

# Gold and Blue Transition - A Contemporary Realization in a Historical Site

## Altın Sarısı ve Mavi Geçişi - Tarihi Bir Yerde Çağdaş Bir Gerçekleşme

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### Abstract

*The paper aims to demonstrate the creative process of the realization of a fountain in the courtyard of the Archbishop's Castle in Kalocsa, Hungary. Lead architect of the diocese, Márta Vörös designed a complex artwork symbolizing the Trinity. The rounded shape concrete body of the fountain is seven metres in diameter and positioned in the middle of the inner garden space. In the centre of the composition, an orb and a dove figure are encompassed by a thin layer of water in a calyx-form. The surface of the fountain will be covered with Murano glass mosaic executed by the author. The dark colours from deep tones through the transition of blueish and greenish tints turn to golden shades reflecting to the Earth and Sky. The mosaic is made by direct technique in studio following a division system composed by 36 slices with 11 sections of each. The prepared sections are edited to fit to the curved design of the fountain, and the setting style desires to delicately amplify the symbolic content. From above the work will look like the eye of God as a universal protective symbol. This contemporary artwork exemplifies the fusion of traditional visual and theoretical values.*

**Keywords:** Contemporary mosaic, glass, gold, fountain, Kalocsa.

### Öz

*Bu makale, Macaristan'ın Kalocsa kentindeki Başpiskopos Kalesi'nin avlusunda bir çeşmenin hayata geçirilmesinin yaratıcı sürecini göstermeyi amaçlamaktadır. Piskoposluğun baş mimarı Márta Vörös, Kutsal Üçlüyü simgeleyen karmaşık bir sanat eseri tasarlamıştır. Çeşmenin yuvarlak beton gövdesi yedi metre çapında olup, iç bahçe boşluğunun ortasına konulmuştur. Kompozisyonun merkezinde küre ve güvercin figürü çanak formda ince bir su tabakasıyla çevrilidir. Çeşmenin yüzeyi yazar tarafından yapılmış murano cam mozaik ile kaplanacaktır. Derin tonlardan mavimsi ve yeşilimsi tonlara geçişle koyu renkler, dünyaya ve gökyüzüne yansıyan altın tonlarına dönüşür. Mozaik, her biri 11 bölümden oluşan 36 dilimden oluşan bir bölme sistemine göre stüdyoda doğrudan teknikle yapılmıştır. Hazırlanan bölümler, şadırvanın kıvrımlı tasarımına uyacak şekilde düzenlenmiş ve dekor stili, sembolik içeriği hassas bir şekilde büyütmeyi arzulamaktadır. Bu haliyle tasarım, yukarıdan bakıldığında evrensel bir koruyucu sembol olarak Tanrı'nın gözü gibi görünecektir. Bu çağdaş sanat eseri, geleneksel görsel ve teorik değerlerin kaynaşmasını örneklemektedir.*

**Anahtar Kelimeler:** Çağdaş mozaik, cam, altın, çeşme, Kalocsa.

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## Introduction

The paper deals with modern approaches to the reflections of faith and cult to mosaic art, the work interprets the parallels and mirroring of aspects of the mosaic heritage through the cultures. From the point of view of mosaic art, the changes and the permanence in motifs and other details are in focus along with the issues how contemporary artwork can integrate into a historical context.

The reader will get an insight to the preparation and realization of a contemporary artwork through the creative process of the mosaic of the new fountain in the courtyard of the Archbishop's Castle in Kalocsa, Hungary. Lead architect of the diocese, Márta Vörös designed a complex artwork to symbolize, in its first meaning, the power of the Trinity in our present, in our life (Fig. 1).

