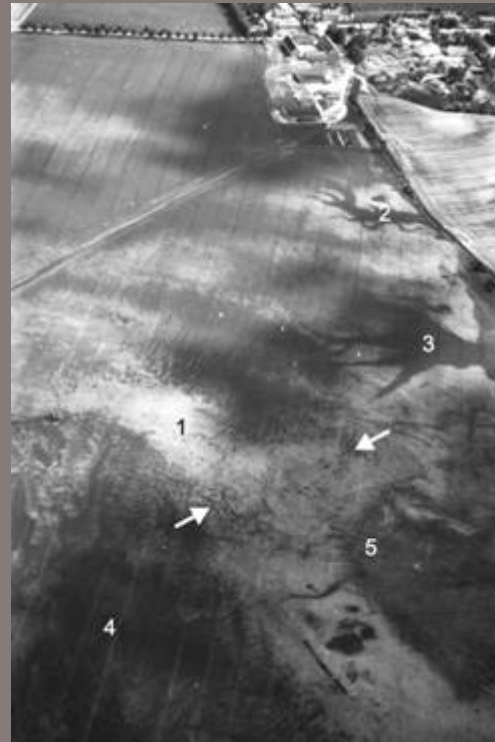


Destroyed dwelling mounds

Destroyed dike, 12. Cent. AD



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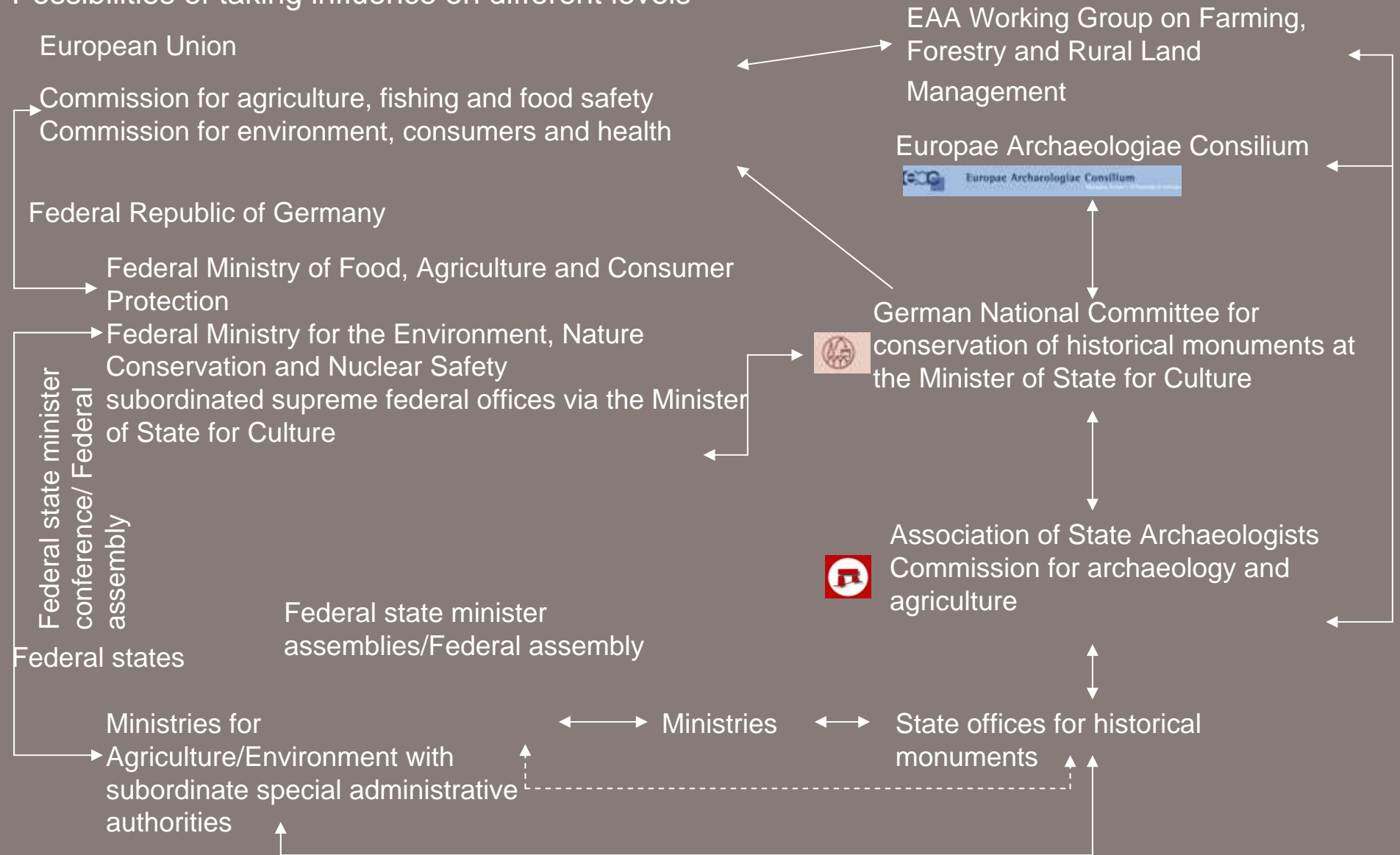


