

## Poznań Imperial Castle Floodlighting

Górczewska Małgorzata, Dr –Ing.  
Kowalczyk Jarosław ( student of IV year)  
Poznań University of Technology,  
Lighting Division  
str. Piotrowo 3A, 60-965 Poznań, Poland  
e-mail : luxel@hot.pl

**History:** The Poznań Imperial Castle was erected by the Emperor Wilhelm II early in the 20<sup>th</sup> century. Together with the Opera House, University and Post Office building, it formed the Imperial Forum. Erection of the forum was to bring new air to the developing city – to make it an imperial residence.

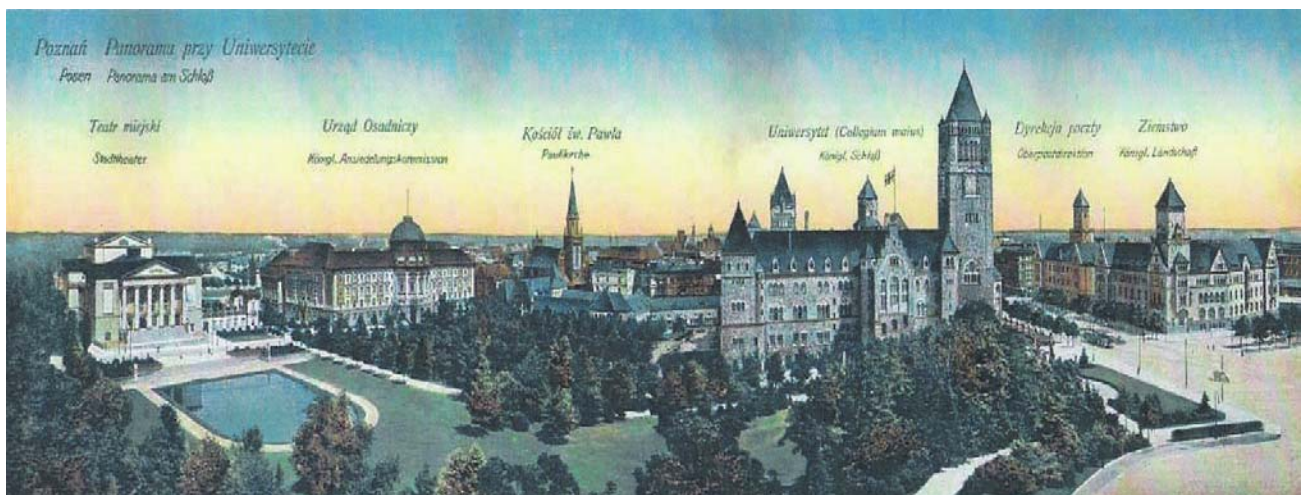


Fig. 1. The Poznań Imperial Forum

The Imperial Forum plan, made with great flourish, was designed by Joseph Stübben, one of the most renown town planners of that time. The architectural design for the Imperial Castle was made by Prof. Franz Schwechten from Berlin.

The architecture of the Castle exemplifies the historicism so dominant in the 19<sup>th</sup> century art. The neoromantic form of the Castle was chosen personally by the Emperor Wilhelm II and referred to the Roman Empire traditions of the German Nation from the first centuries of the second millennium.

The Castle was erected in the form of an irregular polygon with numerous outbuildings, towers and inner courtyards. The façade was granite and sandstone. Roofs were covered with blue tiles. On the back of the Castle there was a garden with a copy of the famous Lion Fountain from Alhambra and a complex of utility buildings (stables, coach house, garages). The Castle housed 585 rooms on its six floors. The Clock Tower was 75 meters high. It was the last castle of this type in Europe.

During World War II, the former imperial residence was rebuilt to Hitler's headquarters. The castle was damaged during military operations. After the war it was decided to demolish the highest floor of the Clock Tower.

Nowadays, the Imperial Castle is entered into the register of historical monuments. We may say that the Castle represents a cultural value integrating us with Europe.

Today, the Castle houses the Cultural Center. Here, various exhibitions, theatrical performances, picture shows, festivals, concerts, etc. are organized.

**Illumination of the Castle.** The night panorama of modern cities is dominated by street lighting and illuminated office buildings, hotels, supermarkets, ads, etc.

Modern lighting technology allows to single out an architectural facility from the surroundings by illumination. Light, by displaying selected buildings, creates the atmosphere, affects the subconscious, and shapes the night image of a building.

Illumination informs also about the significance and importance of the illuminated building. Night view of unilluminated facilities most often than not creates negative impressions.

Such impressions were inherent to the Imperial Castle. This building was associated primarily with the Nazi occupation. The building was nearly demolished. In the last years however, negative emotions disappeared, since the Castle has become a place of important cultural events. Thus, the idea was developed to enhance the night panorama of Poznań with this interesting building so important in the city's cultural life.

The illumination design of the Castle was preceded by analysis of the direction from where the fragments of its architecture are seen. Thereby, individual illumination scenes have been distinguished, exposed depending on wherefrom it is seen.

The assumed illumination concept for the Castle provides that the desired artistic and esthetic effects should be obtained by proper selection of the color of the light and by adequate arrangement of the illumination emphasis.

The basic conceptual intention amounted to avoiding the use of flood illumination but to rather choosing architectural illumination that better displays architectural details.

These conceptual intentions were implemented by adequate selection of luminaires and light sources as well as by their proper arrangement and direction.

In order to provide the façade with the sculpturing effect, luminaires with sodium and metal halide light sources have been used with various light intensity and distribution. The luminaires were fitted in the ground as well as on the balconies and walls. The light that tangentially illuminates the façades and their architectural details emphasized the color and the texture of the stone and the abundance of decorative forms. This way, the authentic character of the building has been featured. The roofs of the Castle are illuminated with a bit cooler “moonlight” that gives prominence to the spatial arrangement of elements forming the Castle’s solid. The original, blue-like color of the tiles has been restored. The luminaires that illuminated the roofs are fitted on street lamp posts.

Typical arrangement of luminaires is presented in picture no. 1.

The photographs show some examples of illumination effect of individual fragments of the Castle.

When comparing the day and night image of the individual facades of the Castle we see the old dark walls as a light structure thanks to the illumination. This effect as well as the valorization of the surroundings, i.e. restoration of the park and the Rose Garden have enriched and modified the role of the Castle in the cultural life of Poznań. More and more artistic events may find a unique visual setting.

From the technical point of view it may be an interesting information that the illumination of the Castle needed in total approximately 270 luminaires with the capacity from 18 W to 400 W. The total capacity is approximately 30 kW.

Given the size of the Castle facilities and their complex spatial arrangement, the illumination project was not a simple task. And yet we believe that the lighting effects achieved will make the image of the Castle a permanent element of the night panorama of this district of Poznań.



Fig.2. View of the front side of the Castle



Fig.3. Illumination of the front side of the Castle





Fig.4. View of the back side of the Castle



Fig.5. Illumination of the back façade of the Castle



Fig.6. Illumination of the façade of the Castle from the Rose Garden Side



Fig.7. Illumination of the restored fountain in the Rose Garden