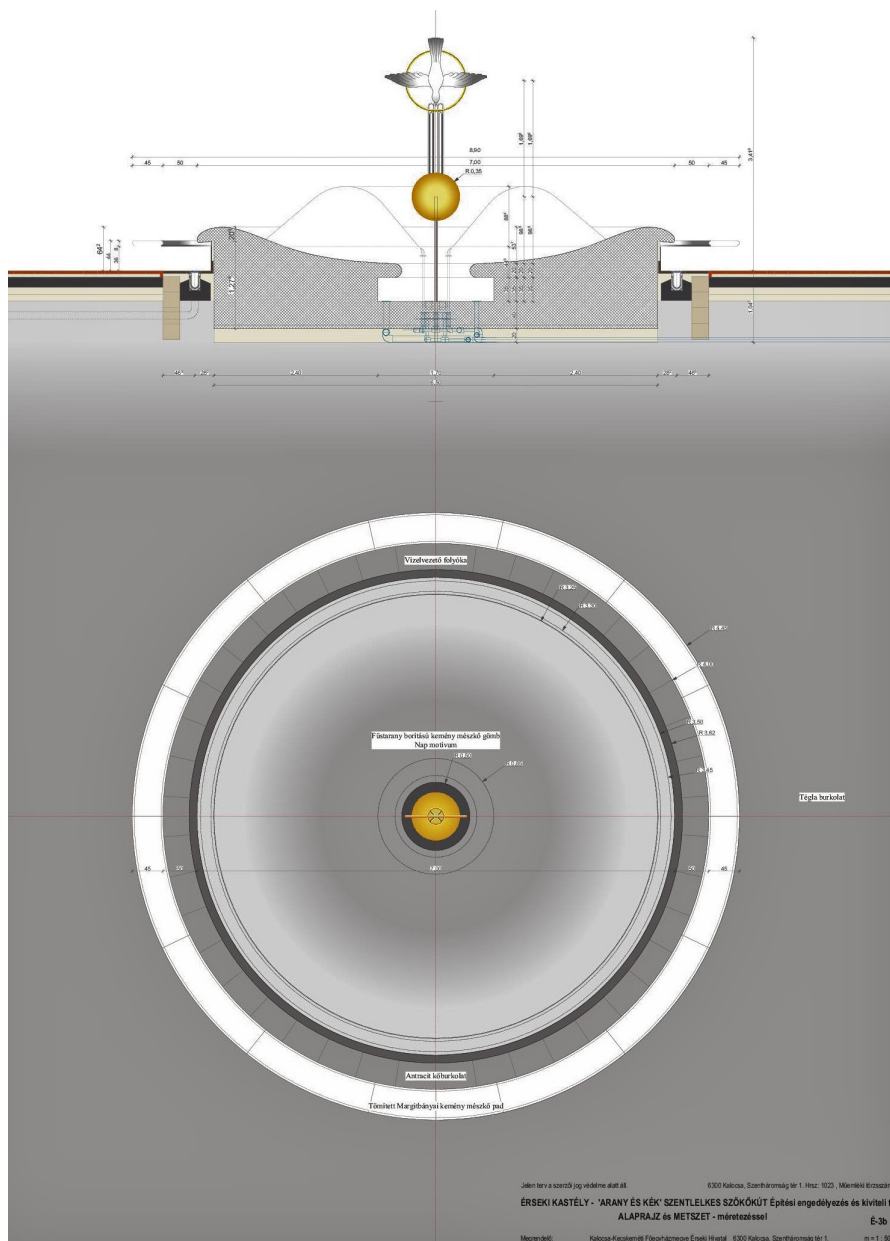


Figure 1  
Side view and top view of the fountain on  
the architect's M:50 drawings. Plan by Márta  
Vörös.

Vörös (2021: 1) summarizes her plan with the biblical phrase “*When you send your Spirit, they are created, and you renew the face of the ground. May the glory of the Lord endure forever; may the Lord rejoice in his works*” (Psalm 104. 30,31)

She asked the author for cooperate in the realization, for the full-scale work of the mosaic planning, compiling of colour palette, design of preparation, execution manner and on-site installation.

### About the Location and Context

Kalocsa is a historical city in the south of Hungary on the east bank of the Danube. Its past is dated back to the first millennium AD, and the Archdiocese of Kalocsa was probably originally set up as a Bishopric by King Saint Stephen the 1<sup>st</sup> of Hungary (997-1038), but it became the second Archbishopric in the first decade of the 11<sup>th</sup> century AD (Buzás 2014: 7).

