

The Lacus Pelso in the Roman Age
The Lake Balaton and the Hydrography of the Balaton-Highland

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Abstract. The protection of the monuments of the Roman Age is the object of the safeguarding of the highest importance, after all they could be account the first ancient civilization, which enroached consciously to the central european landscape, and basically changed that. They built cities, villages, villas, stone-houses, road network, and in several places high-leaded water-conduits, and they also felled forests, and drained moorlands for example at the Lake Balaton.

The Roman villa

The Roman legions appeared in the Hungarian Transdanubia at the beginning of the 1st century A.D. They organized Pannonia Province, which became a very important borderland of the Roman Empire. They built cities, villages, villas, roads, and in several places high-leaded water-conduits (so-called aquaeductus), and they also felled forests, and drained moorlands. The Production of the Roman villas gave the great mass of the agricultural and commercial background of the Province.

The Roman villa was a cultivation and stock-raising adapted farm unit: it was a collection of farming- and dwelling-houses, which included the several farm buildings, the houses of the land-livings and the owner's house often as comfortable as an urban one. Estates (named *fundus*) always belonged to the villas. The traces of the villa are hardly visible on the surface, but then under the surface bears not only small finds, but also the tarces of so a new agricultural technologies, which were established from the Roman Empire. This new agriculture reshaped the landscape.

The History of Lake Balaton and reconstruction methods

Water was a very important element: not only to the common life (for example in the form of aqueduct), but in strategical aspects too (the Danube composed the border of the Roman Empire).

The Lake Balaton is the biggest lake in Central Europe, it has 232 square mile water surface. The length is 78 air kilometres, the width is 4,5-12 km. The depth of the water is on a par only 3-4 metres (*Fig. 1*).



Figure 1. The Lake Balaton nowadays

The hydrography could be analysed in two aspects: both micro- (the examination of the direct environment of the villas) and macro-level (the hydrogarpahy of the complete Balaton-Highland, and the changes of the shoreline of the Lake Balaton) researches are needed. Also historical maps from the later ages (for example the maps of the First, the Second and the Third Military Survey from the 17-18th Century; *Fig. 2-3*) could help the determination of the fountains and former brooks and rivers: the contour lines could draw the lowest points and lines, which were possible brooks.



Figure 2. The delineation of Lacus Pelso on Seuso Treasure



Figure 3. The Lake Balaton on Historical Maps

At the hydrography on micro-level, it can be said that every villa was built beside fountains, and laid on an offset lifted from its own environment against floods. So in indicating the places of the villas, the proximity of water was a necessary factor; water was made use of in as many forms as possible: watering, drinking water, watering animals, furthermore, to operate the baths of the villas.

The most important examination on macro-level is the determination of the dimension of the Lake Balaton in the Roman Age. It comes up against difficulties, the experts have contradictory opinions (Table 1.). The lake arose at the end of the pleistocen with fractional sinking. At the place of the Lake Balaton was a shallow, wide bog for 50-60 thousand years ago, which arose at the structure dench from south-west of Balaton-Highland. This bog wasn't in one block, it was presumably composed of more flaws. Some parts of basin were developed, open water surface were in there. The water level of the Lake Balaton was in Prehistoric Age on the maximum, the surface of the water in the Roman Age was in all probability similar to the one of nowadays (104-104,5 metres above Adriatic; Fig. 4), or it reached this level with draining at the Sió at the end of the 3rd century A.D. Taking into consideration the approximately 120 villas and the terrain, only at the north-west, the south-west – west and the south shore of the lake can we count with marshes. So the view of the Roman Balaton Highland was very similar to the one of nowadays.

Researcher	Year of publication	Water level (m, a.A.)
Bendefy	1968	106,7-107,2 ; 108,5-109,5
Bendefy	1969	like nowadays; 106 ; 103,8-104,5
Bendefy & V. Nagy	1969	106-106,5 ; after draining 104,5
Bendefy	1970	104,5-105
Bendefy	1972	105,5-106,5 ; 108,2 ; 107,5
Sági & Fűzes	1973a	like nowadays (104-105)
Bendefy	1973b	106,5-107,5, after draining 104
Bendefy	1976	108-109 ; 107 ; after draining 104,8 in Roman Age: 103,8-104,8 ; nowadays:
Virág	2005	104,32-105,3

Table 1. Probable water level of Lake Balaton in the Roman Age



Figure 4. The Lake Balaton in Pleistocen, in Prehistoric Ages, and nowadays

So the Romans choosed the location of the villas by nearness of the water, furthermore forest, which gived timber, as well road network to the Trade, and they liked the nice panorama (for example the Lake Balaton; *Fig. 5*).

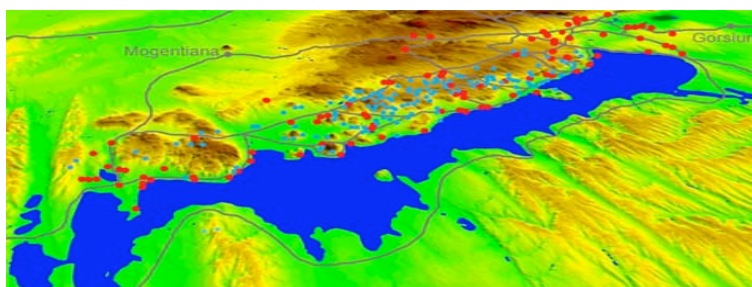


Figure 5. The Balaton-Highland with the villas and fountains

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