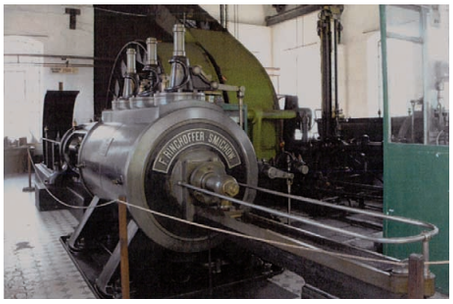

6

Obr. 6. *Vinařice, Hornický skanzen Mayrau, bubnový dvouválcový parní těžní stroj z roku 1905. Foto: Miloš Matěj, 2017.*

lze zmínit, že oddíl Literatura obsahuje 118 titulů, v pramenech se jich uvádí 30, v mapové příloze je zařazena přehledná mapa územní aglomerace v měřítku 1 : 100 000 a navazující listy B, C, D v měřítku 1 : 25 000 (Pavel Maren). Publikaci uzavírá stručné anglické resumé (summary).

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Karel KIBIC

God the Father with Angels in Tismice – a newly discovered commission of Josef Ignaz Mildorfer

Petr ARIJČUK

Keywords: Tismice, Maria Theresa of Savoy, Josef Ignaz Mildorfer, Černý Kostelec estate, Viennese Academy, 18th-century Austrian painting, Vienna and Bohemia

The Basilica of the Assumption of the Virgin Mary in Tismice is a valuable testament to Romanesque architecture in Bohemia. The building has been primarily presented in literature as such. In contrast, the Baroque ceiling and wall paintings in the church's interior, dating back to the mid-1850s, have only been only marginally highlighted. The authorship of the paintings has traditionally been credited to a virtually unknown local chaplain, Jan Svoboda. The Baroque painting covers the entire surface of the arch over the presbytery as well as the shallow niches in the front walls of the two naves; other paintings are located in the individual arches of the main nave and above the choir box.

An earlier restoration of this Baroque painting from the second half of the 19th century influenced its previous appearance. A recent restoration carried out in 2016 and 2017 revealed an interesting visual transformation. Most of all, the part of the painting restored in the church presbytery demanded re-evaluation. Here, under an earlier general overpainting that preserved the almost fully original Baroque composition, containing the central figure of God the Father accompanied by a cluster of angels, an unusually high-quality Baroque painting was discovered and revitalized. The clearly exceptional quality of the painting as revealed by the restoration virtually eliminated the notion of Jan Svoboda as the author.

Research of period sources specified that the painting in the church presbytery originated in 1755, in association with the newly purchased main altar. It was ordered by Maria Theresa Anna Felicitas Duchess of Savoy, Countess of Carignan, née Princess of Liechtenstein (1694–1772), to whom Tismice belonged as part of her estate in Central Bohemia. The painting on the presbytery wall replaced the traditional altar painting, and a sanctuary was added above the new marble altar refectory, which held a medieval mercy statue of the Madonna. It was the Duchess of Savoy who addressed this particular painter. Although his name does not appear in the well-preserved and hitherto studied sources, the Duchess's written texts repeatedly mention the painter she will have sent to Tismice from Vienna.

The painter may be identified as Josef Ignaz Mildorfer (1719–1775), a painter active in Vienna; he was a distinctive personality associated with painting in the Austrian lands as well as Hungary and Moravia. Mildorfer repeatedly appears in the service of Maria Theresa of Savoy from the late 1840s and worked for the Duchess until the end of her life. His earliest works in her service were done for the famous Savoy Knight Academy in Vienna, then he later worked on decorations for the Viennese Institute of Noblewomen at the Viennese Ursuline Monastery on Johanngasse. The only surviving commissioned work that Mildorfer created for the Duchess, however, is now only the paintings in Tismice. Other works, including both listed in Vienna, were lost in the 19th century or are now hidden (as was the case in Tismice for a long time) under later renovation works.

Illustrations: ***Fig. 1.*** *View of the presbytery of the church with the main altar, statue of the Madonna (copy) and painting with the theme of God the Father surrounded by angels, Tismice, Church of the Assumption of the Virgin Mary, condition given by the overpainting from the second half of the 19th century;* ***Fig. 2.*** *Figure of God the Father and the great angel, a more detailed view of the painting in the presbytery hollow, ibid.;* ***Fig. 3.*** *Josef Ignaz Mildorfer, detail of God the Father with sphere and scepter in hands and detail of head, 1755, after restoration, ibid.;* ***Fig. 4.*** *Detail of the head of God the Father, ibid.;* ***Fig. 5.*** *Josef Ignaz Mildorfer, detail of the head of God the Father, 1755, condition after restoration of the painting in the presbytery, ibid.;* ***Figs. 6–8.*** *Josef Ignaz Mildorfer, detail of angel's heads, 1755, condition after restoration, ibid.;* ***Fig. 9.*** *Josef Ignaz Mildorfer, detail of the motif of angels from the ceiling painting on the vault of the chapel, 1763, Znojmo, parish church of St. Nicholas, side chapel of the Child Jesus;* ***Fig. 10.*** *Josef Ignaz Mildorfer, detail of figure of angel with folded hands, 1755, condition after restoration, ibid.;* ***Fig. 11.*** *Josef Ignaz Mildorfer, detail of the motif of a cherub from figural ceiling painting on the vault in the nave of the church, around 1756, Šaštín, Pauline Monastery and Pilgrimage Church of the Virgin Mary;* ***Fig. 12.*** *Josef Ignaz Mildorfer, detail of cluster of cherubs from figural ceiling painting on vault in nave of church, around 1756, ibid.;* ***Fig. 13.*** *The Risen Christ – an author's undetermined drawing from the circle of Paul Troger based on Mildorfer's composition, painted for the Chapel of the Holy Cross in the Cathedral of St. Stephen in Vienna, probably around 1755;* ***Fig. 14.*** *Josef Ignaz Mildorfer, ceiling painting on the vault of the chapel with the scene of the Death of St. Benedict, 1755, Hafnerberg, Church of Our Lady, side chapel of St. Benedict;* ***Fig. 15.*** *View of the central scene with the theme of God the Father surrounded by angels, Tismice, Church of the Assumption of Virgin Mary, condition before restoration;* ***Fig. 16.*** *Josef Ignaz Mildorfer, view of the central scene with the theme of God the Father surrounded by angels, condition after restoration, ibid.*

In the new residential area. The buildings of architect Karel Láník in Brno-Královo Pole in the 1920s

Pavla CENKOVÁ

Keywords: Karel Láník, architect, Brno, Královo Pole, 1920s, interwar architecture

Architect Karel Láník, a forgotten figure in Brno interwar architecture, was the focus of a 2016 biographical study from the same author. It appears that the work of lesser-known architects involved in the dynamic construction in Brno in the 1920s has a wider scope than previously anticipated. Particularly in the case of Karel Láník, new facts have been discovered, especially in association with his cooperation with the Public Benefit Building and Housing Cooperative for Královo Pole and its Surroundings (Obecně prospěšným stavebním a bytovým družstvem pro Královo Pole a okolí), for which he designed numerous family and apartment buildings. The present article, narrowly focused on the works of Karel Láník in the Brno district of Královo Pole in the 1920s, has the character of a micro-probe and allows for a more detailed analysis of individual buildings and the historical and social circumstances of their origin. It extends the knowledge of the architect's work and, using his cooperation with the Královo Pole Cooperative as an example, maps the activities of numerous housing cooperatives that were active at the time.

The Public Benefit Building and Housing Cooperative for Královo Pole and its Surroundings was established on the basis of federal law on 25 May 1919 in order to ensure affordable housing for its member group. Karel Láník began working with the cooperative from the very beginning, essentially becoming its "court" architect. The cooperative's building activity varied in relation to the availability of state building assistance: it culminated between 1922 and 1923, when the legal conditions were most favorable. Even though the second half of the 1920s saw somewhat of a decline, new buildings continued to emerge.

The article presents a group of Láník's apartment buildings built for the Královo Pole Building and Housing Cooperative, most of which were concentrated in the area of Slovanské Square and its surroundings which was the center of the newly built representative center of Královo Pole. These include the following buildings in particular: block of five apartment houses at Purkyňova 1925/71 to 1929/79 (1920–1921), corner house at Husitská 1283/14 – Bulharská 2 (1922–1923), state post office employee housing at Kartouzská 225/6 (1922–1923), corner house at Skácelova 1356/4 – Ruská 2 and neighboring house at Ruská 1335/4 (1923–1924), tenement house at Královopolská 2713/149 (1927–1928), and corner house at Skácelova 1645/30 and 32 – Mečířova 1a (1927–1928). The article also provides information on several of Láník's tenement houses in Královo Pole, the investor of which was the city of Brno: municipal apartment building at Skácelova 1253/2a – Těšínská 2483/1 (1922–1923) and three municipal tenement buildings at Bulharská 1325/53, Bulharská 1323/59, and Bulharská 1324/61 (1923–1924), used to accommodate workers of the nearby Královo Pole municipal brick factory.

Probably the most ambitious project of the Královo Pole Cooperative was to build the "new residential area" situated between today's Dobrovského, Charvátská, Vodová and Vacková streets. This was a uniformly conceived colony of 39 family houses that represented the contemporary ideal of modern family housing. The construction was divided into two construction phases: the first 20 houses were built between 1922 and 1923, the remaining 19 between 1923 and 1924. The colony was made up of several typified houses whose varying layout and formal designs accommodated the different demands and financial possibilities of their applicants. During the construction, a popular type of semi-detached house was utilized, in which two uniformly conceived houses were built as semi-row units side by side and contained identical but mirror-inverted housing units.

