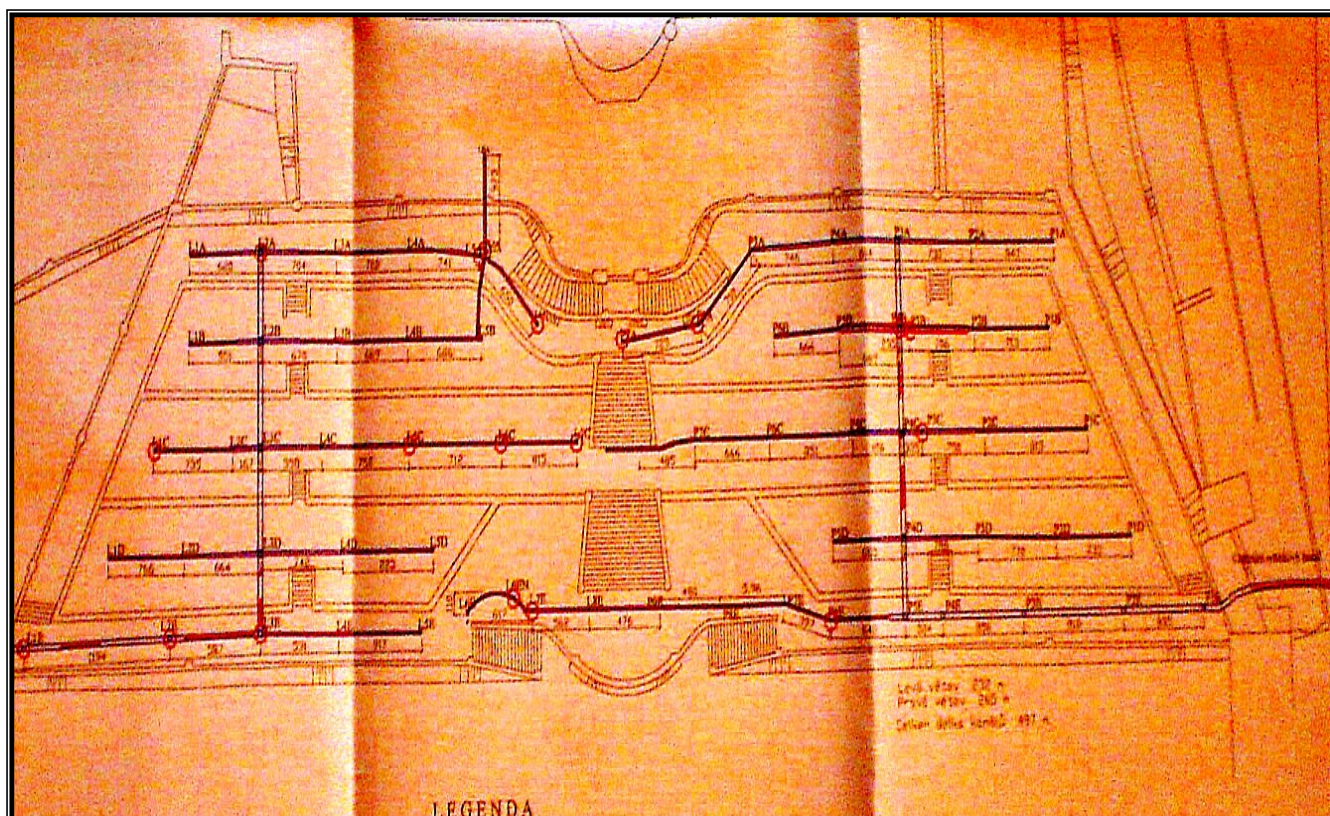


## BAROQUE DRAINAGE SYSTEM IN THE CASTLE GARDEN

The castle and its gardens are located in the Žatec rain shadow, which means there is minimal annual rainfall. This is probably why water has always been managed very economically here. Historically, both underground and rainwater have been harnessed; the latter was collected from the roofs using downpipes, inlets, underground channels, and shafts, channelling it as far from the castle building as possible and into the terraces. These terraces continue to house a sophisticated drainage system that, during rainy periods, also served for natural irrigation. This system dates back to the second half of the 18th century. The channels are interconnected both horizontally and vertically, effectively draining excess water by gravity from the main staircase into larger collecting channels at the lowest terrace level. From there, the water was directed into two ponds, one located to the right of the castle and the other to the south beneath the castle garden. This Baroque system remains functional and has kept the gardens structurally stable for three centuries.



This plan illustrates how the individual channels in the western garden are interconnected. This documentation comes from a survey of the garden terrace drainage conducted in 2004.

## SAAZ HOPS AND THE NATURAL CONDITIONS FOR THEIR CULTIVATION

The uniqueness of Saaz hops is rooted in the natural conditions specific to the hop-growing area around Žatec. This region is shielded from the north-west by the Ore Mountains, the Doupov Peaks, and the Central Bohemian Uplands, creating a rain shadow. As a result, the average annual rainfall is only around 450 mm. However, the distribution of rainfall is favourable for hops, with average precipitation during the growing season around 260 mm. The average annual temperature ranges from 8 to 9 °C (14 to 16 °C during the growing season). The quality of the hops is determined not only by the climatic conditions but also by the soil of this region – primarily Permian red clays and lighter sandy marl soils. The growth and development of hops is also influenced by the location of the hop gardens, the altitude (200–500 m above sea level), the position within the lie of the land, the gradient, and exposure to the different points of the compass. The hop gardens can be found primarily in broad, open valleys with free airflow which are adequately sheltered from strong westerly and northerly winds. The combination of these conditions is so unique that it predisposes this area to produce the most sought-after hops in the world.

