

## Construction of the Order's Castle in Cesis, Latvia

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**ABSTRACT:** The ruin of the Medieval Order's Castle in Cesis is the best preserved castle ruin complex in Latvia. The rich history and spectacular outlook place it amongst the most peculiar and interesting tourist attractions of the whole Baltic region. Investigation of the Castle, begun at the end of the nineteenth century, has continued into modern times. Scarcity of written and visual sources of information has made it necessary to rely on what could be discovered from the investigation of the building itself, including archaeological excavations and architectural survey of the standing structures. Preliminary analysis of the original planning and a summary of the results of previous historical, archaeological and architectural research has provided a broad view of the development of the Castle. The present paper is illustrated with theoretical reconstructions of the Castle, obtained from this analysis.

### INTRODUCTION

#### **Brief history of the complex**

The construction of Cesis Castle began in the beginning of the thirteenth century. It was reconstructed several times in the end of fourteenth - beginning of the fifteenth century and by the end of fifteenth - beginning of sixteenth century. During the last rebuilding the castle has acquired the plan of so called Order's Castle, where several wings are grouped around the central courtyard. The castle has been in the form of ruins since the beginning of the eighteenth century (since 1703), when it was not rebuilt after the war and the fire. Up till the mid 1800 the castle ruins and their territory was used for utilitarian purposes. Since then the castle has become a beloved tourist attraction. Masonry wall construction, which originally was not intended for direct atmospheric impact, gradually eroded.

Nowadays the standing part of the Castle has basically preserved its architectural form from the sixteenth century. East and South wings stand almost at their original height. Walls of the West and North wings have mostly remained at the ground level. The West and the South tower have their original height of 5 floors. The North tower has been restored to 4 floor height above the ground. The former East tower of the first Bailey in 1777 has been integrated into the volume of the so called New Castle. The West tower of the first Bailey has remained up to the 3 1/2 floor height. The curtain wall of the first Bailey has been relatively well preserved, forming nowadays the border of the Cesis Castle complex.

#### **Description of the Castle**

The parts of the ruin complex cover long periods of time, beginning with thirteenth century (the Chapel and several wall constructions, revealed during the archaeological research) up to the second half of twentieth century, when the New castle has been rebuilt for the needs of the museum. The most extensive growth of the volume can be attributed to the end of fifteenth - beginning of sixteenth century, which has basically remained till modern times. At the same time there are important secondary constructions added during the following period, which along with elements of the second half of nineteenth century landscape park, composing the modern outlook of the castle. In short, the basic cultural - historic features are:

- volume and planning of the fortified Order's Castle of fifteenth - sixteenth centuries,
  - silhouette of the ruins, formed during the eighteenth century and reshaped by the beginning of twentieth century (the West and the South tower),
  - fragments of the thirteenth - seventeenth century interior (interiors of the main premises of Castle, interior details (corbels of vaults, openings and their details, original wooden details etc.).
- The paper presents the current results of the ongoing investigation of the Cesis castle.

**Status quo of the investigation**

Investigation of the Castle has been carried out since the middle of the nineteenth century. In 1890 the Baltic - German historian Karl von Löwis of Menar wrote the first extensive research on the Cesis castle, backed up by research of archive materials, surveys and historic plans, found in Stockholm War archive (Löwis, 1890). Up till the 1920ies the medieval castles were researched by Baltic - German historians, who analyzed the written sources and historic illustrations. They were basically interested in location of what they thought "Order's main premises" in the former castles. It has been mentioned that archaeological excavations in Cesis had been carried out by the beginning of the nineteenth century, yet there is no information regarding either the location or the finds. After the Second World War one of the first test excavations were carried out in the 1950ies, dealing with conservation of the structure. In modern times all the three fields of classical construction history studies have been involved - historical study, archaeological excavations and architectural research.

