## Geophysical Prospection of Linearbandkeramik Sites in the Landscape Archaeology of the Western Wetterau and the Usinger Becken, Hesse, Germany

The Linearbandkeramik is the culture of the earliest farmers in Central Europe (5,500–4,900 B.C.). The project "Bandkeramik Settlement History in the Mörlener Bucht" of the Johann Wolfgang Goethe-Universität Frankfurt/M. has the objective to learn to know more about the settlement-system of this culture and its history starting from the beginning of the using of the landscape for settlements, gardens and fields up to the collapse of its cultural system.

With this aim the project investigates the Bandkeramik settlement of a 60 km² area of the settlement area called Mörlener Bucht between the cities Butzbach and Bad Nauheim in Hesse, Germany. The results of different archaeological field methods should be linked to the knowledge of the physical features of the landscape. The field work has a main stress on large-scale and non-destructive methods like intensive fieldwalking, in some cases providing the coordinates for each object, and surface plots of the topography linked with geophysical prospection. Only few excavations should be done to prove the character of selected features. It is the task of the geophysical prospection to investigate settlements in large scale. It should help to show their extension and structure.

Up to now several large fluxgate-gradiometer surveys with more than 30 hectares at six different areas of investigation have been carried out. Settlements, which are situated off the well investigated fertile landscapes or which seem to have a distinct function are of special interest. At the site of Wehrheim-Friedrichsthal, situated in a settlement area recently revealed, a first small magnetometer survey showed a typical ground plan of a Bandkeramik house with respect to its form. Several of such ground plans have been detected at the site of Butzbach-Fauerbach. One outstanding specimen is an almost completly preserved ground plan with a horseshoe-shaped ditch of the northwestern walls and several postholes, measuring about 40 m in length. Furthermore features have become visible, which might be linked with the supposed exploitation of hematite in Bandkeramik times at this site.

Fig. Wehrheim-Friedrichsthal, Hochtaunus District, Hesse; Linearbandkeramik settlement. 256-gray-scale plot of the fluxgate-gradiometer survey in comparison with the ground plans of Bandkeramik houses at the site of Friedberg-Bruchenbrücken, Wetterau District (J. Lüning, Die Anfänge der Landwirtschaft vor 7000 Jahren: Ausgrabungen in Friedberg-Bruchenbrücken, in: V. Rupp (ed.), Archäologie der Wetterau [Friedberg 1991] 100). Order from the Seminar für Vor- und Frühgeschichte, Johann Wolfgang Goethe-Universität Frankfurt/M.