## Baden-Württemberg, Bavaria, Hesse, Saxony

In the fertile loess areas, which are marked at the same time by a specifically high density of sites, archaeological monuments are threatened by water erosion and mechanical shiftings, partly they are already irreversibly destroyed. Since the late 1970s aerial pictures have been showing the effects of these processes. The picture seen from the air is clearest in special relief positions which also corresponds to a high degree of destruction. However in planation areas structures are usually better preserved.

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## Possibilities of taking influence on different levels



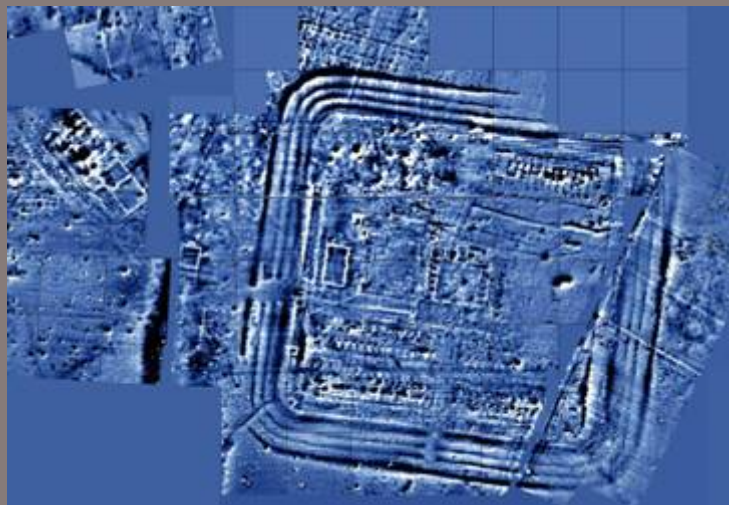
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Case study: Bavaria (Dr. Andreas Büttner)

Herlitzheim, distr. Schweinfurt, Tumulus taken out of use



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## Roman fort area Ruffenhofen

