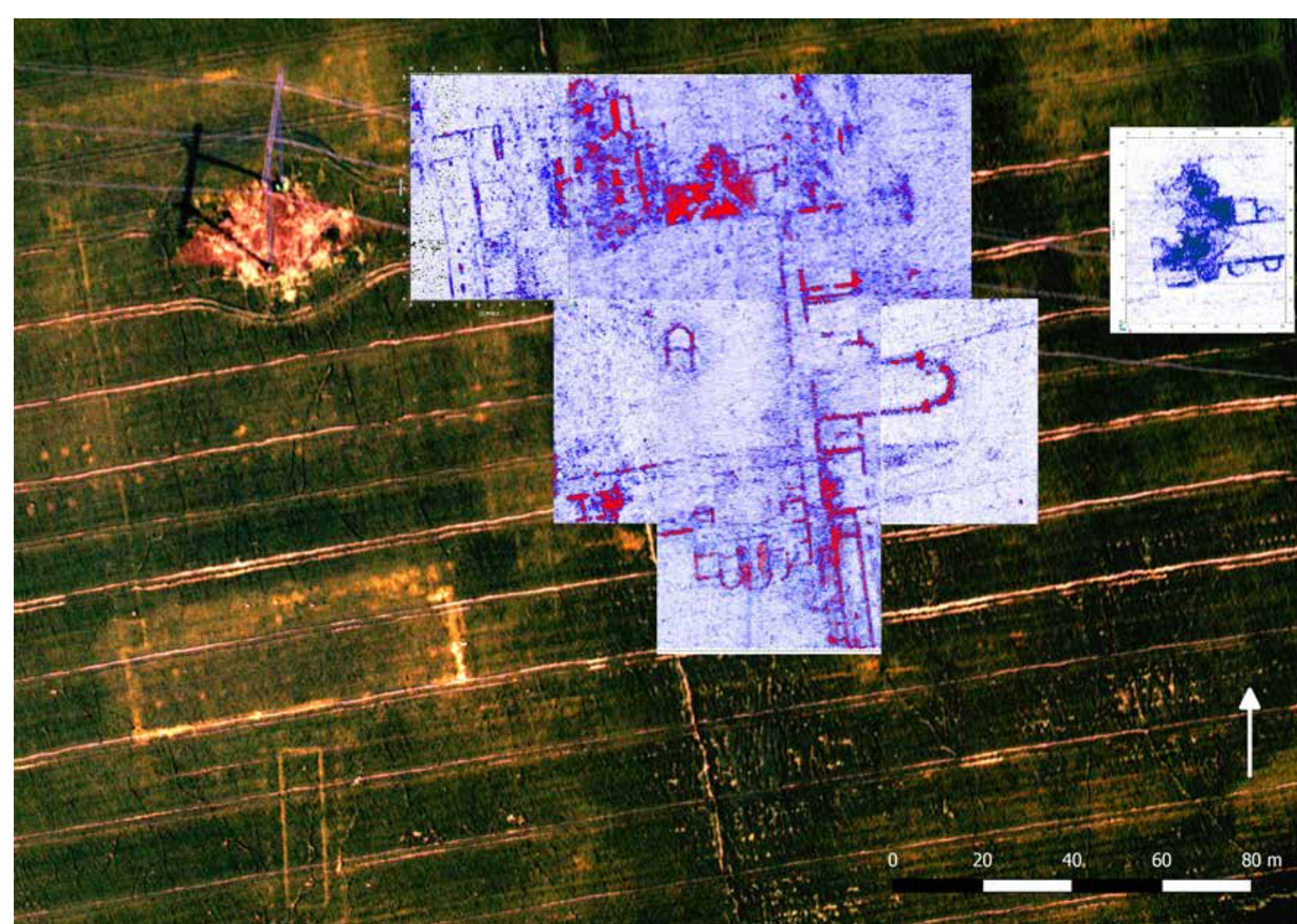


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