The memory of the landscape and methods towards its revival

Martin KUNA

Keywords: archaeological atlas, archaeological monuments, popularization

The article presents the publication "Archeologický atlas Čech" (Archaeological Atlas of Bohemia), which was published in 2015 in two editions (the first edition dated 2014). Using the publication as a base, the text attempts to lead to a more general reflection on the possibilities of contemporary archeology and the relationship of today's society towards archaeological relics of the past.

Seeking out the invisible. Historic plowfield relics of extinct medieval villages and the possibilities of detecting and interpreting them using aerial laser scanning data

Ondřej MALINA

Keywords: extinct village, historic plowfield, digital model of the terrain relief, archeology

The historic cultural landscape is generally the result of ideological intentions, economic needs, and geographic conditions. The most striking traces left on the terrain are usually left by agricultural use; in Czech conditions, these are the boundaries and terrace divisions of land used for plowing or grazing. Different historical periods witnessed changes in the layouts of historic plowfields, reductions in cultivated areas, and consolidation of properties into larger tracts. Younger stages are generally more readable and recognizable than the older ones and are much more so than the original medieval locational layers.

The boundary strips of historic plowfields have been preserved in many places in a form that is often largely the one-time result of a medieval colonization scheme. Verifying the age of the layout structure in such localities is difficult, however; analyses of rural areas around extinct medieval villages provide a new opportunity. The layout of their plowfields usually provides the advantage of readability of their earliest stages without being overlain by later reorganization.

The basis of the text is a digital model of the terrain relief, generated from airborne laser scanning data for several locations of extinct medieval villages. It captures many terrain relics which, according to their topography and morphology, can be divided into two main groups. The first group is related to the definition of the central built up area, which in places is made up of a clearly evident village green while elsewhere it is merely an area with a concentration of extinct structures. The second group includes evidence of regularly oriented boundary strips forming a coherent surface; the orientation and mutual relationships to the built up area can be used to connect it with the original locational layout. These major parts of a plowfield are almost always complemented by smaller areas with different land orientation, usually on marginal or sloping areas.

A detailed analysis and vectorization has been performed on only 8 localities which differ in many respects. All have common features, however, that are useful for grouping them and interpreting with regard to the situations at other sites. The entire text is seen as a pilot file for processing other sites and for comparative analyses with other types of sources, such as Stable Cadaster maps.

Archaeological evaluation of relics of built up areas of the medieval mining town of Lauterbach/Čistá

Filip PREKOP

Keywords: Slavkov Forest, settlement, surface exploration, medieval, modern, settlements extinct after 1945

It can generally be stated that submitted work has demonstrated that not even targeted overall destruction of a settlement is absolute, and that the areas of historic settlements that have become extinct in connection with the forced eviction of their population must be regarded as a places rich with evidence of early modern and medieval settlements.

In the case of the town of Lauterbach/Čistá, this is an interesting representative with urban elements typical for an older row-street village together with elements typical of early modern mining towns, such as those in the Ore Mountains. In the same way, this is a very unevenly protected historical settlement complex. Even though the manufacturing activity is marked by the tin mine of Jeroným with national cultural property status, the related settlement, the extinct town of Lauterbach, is merely recorded as a potential archaeological site.

Work has shown that this state of heritage protection is unjustified, and the area of the extinct town has a very rich spectrum of relics of an extinct settlement stretching before the middle 14th century. Work has also shown that the urban area of the town was repeatedly exposed to significant detriment even in the 2nd half of the 20th century, thus making the establishment of heritage protection highly desirable. According to the author, the results justify the claim for a declaration of the urban area as a cultural monument and thus have merit for an increase of the cultural heritage protection of the entire settlement area of the mining district of Lauterbach.