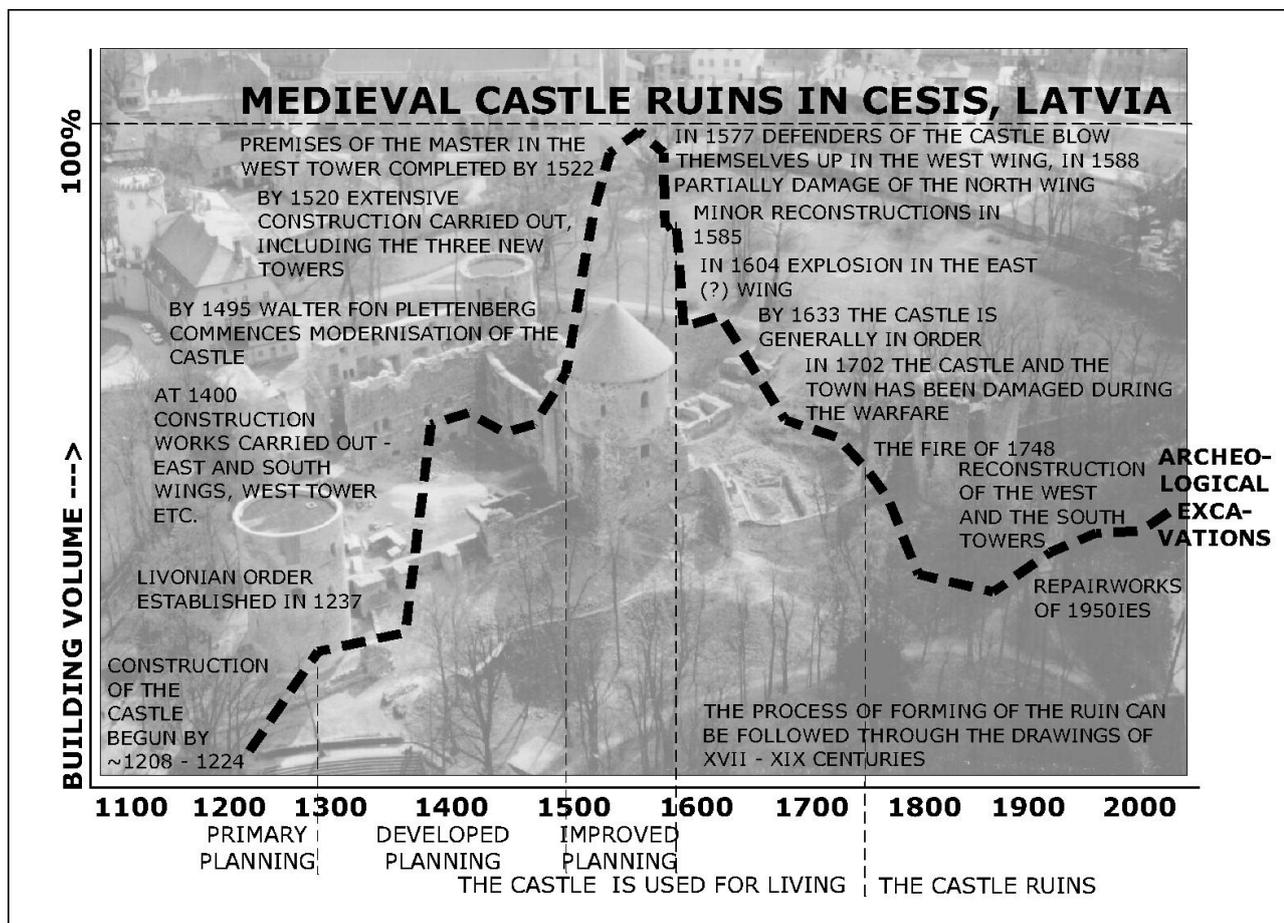


Figure 1: Scheme of the development of the Cesis Castle ruins. After establishment of the Castle in the thirteenth century, the volume of the buildings gradually increased, achieving its blossoming by the beginning of the sixteenth century. Then the volume diminished due to the warfare and fires. Nowadays part of the original Castle has been recovered in the archaeological excavations.

The primary task for the historical research, begun already in 1950ies, was to provide theoretical background for reconstruction of the castle. In 1958 historian Aleksandrs Jansons researched the available historic sources, among others finding in the archive in Moscow the inventories of 1582 and 1590. In 1960 and 1961 he wrote 7 volumes on the history of Cesis castle, translating and summarizing extracts from archive documents (Jansons A., 1960 - 1961). On the basis of these materials, historian Roberts Malvess continued the research of the Castle (Malvess R., 1981). Besides analysis of historical descriptions, illustrative material and previous research papers, archaeological research of several parts of the castle was carried out. He was the first to conditionally divide the construction of the castle in three basic stages: - primary planning developed planning and improved planning, which are being used in the analysis of the castle until nowadays.