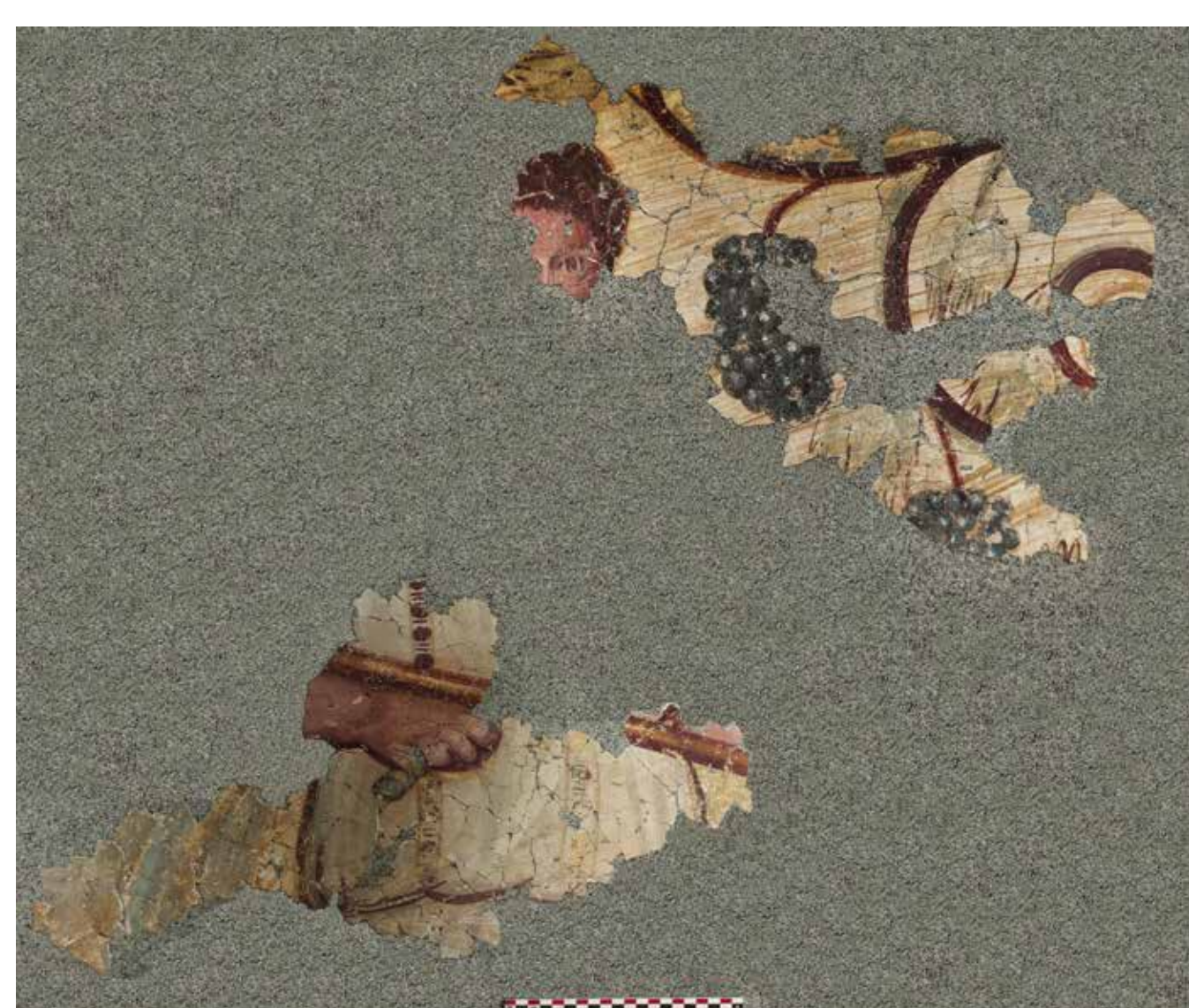
lovía (Pannonia): painted walls of a late Roman palace complex



