Archaeobotanical analysis of Renaissance vault infills from Vladislav Hall, Old Royal Palace, Prague Castle, Czech Republic

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Archaeology

The archaeological research in the Vladislav Hall took place in a narrow archaeologically mapped environment of the floor and each vault. The possibility to study in detail the composition and stratigraphy relationships of their individual parts were fully fulfilled. Ceramic documentation showed stratification linked to various chronological stages of construction and use of the Hall. In the 14th century there were distinguished 3-3 layers or strata sections, distinguished某种程度 by the chronology status of the contained findings. For the chronological classification of individual collections there can also be used the dendrochronological data from beams and beams supporting the floor. Dating of the parts of collections is based on the evaluation of the findings of fragments of archival documents, coins and books, partially with a precise date of printing. Most valuable and valuable elements were identified in the samples 1 and 2.

Archaeobotanical finds

The archaeobotanical analysis of the vault fill of the Vladislav Hall is based on two types of samples. The first group of samples, obtained by dry sieving, captured large macro-remains, small animal bones and other distinct remains. A second non-sieving sampling group is obtained from the excavaions by folding machine type sorters. The archaeobotanical material is composed from divers, celebratations and banquets, which took places in the Vladislav Hall, more or less permanent, which indicates agricultural activities from near or more distant surrounding areas of the Prague Castle. The Prague Castle and Vladislav Hall

1. Peanut (Arachis hypogaea)
   The archaeological trace of peanut cultivation can be identified between 2000 BC and 3000 BC in Peruvian desert valleys. The cultivated peanut was likely domesticated in the valleys of the Parana River (Parana River) in the Chaco region of South America (Fig. 1). The ‘Spanish’ variety of peanut was first certainly taken from Brazil to Africa by Portuguese shortly after the contact with the coast in 1506. The first mention of the crop is found with the Spanish entry into Mexico in 1521. In 1558 the cultivation appeared in Peru and was introduced to the rest of the world. In 1748, Portuguese and Spanish settlers planted peanuts in Brazil, and plantations were set up in the American colonies. peanuts were introduced into Europe in 1558, and were quickly adopted in the Ottoman Empire.
   
2. Olives (Olea europaea)
   Olives are native to the Mediterranean region. Archaeobotanical studies have contributed to a better understanding of their history in time and space and active domestication and the diffusion of the cultivation across the Mediterranean. Olives cultivation appeared in the 4th millennium BC in the Levant and Mediterranean area, and gradually diffused from East to West towards the Mediterranean Sea. Olives were cultivated in the Western Mediterranean, North Africa, and South Italy. Today, distributions of olives is limited to Roman Empire boundaries. There is no direct archaeological evidence of olive cultivation in the early medieval period. Olives were introduced in various sources as the late medieval period. Finds from Vladislav Hall are therefore extraordinary rare.

3. Chestnut (Castanea sativa)
   The first archaeological evidence of chestnut cultivation are reported in archaeological data and observations in the Austrian, Parma, north-eastern Greece and south-eastern Bulgaria and date back to around 7500 BC. In 1500 BC, in the Late Minoan period (17-15th century BC), chestnut became an essential source of food and timber in Mediterranean and in the northern parts of Central Europe. In the Mediterranean, the medieval chestnut forests gradually increased due to climatic cooling. Chestnut is widely used as a raw material for the production of chestnut liquor, chestnut wine, and various other products. In the 18th century, the industrial revolution caused a higher yield of chestnut trees for chestnut production. Nowadays, the great number of chestnut trees are concentrated in the southern part of Italy, with the typical chestnut wine and honey.

4. Sweet almond (Prunus amygdalus)
   Archeological evidence of almond cultivation are reported in archaeological data and observations in the Austrian, Parma, north-eastern Greece and south-eastern Bulgaria and date back to around 7500 BC. In 1500 BC, in the Late Minoan period (17-15th century BC), chestnut became an essential source of food and timber in Mediterranean and in the northern parts of Central Europe. In the Mediterranean, the medieval chestnut forests gradually increased due to climatic cooling. Chestnut is widely used as a raw material for the production of chestnut liquor, chestnut wine, and various other products. In the 18th century, the industrial revolution caused a higher yield of chestnut trees for chestnut production. Nowadays, the great number of chestnut trees are concentrated in the southern part of Italy, with the typical chestnut wine and honey.

Fragments of charcoal

Specific part of the rigid remainder in the vault is charcoal as a rest of fuel. It comes from various hard wood species like hawthorn, birch and oak. Also pine wood was frequently used as fuel. Note: macrophotography with 3D technology by Nektos INCA Elemen programme.

Fragments of fresh wood

Among large amount of botanical macro-remains fresh wood fragments were frequently identified. Structure of wood species reflects its use as constructional wood (e.g. common spruce) and handicraft waste (e.g. willow or maple).

Microphotography with 3D technology by Nektos INCA Elemen programme.

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Authors of photographs: Playing cards and artefacts: Martin Frons
Microphotography: Jaron Benes, Miroslav Martinova, Alja Kustesky

Artifacts from the vault: 1. wood species, piece of manuscript, 2. copper, playing card, etc.

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