Archaeological research, originally also intended to provide the materials for reconstruction, was started in 1974 and continued almost uninterrupted till today. Begun in 1974 in the West wing, the excavations moved out to the Southern bailey, where the Bridge was uncovered. Further investigation went to the Western slope and the North tower, until it came back to the internal courtyard, with Western wing being uncovered in 2002 - 2008. The excavated area of ca. 9200m<sup>2</sup> has provided extensive amount of material, which still awaits its evaluation and interpretation.

Architectural research of the castle was restarted in 2002, when general architectural and artistic inventory of the castle was carried out (Dirveiks, 2002). Besides investigation of the standing constructions, the huge amount of the archaeological material and modern conclusions on historic building construction has yet to be analyzed. Additional architectural investigation of separate parts of the Castle has been carried on while commencing conservation works of the constructions. Several attempts to formulate the long term conceptual vision including the conservation plan of the castle have not succeeded, so the current paper is also aimed at formulating the guidelines for further architectural investigation.

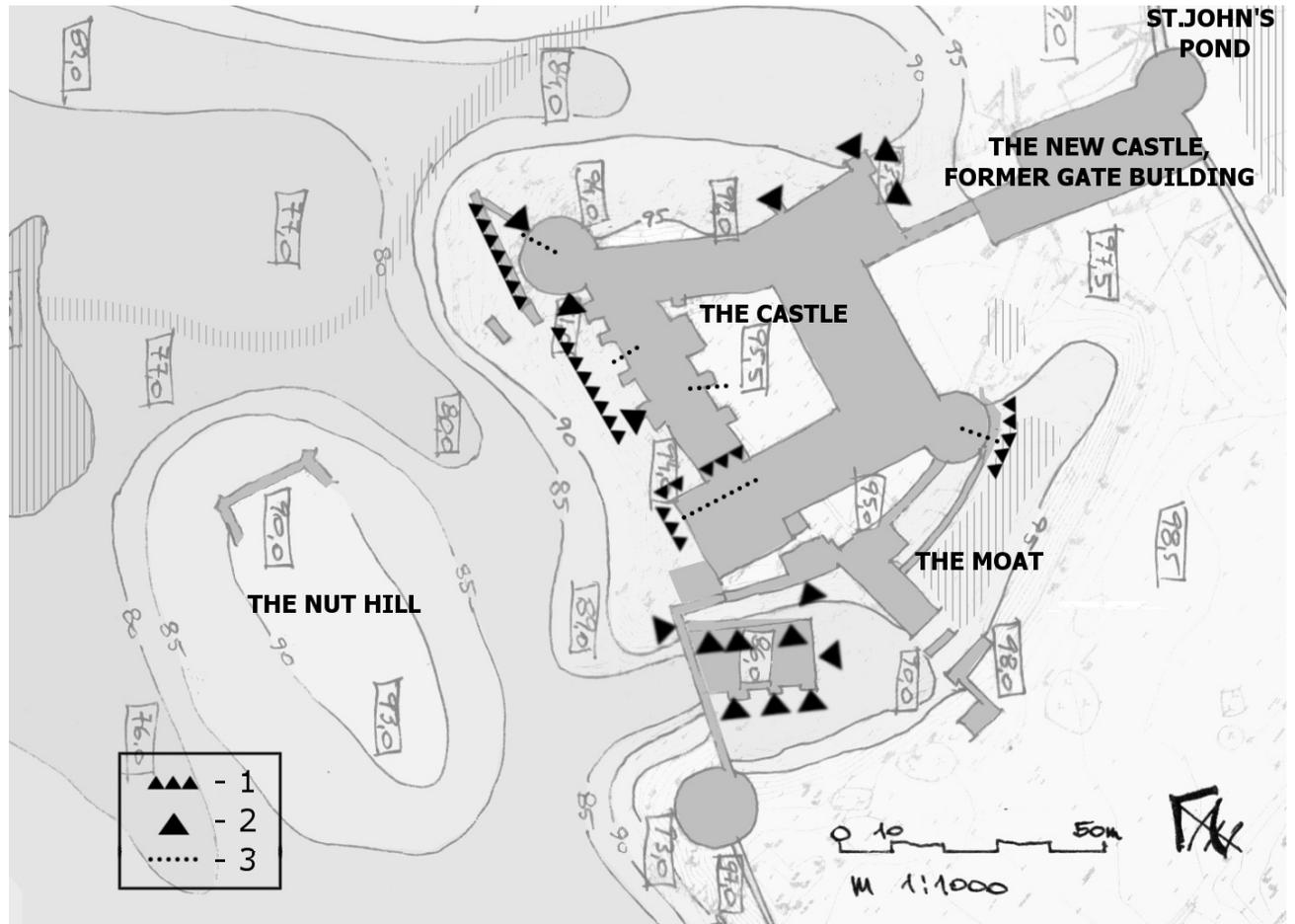


Figure 2: Plan scheme of the Castle. [1] - reinforcement against the slipping, [2] - buttresses, [3] - drainage pipes, recovered during the archaeological investigation; (Drawing by author)

The original division of the three-stage development, set up by a historian and relied basically upon historic sources and visual evaluation of the castle, has stood the test of time and proved to be very convenient for comprehension of the general development of the structure. Of course, within the fabric of the building far more than just three building stages can be identified. Yet defining to which planning stage a part of the structure or a detail in question belongs helps a lot in understanding the structure. Recent conservation works have allowed the investigation to continue in situ, allowing deeper understanding of the development of the construction of the castle.

### Location of the Castle

As any historic site, the Cesis Castle has evolved over the time, so recovering of the original intent of the ancient builders is rather hypothetical. Today the visible constructions of the Castle stand mostly from the Developed planning period (stage III), comprising both known and unidentified parts from the previous construction stages. Scarcity of written sources and lack of site investigation data allow enough room for misinterpretations and discussions. Nevertheless theoretical reconstruction of the evolution of the site helps in acknowledging the original purpose and also for formal analysis of separate building parts.

Located on the edge of the plateau, fortification system of the Cesis Castle combines both advances of the naturally formed landscape and artificial establishments. Two valleys form a rectangular end of the flatland on

Northeast and Northwest sides. It can be assumed, that the present moat on the Southwest side and the missing moat on the Southeast side has been dug out for both securing the Castle from intruders and using the dolomite below the ground for the construction of the structures. Location for the Castle, construction of which was started by the beginning of the thirteenth century, was chosen next to the so called Nut hill (Nussberg). It was originally settled by Livonians and where the first masonry fortifications of the Order were constructed (Apals, 1982).