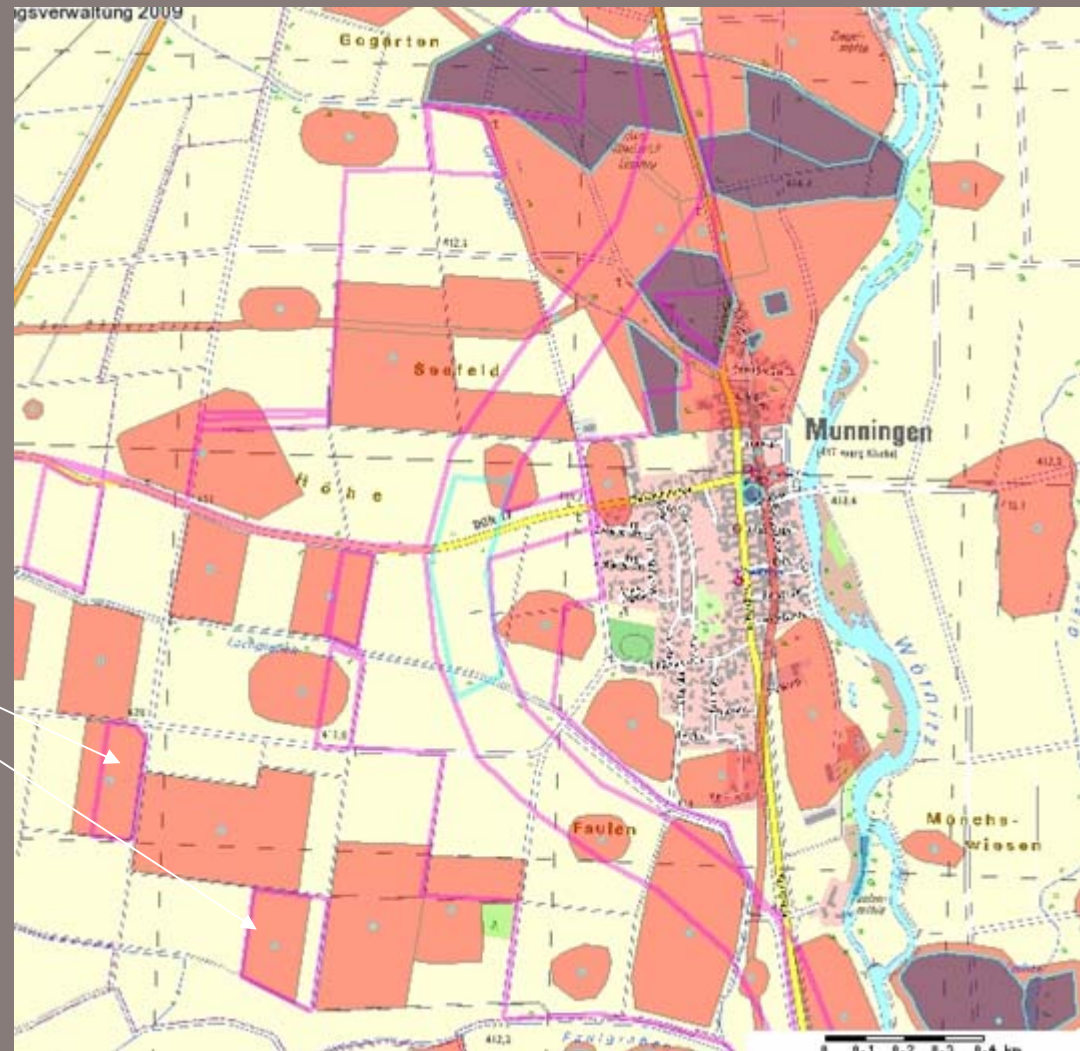
Within a leaderproject by the Rural development Office, 40 hectares of the fort and vicus area, Ruffenhofen, distr. Ansbach, were taken out of use on a permanent basis since 2003.

Funding: European Union Program Leader+  
Monument Conservation Service Bavaria  
ARGE District Ansbach  
District Ansbach  
Rural development Office Middle Franconia  
Bavarian State Ministry for Agriculture

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## Planning of the Local Bypass Munningen P-2008-299

Pink bordered areas: Planning of  
Local Bypass Munningen  
and compensation areas.  
Compensation areas  
Mostly clover meadows  
– effective protection in  
monument areas



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## Case studies: Saxony, Project Archaeology and Agriculture in the Lommatzcher Pflege

principles

- Voluntary participation
- Dispensing with restrictions
- Partnership
- Participation
- Communication
- Networking
- Commitment as self-Commitment