New buildings, the investor of which was The Public Benefit Building and Housing Cooperative for Královo Pole and its Surroundings and or to a lesser extent the city of Brno (or the local committee in Královo Pole), were created primarily to mitigate the post-war housing crisis. Most of all, such buildings had to be functional and not very expensive, and they also had to comply with the limitations of a law regulating construction activities that put conditions on state building aid, the acquisition of which was crucial for this type of construction. Despite some utilitarianness, they managed to maintain a high level of building culture and combine simplicity and functionality with the requirement of a certain degree of representativeness.

The formal style of Karel Láník's architecture convened the fields of the "everyday life" character of ordinary residential construction of rapidly expanding suburbs. It can be considered as an example of traditional interwar architecture, a distant modernist avant-garde, yet still taking into account and utilizing contemporary ideological and formal tendencies. The starting point of inspiration for Láník's architectural work was undoubtedly the eclectic architecture of his teacher Karel Hugo Kepka, impressively transforming the forms of late historicism and Art Nouveau. Gradually, Karel Láník found his own peculiar style in which many details, especially decorative facade elements, are based on the impulses of geometric modernity or decorative facades of Czech architectural cubism, while at the same time not abandoning certain principles of historicizing tradition. Láník's buildings thus combine the residuals of late-historic residential buildings with current formal tendencies and building-technological processes, creating a distinctive tension due to the layering of traditionalist and modernist elements in an original synthesis of indisputable aesthetic qualities. At the same time, his architectural work is characterized by a repetition of favorite forms and creative experimentation with various possibilities of their variation.

At first glance, the façades of Láník's apartment buildings in Královo Pole are inconspicuous yet sophisticatedly composed structures, in which each element has its precise place in a harmonic harmony of the whole and are attractive in their mature sense of balance and moderation. Láník's family houses in the "new residential area" are also very impressive, with their timeless elegance and refinement together with their synergistic effect of architectural shapes placing them among the finest examples of urban creation in Brno in the 1920s. Generally speaking, the timeless value of Karel Láník's work must be emphasized in terms of urban design; we can observe the constant and successful efforts of the architect to sensitively integrate the new buildings into their immediate surroundings so that each of his buildings provides an original meaning in the context of a particular place and its history.

Illustrations: ***Fig. 1.*** *Karel Láník, plan of apartment houses, Brno, Purkyňova 1925/71 to 1929/79, facade (section), 1920;* ***Fig. 2.*** *Block of five apartment buildings, Brno, Purkyňova 1925/71 to 1929/79, 1920–1921, period photograph of new buildings after completion;* ***Fig. 3.*** *Block of five apartment buildings, Brno, Purkyňova 1925/71 to 1929/79, 1920–1921, current condition;* ***Fig. 4.*** *New villa district in Brno-Královo Pole, view from the corner of Vackova and Charvátská streets, contemporary photograph;* ***Fig. 5.*** *New villa district in Brno-Královo Pole, view from the corner of Dobrovského and Charvátská streets, contemporary photograph;* ***Fig. 6.*** *New villa district in Brno-Královo Pole, family house type A, Charvátská 1296/5 and 1295/7, 1922–1923, period photograph of the new building after its completion;* ***Fig. 7.*** *New residential district in Brno-Královo Pole, family house of BD type, probably Máchova 1308/1 and 1307/3, 1922–1923, period photograph of new building after completion;* ***Fig. 8.*** *New villa district in Brno-Královo Pole, family house type C, Dobrovského 1299/54 and 1300/56, 1922–1923, period photograph of new building after completion;* ***Fig. 9.*** *New villa district in Brno-Královo Pole, family house type F, Dobrovského 1309/62 and 1310/64, 1922–1923, period photograph of new building after completion;* ***Fig. 10.*** *Sculptor Karel Hynek Mach with his daughter in the garden of his house, Brno, Vodova 1313/6, 1920-30s;* ***Figs. 11–12.*** *Apartment building, Husitská 1283/14 – Bulharská 2, 1922–1923, period photograph from 1942 and current condition;* ***Figs. 13–14.*** *Apartment building, Brno, Kartouzská 225/6, 1922–1923, period photograph of new building after completion and current condition;* ***Fig. 15.*** *Karel Láník, apartment building design,*

Brno, Kartouzská 225/6, facade, 1922; ***Figs. 16–17.*** *Karel Láník, apartment building plan, Brno, Skácelova 1253/2a – Těšínská 2483/1, facade towards Těšínská street (1922) and current condition of the house;* ***Figs. 18–19.*** *Karel Láník, plan of apartment house in Brno, Skácelova 1356/4 – Ruská 2, facade towards Ruská street (section) and ground plan of 1st floor (section), 1923;* ***Fig. 20.*** *Karel Láník, plan of apartment house in Brno, Ruská 1335/4, facade of facade to Ruská street, 1923;* ***Fig. 21.*** *Apartment buildings, Brno, Skácelova 1356/4 – Ruská 2 and Ruská 1335/4, 1923–1924, current condition;* ***Fig. 22.*** *Karel Láník, plan of apartment house in Brno, Ruská 1335/4, floor plan of 1st floor, 1923;* ***Fig. 23.*** *Same, plan of apartment house in Brno, Bulharská 1325/53, facade (section), 1923;* ***Fig. 24.*** *Same, plan of apartment houses in Brno, Bulharská 1323/59 and 1324/61, facade (section), 1923;* ***Fig. 25.*** *Same, apartment building plan in Brno, Bulharská 1325/53, ground floor ground plan (section), 1923;* ***Fig. 26.*** *Apartment building, Brno, Bulharská 1324/61, 1923–1924, current condition;* ***Fig. 27.*** *Karel Láník, Apartment building plan, Brno, Královopolská 2713/149, ground floor plan, I. and II. floors, May 1927;* ***Fig. 28.*** *Apartment building, Brno, Královopolská 2713/149, 1927–1928, current condition;* ***Figs. 29–30.*** *Apartment building, Brno, 1645/30, 32 – Mečířova 1a, current condition and period photograph.*

“Building a Czechoslovak-Yugoslav friendship.” The Crystalex glass complex in Nový Bor

Petr FREIWILLIG

Keywords: industrial architecture, glass industry, Nový Bor, Crystalex glass complex

In the Lusatian Mountains, an area where the tradition of Czech glassmaking dates back to the Middle Ages, a modern glass factory was built between 1965-68 which aimed to concentrate all phases of hand-made utility glass production under one roof. The factory was built on the outskirts of Nový Bor, a town that boasts a very long tradition of glass production and trade dating back to the 18th century. At the time, Nový Bor and the nearby town of Kamenický Šenov were trading around the globe, giving rise to the Borsko-Šenov glassworks region. After most of the wood-burning smelters disappeared, the local glassmakers concentrated on refining; only in the last third of the 19th century did smelters begin to re-appear in the area, this time heated by coal and generator gas. During the Second World War, long-distance gas was piped from Záluží near Litvínov to the glassworks area, resulting in the connection of all local glassworks by 1956. The physical and moral obsolescence of a large part of the glassworks, receiving scant investment after the war, led to the construction of a new greenfield plant in the early 1960s. This was also a political decision, greatly influenced by the phenomenal success of Czech glass at the World Expo ‘58 in Brussels. Buildings and entire complexes were built up using typification, unification, prefabrication, and modular coordination. These terms soon became canon. For these multi-purpose and combined production buildings, great emphasis was placed on versatility and adaptability. Keeping with the humanistic tendencies of post-war Europe, great attention was paid to the level of the working environment and facilities for non-work activities, works of art, greenery, and especially the architecture itself. The tender project documentation for the glass complex was created at Skloprojekt Praha between 1962 and 1964.
The lengthy delivery times of domestic Czech suppliers, as well as the significant stimulus in developing Czechoslovak-Yugoslav trade cooperation, led to the construction being realized by Yugoslav companies. The Prague Skloprojekt company remained the general designer, but the Yugoslavian supplier Union Engineering brought Trudbenik Belgrade as the design engineer for the construction part and Monter Zagreb for the installation work and part of the technological distribution. Czech technology suppliers also participated in the project.
The Yugoslav partners brought a number of positive changes to the project which mainly affected the architectural design of the entrances. The original concept of hand manufacture in the metallurgical primary production section was abandoned in 1972 in favor of automatic line production, which turned out to be an economically more promising path for the further development of the plant. The automated production of utility glass, as well as machine grinding, was implemented for the first time in Czechoslovakia in this plant.

