ABSTRACT
During the past five years, we had the opportunity to build up a research method series in order to prove and verify the Roman land allocation system in the broader area of Somabatthy (County Vas, western Hungary), the oldest continuously populated town of Hungary. These methods are derived from the classical landscape archaeology package: the combination of GIS-modelling, aerial archaeological reconnaissance, field survey and geophysical prospection. The focus of our investigations more recently was the extent of the Roman cadastral system (called Extantia or centuriatio in Latin) as it expands in the landscape.

INTRODUCTION AND RESEARCH HISTORY
The Roman colony of Savaria (Somabatthy, Vas Hungary) had been a significant settlement in the mid-1st century AD, during the reign of the Emperor Claudius. There is no proof or evidence that the veterans of the legion AVG Apenninae had been settled in this region (dedicated and that the surrounding area was divided and allotted among them.

The depicted and measured huge land surveying works, the layout of the centuriation, the formation of the field boundary system. The exact instruction of the land division were determined in the written sources of the roman and surveyors legibility. However, the surveyors left no further evidence, however, also from this texts of their overview adaptation.

The first reconstruction of the centuriation occurred by András Miszty, 1956, who tried to draw it with the help of the available topographical maps. McCoy assumed a 1600 ha area (6.09 sq km) on a total of 1300-1400 hectares, the grid is a 22-22 rectangular grid to the north. This was supported by the Miszty’s grid towards the entire territory of Savaria: from the river Láhóeszt (west) and river Levis North to the River Balaton and eastward.

Reconstructions of the orientation and size of the centuriation grid, the supervision for the wider and orientation for century blue territories reconstruction, fits better to the early street system Savaria.

Since McCoy’s publication there were no archaeological attempt in the last 40 years to prove his theory. In the recent years we tried to continue the survey of the existence of the Savaria century with GIS methods. The latest results on the reconstruction have been based on excavation data and aerial photographs as well as on recent archaeological prospection. The recently explored field survey corresponds to the centuries, which were recorded in the field and surveyed in the GIS model. These consists of rectangular century units, in the orientation of 18° west to geographic north.

In order to prove and verify the Roman land allocation system in the broader area of Szombathely, a research method series were built up. These methods are derived from a “classical” landscape archaeology package: - the combination of GIS-modelling, aerial photographic survey, field survey and geophysical prospection.

RESEARCH APPROACH – ARCHAEOLOGICAL SUBSTANTATION OF THE PREDICTIVE MODEL

In the summer of 2010, the rainy weather was not too favourable for aerial survey, but this year, we had the opportunity to test the correctness of the model on the field. We were able to discover the double ditches of a Roman road from cropmarks in the south-east part of the site, which were attributed to the centuriation. The size, the location and the orientation conformed to the expectations, the documented Roman road was of the same type as the excavated parallels. The distance between the two road ditches was ca. 5.4-5.5 m, confirming to the width of the known Roman gravel roads unearthed near the coltury.

The development of excavations led by G. Lajics on the former territory of the colony during the last decade that have brought to light Roman road sections.

The theoretical model of the centuries supported the identification and dating of the excavated objects, like in this case: no road ditches but postholes mark the border of the former property. The crossing lines of the century border roads limited diverse from the predictive model less then 10%.

The similarity in orientation between the former roman cadastral system of Savaria and some section of the environmental land could be tested, whether it could be generated indeed by the roman veterans/farmers or the reason has to be searched in geology? Various GIS methods were adapted during the experiment presented below.

The flow accumulation directions in the region (black lines) corresponds almost to the recent hydrological direction (blue lines). There are but minor differences e.g. in the selected zone, where the present-day river’s direction is assumed.

The detailed view of the left selected area. The reconnetckers blue line south from the roman Savaria fits to the centuries. The NE-SW direction turns into N direction according to the grid. The marked section of the river crosses the city grid in an excavated ancient riverbed, that was filled up irrevocably in the 17-18th c.

The results of the stream section query (includes the left and the right soil marks and recent road sections) prove that fit into the centuries grid system.

The stream section query allow 0-5° variances because of the possible meandering of the feral channels. This map contains those queried section that fit exactly to the expected centuries borders.

Close to the Somabatthy and Szentendre, convergence, strongest meandering section can be seen. The centuries grid was filled to smaller units called actus [ca.2.5x3.5m]. Geodetically, technically that feature is hard to explain. Sections of the streams seem parallel to the centuries axes, although during the centuries became wild.

Assuming the method of grid, the sections were created for the border of this 2010-2011, regulated in one half of the town and a full traverse in the century grid system.

REFERENCES

