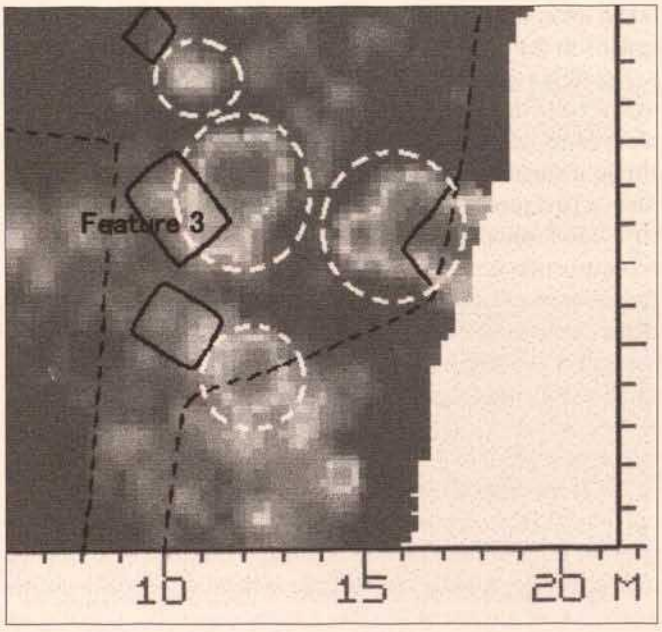

Fig. 3. Portion of time-slice image, showing strong anomalies (circled) indicating locations of chambers in relation to the corresponding shafts (rectangles)

file (Fig. 2), and horizontal time-slice analysis (developed by D. Goodman) showed these correlated closely with the shafts previously located by the Prefecture, presumably indicating the directions in which the chambers lie (Fig. 3). As no such anomaly was seen in association with Feature 8, however, it was provisionally concluded from the GPR results that the identification of this feature through conventional excavation as a grave shaft was mistaken.

The conclusions derived from the GPR survey were subsequently tested through limited excavation in December 1998. Feature 8 was sectioned east-west, with the southern half excavated, showing it to be a shallow pit ending shortly below the modern surface, and not leading to a chamber. Similar sectioning of Feature 3 (Fig. 1, 4) confirmed the existence of a passageway entrance on the northeast side of the shaft, as suggested by the time-slice images. Careful examination of the section showed that the chamber had been reopened after its initial construction, presumably for the purpose of a subsequent burial, and that the entrance had been sealed with a thick wooden board, rather than stone slabs (Fig. 1). Observations such as the latter are beyond the current capabilities of research by prospection alone.

Finally, a hole was opened through the dirt filling the entrance to the chamber of Feature 3, and first a miniature video camera, then a digital still camera were inserted, both attached to the ends of long poles, to obtain visual images of the chamber's interior. The digital camera in particular provided useful images showing the skeletal remains of two or more individuals, at least one of whom was an adult female, which had been arranged after decomposition of the flesh along the back wall of the chamber.

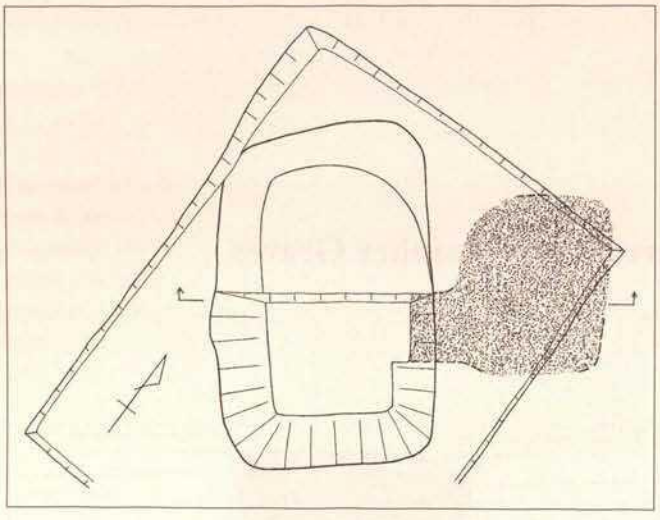

Fig. 4. Plan of Feature 3, sectioned, with outline of associated chamber (shaded, drawing based upon visual inspection)

