

# Outline Brief

Prague Castle is awaiting new illumination – beautiful, sustainable and technically outstanding.

We are looking for a multidisciplinary team to design, deliver and install it with respect for the uniqueness of the site.

Jury

Isabelle Corten  
Clementine Fletcher-Smith  
Eva Jiřičná  
Ladislav Lábus  
Michal Krejčík  
Štěpán Valouch  
Barbora Féret  
Kateřina Špičáková  
Pavel Vyhnanek  
František Mrkus  
Kateřina Polanská

*Prague Castle is the most important Czech cultural monument, a symbol of our history and statehood. It is the largest castle complex in the world, formerly the seat of the rulers of the Czech lands and today the seat of the President of the Republic, as well as the place where the Czech Crown Jewels, the most valuable national treasure, are permanently kept. Prague Castle forms an inseparable part of the panorama of the capital city and is therefore unmistakable, by day and by night, to millions of Prague's residents and visitors.*

*We believe that the illumination system should reflect the significance and character of the monument. However, the current outdoor illumination of the Castle was created thirty years ago and therefore encounters many limitations, both technological and aesthetic. The technological lifespan of the existing solution is the main impulse for seeking a new approach. We are approaching the new concept responsibly, aiming to build upon the current solution, which was designed in a very sensitive and thoughtful manner, does not over-illuminate the monument and does not compete with it in any way.*

*The competition brief is based on long-term research by experts from the Czech Technical University in Prague, and the winner will be selected by a Jury composed of both external and internal experts. We are looking for a new architectural illumination solution that will make use of the possibilities of modern lighting technologies while at the same time respecting the architecture and the environment. It is precisely this goal that the competitive dialogue for new illumination, entitled Lumina Nova, is intended to achieve.*

*This is a challenge that goes beyond standard competitive dialogues. It will involve both the preparation of project documentation and the actual implementation. Teams must seek a balance between engineering precision and artistic expression. They should be capable of thinking comprehensively and connecting different disciplines and approaches. We are curious to see how innovation can be combined with respect for history to create a solution that will serve future generations as well. We look forward to those of you who accept this challenge and whose experience, creativity and professionalism will help illuminate Prague Castle once again – in a modern, dignified and considerate way.*

*Milan Vašina  
Head of the Office of the President of the Republic*



© Správa Pražského hradu, photo: Hana Connor

## Brief

The existing architectural and public illumination of Prague Castle has served for a long time; however, from a technical perspective it no longer meets current possibilities and requirements. Technological progress in the field of light sources, optical systems and lighting control now offers solutions that are more energy-efficient, more flexible and more considerate of the historical context than was possible at the time the current system was implemented. At the same time, approaches to the nighttime image of cities and to the regulation of light pollution have also evolved. The brief therefore calls for a complete replacement (new construction) of the illumination system, which also makes it possible to propose a new lighting concept.

### New concept

The new illumination concept for Prague Castle will have to reconcile several requirements that may appear contradictory at first glance:

- To preserve the aesthetic and representative role of the complex within the panorama of Prague, with respect for its architectural and heritage value, and with an emphasis on refined quality rather than bombastic (cheap, exaggerated, theatrical...) lighting effects.
- To create an environment for the visitor's visual experience when moving through the site; to protect visual comfort from glare and excessive contrast, to maintain a magical nighttime atmosphere and to subtly support the small architectural and sculptural treasures within the complex.
- To highlight the beauty, symbolic meaning and authenticity of the monument; to support and emphasize the exceptional value of individual buildings, spaces and small-scale architecture, while not diminishing the dignity of the site through overly showy, inappropriate or disturbing elements.
- To meet not only the parameters of a work of art and a technical solution of the highest quality, but also those of a long-term sustainable project that minimizes light pollution, is energy-efficient and considerate of the surrounding natural environment, human health and life in gardens and parks.

### Multidisciplinary team Design & Build

The illumination of historic monuments is both a technical and an artistic discipline. It is an interdisciplinary activity that requires deep knowledge of modern technologies as well as a sensitive approach to detail and respect for the historical context. This project therefore represents an exceptional challenge for top experts in the fields of architectural and artistic illumination, lighting system technologies, heritage conservation and the technical management of historic buildings.

Alongside the design and project documentation for the new illumination, the competition also covers delivery, execution of the works and commissioning. It is therefore desirable and necessary for multidisciplinary teams to apply and compete—teams that are capable of addressing the complexity of both the development of the concept and its implementation.