Illustrations: ***Fig. 1.*** *Nový Bor, utility glass factory National Enterprise Borské sklo, later Crystalex. The picture is dominated by the administrative and entrance building No. 634, on the left by the monoblock of the smelter with three chimneys. In the foreground are sculptures by Josef Klimeš and Stanislav Kovář;* ***Fig. 2.*** *Dorde Grujičić, eleven-storey administrative building with base of the entrance building, view from the factory yard;* ***Fig. 3.*** *Stanislav Kovář, sculpture in front of the entrance to the premises, canteen on the left, now a company shop, in the background on the right is part of the monoblock refinery;* ***Fig. 4.*** *Branko Veselinović, canteen and kitchen, now the Crystalex company shop. View from north from southwest;* ***Fig. 5.*** *Sculptor Josef Klimeš in the studio of Milan Vácha in Prague-Lysolaje;* ***Fig. 6.*** *The exhibition of glass in the interior is dominated by the sculptures of René Roubíček;* ***Fig. 7.*** *Stanislav Kovář, poster for the exhibition of Borské sklo, held in the summer of 1959;* ***Fig. 8.*** *Model of the glass complex in Nový Bor. Compared to the implementation project, the administration building gained even more robust proportions due to the prescribed modular network of 6×3×6 m;* ***Fig. 9.*** *Photograph from plant construction; Fig. 10. Cross section of steelworks construction after modification by the Yugoslav designer;* ***Fig. 11.*** *Plan view of the main production floor in the monoblock. Legend: S – supply of raw materials, Z – arrival of employees, E – dispatch of finished products, a – bath metallurgical operation, b – ladle metallurgical operation, c – cooling belt furnaces, d – initial processing, e – intermediate storage of first processed products, f – intermediate storage of products after refining, h – firing, k – painting shops, m – cutting shops, grinding shops;* ***Fig. 12.*** *Situation of the plant;* ***Fig. 13.*** *Floor plan of the 3rd floor of the administrative building, three-wing layout, staircases and lifts on the left, block of sanitary facilities on the right, survey of the current state, 1995;* ***Fig. 14.*** *View of the conglomerate in an undeveloped area in the late 1970s;* ***Fig. 15.*** *View of the plant entrance area during finishing, view from the south;* ***Fig. 16.*** *Interior of the reception lounge in the administration building;* ***Fig. 17.*** *Work in the painting workshop in the late 1970s;* ***Fig. 18.*** *Axonometric sketch of the glass factory in Nový Bor in 2019;* ***Fig. 19.*** *View of the complex from the northwest, before completion, on the left are the administrative building, block of sanitary facilities, transformer station and substation, then behind it three chimneys. The shot is dominated by the triple hall of the monoblock, boiler house chimney behind it, the batch plant on the right.*

The armor of Alfonso II d'Este at the Konopiště State Castle in the context of armor scale production for the Ducal Court of Ferrara in the 16th century

Stanislav HRBATÝ

Keywords: Renaissance armor, Italy, genus Este, Alfons II d'Este, Ferrara, Konopiště state castle armory, Dorotheum Auction House, portraits

The article is devoted to one of the most important armories in Europe, known as the Este armory at Konopiště Castle, and primarily deals with the identification of hitherto anonymous armor that belonged to Alfonso II. d'Este, Duke of Ferrara.

The introductory part deals with the history of how the arsenal formed and the identification of possible personal items of the individual Dukes of Ferrara in relation to the preserved militaria in the Konopiště collection as they compare to the militaria and iconographic basis in private and public collections around the world. This passage also deals with an analysis of the surviving depictions of the Dukes d'Este in armor. A separate part focuses on the production provenance of individual armors and especially French style armors, which were typical for the Ferrara court.

The central part of the article deals with the confrontation of the preserved armor in the armory at the Konopiště Castle and the portrait of the Duke d'Este sold by the Dorotheum Auction House in Vienna in 2000. The preserved armor of Duke Alfonso II d’Este, stored in the Hofjag – und Ruestkammer collection in Vienna was used as a comparative material. Individual parts of preserved

armor are analyzed and described in detail.

The article concludes with an evaluation of the results of this analysis, stating that the examined armor from Konopiště Castle is a very important document of armor scale craft of the 16th century combining Italian and French cultural environment; it also concludes that the preserved specimen at Konopiště and the depiction of armor on a portrait sold by the Dorotheum Auction House in Vienna in 2000 are identical.

Illustrations: ***Fig. 1.*** *Battista di Nicol' Luteri, called Battista Dossi, portrait of Alfonso I. d'Este of the Duke of Ferrara;* ***Fig. 2.*** *Left stirrup boot, Italy 1550–1560;* ***Fig. 3.*** *Girolamo Selleri, called Girolamo da Carpi (copy), Portrait of Ercole II. d'Este Duke of Ferarra;* ***Fig. 4.*** *Depiction of Alfonso II. d'Este Duke of Ferrara, Armamentarium Heroicum 1601;* ***Fig. 5.*** *Armor of Alfonso II. d'Este, Italy 1550–1560;* ***Fig. 6.*** *Alfonso II. d'Este, oil on canvas, Italy (Ferrara) 16th century;* ***Fig. 7.*** *Alfonso II. d'Este, oil on canvas, Italy 16th century, private collection;* ***Fig. 8.*** *Alfonso II. d'Este Duke of Ferarra, oil on wood, Germany 1575;* ***Fig. 9.*** *Armor of Alfonso II. d'Este, Italy 1540–1550, weapons collection, Konopiště State Chateau;* ***Fig. 10.*** *Right stirrup boot, Italy 1550–1560, weapons collection, Konopiště State Chateau.*

Archeology in Prague in the context of the birth of the Czechoslovak Republic

Ivana BOHÁČOVÁ

Keywords: archeology of a city, heritage, history, Prague, 20th century

The level of care for heritage properties in general is always dependent on current social necessity and the urgency at which they are accepted as part of a culture's own past. The same applies to the study of sources and its choice of topics. From the perspective of conception and organization of the care of archaeological sources in an urban organism, the activity developed by the Heritage Corps (Památkový sbor) of the City of Prague in cooperation with branch institutions after the establishment of Czechoslovakia in the interwar period represents an important chapter. Up to that point, Prague's archeology for this period had been completely marginalized, although it is linked to contemporary archeology in many ways and can still be a source of inspiration in some respects. The fact remains, however, that the framework that included the care of archaeological sources primarily involved the most important cultural and historical structures for capacity and financial reasons, and special attention was paid to sacral monuments. The concept of systematic protection of heritage properties, including archaeological ones, was based on interinstitutional and interdisciplinary cooperation and included the fields of preventive action, record-keeping, documentation and archiving, leading research in the case of endangered structures or sites, care for the preserved fund, and presentation of monuments to the general public. The Heritage Corps was an advisory council established at the initiative of the Ministry of Education and National Enlightenment from institutionally delegated representatives of experts, the municipal government, and the socially active public. Its activities were financed by the Prague City Hall (reorganized in 1920) and by state subsidies and were supported from other sources as well. The preventive action of the Heritage Corps was made possible by an immediate link to the Building Department of the City Hall, and its representatives also participated in negotiations concerning the overall concept of building the city. Records of realized research were to be ensured by the State Archaeological Institute, whereas the documentation (surveying, photographic) of realized researches and existing properties was provided by relevant professionals, mostly hired by the Heritage Corps; the actual field research was mostly secured, given the tragic shortage of professional archaeologists, by students or recent graduates, sometimes by individuals from other professions with practical experience in documentation and heritage research. The research focused mainly on the historical center of the city as an area affected by construction activity after the establishment of the Republic, and exceptionally also on important medieval localities outside Prague (Nový hrad near Kunratice, Ostrov near Davle). The initial vision, however, even though it was successful in creating relatively favorable conditions in the course of the 1920s and the first half of the 1930s, could not be permanently anchored in the system of research and protection of archaeological heritage properties. Many of the solutions then presented were ahead of their time, only decades later becoming a common part of current archaeological practice.

Illustrations: ***Fig. 1.*** *Karel Guth discussing research in the southwest corner of the III. courtyard of Prague Castle;* ***Fig. 2.*** *Karel Guth (left) and Zdeněk Wirth while documenting monuments, measuring tools in their hands. Probably a picture from near or around Prague, around 1910;* ***Fig. 3.*** *Rudolf Hlubinka (left) and Ivan Borkovský during research of Loreto Square in Prague's Hradčany, 9 May 1934;* ***Fig. 4.*** *Second page of the manuscript concept of a document formulated by Rudolf Hlubinka for the City Council, depicting the activities of the Heritage Corps;* ***Fig. 5.*** *A picture of a part of the minutes convened by MŠANO on methodology issues and the definition of competences of institutions involved in the study and protection of Prague's archaeological heritage;* ***Fig. 6.*** *A picture of a period document containing an inventory of members of the Heritage Corps, preserved in its collection, undated;* ***Fig. 7.*** *Research of Karel Guth before the rotunda of St. Martin at Vyšehrad, August 1924;* ***Fig. 8.*** *Research of the Vyšehrad Acropolis, uncovered masonry of one of the palace buildings above the "Libušina Spa", 1926;* ***Fig. 9.*** *Research of the Vyšehrad Acropolis, uncovered cellar space near Soběslavova street, 1934;* ***Fig. 10.*** *A picture depicting a construction site with a documented Old Town fortification before the construction of the Ministry of Commerce at Na Františku, 1928;* ***Fig. 11.*** *Research of the remains of a Romanesque house on today's Franz Kafka Square;* ***Fig. 12.*** *Research in Sokolská street, uncovering the church of St. John the Baptist on the battlefield 10 July 1929;* ***Fig. 13.*** *Research in the neighborhood of the church of St. John the Baptist – uncovering the bottom layer of graves in 1938, among the onlookers (in hats and coats) may be Ivan Borkovský and Rudolf Hlubinka, but the dimensions of the photo do not allow for clear identification;* ***Fig. 14.*** *A picture of Jaroslav Pasternak's journal record illustrating labor relations during research of the III courtyard of Prague Castle;* ***Fig. 15.*** *Report for ARÚ Prague from 1956, in which Jiří Müller, the last living member of the former Vyšehrad commission, describes in detail the provision of professional management of research at Vyšehrad;* ***Fig. 16.*** *Jiří Müller, Publication Plan of the Vyšehrad Research Commission and Overview of Popularization Activity, 1965.*