1. Part of the palace complex (Aerial image, Ground Penetrating Radar) (G. Bertók).



2. Human figure in a grape arbour. Restored wall painting detail (E. Harsányi).



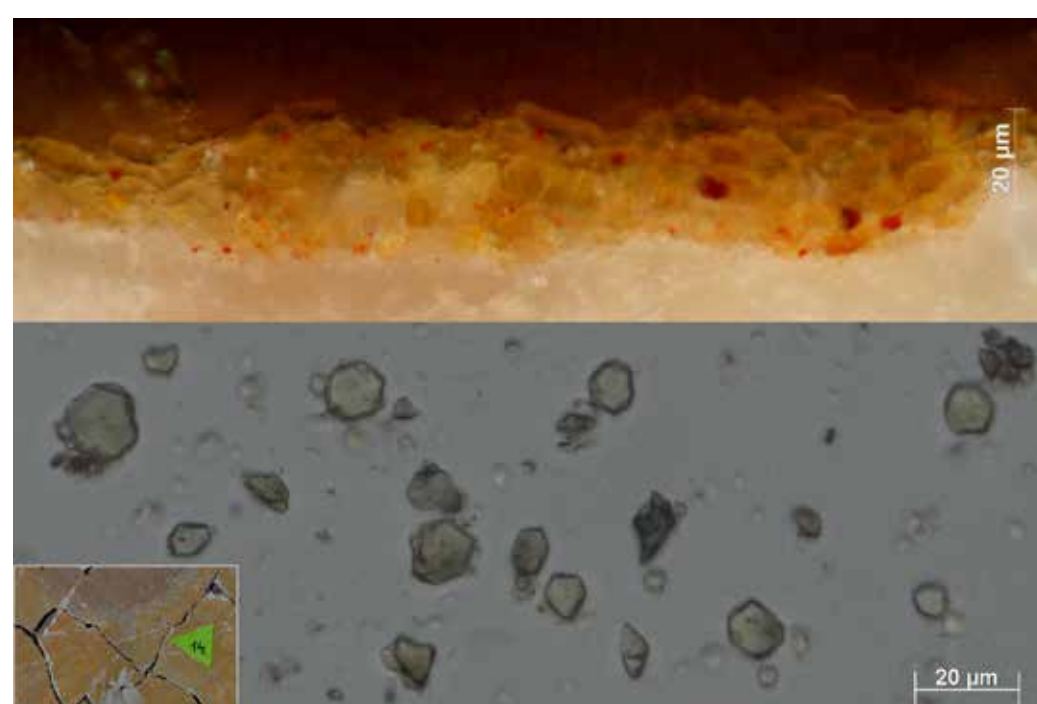
3. Human figure in a grape arbour. Restored wall painting details (E. Harsányi).



4. Ornamental carpet motive with "scales": Restored wall painting details (E. Harsányi).



5. Geometric pattern and imprint of the wicker construction of the ceiling on the reverse (E. Harsányi)



6. Natrojarosite. Optical microscope examination. Cross-section and plane-polarised light (E. Harsányi)

The remains of the palace complex from the 3rd-4th century are located in the southwest of Hungary (Szakcs/Dalmand-Gölösi dűlő). Within an about 600 x 600 metres area once surrounded by walls there were buildings of different function (a double peristyle, several times reconstructed palatial building complex ca. 80 x 160 m including a large aula 10 x 30 m in size, a bath, and a 200 m long colonnaded road connecting the main building and the western gate, and various other buildings for storage, etc.). The site has been examined by Pázmány Péter Catholic University's "lovía Research Project" led by Gábor Bertók, since 2013. With the help of remote sensing data, it has been possible to create a preliminary map of the remains that could be refined by ground penetrating radar and magnetometer survey and excavation. According to the latest results of the *lovía* research project, the size and the layout of the building complex, together with special finds, like porphyry slabs (SOLT) suggest that the site may have been an imperial residence (**fig. 1**). During archaeological excavations that began in 2016 part of the once painted corridor or porticus bordering the eastern inner courtyard of the double peristyled building was explored. Wall painting surfaces of the bottom band were still on the stone wall but large quantities of fragments were found in the debris.

Parts of the Roman remains from the middle of the 4th century were destroyed by a Medieval cemetery but a significant part of the fallen wall painting fragments was not mixed up. The team doing the excavation and restoration of the wall painting fragments is led by Eszter Harsányi.

As a result of the processing, assembling and restoration of the fragments part of the 4th century decoration of the wall and the ceiling became visible. In the middle zone of the wall that separates from the white bottom band with red stripe was a figural scene or scenes with still unidentified human figures in a grape arbour. There are different types of grapes in the arbour.