### Significance of the site

Prague Castle represents a symbol of Czech statehood, the setting of key moments in national history and at the same time one of the most important castle complexes in the world. As a national cultural monument of the highest category, it forms an integral part of the historic core of Prague, which is inscribed on the UNESCO World Heritage List. Within its walls, palaces and sanctuaries are reflected the political, cultural and spiritual histories of the Czech lands, while its architecture documents the development of all stylistic periods—from Romanesque through Gothic, Renaissance, Baroque and Classicism to modern interventions of the 20th century. For these reasons, it is essential that participants approach the task with humility and a strong sense of responsibility.

Prague Castle is, however, not only a historical and cultural symbol, but also a living institution of the present day. It serves as the official seat of the President of the Czech Republic and represents a prominent landmark of the capital, present daily in its panorama and its life. At the same time, it is one of the most visited heritage sites in Europe, admired by around eight million visitors from all over the world each year. In this way, the Castle becomes not only an attractive tourist destination, but also an integral part of national identity and collective memory to which Czech society continually relates.

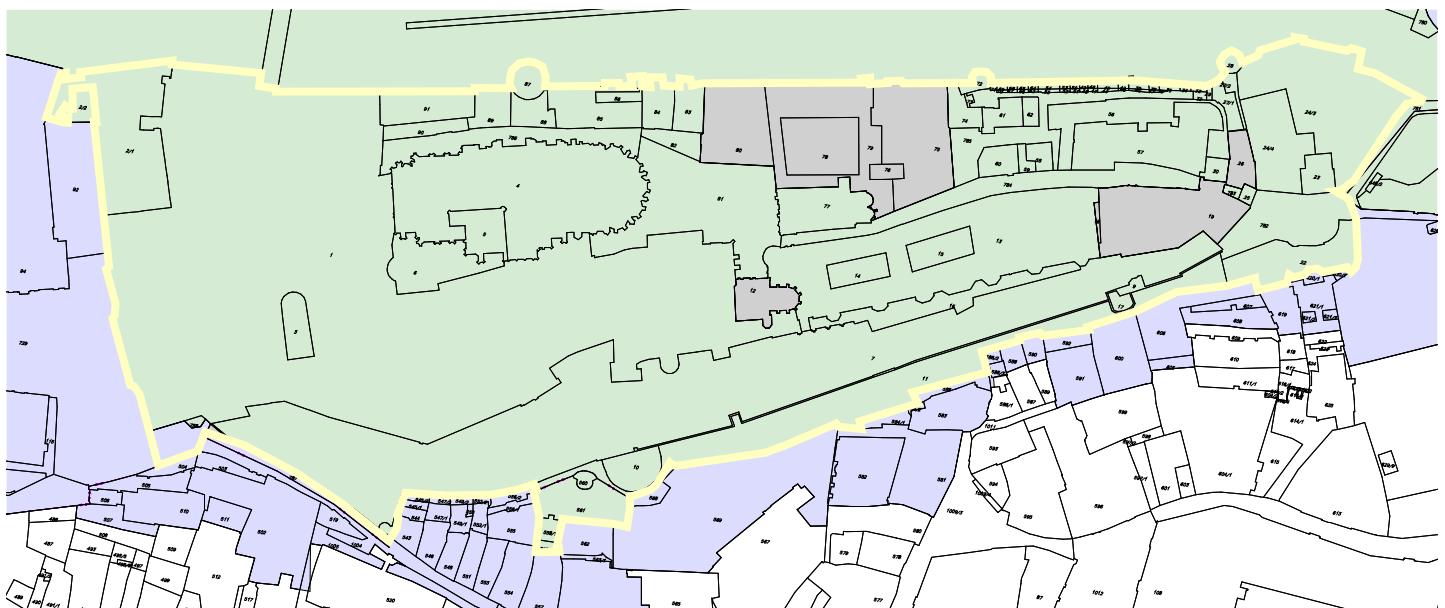
© Správa Pražského hradu, photo: Hana Connor

### Main illuminated zones and structures

The differing tectonics, coloration and material treatment of the individual structures within the complex require a fully individual approach and detailed assessment in the illumination design.