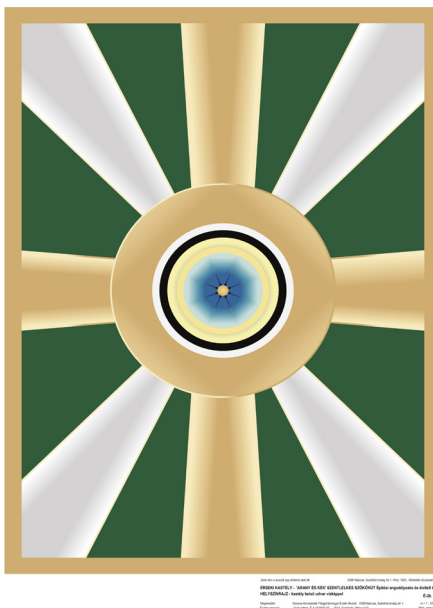
The church in Kalocsa, named the Cathedral of the Assumption, was extensively restored between 1907 and 1911 under the direction of architects Ernő Foerk and Gyula Petrovác (Szakács 2019: 82), and a red marble archiepiscopal tomb was excavated under the sanctuary in the central axis of the first, the original 11<sup>th</sup> century cathedral. This place traditionally serves as a resting place for the church founders thus the corpse was identified with Saint Astrik (Buzás 2014: 6-7).

One of the oldest libraries is also hidden in the Castle thanks to the first medieval collections of the archbishops. The towers of the church are visible from a great distance. The site of the project in progress is in the inner courtyard of the Archbishop Castle directly beside the cathedral (Fig. 2).

Figure 2  
The inner courtyard of the Archbishop's Castle in Kalocsa with the fountain. Work in progress. Photo by Márta Vörös.



Figure 3a  
Visualization of the fountain and the courtyard of the Archbishop's Castle in Kalocsa. Plan by Márta Vörös.



### Iconography and Reflections on Mosaic Art

The aim of this work is complex and symbolic, and the main content is the visual expression of the Holy Trinity composing concentrated shapes, materials and colours into an outdoor context, the U-shaped inner courtyard designed by Márta Vörös in 2020.

The rounded shape concrete body of the fountain is seven metres in diameter and positioned in the middle of the inner garden space (Figs. 3a-b). In the centre of the composition, a gilded orb and a dove figure are encompassed by a thin layer of water in a calyx-form. The surface of the fountain is completely covered with glass mosaic executed by the author and her team. The dark colours - from deep

tones through the transition of blueish and greenish tints - turn to golden shades reflecting to the Earth and Sky. The realized setting style desires to delicately amplify the symbolic content and the inside-out flow effect. The mosaic composition itself is vivid, dynamic, and it seems to move like the waves with partially slower or even with vibrant marks. The groups of colours can work together with the round, convex and concave shapes of the fountain.

The colours also reflect the historical time considering how the habit of painting and creating blue backgrounds in the case of murals and wall mosaics were transformed gradually to gold, representing infinity and timelessness. Not only the backgrounds of the mentioned scenes but also the object of the fountain has strong roots in art history.

Baptistery buildings often were built on the place of former Roman bathes and use “living water” for the baptism (Wharton 1987: 364). Early Christian examples show the taste of the commissioners as the domes of these central<sup>1</sup> shaped buildings are most often covered with glass mosaics with a preference of using the blue and green colours and gold. Some of the Roman basins were also traditionally covered with mosaics on all their surfaces. The 3<sup>rd</sup> century AD mosaic basin of the Neptune House, Thuburbo Maius in Tunisia also depicts the waves of the water on the inner walls of the basin.<sup>2</sup> Also, mosaic-covered baptismal fonts<sup>3</sup> have remained intact as in Saint Vitalis Byzantine site, Sbeitla/Roman Sufetila in Tunisia (Cioffi 1984).

### Proportions and Transition

The resolution of the glass and gold mosaic material<sup>4</sup> by colours, shades and quantities was planned by considering the architectural sizing<sup>5</sup>, the design of the fountain body and the circles designated by the goblet, following the architect’s preliminary imagination. The palette is based on a coordinated, harmonious appearance of tones, emphasizing the formal features of the fountain body with strong contrasts and highlights. To create the gradients and calculate the quantities, the shades can be divided into seven categories, from the darkest blue to gold (Fig. 4):

- 1, the darkest, nearly black, blue shades
- 2, dark blue
- 3, medium blue
- 4, medium turquoise
- 5, light turquoise and blue
- 6, bright colours (highlights)
- 7, gold shades

The transition can be created by gradually “blending” the shades, starting with the darkest tones in the middle of the fountain. The design of the wide rim of the shape consists of a mixture of gold along with light shades. The brightest surface in this section is also aligned with the boundary of water drops of the fountain.