G. Fuchs, I. Kainz

Archaeological Prospection for the Koralmbahn in Austria

A new high capacity railway line, the socalled Koralmbahn, is planned to connect the cities of Graz and Klagenfurt in Southeastern Austria. In the East of the Koralm range, which will be passed by a long tunnel, it runs through the Laßnitz Valley, where numerous archaeological sites from the Neolithic to the Roman periods were expected, but only a part was known.

For the evaluation of possible impacts to the archaeological heritage existing data were not suitable, so a systematic archaeological survey was carried out to cover the whole valley floor completely for a length of ca. 20 km. Different methods were applied in combination to check reliability of observations and to facilitate interpretation. In addition to the ground survey, aerial prospection was carried out. The detailed mapping of morphology made it possible to detect some regularities in site distribution and to define important parameters for the positioning of settlements. As the valley is still flooded today, the deposition of

alluvial sediments and the possible occurence of sites below younger sediments had to be investigated by a number of boreholes at selected cross profiles.

The project was carried out, including preparatory work, fieldwork, interpretation of data, generating of digital maps and preparation of the final report within six months from March to August 1997. The archaeological digital data (Arc/Info files) were introduced to the Styrian land information system (GIS Steiermark) to be used for other planning purposes also.

The 41 unquestionable sites belong to 47 findspots of nearly all periods from the Aeneolithic to the Modern Periods, 38% of them are Roman. 86 areas were defined as possible archaeological zones (Fundhoffnungsgebiete). Due to the low density of prehistoric or Roman finds or ambiguous evidence; here more detailed prospection measures must be applied to interprete the occurence of finds.

As an unexpected result it could be shown that Roman sites situated even on the lowest part of the valley floor are not covered by alluvial sediments, indicating that floods did not affect them. A complete Roman landscape with *villae rusticae* and settlements or single buildings of different types was investigated. The distances between them are 1.5 to 2.2 km for the large ones and several cases 0.5 to 0.7 km only. Parts of the Roman road, levelled burial mounds and settlement sites were observed by aerial prospection as well.

All sites detected were graded according to their cultural and scientific significance providing basic data for decision making in the planning process. It has to be stressed that the sites were already known in the *earliest stage* of planning. This provides the key to introduce archaeological sites like other environmental data with the goal to minimize impacts, so the chance for the preservation of important sites is improved considerably. Measures for the further stages of the project, which are necessary from the archaeological point of view, were proposed as a guideline. For example, intensified prospection including geophysics, soil probing, the archaeological involvement during the construction works and excavations, where necessary.

The excellent cooperation between the planning authority (Eisenbahn-Hochleistungsstrecken AG, Projektleitung Koralmbahn), the Sites and Monuments Office (Bundesdenkmalamt), the direction of public works of the Styrian Government and the firm carrying out the archaeological prospection and evaluation (ARGIS) may be considered as a model for future large scale construction works in Austria.

C. F. Gaffney, J. A. Gater

Popularising Archaeological Geophysics: The "Time Team" Experience on British Television

A three day time constraint, minimal information on the expected archaeology, even less details about the site conditions and a director with three camera crews and a script demanding instant results. These are the challenging conditions faced by archaeological geophysicists working on the popular Channel 4 *Time Team* series in the UK. Yet experience gained in the day-to-day world of archaeological evaluation work in Britain is ideal training for such a challenge.

Nearly 60 programmes have been made, viewing figures are regularly over 3 million people and the series has been sold worldwide to the Discovery Channel. Using results from the first seven series, including those not transmitted, this paper will demonstrate how the problems and constraints are overcome. Discussion will also consider the two transmissions that have been broadcast "live" over holiday weekends. The ethics of "simplifying" often very complex science will be considered, as will the problem of making geophysics exciting without being professionally challenged. The integrity of the programme will be contrasted with experiences on other archaeological television programmes.