#### Topics to be addressed

- 1 Cathedral – architectural (ceremonial) illumination of the cathedral's external envelope for distant views (the Hradčany panorama) as well as more detailed views from within the complex (courtyards, etc.).
- 2 Southern façade of Prague Castle – architectural (ceremonial) illumination of palace façades oriented toward the city center, especially for distant views (the Hradčany panorama), as well as detailed views from the South Gardens.
- 3 Eastern and western façades – architectural (ceremonial) illumination of building façades for both distant and closer views; Northern façade – to remain unilluminated in order to preserve the natural nighttime atmosphere in close contact with the natural environment.
- 4 St. George's Basilica – architectural (ceremonial) illumination of the external envelope of the basilica for distant views (the Hradčany panorama) as well as more detailed views from within the complex.
- 5 Old Royal Palace – architectural (ceremonial) illumination of the oldest structure on the southern façade for distant views (the Hradčany panorama) as well as more detailed views from the South Gardens and from within the complex.
- 6 Small-scale architectural and artistic elements – fountains, sculptures, portals and similar features within the inner area of Prague Castle and in the South Gardens – definition of parameters for ceremonial illumination of elements already illuminated at present, in accordance with the overall illumination concept of the Castle, and, where appropriate, restrained supplementation of illumination for additional characteristic elements
- 7 Public area illumination – definition of parameters for the existing public lighting of individual spaces (formed primarily by lanterns and the so-called Plečnik "eyes") within the area concerned, in accordance with the character of the individual spaces, ceremonial illumination and the overall illumination concept of the Castle.
- 8 Overall illumination concept of the Castle – ensuring visual coherence between ceremonial and public illumination and a balance between artificial illumination of exterior and interior spaces and the natural nighttime environment, so that Prague Castle appears as a harmonious whole in distant views as well as during movement within the complex, without disturbing contrasts or over-illuminated or insufficiently illuminated areas; unification of the visual language with regard to preserving the atmosphere of the historic complex, safety, legibility of the terrain and visual comfort of users; principles and recommendations concerning technological solutions and operation; proposal of phasing (implementation procedure).



The competitive dialogue will address the Prague Castle complex as delineated above in the cadastral map.

- Plots owned by the Czech Republic, with the right of management of state property vested in Prague Castle Administration, which are designated as a national cultural monument.
- Plots owned by other owners that are designated as a national cultural monument.

### Illumination of Prague Castle

#### Current condition

The illumination of the exposed façades of the southern frontage and the cathedral for distant views dates back to the 1990s and, in its concept, builds on Plečník's effort to achieve an optical unification of the complex. The choice of subtle nuances in the colour tone of the illumination is derived from the different periods of origin of the individual parts of the complex and thus emphasizes the differing historical character of the space, distinguishing the oldest (Romanesque and Gothic) layers from the newer (Renaissance and Baroque) ones. Although the system has been continuously maintained, it has reached a stage where some of its components are technologically obsolete and at the limit of their service life.

#### Distant views

The illumination of the Castle for the most exposed distant views (the façades of the palace complexes) is ensured primarily by floodlights with metal halide lamps mounted on sixteen poles at regular intervals along the fortification wall in the South Gardens. From the side of the Deer Moat and the Powder Bridge, the palace mass is not illuminated by architectural lighting. From this viewpoint, the silhouette of St. Vitus Cathedral dominates, together with the white towers of St. George's Monastery, illuminated by floodlights from the surrounding roofs.

With the exception of St. George's Basilica—where neutral white light and high installed output do not respect the colour of the surfaces, which are over-illuminated in relation to the other masses of the complex—the current brightness level as seen from the city is considered by visitors and experts alike to be appropriate, proportionate to the nighttime environment and to the aesthetic perception of the Castle



© Správa Pražského hradu, photo: Hana Connor

as a dignified landmark. The lighting concept emphasizes quality, uniformity and respect for the nighttime environment. However, the thirty years that have elapsed since the installation of the lighting system have brought technical and operational issues. Visible changes in colour are caused by unsuitable replacements of light sources that are no longer commonly available, as well as by the renewal of surface properties during façade restorations. Disturbing shadows appear on the palace façades, caused by mature vegetation whose crowns intrude into the light beams. Visible differences in brightness also arise from the repositioning of luminaires during maintenance. Measurements have also shown that a significant portion of the luminous flux is directed outside the illuminated surfaces, thereby increasing light pollution.