- 1 Octagon shape is the most typical (Neonian Baptistery, Ravenna, The Baptistery of San Giovanni in Florence etc.).
- 2 Ex situ, Bardo Museum, Tunis, Tunisia.
- 3 Early 6<sup>th</sup> century AD.
- 4 The mosaic raw material was selected from the collection of Doná Murano.
- 5 The total size of the mosaic is nearly 50 square meters.



Figure 3b  
On-site consultation. Photo by Béla Dohárszky.

Figure 4  
Seven categories of colours and tones with the compiled palette consists of 65 shades of coloured smalti and 5 different hues of gold glass mosaic from the collection of Mosaici Doná Murano, Italy. Drawing and palette by Brigitta Kürtösi.

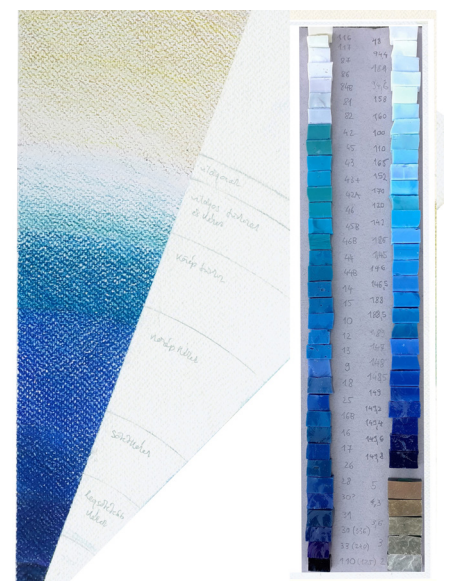




Figure 5  
The lightest part of the transition is between the greenish and the golden parts. It refers the froth of waves, white-water and recalls its movement. Photo by the author.

Figures 6a-b  
On the detail the setting manner and structure of the surface is well-visible. Photo by the author.

(Fig. 5) The circles drawn by the seven groups of colours and tones also reflect to the concentrated registers concerning the dome scenes' arrangement.

The mosaic is made by using tesserae in the smalti format<sup>6</sup> and gold tesserae individually cut to approximately the same size, since this scale is representative of the size of the entire surface as well as the historical technique of the glass mosaic. As a result of the hand cutting the lines of gold leaf tesserae are slightly waving but also become smooth in texture (Figs. 6a-b).



### Smalti and Gold

According to the production method the glass paste stained with metal oxides is removed from the oven for cooling. The 1 cm thick poured glass cake (piastra) will result the mosaic tesserae. If the cross section of the piastra forms the surface of the mosaic piece, the materials are called smalti. Tiny bubbles are often seen in the exposed section.

<sup>6</sup> On the detail the setting manner and structure of the surface is well-visible. Photo by the author.

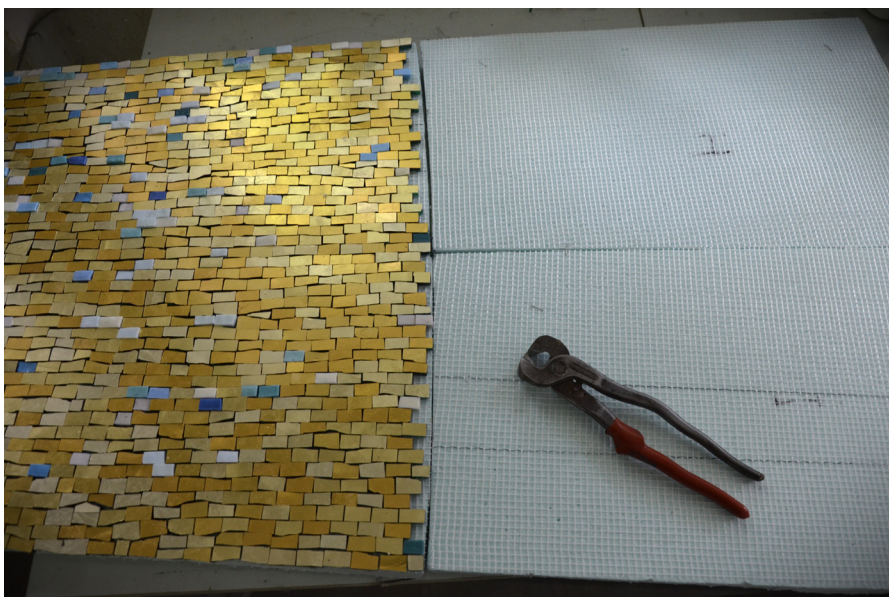
The “gold glass” is an ensemble of a thin gold leaf enclosed by two layers of glass. Gold leaf tesserae are composites obtained by cutting piastra consisting of the three hot-fixed layers (Neri - Verita 2013: 4596; Kürtösi 2017: 44).