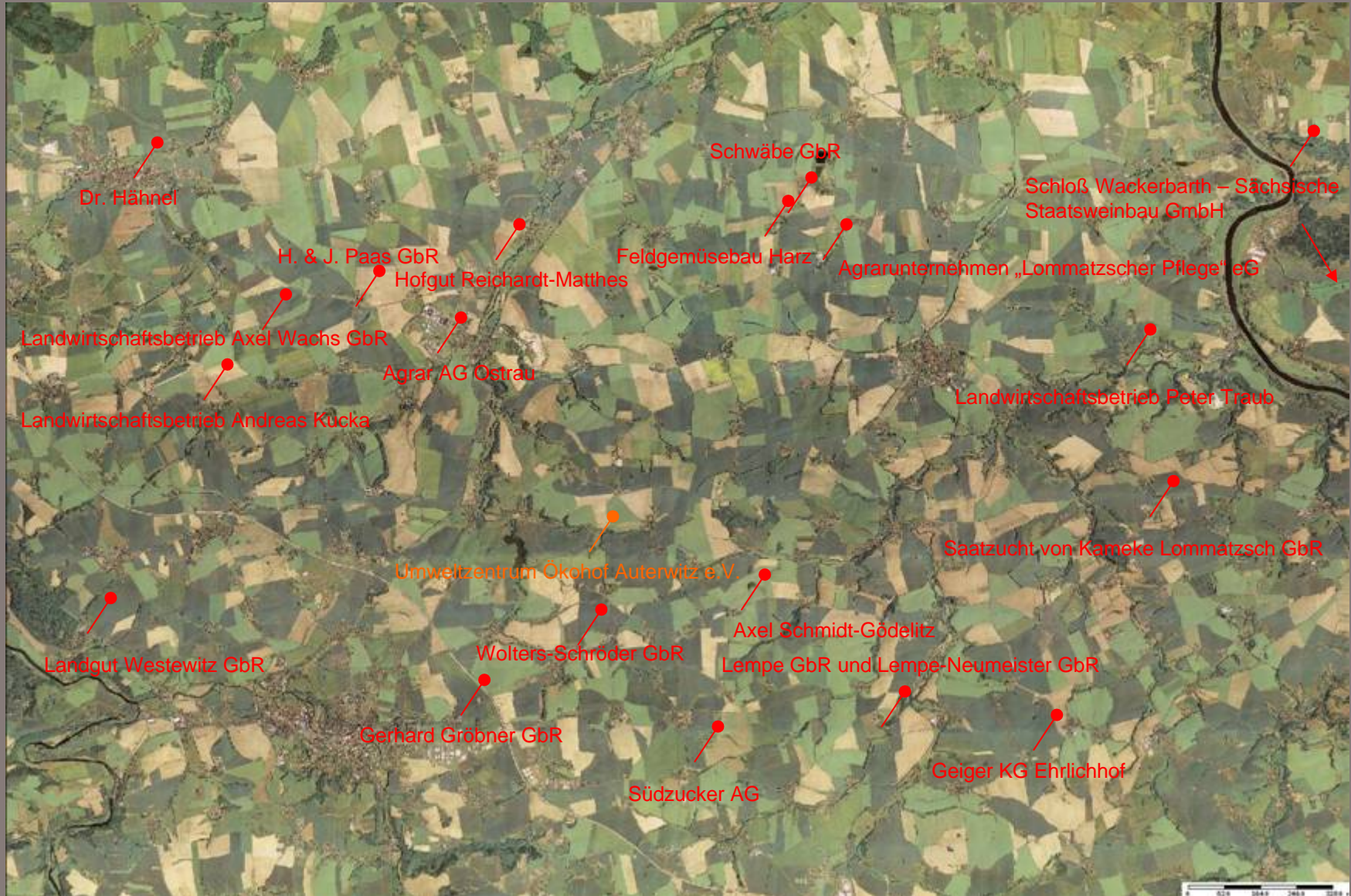
Partner

- Archeological Heritage Service
- Environmental Centre Ökohof Auterwitz e.V.
- Saxon State Ministry of the Environment and Agriculture
- State Office for Environment, Agriculture and Geology
- Town Lommatzsch
- Förderverein für Heimat und Kultur in der Lommatzcher Pflege e. V.
- Landesverein Sächsischer Heimatschutz e. V.
- Association of State Archaeologists in Germany
- TU Bergakademie Freiberg
- H&G GmbH
- geobild Stolpen