Historical values on the urban scale: Authenticity of historical cities

Jan JEHLÍK

Keywords: urbanism, heritage properties, values, phenomena, attributes, method

For the urban context of heritage protection, the following premise may be established: urbanism is primarily a theory of the formation and organization of a relatively coherent and distinct settlement, therefore the fundamental value attributes contain information on phenomena and attributes that support the structural and behavioral integrity of cities; the city as a whole is made up of a natural and cultural stratum, therefore the fundamental value attributes contain information on the foundation, development, and image of the settlement; the city as a whole is instrumentally structured from parts and elements, therefore the fundamental value attributes contain information on the organization, division, and composition of the settlement; the city as a whole is derived from its location and position within the landscape, therefore the fundamental value attributes contain information on the morphology, topography, and typology of the settlement; the settlement is an integral part of the landscape and its core is an integral part of the city as a whole, therefore the fundamental value attributes contain information on the links of all three of these basic parts of the settlement; the urban core is a constitutive and therefore stabilizing element for the whole city, therefore the fundamental value attributes of the core contain information about the phenomena that maintain this stability. The basic phenomena, manifestations, and attributes of the environment can therefore be structured, for

the purposes of heritage care, into the following scale sequence which, mostly, also reflects the time frequency of the transformation: 1. the position of the founding act in the context of the country and landscape; 2. the geometry of the network of paths and places, and the demarcation of outer boundaries or walls; 3. the shape, dimensions, and nature of public spaces, blocks, and plots; 4. the proportions, scale, and interconnectedness of structures; 5. the method of basic use of structures and areas; 6. layout and architectural expression; 7. articulation, materiality, color. Fundamental value attributes contain information about the existence, degree of authenticity, and synergy of these phenomena. The value and significance of a historical core are directly dependent on the extent and quality of its involvement in the whole city. In this context, it is therefore necessary to examine the degree of continuity, stability, and transformation in the significance of paths, stability and transformation in the significance of destinations, and the transformation of the natural centers and volumes of housing and amenities. A comprehensive image of the city is reflected in its organization, respectively in the manifestation of its developmental strata. In this context, it is necessary to examine the position of the natural center of the city, the importance of the core in the current image of the city, and the projection of contemporary life into the strata of its core. The comprehensive structure of the city is reflected in its division, respectively in the degree of interaction of its individual parts. In this context, it is necessary to examine the involvement of the core in the complex of characteristic parts and their interconnections, the hierarchy of paths and places, the degree of polyfunctional use, and the boundaries and interactions between the parts. The comprehensive construction of the city is reflected in its composition, respectively in its characteristic landscape and urban morphology, topography, and typology. In this context, it is necessary to examine the extent to which the historical structure (core, landscape) is the governing pattern for the morphogenesis of the city. The key phenomenon is the network of paths and places as the basic skeleton of the city and as a means of permeability and accessibility of the surroundings, the whole, and parts. This is related to the quality of public space in its physical and action manifestation. It is therefore necessary to examine the possibilities of natural and pleasant movement from all parts of the city as well as the conditions of an attractive stay on these paths in terms of linking locations. The decisive parameters are the scale, proportions, and interrelationships of all compositional elements – in the manifestation of matter, space, and processes. In this context, it is necessary to measure and interpret the transformations and anomalies of phenomena in their dimensions, quantities, and ratios. The urban value of a historic core is the stability (sustainability) of the basic city pattern, the viability of the physical and activity structure of the city and its parts, and the adequacy of all its interfaces, primarily the interface between the core and its neighborhoods. In this context, it is necessary to examine the form of the depiction and description of the basic characteristic of the city as a set of essential phenomena determining the basic framework for the overall development of the city; the natural involvement of the historical core in the life of the whole of the city is examined, among others. The urban value of the historical core is determined by the care for the elements of its memory, the maintenance of his habitation in the sense of an adequate mix of housing and relevant services, and the valuable contribution of present-day manifestations. In this context, it is necessary to examine the key conditions for the natural and general involvement of the core in the awareness of the city's inhabitants. The comprehensive identity of the historic center is maintained beyond the aforementioned by the active participation of the entire city's population in the life of the center, both through respective festivals, ceremonies, and rituals, as well as the comfortable and natural movement into the center and a stay there. In this context, it is necessary to examine the conditions of the city core for the exercise of daily and festive activities of the inhabitants of the whole city, primarily in terms of identification with its history and culture. The values of the city center, respectively of the entire city, are maintained through means of active care at regulatory, initiation, and action levels, and also at strategic, tactical, and operational levels in planning and design. In this context, it is necessary to examine the tools of care for the values and development of the city in the context of general knowledge and tendencies as well as in the context of the purpose and links of existing legal instruments.

Illustrations: ***Fig. 1.*** *Map showing the urban structure of Pelhřimov in relation to the landscape – a) 19th century, b) 20th century, c) 21st century;* ***Fig. 2.*** *Basic set of maps in a 3×3 matrix depicting the city of Pelhřimov at various scales and at different stages of development;* ***Fig. 3.*** *Space Syntax method using the example of an analysis of Pelhřimov – a) 19th century, b) present;* ***Fig. 4.*** *Pelhřimov, a) aerial view of the city center showing the location of the Vysočina department store (red), b) detailed aerial view of the Vysočina department store. The yellow line indicates the boundary of the urban heritage area and its protection zone;* ***Fig. 5.*** *Pelhřimov, a) historical view of the original built-up area from the middle of the 20th century on the site of today's Vysočina department store, b) current condition with the Vysočina department store from the south;* ***Fig. 6.*** *Pelhřimov, map layers depicting parcel and block structure on the site of today's Vysočina department store – a) situation in the mid 19th century, b) mid 20th century and c) current situation;* ***Fig. 7.*** *Pelhřimov, map layers depicting built-up areas on the site of today's Vysočina department store – a) situation in the mid 19th century, b) mid 20th century and c) current situation;* ***Fig. 8.*** *Pelhřimov, map layers depicting the granularity of urban areas on the site of today's Vysočina department store – a) situation in the mid 19th century, b) mid 20th century and c) current situation;* ***Fig. 9.*** *Pelhřimov, map layers depicting changes in registers in the 19th century and today on the site of today's Vysočina department store – a) changes in public spaces, b) changes in blocks and c) changes in built-up areas, purple indicates an increase, blue indicates a decrease;* ***Fig. 10.*** *Pelhřimov, map layers depicting the orientation of facades (marked in red) of individual buildings on the site of today's Vysočina department store – a) situation in the mid 19th century, b) current situation;* ***Fig. 11.*** *Pelhřimov, a) aerial view of the city at present, the border of the urban heritage area and its protection zone is marked in yellow, b) aerial view of the area on the site of the former road to Křemešník, on the border with the urban heritage area, today the intersection of roads 602 and I/34;* ***Fig. 12.*** *Pelhřimov, area on the site of the former road to Křemešník, on the border with the urban heritage area, today the intersection of roads II/602 and I/34 – a) situation from the mid 20th century, b) present;* ***Fig. 13.*** *Pelhřimov, map layers depicting the positions, forms, and sizes of built-up areas on the site of the former road to Křemešník, on the border with the urban heritage area (yellow), today the intersection of roads II/602 and I/34 – a) situation in the mid 19th century, b) mid 20th century, c) present;* ***Fig. 14.*** *Pelhřimov, map layers depicting the proportions and links of urban blocks, public spaces, and plots on the site of the former road to Křemešník, on the border with the urban heritage area (yellow), today the intersection of roads II/602 and I/34 – a) situation in the mid 19th century, b) mid 20th century, c) present;* ***Fig. 15.*** *Pelhřimov, map layers depicting changes in registers in between the 19th century and today on the site of the former road to Křemešník, on the border with the urban heritage area (yellow), today the intersection of roads II/602 and I/34 – a) changes in public spaces, b) changes in blocks, c) changes in built-up areas. Purple indicates an increase, blue indicates a decrease in construction;* ***Fig. 16.*** *Pelhřimov, map layers depicting networks of roads and places in the Pelhřimov area as well as in the surrounding open landscape, with the marked heritage area and its protective zone (yellow) – a) situation in the mid 19th century, b) mid 20th century, c) present.*

New knowledge about the sound of the musical organ of the Brno and Loket organ school and the restoration thereof

Petr KOUKAL

Keywords: organ sound, Loket organ school, Brno organ school, acoustic research, cores of organ pipes, core lugs

The issue of heritage musical organs, due to the growing number of their restorations, has become one of the more frequent topics of contemporary monument preservation. When restoring an organ, we

must use as a basis the general heritage theory (see Basic Concepts in the Care of Cultural Heritage [Základní pojmy v péči o kulturní dědictví], Pardubice 2013), whose principles also apply in this area. This applies in particular to restoration, which "must always respect the authenticity of the heritage property and must not exceed the boundaries of hypothesis." The restoration itself (including the intervention conservation method) aims to "detect, protect, and preserve the historical values of the degraded property". The definition of authenticity also applies to the organ: "Origin and authenticity of the monument. This is not to be confused with the concept of originality in the sense of uniqueness." General theory is aware of the fact that within the framework of heritage practice there exist several types of authenticity, while "in the European environment, the authenticity of the material substance prevails". This is most likely due to the prevailing type of "visually perceived" monuments in the local environment. The essence of the organ as a heritage property, however, is its audio aspect; this has been recognized by European organ heritage care for several decades. The concept of monumental authenticity must therefore be applied to the sound of the organ and must emphasize the above-mentioned requirement – the boundaries of hypothesis must not be exceeded when restoring it. This is an extremely difficult task in this case, since its interpretation is heavily burdened by subjective interpretations. The present text therefore offers a new way to at least obtain partial objectification for the assessment and methods of renewing the audio aspect of an organ. It is based on a knowledge of the possible importance of a certain type of cores with so-called "lugs" (nálitky) in metal pipes, which, as confirmed by field documentation, regularly appear in two of our most important Baroque organ schools, Brno and Loket, in contrast with other organs in the European environment. Acoustic research has objectively confirmed the effect of this type of whistle core on the resulting sound. These results should therefore become part of restoration practice.