The thickest layer is the substrate, which is molten and poured glass with an average thickness of 5-7 mm. This is followed by the thin (1 micrometre) hammered gold “leaf” and the thin glass sheet, the cartellina is on the top, which not only protects the sensitive gold coating, but further enhances its lustre and can also affect the shade (Kürtösi et al. in print). In our case the substrate was expected to be similar thickness to the coloured tesserae.

The production of cartellina is mostly related to one of the historical glass production techniques. Fragments of blown thin-walled glass were used for this purpose. Following the resurgence of Italian glass production in the second half of the 1800s, there was also a growing demand for mosaic glass. The manufactories in Venice and Murano produced the significant part of raw materials for several turn-of-the-century/Art Nouveau mosaics in our region (Kürtösi 2018: 177).

### About the Process

The sections of the fountain mosaic are made by direct technique in studio following a division system composed by 36 slices with 11 sections of each (Fig. 7). The prepared sections are constructed to fit to all directions curved design of the fountain, and despite the curves, by using such dimensions, it is possible to work on plane temporary supports, on fiberglass mesh fabric substrate placed on cut-to-size XPS boards. For the fixing modified silane polymer is used (Fig. 8).



The mosaic must fit within the concave and convex surfaces of the fountain body (Figs. 9a-b). In the course of the installation process, we aim the exact fitting of the individual sections and shapes, striving to require as few on-site completions as possible during installation, except for the golden sections, where this process is unavoidable (Figs. 10a-b).

In the case of the direct setting method, we can see the top side of the mosaic during the process, where the appearance and texture of the surface is more playful and rustic due to the various thickness of the glass mosaic tesserae between 1-3 mm. The resulting structured surface character is unique to historical mosaics



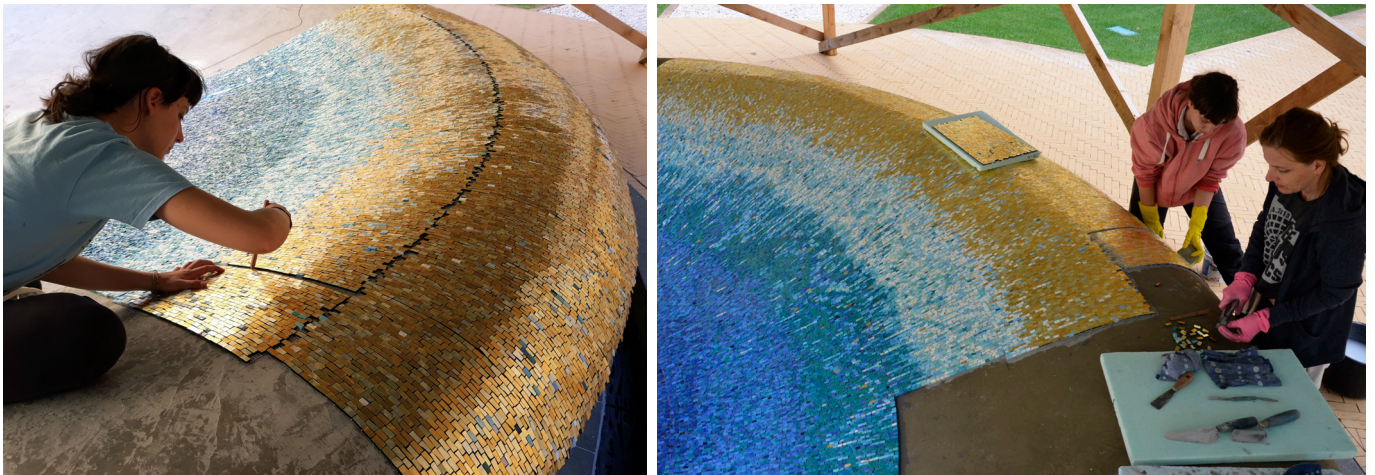
Figure 7  
The golden part of a slice in progress. Photo by the author.