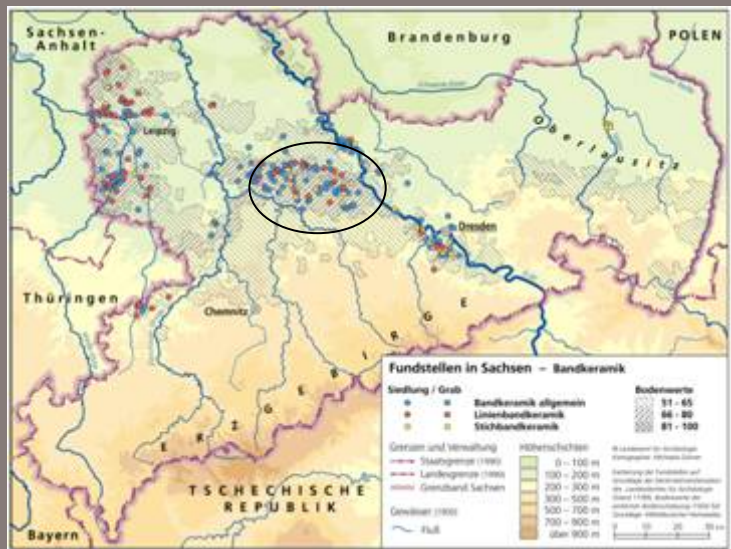
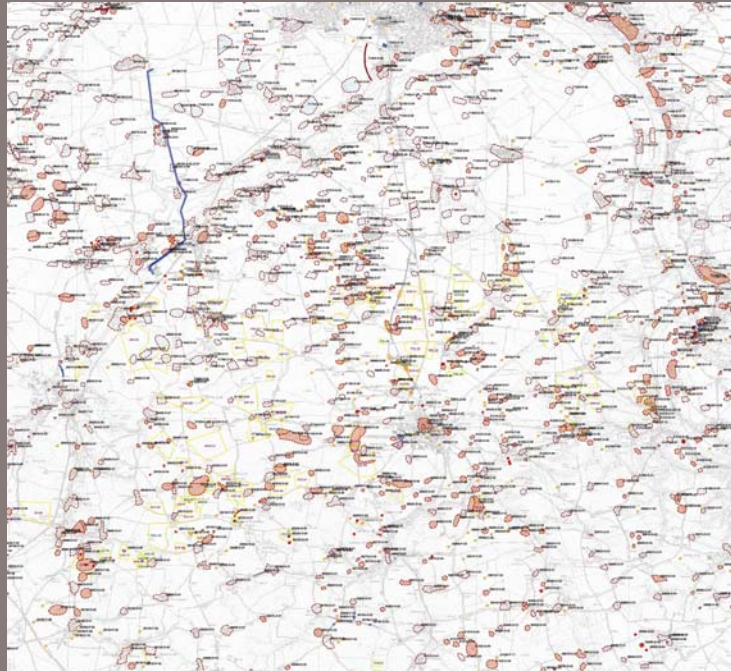
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Partner businesses



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Potentials



About 650 known sites on 300 km<sup>2</sup>  
 More than 7000 years of agricultural tradition  
 "Soil archive": More than 7 millennia of cultural history  
 Settlements - fortifications – burial sites

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Destruction due to measures of land consolidation

