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News of Forest History

EuroDendro 2008

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Namentlich gekennzeichnete Beiträge geben ausschließlich die Meinung der jeweiligen Autoren wider.

Bildnachweis: Bei Photos angegeben, wenn nicht - Photo Kiessling (alle unentgeltlich beigelegt).

The 17th century winding stairs in the Vilnius Cathedral as a source of information on architectural and natural history.

Vilnius Cathedral, formerly a part of the Vilnius Castles' complex, is one of the oldest churches in Lithuania, founded at least after the Christianisation of Lithuania at the end of the 14th century. Different parts of it were rebuilt and renovated several times due to damages made by wars and fires. The Cathedral acquired its present day Classical appearance at the end of the 18th century. One of the most beautiful parts of the church is St Casimir's Chapel, built in 1623-1636. The Chapel was not only connected to the Cathedral but also had a passage to the nearby Ducal Palace. Grand Dukes and Kings having arrived by this passage used to listen to service in a balcony above the chapel door. The passage has not remained until nowadays. The present-day balcony can be reached by wooden winding stairs located in a well within a wall between the Chapel and the side nave of the Cathedral.

Wooden steps are made of pine blocks and are carved in a special shape with their lugs forming the central shaft in the centre of the stair well. Such a construction allows seeing the surface of cross-section of the steps in the central shaft.

In order to make a non-destructive dendrochronological analysis of the stairs, photographic technique was applied. Cross-sections of 20 steps, containing largest number of annual rings and made of parts of trunks closest to bark edge, were photographed and pictures analysed using standard methods.

Analysed peaces had 82 to 154 annual rings. No one sample had preserved bark edge. Maximum number of surviving sapwood rings was 66. Seventeen series were cross-dated and average chronology spanning 173 years was constructed. The chronology was dated against Vilnius and Riga pine chronologies to 1490-1662.

This dating showed that the stairs were not originally built with the St. Casimir Chapel till 1636. Estimation of possible tree felling dates indicates that the stairs were built during the reconstruction of the Cathedral after the 1655-1661 war with Moscow army during which Vilnius, and especially the Castles' territory, was heavily destroyed. After this destruction the Ducal Palace was not used as rulers' residency any more and the passage to St Casimir' Chapel was closed. The dating of the stairs and the stair well also coincides with other documented reconstructions of the Chapel interior made in 1666-1686.

Dendrochronological analysis of the stairs provided us with information on pine tree growth during rather poorly replicated period from the middle of the 16th century to the middle of the 17th century and allowed to extend historical Vilnius pine chronology onward from 1566 to 1662.

Poster: **Rūtilė Pukienė**

Vytautas Magnus University, Environmental Research Centre, Lithuania

Wood posts from old palisades surrounding Québec City, a UNESCO heritage site.

Although the historical context of the Québec region has been well documented, only few ecological studies have attempted so far to link environmental and historical data. During prospection operations carried out by a team of archaeologists from Laval University in 2004-2005, several posts belonging to a palisade were excavated from one of the oldest sites of the city called the