Discovery, conservation, and presentation of fragments of architectural structures of Nové Město in Litomyšl

Miroslava CEJPOVÁ; Petr ROHLÍČEK; František R. VÁCALVÍK; Bohdan ŠEDA

Keywords: Nové Město in Litomyšl, archaeological recovery research, conservation of fragments of architectural structures, presentation of archaeological findings

In 2012–2013, the "Revitalization of the historic building of the Regional Museum in Litomyšl" was carried out. Archaeological research was conducted in April 2012 to June 2012 (fact-finding research) and in October 2012 to October 2013 (recovery research). The Regional Museum in Litomyšl is housed in the former Piarist grammar school. The areas north were investigated thoroughly, while east of the museum the basement space of the entrance integrated building was only partly so. The investigated area lies within the originally demarcated bishop grounds, later the castle grounds. Roughly from the late 13th to the early 15th century, the city cemetery encroached into part of the investigated area. Sometime before 1490, this space was occupied by the Nové (New), also known as the Horní (Upper) Město, founded by Bohuš Kostka of Postupice, completed around 1510. The Nové Město was hit by two fires, the first in 1546, then the second in 1635, after which it was no longer rebuilt. Part of the town was also taken up by the buildings of the Piarist monastery. Archaeological research discovered, among other things, fragments of houses of the Nové Město. The best preserved structures were located in the northern part of the investigated area. A massive wall was found here with a thickness of about 140 cm, made of quarry stone with lime mortar. It runs through the center of the trench in a NNW-SSE direction. On the south side it turns westward and behind the break it is opened by a drive-through gate building preserved incompletely at the ground floor level. This massive wall is founded in a terrain originally sloping from the castle hill into the valley of the river Loučná. Before the wall, on the side of the lower town, there passed a route with a boulder base. The wall and gateway apparently belonged to the fortification of Nové Město, and it is likely that they tied into the older fortifications documented in written records. During the life of Kostka's Horní Město, significant modifications were carried out on these structures. The wall and gate were used for newly built homes that were positioned perpendicular to the axis of the route and the castle walls. The masonry of these buildings, joined with clay mortar, was discovered on the western side of the wall, where a dwelling was found, an originally vaulted and heated interior adjacent to a corridor to a cellar located east

of the wall. Also, directly at the gate, there was a small nearly-rectangular space adjacent to the southern angled section of the wall. In connection with the construction of the houses, the wall was broken in three places and reinforced beneath the foundation joint in the area of the cellar. The scope of the preserved construction was so vast that an expert committee recommended its preservation and presentation. This led to a change in the project documentation. The discovered structures were, according to the modified project, included in the integrated entrance object, which produces a simple cladding over the finding, equipped with a waterproofing and thermal insulation layer on a reinforced concrete structure. The shape of the cladding allows for the movement of people in the archeological area, which occurs only in exceptional cases, and a tour of the discovered findings through the glass walls of the museum. At the same time, it functions as a load-bearing structure for the reinforced ground in front of the northeastern facade of the historic museum building. Its main purpose is to maintain stable microclimate conditions in the archeological area. The technical condition of the structure was very bad after the completion of the archaeological research. Given that regular visitors are presented with the archeological area only by visual contact through the glass walls of the museum, it was possible to apply a consistent conservation preservation principle. Interventions into the damaged structures were minimized to adjustments which led to the fundamental stabilization of the parts of the wall in acute disrepair. In other cases, the complete preservation of the exposed archaeological situation always took precedence without further interventions to the fragmental state of the wall, to the surface of the structure, and to some extent also to the height levels of the backfills. Other broken and missing parts of the wall, where not even an original stone was preserved from the destroyed section, were filled in only to the extent necessary to limit the possibility of further destruction by using a different material. In February 2014, grey-white fine growths of mold began to appear on the surface of the wall (stone and plaster). Based on analyses, remediation was carried out using a fungicide spray on a non-chloride base, the surfaces were cleaned, and ventilation was improved in the archeological area in the protected building. After the treatment, the fungus no longer appeared.

Fortified settlement Baba near Hluboká nad Vltavou in the light of aerial laser scanning and the possibility of using this data in heritage preservation

Pavla POPELÁŘOVÁ

Keywords: LiDAR, prehistoric fortified settlement, heritage protection of archaeological sites in the undergrowth

Baba, a one-piece unarticulated semicircular-shaped fortified settlement located near the town of Hluboká nad Vltavou, is protected from the northern, western, and southern sides by an arc-shaped fortification consisting of two mounds and their adjacent ditches (Figs. 1, 7). From the eastern side, this cultural monument, dating back to the late Bronze Age, is protected by natural conditions.