Illustrations: ***Fig. 1.*** *Organ whistle, the core of which has a distinctive lug, part of the organ made by the Brno master Johann David Sieber (ca. 1710), parish church in Žďár nad Sázavou;* ***Fig. 2.*** *Organ pipe with core without lug, part of the organ from the workshop of George Spanel of Rokytnice in the Orlické Mountains (1831), church of St. Mary Magdalene in Řetová;* ***Fig. 3.*** *Radiograph of the core of an organ pipe, part of the organ from the workshop of organ maker Bedřich Semrád, 1765, monastery church of St. Peter and Paul, Nová Říše;* ***Fig. 4.*** *Time course and spectrogram of transient of experimental whistle ID 1 (pressure 70 mm H2O, temperature 23.9 °C, relative humidity 45.7%);* ***Fig. 5.*** *Time course and spectrogram of transient of experimental whistle ID 2 (pressure 70 mm H_2O, temperature 23.9 °C, relative humidity 45.7%);* ***Tab. 1.*** *Parameters of experimental whistles for first measurement;* ***Tab. 2.*** *Parameters of experimental whistles for second measurement after core replacement;* ***Graph 1.*** *Comparison of the harmonic spectrum of the organ pipes ID 1 (core with lug) and ID 2 (parallel core without lug);* ***Graph 2.*** *Comparison of the harmonic spectrum of organ pipes ID 1, ID 2, and ID 3 (conical core without lugs).*

NHI tour guides: who are they and what do they need?

Radka RANOCHOVÁ

Keywords: guide, sightseeing tour, heritage building, revitalization

Publicly accessible sights in the Czech Republic usually offer guided tours. The guides that lead them are both permanent employees and, in most cases, seasonal temporary workers. They present the cultural and historical heritage of the country to millions of visitors every year, and therefore due care should be taken in this profession. This is one of the reasons why the project "Presentation and Interpretation of the Historical Environment as an Integral Part of Cultural Education in the Age of New Media and Fluid Modernity" is now active; one included aspect is the revitalization of guide care. It also focuses on heritage properties managed by the National Heritage Institute (NHI, NPÚ), which includes nearly one hundred mainly fortified castles, residential castles, and monasteries.

This study presents the results of a nationwide survey among guides that took place at the end of 2018. The survey and its results try to better answer the basic questions of: What are the guides like? Where do they come from? Why have they decided to guide? and What does this work give them? The study also focused on the painful spots that this work entails and how they could be addressed. The questionnaire received a response from every fifth guide addressed, two thirds of whom were secondary school or university students. The study is slowly starting to focus on other groups, such as parents on maternity leave and active seniors.

The main motivations that bring the guides to the heritage site is an interest in history, the possibility of working with people, and temporary work near their residence. After the first year of experience with guiding, the guides appreciate the acquisition of soft skills (mainly rhetoric and conflict resolution) and contact with people. The guides gradually learn how to maintain the attention of different groups of visitors, especially mixed groups. For many guides, the presence of families with children is difficult, and many guides do not know what to do; this offers ample room for finding solutions to prepare them for this.

The guides themselves would appreciate several types of support in their work. The first is, of course, recognition for well done work and good relationships at the workplace. They would also like to have the opportunity to deepen their understanding of history and knowledge about the heritage site itself, ideally through extended tours in the site led by an administrator or other expert, or through lectures. Even though it was found that the guides remain 75% true to one site, they would still welcome the opportunity to share experiences with other guides from nearby or similar heritage sites. Last but not least, they mentioned higher pay as a possible area of support.

The questionnaire survey is one of the starting points of the entire project and the basis for necessary and current topics for a broader discussion and upcoming workshops. The presentation of heritage sites in the form of guided tours, even with the simultaneous introduction of other forms, will continue to be the main method of presentation; this now depends on whether adequate support and care will be provided to ensure that quality guides remain.

Illustrations: ***Fig. 1.*** *A guide with a visitor group during a tour inside the chapel of the Švihov State Castle;* ***Fig. 2.*** *Map of the Czech Republic with designated buildings under the administration of the NHI showing the geographical distribution of respondents. The size of the point corresponds to the number of respondents from the given building, while the lighter points with smaller description show the buildings from which the guides did not participate in the survey. Respondents who did not list the object are not shown;* ***Fig. 3.*** *Guide with the visitor group during a tour at the Kuks Hospital Lapidary;* ***Tab. 1.*** *The questionnaire intended for respondents among guides at NHI heritage buildings as part of the nationwide questionnaire survey, 2018;* ***Tab. 2.*** *A few selected quotes from the answers of guides at NHI heritage buildings who participated in the questionnaire survey in 2018;* ***Graph 1.*** *Graph showing the representation of permanent and seasonal guides by age group (absolute numbers);* ***Graph 2.*** *Percentage of various forms of guide accommodation. 70% of the surveyed guides chose a heritage site at or near their residence;* ***Graph 3.*** *Graphical visualization of the answers to the open question of where the interviewees see the benefits of this work for themselves; responses showed that the greatest benefit for the guides is the acquisition of soft skills and the possibility of contact and work with people;* ***Graph 4.*** *Graph illustrates the decreasing dislike for children visitors as the age of the guide increases. More than half of the guides under the age of 25 rank children as unfavorable visitors.*

House No. 5 in Trávníček; the survey of a homestead in the Českodubsko area

Tereza KONVALINKOVÁ – Martin OUHRABKA

Keywords: folk architecture, Českodubsko, Trávníček, Liberec region, area survey, heritage care, dendrochronology

The rural homestead No. 5 in the village of Trávníček is another example of a specific form of a timbered house in the area of Českodubsko and Pojizeří which, by its constructional design, refers to a very conservative building tradition associated with the development of heating equipment and storeyed houses. Previous surveys have shown, among other things, that houses in this form, i.e. with a high room with a half-storey structure and a connected storeyed agricultural part, comprise one of the oldest preserved layers of folk architecture dating back to the 17th century. The results of newer documentation of house No. 5 in Trávníček brought new findings, however, which change our current view of the buildings in certain respects.

The village of Trávníček is located approximately 4 km south of Český Dub. It is situated in the valley of the Mohelka River for a length of about 1.5 km. The village is divided into two enclaves – upper Trávníček in the east, on the way to Sedlíšťka, and lower Trávníček in the west at the intersection of the roads to Libíč and Hradčany. The first evidence of the village's existence dates back to 1546. The name Trávníček (Cz: little grassy area) probably refers to its existence as an irrigated valley flood-plain that served as a significant source of forage for the surrounding villages. The village was spared from modern construction interventions, and its appearance and conservation status bear the values of a potential village heritage zone. The homestead structure No. 5 is one of the oldest root homesteads in Trávníček. The history of the homestead is not linked to a single family; on the contrary, the land was sold several times outside the direct hereditary line.

The partially timbered house has a rectangular ground plan, and the southern entrance of its longitudinal facade faces a non-demarcated yard and the slope above the vehicle passageway. The building is storeyed in its agricultural part, while the height of the chamber floor is evened out by the high living room and the reinforcing perimeter ring of the half-storey in the residential part. The interior layout on the ground floor is based on a three-part layout, with a hall and a brick shed, accessible from the porch of the southern longitudinal façade ties into the living room. In the second wing of the house, the deeper ground plan of the shed in the north lines up with the addition of the chamber and the side living room. The masonry niche of the smoke kitchen has been preserved in the northeast corner of the hall. On the first floor, the narrower space of the upper hall, as well as a triad of chambers accessible through the gallery, ties into the structure of the timbered residential part. The cellar is recessed longitudinally with the ground plan of the house under the southern part of the living room and hall. A simple shed with a shed roof adjoins the western gable façade.

Given the typical appearance of the timbered half-storeyed house and the connected agricultural storey, as well as a number of other details consistent with hitherto known analogies, the initial estimation of the construction of homestead No. 5 in Trávníček was assumed to be around the middle of the 17th century. The oldest construction elements that were dated by dendrochronological analysis to 1680-1685, were present only in relics of contemporary constructions. Most of the other dated elements belonged to the later construction phase from the end of the 1780s. It is therefore evident that the present house was built onto its predecessor, a large part of which originated in the 1680s. From the beginning of the 18th century, fully-fledged storeyed houses were built in the immediate vicinity; and the situation in which a variant of the house, whose construction form may have been understood as an archaic relict already in the 17th century, was simply repeated, cannot be satisfactorily explained. An explanation of these questions, as well as others, arising from the survey of house No. 5 will hopefully bring about a progressive knowledge of other buildings of the same constructional design.