#### Cathedral and inner area

Special attention is paid to the illumination of the main dominant feature, St. Vitus Cathedral. Given its location in a relatively densely built-up area, the illumination is designed not only for distant views from the city but also for close-range views from the Third Courtyard. The lighting is arranged in three vertical levels: luminaires at paving level for close perception, luminaires on the gallery at a height of 18 m to emphasize the mass of the nave, and, for distant views, floodlights directed from the roofs of surrounding buildings.

The illumination of the inner area of the Castle is characterized by a relatively dark environment that respects the historical character of the site. Public space lighting is provided by sodium-vapour, historically styled lanterns and Plečnik "eyes", supplemented by illumination of significant elements of small-scale architecture, reliefs and sculptural decoration, often using indirect lighting. Visitors to the complex rate very positively the subtle illumination of the eastern end of the cathedral and of small-scale architectural elements (e.g. Kohl's Fountain).

#### Doporučení a cíle pro nové osvětlení

The recommended modernization step is the transition from the existing obsolete discharge lamps to the use of modern LED technologies, enabling energy savings, longer luminaire service life, and better control of luminous output, spectrum and light distribution.

- The aim of the new illumination system for the palace masses should be to achieve uniform luminance across surfaces and precise light direction.
- Floodlights, especially in the Third Courtyard, should be equipped with shielding elements to prevent glare to visitors. Modern light sources of smaller dimensions should be better integrated into the space than the existing bulky luminaires.
- The aiming of floodlights must be precise in order to reduce light pollution and negative impacts on the environment.
- Individual façades and zones of the Castle should be approached separately according to their tectonics, coloration and materials. In particular for light-coloured façades—although this applies to the entire complex—it will be important to adapt lighting output and the choice of colour temperature (CCT) of the light sources to the structure and colour of the illuminated surface.
- The design must also take into account mature vegetation in the South Gardens, both in terms of directing the luminous flux outside tree canopies and in the placement of luminaires and routing of cabling so as to minimize impacts on the vegetation.

Color and effects

For everyday operation, it is not recommended to design compositions of dramatically coloured illumination, light shows or video mapping. Prague Castle is in itself a dramatic and dignified presence, and subtle tonal variation within predominantly white light will most likely allow this character to stand out best. However, exceptional one-off ceremonial illumination for cultural or state events is envisaged, and the system should therefore allow for the setting of different operating modes. We recommend maintaining the light contrast of the Castle against the dark background of Malá Strana to achieve spatial depth, and we consider it appropriate to keep the Deer Moat unilluminated in order to preserve its natural character.