The fortified settlement did not escape the attention of researchers even during early research of archaeological monuments. The first studies here at the end of the 19th century were carried out by J. N. Woldřich, followed by other notable researchers like B. Dubský J. Maličký, and J. Poláček. These activities have resulted in two schemes of the settlement made by J. N. Woldřich in 1891-1892 (fig. 2) and B. Dubský in 1945 (fig. 3) as well as a rich inventory of findings that until recently was not evaluated in detail. This was resolved by the pair of researchers O. Chvojka and J. John in 2005, who in addition to processing all the discovered material originating from the settlement created the first precision geodetic plan of the settlement using ground measurements (fig. 4).

Because the settlement has been fairly well identified, and not only due to the aforementioned earlier activities, the article focuses on two aspects. Primarily, a digital terrain model was created using data after robust filtering provided by the Czech Office for Surveying, Mapping and Cadaster (fig. 7) which was then compared with older literature and documentation as well as with photographic documentation and the results of a field survey conducted in May 2014. Based on an overall assessment of all these components, a scheme of the settlement was subsequently created with the marking of immovable archaeological relics (fig. 8) as well as older disruptions caused by various influences, both of anthropogenic (fig. 10-11) and non-anthropogenic origin.

The fortified settlement is located in a wooded area, so it is not surprising that much of the disruption was caused due to bad weather conditions and mainly as a result of wasteful logging (fig. 11). Attention is therefore paid to the general problem of heritage preservation in relation to monuments located under a forest cover. Based on the interpreted scheme, heritage preservation workers will certainly be better able to lead discussions in the preparation of forest management plans (Fig. 6) with the individual managers of forest lands and will be pre-qualified to identify harmful disruptions to the authentically preserved structure of the site.

Surface exploration of charcoal houses and other possible marginal archaeological relics in the southwestern part of the Drahanská Highlands

Alena KNECHTOVÁ

Keywords: marginal archaeological relics, charcoal house, field survey, Drahanská Highlands

The article deals with field surveys of marginal archaeological structures in the forested area of the Drahanská Highlands, specifically in the cadastral area of Ráječko where identification verified relics of charcoal burning (milířiště) in the slopes around the creeks Sloupečník and Chrábek. After identifying the charcoal houses and other possible relics nearby, data from airborne laser scanning was used that allowed for the accurate identification of other charcoal houses unknown in the terrain up to then. The article also addresses the destruction of the charcoal houses due to natural phenomena such as soil erosion, uprooting, and their artificial disruption especially due to forest road tracking, which represents a significant intervention in the forest landscape. Archaeological relics were recorded in the survey by drawings and photographic documentation, and for some charcoal houses in places where they were destroyed, microprobing was carried out for coals which were passed on for evaluation. In conclusion, the article discusses the issue of further protection for charcoal houses as part of forest management, including the possible declaration of selected intact charcoal houses as cultural properties for the preservation of part of the archaeological heritage of the Czech Republic in forested areas.

Reconstruction and presentation of tumuli uncovered in 1936 by O. Eichhorn near Stříbro

Milan METLIČKA

Keywords: reconstruction of mounds, presentations, tumulus, Medium Bronze Age, Stříbro

As part of the project “Partnership for Archeology”, the Museum of West Bohemia in Plzeň conducted the reconstruction of a stone tumulus structure from the Middle Bronze Age which was excavated by O. Eichhorn in 1936 in the Petrský forest near Stříbro on the tumulus necropolis “U Butovské hájovny”. The tumuli were preserved in the state they were left in upon completion of the research.

The aim of the project was to carry out inspection archaeological research, reconstruct the original stone tumulus, and present it to the public. An information board was installed on the site which acquaints visitors with the results of the original research and inspection archaeological research and which introduces the findings stored in the Municipal Museum in Stříbro. It also draws attention to other unexamined tumuli in the local vast tumulus burial ground.

Identification of cultural and historical values and compositional effects of the landscape through the example of the landscape conservation area of Zahrádecko

Martin WEBER, Tomáš VEITH

Keywords: cultural landscape, landscape conservation area, cultural heritage protection, Zahrádecko, cultural and historical landscape values

The article presents basic information about the progress and results of the identification of cultural and historical values and compositional effects of the landscape through the example of the landscape conservation zone (KPZ) of Zahrádecko, made on the basis of the research project NAKI DF12P01OVV001 "Protection and care of the historic cultural landscape through the institution of landscape conservation areas". The whole of the historical cultural landscape presented by KPZ Zahrádecko falls within the meaning of the three main categories of cultural landscapes defined by UNESCO's World Heritage Committee, mainly into the category of a clearly defined landscape designed and created intentionally by man. There are, however, overlaps with other categories.