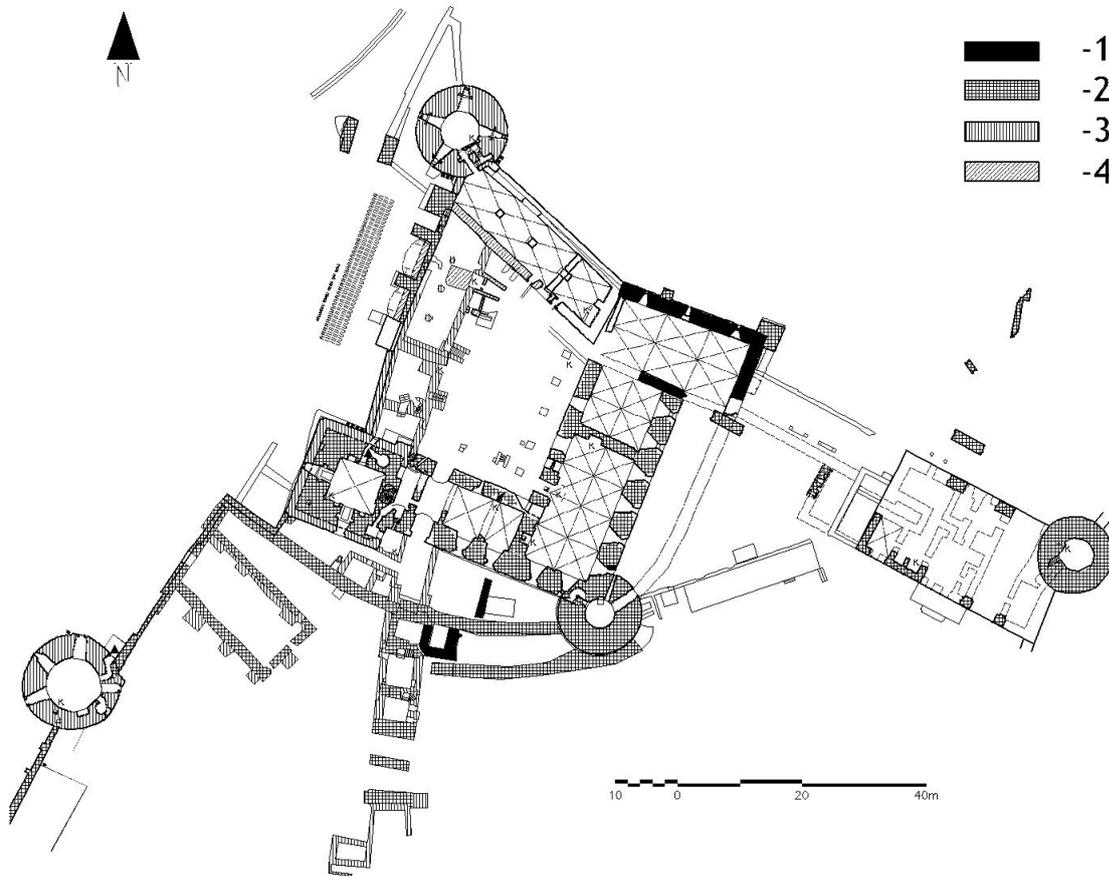


Figure 3: Plan scheme of the Castle, with periods of the construction. [1] stage I. Primary planning (thirteenth century), [2] stage II, developed planning (end of fourteenth - first half of fifteenth century), [3] stage III. Improved planning (end of fifteenth - ca. 1530ies). [4] remodeling from 1600 onwards.

Location of the Castle on the edge of the slope provides excellent observation facilities. Even today, when standing atop of the towers and knowing they do not reach their original height, amazing views towards the Gauja River testify that once upon a time, the whole surrounding could be kept under the control. On the other hand location on the hill with adjoining slopes has caused several structural issues, which have left their impact on the shape of the Castle. The numerous moist places depicted on the plans from 1680ies reveal, that there has been serious water movement down towards the river Gauja valley. The visible clue which in form of a narrow streamlet on the historical plan has found its way down to the valley is followed by extensive subsoil waters in the West slope of the castle uncovered in archaeological excavations.

Archaeological excavations have showed that the West tower is constructed directly on solid dolomite rock (Apala, 1986). The foundation has been extended, forming a three step base, to ensure the tower against slipping. The North tower has been reinforced against slipping by building a support wall ca. 2m from the foundation. The section through the foundation shows how layers of clay have been put on the ground, to eliminate the damaging force of underground water streams. Solid dolomite rock was also discovered in a test pit near the so called New Castle (Apala, 1994).

While part of the castle is located on the solid dolomite rock, the rest lays on much weaker ground. By analysing the plan of the castle, it can be determined, which parts have caused most structural headache, and what attempts have been made to ensure the reinforcement. During the archaeological excavations near the South tower, it was discovered, that the tower rests on the layer of poured dolomite stones, field stones and separate blocks of masonry (Apala, 1984), forming a kind of a buttress. Between the North and the West towers reinforcement of the slope has been effected by means of horizontal coniferous logs, with a 1,0 .. 1,3m thick layer of poured gravel (Apala, 1986). Other attempts of reinforcements against the slipping can be identified on the plan (Fig.3).