Historic environment

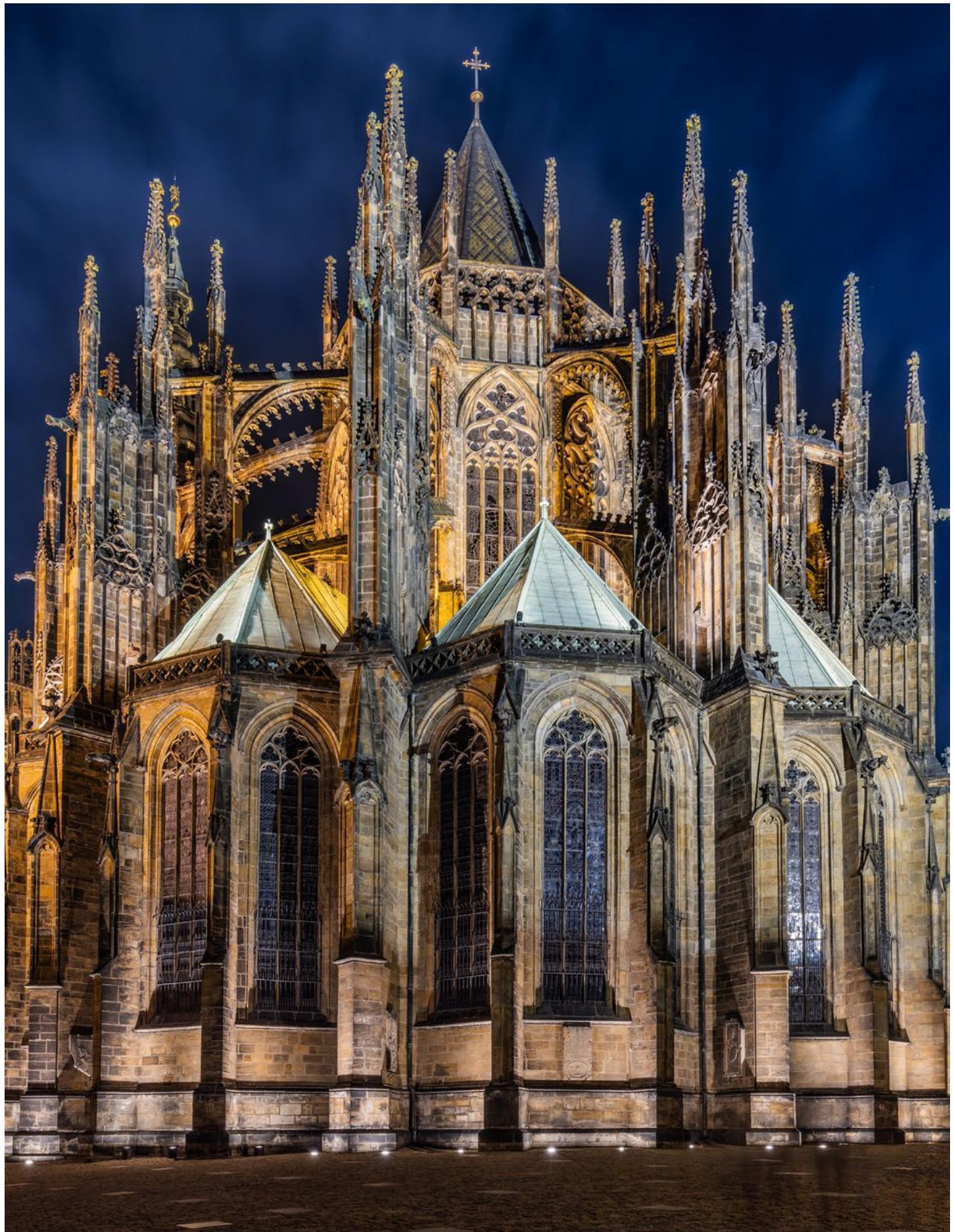
Architectural illumination is often perceived by the public primarily as a practical tool facilitating orientation in public space. From the perspective of heritage conservation specialists and historians, however, it represents an expressive medium that fundamentally influences the perception of monuments, their forms, details and cultural-historical significance. Illumination has the ability to transform the atmosphere and character of a place and thus becomes a tool for interpreting history, shaping how a monument is perceived in the evening and nighttime environment. Knowledge of the history of the building and its cultural context is a fundamental prerequisite for a high-quality lighting design, as is respect for the *genius loci*. Most historic buildings were created at a time when artificial lighting did not exist, and their form was shaped by natural daylight and the changing interplay of light and shadow. Inappropriately chosen intensity, colour temperature or direction of the light flux can disrupt proportions, suppress details or alter the visual expression of a building. Architectural illumination should create a clear visual hierarchy and support spatial legibility of the structure. The direction and distribution of light should highlight the main compositional elements, while less significant parts may remain in natural shadow. The aim is not to increase attractiveness at any cost, but to present the monument in a manner corresponding to its values.

A high-quality architectural lighting design requires interdisciplinary cooperation among lighting engineers, architects, heritage conservation specialists and art historians. The current approach is well summarized by a statement from the 2022 Petition for Reduced Light Pollution: "We want Prague's streets and monuments to be illuminated in a healthy, restrained and at the same time poetic manner." This approach captures the goal of contemporary lighting practice—to use modern technologies in a way that supports the cultural values of the historic environment and contributes to preserving the unique atmosphere of Prague.

The new illumination must be maximally considerate of original structures, surfaces, paving, terrains with archaeological finds and valuable trees in the gardens.

For the placement of luminaires and cabling, maximum possible use of existing options is recommended.

New positions and routing will always have to consider the least invasive methods of fixing and installation. Destructive interventions in buildings—anchoring into masonry, cornices, and similar elements—are virtually unacceptable. Luminaires at ground level around the cathedral must not be recessed in order to protect historic masonry and archaeologically valuable terrain.