Dangers



Gradual destruction due to water erosion

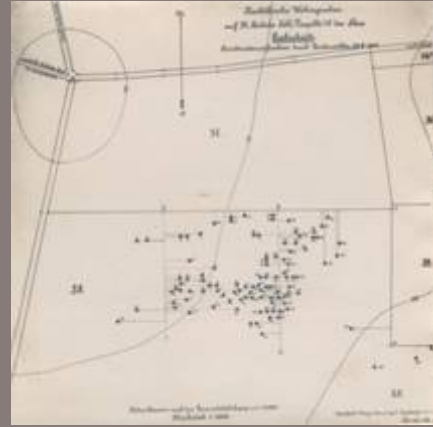


Gradual destruction due to mechanical shiftings and sowing

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Chances



## Farmers as Archaeologists: a more than 100 year old tradition



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Kommunikation



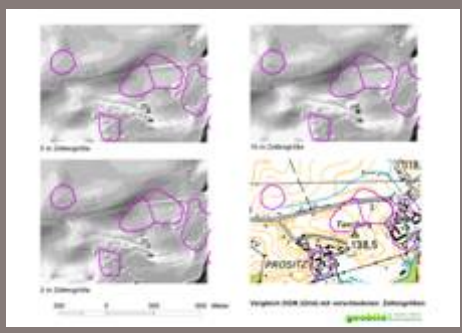
Knowledge transfer through counselling, guided tours, presentations, exhibitions, press work and Internet





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Gefahren Identifizieren, Konkretisieren und Bewerten



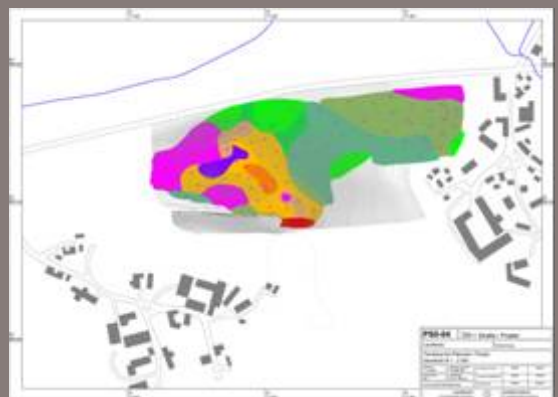
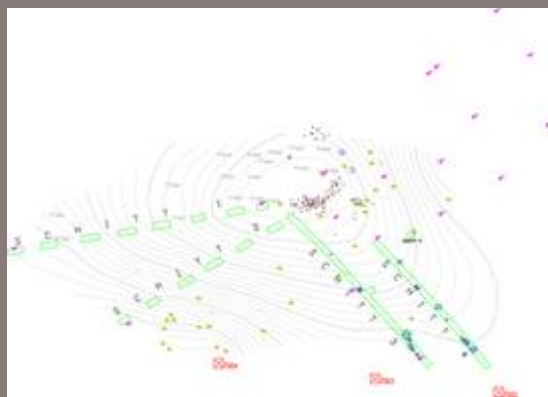
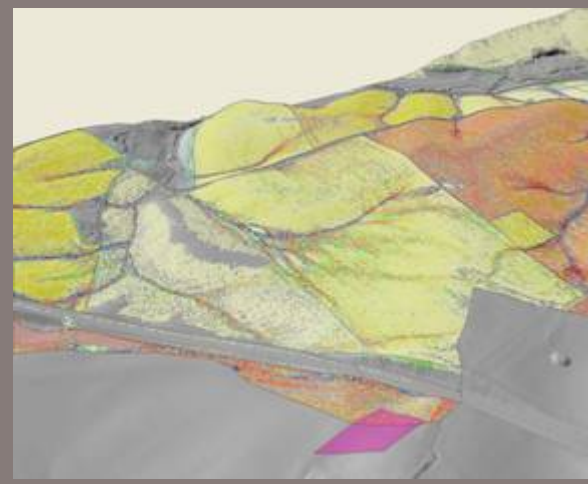
E3D-Models



Test excavations



Drill core tests



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Maßnahmen

### Cultivation

- Non-shifting cultivation
- mulch or direct sowing
- working parallel to slope
- area-oriented cultivation
- dispensing with loading and storageplaces on archaeological sites (e.g. turnips)

### Crop rotation

- cultivation of catch crop (green manure)
- cultivation of crops which effectively cover the soil



### Property

- closing down acreage
- partial reorganization of acreage into permanent grassland
- Structuring/Reduction of slope profiles through planting in sections/ land consolidation
- swapping/-buying acreage (e.g. for "eco account", compensation area pool)
- splitting of acreage



Grünland