## Construction of the Castle

There is little data on how the original site was located and how the buildings looked like during the primary planning period. One of the parts, traditionally associated with original construction is the Chapel (Tuulse, 1942). Porous sandstone, which originally was used in the construction of now disappeared vaults, and a form of decorative corbels, differs from the rest of the Castle. Only a few other constructions have been uncovered during the archaeological investigation. A partially demolished wall, earlier than the present walls and made of relatively small dolomite stones, was excavated in the Southern parcham. By the northern part of the Bridge an older level of cobble-stone road was uncovered, proving that the original entrance to the site has not been changed since the very beginning.

The most extensive construction of the Castle was carried out by the turn of the fourteenth and the fifteenth centuries during period of the Developed planning. At the present stage of investigation it is thought, that during the period the East wing, the circular South tower, the outer wall of the South wing, the square shaped West tower and the outer wall of the West wing have been constructed. This corresponds with the results of archaeological works, where the so called base ground has been reached on the Western slope. The section of the original construction pit of the Western wall and the West tower has been dated by coins and thought to be the beginning of the fourteenth century (Apala, 1988). It is thought that originally the interior courtyard formed a square, enclosed on the North side by a rectangular wing.

On the Southern part the Bridge was constructed, originally consisting of masonry posts and presumably wooden deck. The Southern slope was reinforced by several support walls. Distance between the walls was filled with rubble forming the South parcham.