© Správa Pražského hradu, photo: Hana Connor

## History of Prague Castle

### 800s–900s

The rocky promontory on which Prague Castle stands was already settled in the Neolithic period, even before the first written records mentioning it (885). Further archaeological finds, including those from the Third Courtyard, also prove the presence of a social elite on the castle promontory even before the arrival of Bořivoj, founder of the Přemyslid dynasty, in the ninth century. The extent of the Přemyslid hillfort was comparable to the present size of Prague Castle. A second church dedicated to St. George was established here and became the main ecclesiastical center of the Castle and of Bohemia as a whole. A women's Benedictine convent (c. 970) was attached to it, and its rebuilding led to the construction of a three-aisled pre-Romanesque basilica that served as the burial place of Přemyslid rulers. After the establishment of the Prague bishopric (973), the rotunda of St. Vitus, newly built to house the saint's relics, became the most important sanctuary in the land. Around 1060, a monumental Romanesque basilica dedicated to Saints Vitus, Wenceslas and Adalbert was erected on the site of the rotunda; the Church of St. George acquired two Romanesque towers, and the wooden princely palace was replaced by a stone structure.

### up to 1300s

The transformation of the original hillfort into a castle protected by stone fortifications began in 1135. Building activity virtually never ceased, and in the 1330s an extensive Gothic rebuilding of the royal palace was initiated, inspired by French royal residences. Shortly before Charles IV ascended the Czech throne, the Prague bishopric was elevated to an archbishopric, and in 1344 the foundation stone of St. Vitus Cathedral could therefore be laid. Construction was first led by Matthias of Arras and, after his death, continued by Peter Parler. Peter Parler also began the construction of the South Tower, which was completed only in 1554 and received a Baroque dome in 1770. The western part with a pair of towers was added as late as the 19th and 20th centuries according to plans by Josef Mocker. The cathedral was fully completed during the presidency of T. G. Masaryk and ceremonially opened on 28 September 1929 on the occasion of the St. Wenceslas Millennium.

### up to 1500s

In the second half of the 15th century, architect Benedikt Rejt built an entirely new northern fortification with three massive artillery towers—the Powder Tower (Mihulka), the New White Tower and Daliborka—and was also entrusted with a grand reconstruction of the royal palace. This included Vladislav Hall which, with its ribbed vault, represented a technical marvel of its time and became the largest secular vaulted hall without internal columns in Europe. After 1508, a new Renaissance southern wing, named Ludvík's Wing after the heir to the throne, was added. In 1534, the Royal Garden was founded on the northern forecourt of the Castle, one of the first such gardens north of the Alps. It was soon enriched by the Renaissance Royal Summer Palace, with the famous Singing Fountain placed in front of it, and the Great Ball Game Hall also became part of the garden.

A catastrophic fire in June 1541 affected the entire left bank of Prague and severely damaged Prague Castle as well. During the subsequent restoration, the South Tower of the cathedral gained a new gallery and a Renaissance dome, and the cathedral was closed by a new Renaissance choir loft. In 1554 a new residential palace was completed, and the eastern part of the Castle began to be occupied by the residences of the most powerful noble families; luxurious Renaissance palaces of the Pernštejn and Rožmberk families were built here. The former Pernštejn Palace is today the

Baroque Lobkowicz Palace, while the Rožmberk Palace was later converted into the seat of the Institute of Noblewomen.

Rudolf II ascended the Czech throne in 1576 and seven years later, in 1583, chose Prague Castle as his main residence. The transfer of the imperial court to Prague gave rise to the core of today's Second Courtyard with adjacent buildings, transforming the complex into a representative royal seat. The southern buildings became the basis of today's ceremonial spaces of Prague Castle. On the northern side of the courtyard, the so-called Northern Building was constructed, housing extensive stables below and halls for art collections above—the present Spanish Hall was intended for large-format works and sculptures, and Rudolf's Gallery is today the Picture Gallery of Prague Castle. Modifications also affected St. Vitus Cathedral: the monumental marble mausoleum was completed and beneath it a New Royal Crypt was created, into which the remains of Czech kings were transferred from the older tomb of Charles IV, and where Rudolf himself was buried. In the Royal Garden, the Lion's Court was established for the keeping of exotic animals, and deer were introduced into the Deer Moat. At this time, Golden Lane was also created—then merely a modest residential development, but today its last surviving remnant.

#### up to 1700s

After the death of Rudolf II in 1612, Prague Castle ceased to serve as the main and permanent royal residence; nevertheless, after Vienna, Prague remained the second city of the monarchy. The southern wing of the New Royal Palace was heightened and rebuilt, and its western gate was newly adorned with an early Baroque gable (the so-called Matthias Gate). During the Thirty Years' War, the New Royal Palace was further extended by the so-called Empress's Wing, creating for the first time in history a shared bedroom for the ruling couple. This layout later became a model for other Habsburg residences, including the Vienna Hofburg.