It should not be overlooked that this historically credibly preserved house is undoubtedly becoming an important material source documenting the form and development of rural architecture from the 17th to the 20th century, which is currently threatened by an invasive building doctrine.

Illustrations: ***Fig. 1.*** *Trávníček, western enclave of buildings, view from south, undated, first half of 20th century. In the lower right part of the picture, there is a clear forage area divided into narrow stripes of land belonging to resident and non-resident owners. The house in question is located on the left side of the picture, hidden behind its own barn standing in the highest position above the valley;* ***Fig. 2.*** *Graphical representation of the development of Trávníček development, ČÚZK cadastral map;* ***Fig. 3.*** *Trávníček, section from the map of the "imperial imprint" of the stable cadaster from 1843, homestead No. 5 together with farm buildings marked with an arrow;* ***Fig. 4.*** *Trávníček, homestead No. 5 (hereinafter referred to as "No. 5"), view from the southeast;* ***Fig. 5.*** *No. 5, view from the south;* ***Fig. 6.*** *No. 5, view from the southwest;* ***Fig. 7.*** *No. 5, view from the west;* ***Fig. 8.*** *No. 5, entrance to the third chamber on the first floor of the house. The masonry of the younger part of the house adjacent to the timbered corner of the former western gable of the facade is clearly visible;* ***Fig. 9.*** *No. 5 – a) entrance to the middle chamber on the first floor of the house, b) stylized drawing of the same situation and a mechanical drawing of a wooden lock by J.V. Scheybal;* ***Fig. 10.*** *Trávníček, homestead No. 5, detail of an uncovered lock on the exterior side of the middle chamber door;* ***Fig. 11.*** *No. 5, detail of the uncovered lock on the interior side of the middle chamber door;* ***Fig. 12.*** *Trávníček, homestead No. 5, detail of wooden lock on the exterior side of the front chamber door;* ***Fig. 13.*** *No. 5, interior side of the middle chamber door. Photo: Martin Ouhrabka, 2019;* ***Fig. 14.*** *Trávníček, homestead No. 5, shed interior, view from the south;* ***Fig. 15.*** *No. 5, hall interior, view from the south;* ***Fig. 16.*** *No. 5, hall interior, view from the north;* ***Fig. 17.*** *Trávníček, homestead No. 5, interior of the rear chamber on the upper floor, view from the north;* ***Fig. 18.*** *No. 5, view into the roof area of the second wing of the house from the northwest, former exterior side of the timbering of the northern façade;* ***Fig. 19.*** *No. 5, view of the attic and space of the half-storey from the east;* ***Fig. 20.*** *No. 5, eastern part of the roof truss with apparent construction for directing smoke, the pin marks the cap after the removal of the gable shield;* ***Fig. 21.*** *No. 5, eastern part of the roof truss, second and third crossties from the eastern gable, with apparent construction for directing smoke;* ***Fig. 22.*** *No. 5, back space of the hall on the first floor, the arrow marks a mortise in the beam of a partition potentially related to the passage of an older wood-clay variant of the chimney;* ***Fig. 23.*** *No. 5, face of the former western gable roof truss, the arrows mark the outer shuttering imprint and the gable mortise;* ***Fig. 24.*** *No. 5, relics of sandstone fittings of the upper part of the older chimney body;* ***Fig. 25a.*** *Legend of the graphic depiction of constructional development to* ***Figs. 26-30****;* ***Fig. 25b.*** *Trávníček, homestead No. 5, ground floor plan with evaluation of building development;* ***Fig. 26.*** *No. 5, ground plan of the first above-ground storey with evaluation of the building development;* ***Fig. 27.*** *No. 5, ground plan of the second above-ground storey with evaluation of the building development;* ***Fig. 28.*** *No. 5, longitudinal section with evaluation of building development;* ***Fig. 29.*** *No. 5, cross--section with evaluation of building development.*

Half-timbered house in the northern Plzeňsko area on the example of building No. 1 from Popovice near Chrančovice

Karel FOUD, Stanislav PLEŠMÍD

Keywords: northern Plzeň, folk architecture, general survey of rural settlements, half-timbered house, 18th-19th century, historical fillings of building openings

The fund of historic houses in the northern Plzeň region, represented by a number of buildings featuring folk architecture, is a remarkable example of several architectural styles and constructions. In addition to timbered houses, one can also observe masonry buildings (stone, unburned and ceramic brick), and, to a limited extent, half-timbered buildings as well. Half-timbered buildings are preserved in the district of Plzeň-sever in Rabštejn nad Střelou and especially in the small town of Úterý. Several other buildings have also survived around Úněšov. One of these buildings is homestead No. 1 in Popovice near Chrančovice (Plzeň region, Plzeň-sever district). The house bears a classic three-part layout, in this case with a shed type.

The ground floor is stone (the living room was probably timbered in the past) while the upper floor is completely half-timbered. The courtyard side of the floor is interrupted by a gallery, covered by a roof overhang and extended from the hall to the edge of the northern gable. The skeleton of the half--timbering is a standard frame, with only the gables bearing a more accentuated creativity. In addition to these elements, the builder also added profiled wooden ledges and decorative elements above the windows. The columns of the gallery are also decorated. The preserved style fillings of the building's openings are also remarkable, particularly the windows of the dwellings above the living room; it probably dates from when the building was constructed, with details typical for Baroque windows. The building, constructed in the first half of the 1790s according to dendrochronological dating, fell into a bad state during the last third of the 20th century. In 2016, a general overhaul was launched. House no. 1 in Popovice from the north of Plzeň is a unique example of the use of half-timber framing in a region where the construction of such structures was suppressed in the last two-thirds of the 20th century; such structures were typical for the linguistic boundary areas of Czech and German culture (Popovice included), and they also provided a mark of exceptionality.

Illustrations: ***Fig. 1.*** *Popovice (Plzeň Region, Plzeň-sever district), homestead No. 1 (hereinafter referred to as "No. 1"), view from the courtyard from the southwest to the residential structure;* ***Fig. 2.*** *No. 1, view from the southeast, 1963;* ***Fig. 3.*** *No. 1, south view of the south gate with a gate facing the courtyard on the south facade of the residential structure, before the demolition of the gate in 1963;* ***Fig. 4.*** *No. 1, south-west view of south and west façade of residential structure, 1963;* ***Fig. 5.*** *No. 1, northwest view of the north and west façade of the residential structure, 1963;* ***Fig. 6.*** *No. 1, residential structure, view from the west;* ***Fig. 7.*** *No. 1, residential structure, longitudinal east side and gable north side, view from northeast;* ***Fig. 8.*** *No. 1, residential structure, east side, ground floor of the residential part, section with hole from extinct forward-set bread oven;* ***Fig. 9.*** *No. 1, residential structure, first floor, view north towards the north gable and into the area of the former granaries above the sheds, condition after removal of the timber fillings;* ***Fig. 10.*** *No. 1, residential structure, dwelling room upstairs above the living room, view south from the hall;* ***Fig. 11.*** *No. 1, residential structure, south facade, eastern edge axis, simple window in a half-timbered wall, decorated with profiled wooden sub-window ledge and above-window decoration in the shape of a triangular fronton;* ***Fig. 12.*** *No. 1, residential structure, west (courtyard) side, first floor, vista of galleries from south to north;* ***Figs. 13–14.*** *No. 1, residential structure, west side, carved column and half-column of the gallery, behind the pillar there one of the two last extant exterior shutters is visible, at the bottom of the picture there is a clear profiling of the sill beam of the half-timbered wall;* ***Figs. 15, 17.*** *No. 1, residential structure, first floor, chamber above the living room, view of the window in the east wall, equipped with a wrought-iron grille attached with nails to the skeleton of the half-timber;* ***Figs. 16, 18, 19.*** *No. 1, residential structure, simple window in the dwelling room on the floor above the living room, west facade, second window axis from the south. The window opening is filled with a rigid frame divided with a cross, carrying the hinges for the window sash only in the lower part. Rigid glazing in a groove can be seen above the transom. The window sashes in the corners reinforce the ornamentally designed corner piece, a wrought wound two-arm swivel is fixed in the vertical column of the frame;* ***Fig. 20.*** *No. 1, residential structure, first floor, south-west view of the northern wall of the hall with entrance to the granary;* ***Fig. 21.*** *No. 1, residential structure, hall upstairs with staircase to the attic, south-east view of the east wall with window (left) and south wall with the remnants of the masonry structure of the former firebox. On the far right is the entrance to the dwelling rooms above the living room;* ***Fig. 22.*** *No. 1, residential structure, attic, view of the northern gable;* ***Fig. 23.*** *No. 1, residential structure, view from the northeast, after renovation of half-timbering and hole fillings;* ***Fig. 24.*** *No. 1, residential structure, dwelling room upstairs above the living room, view from the hall southwards, condition after renovation of walls and openings;* ***Fig. 25.*** *Indicative sketch of the map from the stable cadaster, Popovice – Popplowitz, homestead No. 1 on property 30;* ***Fig. 26.*** *No. 1, residential structure, southern gable facade, condition after renovation of half-timbering and hole fillings;* ***Fig. 27.*** *Homestead No. 1, windowpane, floor of the west facade, second axis from the south. Drawing documentation – frame – view 1:10, vertical and plan view 1:10, sections 1: 1;* ***Fig. 28.*** *Homestead No. 1, windowpane, first floor, west facade, second axis from south. Drawing documentation – window – views 1:10, sections 1: 1;* ***Fig. 29.*** *Homestead No. 1, windowpane, first floor of the west facade, second axis from the south. Drawing documentation – window – details of fittings 1:1;* ***Fig. 30.*** *Homestead No. 1, window opening, first floor of the west facade, second axis from the south. Drawing documentation – sections from the lintel and windowsill 1:1;* ***Fig. 31.*** *Homestead No. 1, door in the partition between the living room and the shelter on the first floor of the living area. Drawing documentation – views and plan view 1:10; profile of transom filling 1: 1;* ***Fig. 32.*** *Homestead No. 1, door in the partition between the living room and the shelter on the first floor of the living area. Drawing documentation – 1:1 section of left vertical interior frame piece.*