During the archaeological excavation, a rather clear difference between the materials used in different construction stages was established. The lower parts of the walls were constructed using relatively small dolomite stones. The upper parts as well as the walls of the main wings were built, using horizontal rows of field stones, improving the structural strength of the construction. Numerous finds of dressed dolomite window openings and remaining dolomite arches allow us to imagine the original outfit of the aisles.

From a structural point of view the West slope seems to have caused the most difficulties. Because of subsoil water and underground springs, the ground was not stable enough to construct a solid wall. Therefore another construction technique was adopted, resting the wall on posts and arches. During the excavations outside and inside the West wing, system of organized drainage of subsoil water was uncovered, crossing the basement of the West wing. On one hand such construction provided the necessary escape for the water and was eventually more resistant to cracks caused by subsoil movement.

On the other hand the resulting wall was substantially weaker, and definitely not suitable for fire weapons, so the reconstruction of the wall was envisaged, but never realized in the next construction period.

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The Improved planning stage by the turn of fifteenth - sixteenth centuries is dated by historic sources. The fortifications of castle were modernized according to the needs of fire weapons. Besides, due to political reasons, Cesis was chosen as a place for the Master, as Riga, the former seat of the Order, seemed to be unsafe. During the period the North tower and the North wing was constructed. The other parts of the castle were modernized: the former wings and the South tower were built up, the lower part of the West tower was thickened and the upper circular part constructed. The gallery was constructed (or reconstructed) around the courtyard, providing the necessary interior communications. The Bridge was fortified, constructing the wall making among the posts and converting it to a separate building. Another building of unknown purpose was constructed directly in the Moat, proving that there was no running water surrounding the Castle at the period. In general, the Castle was converted into a modern stronghold, with several baileys surrounded by curtain walls and towers.

Construction of the North tower converted the rectangular courtyard into a narrow angled room. Location of the tower on the slope conformed to the requirement to provide flanked defence for the walls of the castle. On the other hand the construction of the North wing caused the entrance to the West wing to be moved southwards. On the outside the North tower and on the Northern part of the outer coat of the West tower the stone recesses were made. For unknown reason the intended reconstruction of the arched West wall did not happen, so the wall remained in its old state up to the Livonian war.

During the construction period large sized red clay bricks (8..9 x 14..15 x 29..31cm) were introduced. Bricks were originally used for the facing of the North wall of the South wing. Inside the wing extremely fine brick vaults have been constructed. The surviving star vaults of the Master's room in the West tower along with the elaborated corbels testify the former magnificence of the interior. In distinction to previous stages, when dressed stone corbels were used, their shape has become more elaborate. It was achieved by using another construction technology - gypsum based mixture cast in moulds. Besides the brick was used for construction of the openings and arches in the wings, entrances to the West wing and the newly constructed interior winding stairs.

In the following years the extensive management of the Castle went on, so all kind of auxiliary premises appeared in all corners of the building. Such small buildings, often with a stove or fireplace, have been recovered around the courtyard below the gallery, on the outer side of the West tower, the North tower, next to the main gate etc. The Southern parcham was used for storage of bricks and mixing of lime. The possible outlook of the Castle prior to the Livonian war during the blossoming age by the middle of sixteenth century is shown in Fig. 4.