Another major transformation came only with the extensive rebuilding of 1755–1775, when the New Royal Palace acquired its present unified southern façade and a new representative ceremonial courtyard (the First Courtyard, the court d'honneur) was created on the western side of the complex. Through these interventions, Prague Castle began to change from a structurally heterogeneous complex into a palace-like royal residence. In 1782, the Convent of St. George was dissolved and its premises were converted into military barracks and warehouses.



© Správa Pražského hradu, photo: Hana Connor



© Správa Pražského hradu, photo: Hana Connor

1800s

In the 19th century, the Chapel of the Holy Cross in the Second Courtyard was converted into a treasury for the Crown Jewels. The Spanish Hall and Rudolf's Gallery in the New Royal Palace were adapted to their present form, and the completion of St. Vitus Cathedral became an enormous construction project. At the turn of the 19th and 20th centuries, a purist approach influenced other monuments of Prague Castle as well. St. George's Basilica underwent a radical reconstruction that restored its early medieval character, and a new Deanery in Neo-Gothic style was built on St. George's Square according to a design by Josef Mocker. During the same period, electrification was gradually introduced, and Prague Castle became one of the first places in Prague where these innovations were used to enhance both functionality and aesthetics.

After the establishment of Czechoslovakia in 1918, T. G. Masaryk sought to "transform a monarchical castle into a democratic one" and in 1920 appointed the Slovene architect Jože Plečnik, professor at the Prague School of Applied Arts and a pupil of Otto Wagner, as Castle Architect. Plečnik rebuilt the presidential residence, redesigned the gardens and created new paving for the courtyards. Smaller architectural interventions—such as the Bull Staircase—can be found throughout the Castle complex. On the First Courtyard, Plečnik devoted special attention to lighting: as early as 1920 he installed lamps in the main cornice and later replaced traditional gas lanterns with cantilevered lamps with glass globes, giving the space an intimate atmosphere. The monolith—obelisk—on the First Courtyard was originally intended as a dominant element of a monumental staircase to the Paradise Garden. It never stood permanently there and ultimately became an unfinished work placed in the Third Courtyard. A light source was to be installed at its top, but this idea remained unrealized despite a series of proposals. Plečnik returned to the monolith even after its erection and developed several variants of its termination—for example in gilded sheet metal or semi-precious stones. In all proposals, the idea of a luminous accent reappeared, continually transformed into new forms.

1900s

The last major phase of changes took place during the presidency of Václav Havel. The Castle's chief architect became Bořek Šípek, while Eva Jiřičná and Josef Pleskot also worked here. Among the most significant interventions of this period were new entrances, a footbridge over Chotkova Street, a tunnel beneath the Powder Bridge and the new Orangery. Subsequent work focused mainly on the restoration of historic buildings within the Castle complex. The current illumination system dates from the 1990s.

Prague Castle provides a clear example of the transformation and significance of architectural illumination from the Middle Ages to the present. Lighting here has always reflected technological progress, social change and the symbolic perception of the Castle as a seat of power and a bearer of national cultural identity.

Illumination in a historical context

The earliest evidence of illumination within the complex dates to the medieval period, when portable light sources—torches, brands and oil lamps—were used to ensure basic safety and orientation. With the advent of gas lighting in the 19th century, illumination possibilities expanded significantly, bringing broader coverage and greater operational stability. The subsequent gradual introduction of electric lighting provided higher efficiency, reliability and more precise control of light distribution. Prague Castle became one of the first places in Prague where these innovations were applied to enhance the functionality and aesthetics of public space.

After 1918, when Prague Castle became the seat of the President of the newly established Czechoslovakia, there was a fundamental shift in the approach to its artistic and technical design. Architect Jože Plečnik incorporated a new lighting concept into his comprehensive reconstruction of the complex, treating illumination as an integral part of architecture. He sought to create an atmosphere emphasizing the historical significance of Prague Castle and its role as the center of state power. He promoted the timeless principle of wall-mounted lighting organically connected to façades and the principle of invisible illumination using indirect light without disruptive dominant elements. His approach was based on integrating light into the structure and expression of the building—preferring wall and cornice-mounted sources, indirect and concealed light that respected the authenticity of forms and materials. Surviving elements such as the cornice lighting of the Matthias Gate or Plečnik's "eyes" in the courtyards represent a unique synthesis of technology and aesthetics.

