EXAMINATION AND CONSERVATION OF HUNGARIAN ART NOUVEAU MOSAICS,
THE RÓTH WORKSHOP

BRIGITTA MARIA KÜRTÖSI
DLA - Hungarian University of Fine Arts, Budapest

Miksa Roth (1865-1944) was a stained glass and mosaic artist for the Imperial and Royal Court, one of the pioneers of Art Nouveau in Hungary. Following his father’s talent on glassworks - as a young Venetian-learnt craftsman - he founded his own workshop in 1883. He invited two Italian masters Giovanni Barbus and Pietro Labuss to Pest to start the work of mosaics beside the glass paintings. He kept in connection with them until the 1st World War.

Roth successfully experimented with the renewal of the mosaic technique. He used special mortar stratigraphy, experimented with the eosin enamelled ceramic elements of the Zsolnay-manufactory and also with the using of first the Tiffany’s opalescent glass then his own similar products for mosaic decorations.

His works can be seen on the walls of monuments in Budapest and in the church in Mariensdorf, Burgenland, Austria, the Royal Palace of the Netherlands, the Fageborg church in Oslo, Norway and on the glass dome of the Teatro Nacional, Mexico. Creating mosaics earned him two grand prizes and a silver medal in the World Exhibitions of the early 20th century.

The mosaic was creating in the studio and its units were mounted on the spot by the help of temporary support. In many cases the meeting boundaries of the units can be observed.

During the conservation we used also lime based mortars containing metakaolin as additive: Basic mortar Vapo tmel and Vapo injekt01 (Czech grouting mortar by Aquabarta) as bedding mortar.

The conservation was performed with Miklós Ernő Balázs DLA habil.

By micro-analytical examination of the pinkish coloured joint material - among the acid proof residue - the presence of deep purple, green and white coloured glass splinters could be observed. These additives can make the jointing mortar brighter and this slight effect is able to increase the glittering effect.

The white bedding mortar is lime-based, the major part of Calcite from marble powder was detected and Hematite, iron-oxide red pigment gives the pinkish hue for the joints. (XRD by István Sajó (PTE-SZKK))

The materials of corrosion products were also carbonates as those of the original shells, the removal of them was possible only by slow mechanical way.

For mounting the mosaic sections of the dome they used lime-based mortar with small amount of natural hydraulic additives; Brownmillerit (Ca2(AL,Fe)2O5) and Larnite (Ca2SiO4) were detected by the XRD (István Sajó PTE_SZKK). Brownmillerite is a rare mineral but along with Larnite it could derive from Germany (Bellerberg vulcano), or Austria (Klöch). As filler material splintered carbonatic particles were mostly applied.

A=rough basic mortar, A1= first basic mortar, A2= second layer of basic mortar, B1= first bedding mortar, B2= second bedding layer. The B2 layer could be the layer of the mortar applied on the back of the mosaic section before mounting.

The original dome mosaic designed by Zsigmond Vajda and realized by the Róth workshop in 1908.