Figure 8  
Each section is easily handled fixed on cut-to-size glass fibre mesh. The maximum width of the sections is between 15-50 cm keeping in mind the difficulties of the installation process. Photo by the author.



Figures 9a-b  
On-site measuring process for planning the best fitting size of the elements and trial to the arrangement of the firstly made sections following the measurements. Photos by Márta Vörös.

as well. In this work, the aim was also to combine the two typical appearances (direct and indirect setting) concerning the well-known changes of the historical and modern mosaicists' habit (Kürtösi 2018: 177).



Figures 10a-b  
Drawing of the border of the sections for planning the extent and location of the on-site completions needed due to the slight irregularity of the fountain body shape. And the mounted and completed sections after the process. Photos by the author.

Due to the predictable environmental factors considering the future active operation of the fountain, it is necessary to choose specific excipients. On the surface of the concrete a special stratigraphy was worked out. Firstly, a cementitious adhesive, then, as secondary waterproofing, a two-component, flexible cementitious mortar was applied. We decided to use a two-component, acid-resistant epoxy adhesive as bedding mortar and grout for the mounting of the mosaic (Fig. 11). Both the mounting and the grouting were performed in one step, using wet in wet technique assuming that the interstices need to be filled with the material. This method is also special because of the structural surface (Fig 12). For dark blue details we apply a dark-coloured embedding material, while a lighter-toned adhesive for lighter shades and gold, aiming that the restrained appearance of the grout network also highlights the meticulous but large-scale overall view, and the shift can stay invisible. Despite large colour variety of the adhesive is available, two shades of grey seemed the most appropriate choice for



the purpose of being invisible but strengthening the colours themselves (Figs. 13-14).

Figure 11  
The embedding and the grouting process is made at the same time. The same material is applied on the backside of the mosaic section and on the surface of the fountain as well. Photo by Béla Dohárszky.



Figure 12  
After the cleaning process of the mosaic. Photo by the author.

Figures 13-14  
General and bird's eye view of the fountain with the first third of the mosaic. Photos by Béla Dohárszky.





Beside the already mentioned aspects of the fountain there is another view. From above the mosaic on the round three-dimension shape will look like iris of an eye, eye of God as a universal protective symbol. The aim of this work is that this contemporary artwork exemplifies the fusion of traditional visual and theoretical values.

### Contemporary Elements in Historical Context

The layers of the past in the historical centre of the city are richly presented starting with the excavated and displayed remains of the former cathedral through the connected further buildings preserved as historical monuments but, in some cases, converted in function. The former late baroque canon house after its restoration serves as the Archbishop's Museum, called Astriceum<sup>7</sup>, and in architectural concept it can work together with its newly built part which is an example of the well-designed fusion of the historical and modern spaces.

Beyond the matter of the architectural heritage protection and handling, the presence of contemporary elements and designed landscapes are often more questionable issues. The divisibility of tangible and intangible dimensions of heritage is also questioned by many scholars (Farley - Pollock 2022: 5). The realization of the fountain as a new element in the historical site, is a trial how is possible to insert - bravely but respectfully- the present into the past. Since the fountain is not a temporary object in the courtyard it represents again another layer of this issue. On one hand it depicts the continuity of spiritual legacy, and a trial how the newly added elements may become value and may connect to the built heritage of the past. In this case the aim is the intertwinement of the tangible and intangible layers also in time and the idea that the trinity of material-concept-space along with the time dimension may strengthen each other and may open the heritage context by this extension.

The project is realized as a commission of the Diocese Kalocsa-Kecskemét by Dr. Balázs Bábel. *Architect*: Márta Vörös, *Mosaic*: Dr. Brigitta Maria Kürtösi, Béla Dohárszky, Fanni Gizella Szigetváry, Emil Girard, Laura Judit Hallai, József Cseh, *Sculptures*: Bird: Attila Csák, Bronze casting: Kálmán Veres, Globe (stone): György Sárga, *Fountain body (concrete)*: László Mezei, *Metalworks*: Alutechnika Kft., *Water engineering, Lighting*: Gardematic Kft.

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