A crucial role was played by ceremonial illumination during the tenth anniversary of the Republic in 1928, when powerful floodlights were directed at the southern façades of the Castle and St. Vitus Cathedral, allowing their monumental silhouettes to dominate the nighttime panorama of Prague for the first time when viewed from the banks of the Vltava. This marked the transition from symbolic lighting to a modern, conceptual illumination of the monument.

After World War II, during which the Castle served as the seat of the Reich Protector and lighting was adapted for security purposes, a definitive ceremonial lighting system corresponding to the standards of state representation of the time was installed in 1948. From the 1950s onward, several attempts were made to innovate the Castle's lighting, but most proposals remained unrealized, such as the 1963–64 redesign of the Second Courtyard lighting by architect Prof. Frágner. By contrast, the illumination of Kohl's Fountain, the dominant feature of the Second Courtyard, was realized in 1973. The Lighting Design Studio led by Ing. arch. Ladislav Monzer built on a tradition of sensitive spatial perception, and the lighting masterplan defined and unified parameters such as colour temperature, light character and intensity.

Current illumination in a historical context

In 1994–95, a new illumination of St. Vitus Cathedral was implemented according to a conceptual design by the CNAT studio from Reims, under the direction of the Lighting Design Studio. Despite certain technical limitations, this system remains functional to this day. The lighting artistically distinguishes the oldest (Romanesque and Gothic) buildings from the newer (Renaissance and Baroque) layers using subtly differentiated shades of warm white light. While the southern frontage of the Castle employs a high degree of uniformity, emphasizing the majestic horizontal line of the palace façades in distant views, the articulated mass of the cathedral is illuminated with great care to highlight its tectonic structure.

Current considerations regarding the modernization of the Prague Castle lighting system aim to achieve a balance between historical fidelity, visual legibility of architectural forms and protection of the nighttime environment. The objective of the new concept is to minimize light pollution and achieve energy savings while preserving the exceptional atmosphere of the site, whose luminous image is an inseparable part of the cultural identity of Prague and the Czech Republic as a whole.

Given the cathedral's location in a densely built-up area, its illumination is designed both for distant views and for views from the Third Courtyard. Light sources are arranged on three vertical levels: directly in the paving for close-range perception, on the gallery 18 metres above ground to emphasize the mass of the nave, and on the roofs of surrounding buildings, from which they are directed at the cathedral for distant views. Illumination of the entire complex for distant views is provided by light sources with metal halide lamps mounted on sixteen poles along the fortification wall in the South Gardens at regular intervals. From the side of the Deer Moat and the Powder Bridge, the palace buildings are not illuminated by architectural lighting; from this viewpoint, the silhouette of St. Vitus Cathedral dominates together with the towers of St. George's Monastery, accentuated by light sources placed on surrounding roofs.

Analysis of the current state of Prague Castle illumination has confirmed that the concept created in the 1990s is exceptionally high in quality. It naturally emphasizes the importance of the monument and supports its aesthetic coherence and integrity when viewed from the city. However, the overall age of the lighting system and the advent of LED technology now require a new solution. It is evident that, especially in distant views, significant changes are undesirable. The existing brightness of façades is appropriate, and further increases could disrupt visual balance. Warm white illumination has proven highly suitable for the nighttime environment, sensitively respecting the historical context of the monument.

The key challenge for designers lies in the thoughtful placement and precise aiming of light sources—particularly when working with the details of the cathedral or with the illumination of dominant elements of individual courtyards. When illuminating the gardens, it is necessary to ensure that the light flux does not interfere with tree canopies, which currently cast pronounced shadows on palace façades. A new requirement is a stronger emphasis on nature protection and precise light control to prevent upward spill and the resulting light pollution. Lighting of Castle squares and alleys is currently very subdued, which significantly contributes to preserving the genius loci of the complex and creates an atmosphere highly appreciated by visitors. Nevertheless, there are several spaces where sensitive supplementation of the existing lighting with new elements would be appropriate. The overall concept of area lighting should also be reviewed in terms of glare, which can negatively affect visitors' visual comfort in the nighttime environment.



© Správa Pražského hradu, photo: Hana Connor