The one near the figure, whose pink-red dress is only partly visible, shows grapes painted in pink on a white background (**fig. 2**). There are two other assembled surfaces on which the grapes are blue on a different background modelled in ochre. On these surfaces, which belong together but still are not connected, a painted figure appears as well. The smaller than life sized man in tunic holds a wooden stick perhaps with a metal handle. If this is a tool used in viticulture then the parallel of this picture might be found most probably among genre paintings and not among mythological scenes. According to the fragments' location in the debris it could be determined that the blue coloured grapes were to the right of the pink ones (**fig. 3**).

An ornamental carpet motive with "scales" was originally placed somewhere on the wall, too. Lining imprints in the plaster that gives the heights of the scales can be seen in directed lights. These lines were then emphasized with yellow paint, the same used to sketch the "scales" and other motifs onto the wall. The nine rows of "scales" that are known so far are painted with different colours in slightly oblique sections widths of which are 4-5 "scales". In a section the tones of the "scales" are different by rows. The ones in the middle are the lightest then gradually darker and darker rows follow in two directions (**fig. 4**). The flat ceiling of this section of the peristyle or corridor was covered with a colourful geometric pattern based on a square grid system of yellow stripes. The squares between the stripes are diagonally subdivided into white and red. Where the yellow stripes cross there are black circles with blue internal paint and a black dot in the middle (**fig. 5**). The ceiling was covered not only with the mentioned pattern but with other carpet motifs as well. East of this there was a floral ornament with large size stylized petals.

The wicker construction of the ceiling based on the imprints on the reverse was made with wattle woven between the laths that fixed perpendicularly to the roof beams (**fig. 5**). The thickness of the plaster which the painting is applied on is 4,5-6 cm. Basically it is of three main parts but totally it might consist of five or six layers. The lime and sand mixture layers are in different condition. The first layer on the stone wall is in good condition, its surface is relatively smooth. Onto this layers, after drying another two layers of mortar was applied which today are so weak and crumbly that they can be swept off.

The optical microscopic examination (Kriston, Harsányi) showed that besides the sufficient amount of small grain river sand there is lime also that somehow did not coat the particles of the aggregate but only got mixed in it. For friability it seems that not the quantity of the lime used as binding material rather its quality is responsible. The condition of the layers of this mortar must have been just good enough while it was applied because a stronger smoothing layer could be put over it. In this, at places two smoothing layers have a large amount of chaff additive, but the finishing smoothing layer on the top was made without it. Archaeobotanic examination (Kenéz) could determine that the chaff originated from oat (*Avena sativa* L.) and two rowed barley (*Hordeum vulgare* L. subsp. *Distichum*). The cleanness of the chaff points to a conscious cleaning procedure before use. Wheat threshing waste could not be identified. This information is an interesting addition regarding the type of cereal grain cultivated in this area. The pigment analysis made using Optical Microscopy (Galambos, Harsányi), XRD (Sajó) and XRF (May) produced an unexpected result: aside from the commonly used pigments (Ochres, Cinnabar, Egyptian Blue, Green Earth) a rare pigment *natrojarosite* was also present. The examination of the pigments is ongoing. The origin of the black is still a question (**fig. 6**).

Équipe

Éva Galambos, DLA restorer, Hungarian University of Fine Arts, Department of Conservation and Restoration, Head of the Art Object Examination Laboratory.
Árpád, Kenéz, PhD archaeobotanist, Hungarian National Museum, National Heritage Protection Centre, Conterra Kft.
László Kriston physicist, Hungarian University of Fine Arts, Department of Conservation and Restoration.
Zoltán May, PhD Chemist, Research Center for Natural Sciences, Hungarian Academy of Sciences, Institute of Materials and Environmental Chemistry.
László Sajó, researcher, Institute of Materials and Environmental Chemistry - CRC HAS (Chemical Research Center, Hungarian Academy of Sciences).
Péter Solt, geologist, Geological and Geophysical Institute of Hungary (retired).

Gábor Bertók (Pázmány Péter Catholic University),
Eszter Harsányi (Eötvös Loránd University)
bertokgabor@jahoo.co.uk, eszter.harsanyi@gmail.com