Stratigraphic survey of facade colors

Petr KUNEŠ

Keywords: facade survey, color survey, stratigraphy, color scheme of facades, microscopy, sample, surface treatments

The stratigraphic survey of surface layers, i.e. an examination of a section perpendicular to the layer of paints using a microscope, is an important source of knowledge about the older rendering of historical façades. As with other methods of study, the possibilities of stratigraphy are limited both technically and interpretatively. A meaningful use of the results of stratigraphic research in practice is therefore conditioned by a knowledge of the possibilities and limits of this method. A stratigraphic survey should be considered as an extension and complementation of findings obtained in situ by a facade survey. Such a survey determines the choice of sites as well as the quantity and method of sampling for stratigraphy, and it usually also decides on the further usability of the obtained laboratory results. The selection of suitable sampling sites is also crucial for their quality. The appropriate number of samples taken for stratigraphy should always be assessed individually, taking into account the complexity and layered facade; it is also largely dependent on the experience of the researcher and should therefore be left to his/her discretion.

A sampling must always be based on specific and explicitly stated reasons for taking a sample from that particular site. The sampling itself is most often carried out by carefully cutting a small cube of the base plaster with a sharp chisel; a sample with an area of about 1 cm2 is ideal, and it is essential to capture the entire relevant composite of layers. Appropriate storage of the sample, marking the sampling site in the plan with field notes, and photographic documentation of the sampling site should be a matter of course. In addition to a description of the collection site, it is advisable to supplement the samples with simply phrased descriptions of the finding situation. The actual stratigraphic survey consists of observing a cut section perpendicular to the plane of the façade surface with modifications using an optical microscope in reflected white light. Further information about individual layers can be obtained from observing fluorescence induced by UV radiation, or through the use of more demanding instrumentation. Observation of the perpendicular cross-section allows for a very clear observation of the chronology of the layer modifications, their thickness, homogeneity, condition, and surface alteration or contamination. On the other hand, the properties of the surface treatments which may be equally important for the general surface appearance, such as the translucence of the treatments, the optical behavior of the coatings in the surface, the presence of shading, glazing, drawings, etc., may be more difficult to read from the section, if at all.

The tonality and luminosity of the treatment on the sample can also be significantly influenced by embedding the sample in a resin and the different effect of the layer coating when viewed in on the overall surface and on the cut. These changes are mainly due to the replacement of air in the pores of the coating with a liquid resin, which is a material

with a significantly higher refractive index than air. For this reason, the stated optical shifts are significant in the case of porous (highly absorbent) coatings, typically on lime coatings, which are the most common modifications of historic facades. In addition to observing the individual coatings, the interface between the coatings can also be well observed on the sample. This interface may reflect the exposure of the building to weather, i.e. in particular degradation and contamination of the coating, and thus serve to distinguish the temporal succession of the treatments.
A stratigraphic survey of surface treatments plays an irreplaceable role in the investigation of historical buildings; it brings a significant amount of unique knowledge about the development of facades, and it contributes to the objectivity of color schemes considered in their subsequent renovations.
At the same time, however, this is always a partial documentation that must be evaluated individually in the context of each specific building, its construction development, and of the objectives of its renovation.

Illustrations: ***Figs. 1a, b.*** *An understanding of more complex facade modifications (1a) is complicated by the varying degree of preservation of the individual stages, with the preservation being fragmentary in the overall area. If a sampling point is clearly defined, stratigraphy (1b) contributes fundamentally to an understanding of the stage and construction of the painting;* ***Fig. 2.*** *A sample shows a number of lime coatings with very light color. Visible tinted coatings (3, 5, 7, 9, 10) on the stratigraphy alternate with white substrates (2, 4, 6, 8), but the exact color tone of the visual modifications is difficult to determine from the sample;* ***Figs. 3a, b.*** *Experimentally performed lime coatings with different pigmentation intensity, the stratigraphy of these strata is shown in Figure 4;* ***Fig. 4a, b.*** *Stratigraphy of the strata of coatings from Figure 3a, b. In the case of a lighter scale, the stratigraphy showing the resolution of two well-distinguishable luminous tones in the area (coatings D and E) is already relatively difficult. At the same time, it is apparent how the saturation of the coatings with the resin has brightened in particular the dark ocher tones to yellow (see layer C);* ***Figs. 5–6.*** *On the stratigraphic section, it is possible to decide whether the large gray-black surfaces exposed by probing (Fig. 5) are a deliberate finish or, as in this case (layer 2 in Fig. 6), are only a thick layer of deposits;* ***Fig. 7.*** *The presence of impurities makes it possible to distinguish, on the sample, the different stages of visual modifications. In this case, deposits related to surface exposure are evident on coatings 2, 3, 5, 7, and 9 and also directly on the stucco layer (layer 1), while coatings 4 and 6 can be considered as substrates;* ***Figs. 8–10.*** *It is a very windy path from research to the successful realization of the color design of the facade. The facade of the house no. 1531 on Politických vězňů Street in Prague had an overt ocher-reddish tone (Fig. 9) before renovation, which was confirmed stratigraphically (Fig. 8, Layer 4). Not only the unsuitable color design, but also the unnatural character of the selected coating system, contributed to the poor result of the renovation (Fig. 10);* ***Fig. 11.*** *The human mind adjusts visual perceptions based on its previous experience. The chess fields A and B are in fact the same color and thus cause the same retina reflex. Yet we perceive the shaded field B as lighter, because we unconsciously assume that it must be lighter than it appears in the shadow.*

The Influence of frost and anaerobic aging on particle size of lime slurry prepared by different procedures

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Keywords: building technology, properties of lime slurry, lime, traditional preparation of building materials

The article presents selected results of research on the properties of lime slurries prepared using different methods but from the same raw material, in order to determine whether a traditionally prepared slurry can be replaced by a slurry created using an alternative process. The research also included a partial experiment that studied the effect of frost on the properties of lime slurry.

The investigated lime slurries were prepared by 1) traditional slaking of lump lime (Traditional slurry) and by 2) dry blending a slaked lime hydrate with water (Hydrated slurry). The raw materials used to prepare the slurries came from the same producer (Vápenka Čertovy schody a.s.). This reduced the impact of raw material quality and the firing regime on the evaluated parameters of the slurry in the experiment. The slurry was evaluated after 6 months, 1 year, and 2 years, while the effect of frost on the slurries was studied after the slurry had anaerobically aged for 30 months. The evaluation was performed by comparing the data measured under the same conditions. This reduced the possibility of error due to measurement conditions.

The results of change in the granulometry of the slurry particles during the aging process are described. For both slurries prepared in a different way, the anaerobic aging, i.e. long-term contact of the lime with water in the absence of air, is a process that leads to a refinement of the binder particles; this can be interpreted as an improvement in the slurry properties and is important for construction purposes, particularly for the modern renovation of historical architecture (plasticity, processability, binding, and the like).

Traditional slurry prepared by wet slaking showed slightly better properties in the particle refinement process when aged, compared to the Hydrated slurry. This occurred more intensively for the Traditional slurry, especially after the first year of aging and also spontaneously after the frozen slurry was thawed and the thawed Traditional slurry was intensively mixed. These results were obtained by extending the experiment to include an assessment of the properties of the slurries exposed to frost. After freezing and thawing, the slurries lose their characteristic properties (binding, consistency, plasticity). The size distribution of the lime particles shifts towards the coarser particles after freezing and thawing the slurries, which can be explained by the formation of agglomerates of portlandite ($Ca(OH)_2$) crystals in the slurries. Already after a month after the slurries were thawed, there was a tendency of both slurries towards a spontaneous refinement of the slurry structure after freezing. This was more pronounced in the Traditional slurry than in the Hydrate slurry, as already mentioned. Intensive mixing (mechanical reactivation) of the slurries exposed to frost resulted in both slurries gradually returning to the particle granulometry they had before freezing. The likely cause of this is the breakage of particles (agglomerates of portlandite crystals) by mechanical action during stirring. The Traditional slurry also showed more intense texture refinement than the Hydrate slurry in this experiment.

These conclusions apply to the investigated type of lime. In order to generalize the measured results for other types of lime, it would be necessary to carry out the same experiment for them.

Although granulometry is a precisely evaluable material property, as yet there are no ranges of values to determine which particle size or size distribution clearly indicates the suitability of a slurry for construction purposes. However, it can be generalized that the user properties of the slurries generally improve with the increased fineness of the particles.