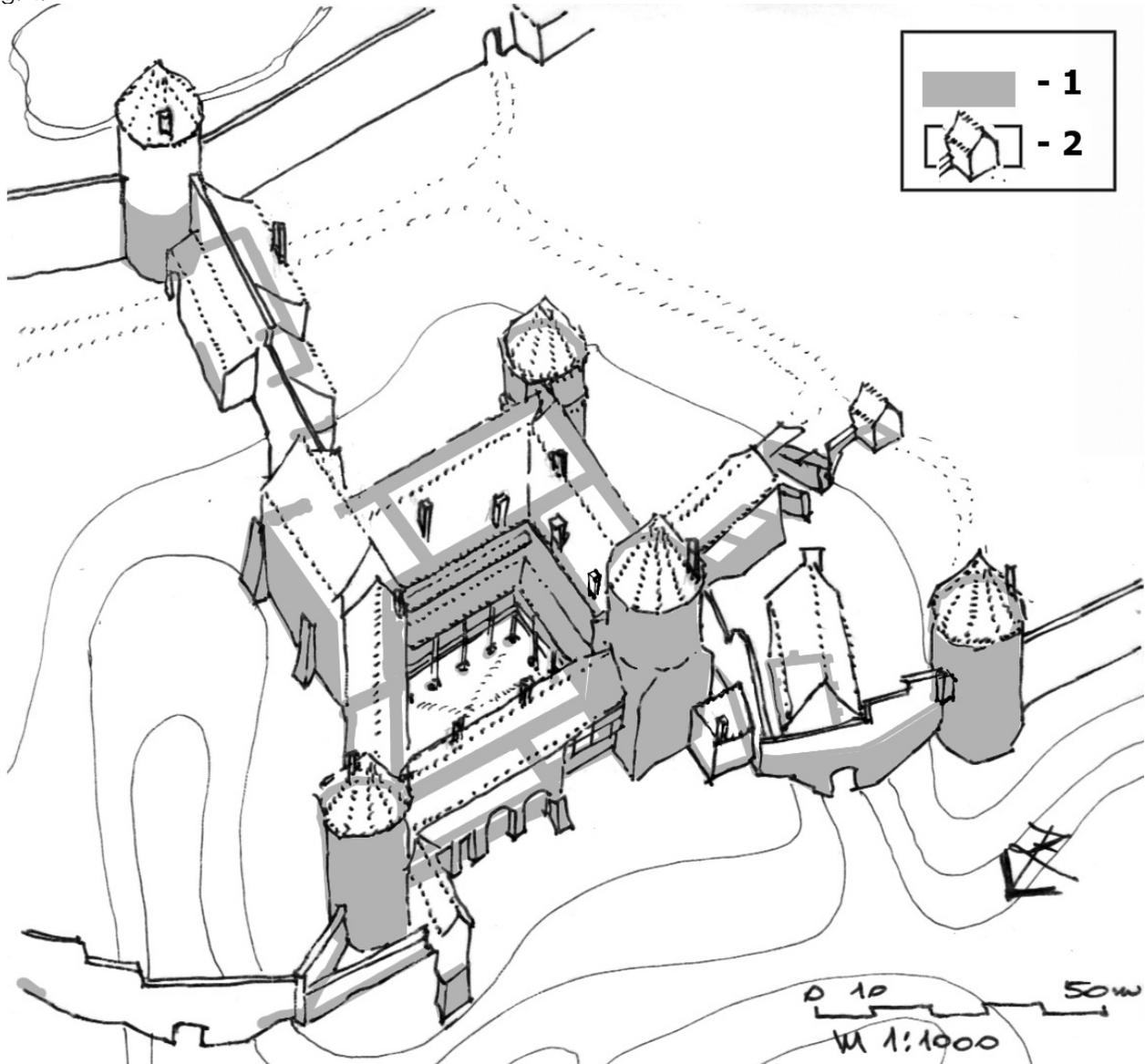


Figure 4: Theoretical reconstruction of the Castle in the middle of the sixteenth century. [1] remaining wall constructions, [2] reconstruction of the volumes; (Drawing by author)

The ongoing development of the Castle was interrupted by the Livonian war. In 1577 the army of Ivan IV "the Rigorous" besieged the Castle and soon after defenders blew themselves up in one of the rooms of the Western wing (Apala, 1983). The following year the North wing substantially suffered during the bombardment. In 1604 the accidental explosion eventually destroyed the vaults in the East wing. Once more the city and the Castle was damaged during the Northern war, until the fire of 1748 finally destroyed the building. The decline of the Castle began and materials from the walls were used for construction of new buildings of the Cesis Manor house, which is another story.

## CONCLUSIONS

Cesis Castle provides a broad view on the construction of the medieval castle from early medieval times until decline of the Order and introduction of modern war techniques. Although using locally available materials, at various stages of construction a variety of construction techniques have been used. Planning of the castle incorporates an early approach to solving the water drainage and supply. Fragments of heating devices have been recovered, allowing to judge on how the premises were heated up. Shape and materials used for construction of vaults, their ribs and corbels vary throughout the castle, allowing formal comparison of elements to

be carried out. Details of window frames, revealed in the archaeological research give the possibility to restore their original view and proportions. By combining architectural research and construction analysis of the upstanding part of the castle with results of historic investigation and architectural evidence, deeper understanding of the construction history of the castle has been achieved, yet the process of investigation is still on foot.

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