Housing estate architecture of the 1960's and 70's in the Zlín Region

Jaroslav NOVOSAD; Nelly KOMENDOVÁ; Miroslav LANC

Keywords: housing development (sídliště), residential complexes, apartment buildings, urban structure, public spaces, 20th century architecture, Czech, Zlín region

The article describes the social conditions and reasons which were at the beginning of the construction of modern prefabricated housing estates in today's Zlín Region. It describes the basic political task which led to the resolution of March 1959 on the construction of 1.2 million dwellings by the end of 1970 by the government, respectively the CPC Central Committee. The construction of such a large number of housing units was made possible only through the use of new technological processes. The essential political task from the late 1950's corresponded, in many cities of today's Zlín Region, with the development of socialist industry, the basic requirement of which was the need to house a large new workforce, if possible close to the existing or emerging industrial enterprises. Marginal phenomena of the time included a revival of interest in high quality urban and architecture of cities that presented the principles of modern urbanism known as the Athens Charter. These principles defined the term functional city, its form determined by the functions of living, working, and relaxing (recreation), all connected by transport.

The article also deals with the more detailed characteristic of the construction of housing estates in the relevant period in the cities of Zlín, Uherské Hradiště, and Rožnov pod Radhoštěm. In Zlín, where the construction partially tied into the previous Baťa concept, the largest and most comprehensive housing construction complex of apartments has been recognized as Jižní Svahy (Southern Slopes), designed by Pozemní stavby Zlín under the leadership of architects J. Gřegorčík and Š. Zelina. The basic idea of the project, built in phases, was based on the tradition of a garden city, wherein the impressiveness of the judiciously composed urban area supports the use of traditional Zlín building materials – clay bricks, respectively strap brick facing for architectural division of the building.

In the Uherské Hradiště area, housing estates were built during the relevant period in the areas known as Pod Svahy and Stará Tenice, while the most valuable Mojmir II was built in the area called Štěpnice. In these areas, construction was more or less carried out on a greenfield site and were preceded by a comprehensive urban study of the group of buildings. Here larger residential units were implemented, or at least planned, with regard to the spatial possibilities. In other cases, the construction was more or less limited by older buildings which it tied into both urbanistically and materially.

In Rožnov pod Radhoštěm, it was mostly the housing estate 1. máje which was realized during the relevant period, representing a successful example of urban development in the 1960's and 70's. This is a newly designed residential complex with landmarks focused along the street 1. máje, which thus became the main representative new access street from the city to the new Tesla industrial complex. The housing estate was built in an already partially built-up area, but without major demolitions, and its location in the slightly remote area beyond the river did not adversely affect the silhouette of the historic city center.

Housing estates are currently undergoing a process of regeneration intended to improve the thermal and technical parameters of the individual houses and the overall user comfort of the parterre for the leisure time of the residents. The current trend of insulation for these panel buildings reduces the energy consumption for heating the apartments on the one hand, but on the other hand these modifications involve a change in the appearance of the buildings that suppresses the original structure and material design of the cladding of the individual buildings. From the perspective of heritage preservation, therefore, it is possible to consider protection for the most valuable housing estate complexes only in terms of the urban values of these complexes, which in practice would mean the protection of the urban structure, the material parameters of the blocks, and the individual landmarks and design of parterres, including the green areas. Protection of the architectural and material design of the original prefabricated houses is currently unrealistic.

New trends in building security systems in historic buildings, museums, and galleries

Pavel JIRÁSEK; Martin MRÁZEK

Keywords: security systems, management of historic buildings, fire protection, securing collector's items

Modern security systems are installed in historic buildings and museums that limit the risk of theft or fire. Their reliability is constantly increasing and costs are constantly reducing. Integrating individual monitoring technologies into superstructure graphic systems significantly increases the speed and convenience of intervention in emergencies. A comprehensive security system, however, still remains a combination of three basic measures – constructional, organizational, and technical.