Since lime particle size refinement occurs intensely with lime slurry aging, the use of aerated lime in the form of an aged lime slurry can be preferred over the direct use of lime hydrate for the preparation and the subsequent direct use of mortars for heritage preservation.

The research has contributed to the understanding that the properties of building materials prepared by traditional methods exhibit unsurpassed properties so far proven by empirical excellence. The disappearance of traditional building skills, as well as traditional crafts or arts, represents an irreplaceable cultural loss. With the loss of crafts, we lose more than we presently realize.

Illustrations: ***Fig. 1.*** *Process of structural decomposition of lime particles (portlandite). Contact with water breaks down larger columnar lime crystals into flat plates. This increases the specific surface area of the binder. SEM photomicrographs: a) large columnar lime crystals shortly after slaking, b) arrows indicate the disintegration of columnar crystals into plates after 2 months of slurry aging, c) significant occurrence of lime plates after 14 months of lime slurry aging, d) arrows indicate the places where further refinement of the lime structure occurred after 14 months of aging;* ***Fig. 2.*** *Scheme of traditional*

wet slaking, or slaking of lime in an excess of water. In a container, under controlled conditions, lumped lime (in the picture, added from the wheelbarrow) reacts with water (in the picture, the water supply is in the barrel). After the lime reacts violently with water, the lumped lime breaks down into a lime suspension in water. The suspension is discharged, here through a sieve, into a lime pit. At that moment, the process of lime slurry aging begins; ***Fig. 3.*** *Demonstration of the traditional process of lime slaking at the Švihov State Castle. The photo shows the discharge of lime slurry into the water from the container into a lime pit, 2013;* ***Fig. 4.*** *A mixer used to mix the lime hydrate with water;* ***Fig. 5.*** *Process for preparing a slurry from hydrate. Photo: Dagmar Michoinová;* ***Fig. 6.*** *Containers for storing slurry in the ground at the Research Institute of Building Materials. Photo;* ***Fig. 7.*** *Placing the indoor climate data logger in the slurry container during the first winter;* ***Fig. 8.*** *Empirical comparison of consistency and binding of traditional slurry. From the left: a) consistency and binding capacity of the slurry one month after thawing, b) consistency and binding capacity after 10 minutes of vigorous mixing (reactivation), c) consistency and binding capacity after 20 minutes of reactivation, d) consistency and binding capacity after about 40 minutes of reactivation;* ***Graph 1.*** *Comparison of the particle size distribution of traditionally slaked slurry (traditional slurry). The red curve represents the condition after 6 months of aging of traditionally slaked slurry, the green curve represents the condition after one year, and the blue curve after 2 years of aging the slurry;* ***Graph 2.*** *Comparison of particle size distribution of slurry prepared from lime hydrate (hydrate slurry). The red curve represents the condition after 6 months of aging of traditionally slaked porridge, the green curve represents the condition after one year, and the blue curve after 2 years of aging the slurry;* ***Graphs 3–6.*** *Comparison of particle size distribution obtained during the experiment for the hydrate slurry: 3) before freezing, 30 months old, 4) after freezing and thawing, 5) 1 month after freezing and thawing, 6) after 40 minutes of mixing (reactivation);* ***Graphs 7–10.*** *Comparison of particle size distribution obtained during the experiment for traditional slaked slurry: a) before freezing, 30 months old, b) after freezing and thawing, c) 1 month after freezing and thawing, d) after 40 minutes of mixing (reactivation).*

Restoration of stucco decoration in the Hvězda Summer Palace as led by Pavel Janák and his predecessors

Pavla MIKEŠOVÁ

Keywords: Hvězda Summer Palace, Renaissance, stucco, restoration, Karel Fiala, Jaroslav Krepčík, Pavel Janák

The Hvězda Summer Palace in Prague on White Mountain has always been the focus of interest from the professional community. While art historians and historians have thus far mainly dealt with its history, Renaissance stucco decoration and the issue of its authorship, the topic of the restoration of the preserved stucco decoration on the ground floor of the Summer Palace has escaped expert attention. This article seeks to clarify this part of the study of the Summer Palace on the basis of previously unpublished archival documents.

In the introductory chapter, records from period press present the turbulent history of the Summer Palace, which served as a gunpowder store for the Austrian army from 1780. Efforts to preserve this monument, and with it an interest in the clarification of its artistic and historical value, were heightened with the building's access to the public in 1866. Individuals, such as Josef Alexander Helfert (President of the Royal and Imperial Central Commission for seeking out and preserving historical and artistic properties), Jan Erazim Vocel (conservationist for Prague's historical monuments), and Cornelius Schäffner (Secretary of the Krasoumná jednota, Art Association for Bohemia), as well as institutions such as the City of Prague and the Umělecká beseda (Czech Artists' Forum), stepped up in defense of the Summer Palace and for the definitive withdrawal of the military. The Central Commission turned to the Mayor of Prague, Dr. Klaudy, General Staff in Prague, Czech Governorate, Ministry of War, Ministry of the Interior, and the Prime Minister.

The departure of the army in 1874 deepened interest in research. The first scholarly texts by Wilhelm Lübke (1873), Philipp Baum (1877), and Jacob van Falk (1879) commented on the technical preservation of the stucco works. Photographs of castings made in the Vienna Museum of Decorative Arts provided a picture of their condition in the 1870s. The article follows commentaries in the 19th century press and literature on the efforts to restore the stucco decoration. From the Reports of the Central Commission (1880), guide literature of František Adolf Borovský (1887), and the comments of Josef Svátek (1892, 1899), we can see that no major restoration took place until the end of the 19th century or early 20th century, when Dr. Luboš Jeřábek filed a bill at the Czech Parliament for the protection of objects of beauty and natural heritage properties.

It seems most probable, then, that the first restoration of the stucco decoration in Hvězda was not realized until 1922 under the leadership of castle builder Karel Fiala. We have no reports from literature on his involvement in this matter. This matter is refuted by archive materials found in the archives of Prague Castle and the Museum of National Literature. A total of six archival documents dated between 5 March and 9 July 1922 reveal Fiala's official correspondence addressed to the Office of the President of the Republic, the State Heritage Office, the sculptor Jaroslav Krepčík, and his own diary notes. This shows that in the early 1920s, stucco restoration in the Summer Palace took place to a certain extent to which the preserved archival material does not accurately reveal. In addition to the cited sculptor Krepčík, who was to be entrusted with the management of restoration, academic sculptors Václav Antoš and Josef Kalvoda were also involved in the work.

The last chapter reveals, based on the written records of architect Pavel Janák deposited in the Prague Castle Archive, a number of new facts concerning the restoration of the stuccoes which took place at the time of the overall restoration of the summerhouse from 1948 to 1950 before the opening of the Alois Jirásek Museum. The materials can be limited from 22 December 1948 to 28 December 1950. In addition to the only material from 1948, these are Janák's own notes, reflections and remarks of a personal nature which well illustrate the architect's pursuit of the best possible understanding of the technology used in the stuccos' creation so as not to irreversibly damage them. It also shows his conviction that the authenticity of stuccoes should not be replaced by deliberate replenishment. On the one hand, the notes illustrate consultations with professors from leading art schools as well as with representatives of the State Heritage Office, while on the other hand they show his occasionally futile struggle with contemporary architectural practice.

Illustrations: ***Fig. 1.*** *Friedrich Bernhard Werber, view of the Hvězda Summer Palace and surroundings, 1752, drawing from the Proceedings of Czech and Moravian Cities;* ***Fig. 2.*** *Ibid., view of the Church of Our Lady Victorious on Bílá Hora and Hvězda Summer Palace, 1752, drawing from the Proceedings of Czech and Moravian Cities;* ***Fig. 3.*** *František Schmoranz – Emil Hoffmeister, Hvězda Summer Palace, ground floor plan drawing with detail of ceiling composition, 1866;* ***Fig. 4.*** *Hvězda Summer Palace, vault of the main hall of Aeneas and Roman virtues, engraving, 1877;* ***Fig. 5.*** *Hvězda Summer Palace, vault of the main hall of Aeneas and Roman virtues, engraving, 1879;* ***Fig. 6.*** *Photographs of castings/details of stucco interior decoration from the Hvězda Summer Palace;* ***Fig. 7.*** *Hvězda Summer Palace, vault of the main hall of Aeneas and Roman virtues, 1891;* ***Fig. 8.*** *Jindřich Eckert, Hvězda Summer Palace, main hall of Aeneas and Roman virtues, 1915;* ***Fig. 9.*** *Helga Schmidt Glassner, Hvězda Summer Palace, vault of the main hall of Aeneas and Roman virtues, 1938;* ***Fig. 10.*** *Karel Plicka, Hvězda Summer Palace, view of the vault of the main hall of Aeneas and Roman virtues, condition in 1943;* ***Figs. 11–12.*** *Čestmír Šíla, Hvězda Summer Palace, view of the main hall of Aeneas and Roman virtues and the vault, condition in 1950;* ***Fig. 13.*** *Josef Sudek, ceiling vault, hall of Aeneas and Roman virtues, hall A, Hvězda Summer Palace, 1920s;* ***Fig. 14.*** *Vlado Bohdan, hall of Aeneas and Roman Virtues, Hall A, Aeneas flees from burning Troy, detail of Aeneas with Anchises, Hvězda Summer Palace, Prague, 2013.*