

THE CASTLE OF KASTELHOLM — MEDIEVAL ARCHAEOLOGY AND NATURAL SCIENCES IN A JOINT PROJECT

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Abstract

The castle of Kastelholm is Åland's only larger building with a medieval past if the churches are left out. It is situated on the shore of a bay in the north-east of the main island.

First mentioned in 1388 as a property left by Bo Jonsson Grip, the castle later came into the hands of the crown which soon afterwards put it on lease to different landlords for several hundred years with short interruptions. After the 17th century the castle slowly disappeared from the scene and fell into a state of decay.

At the turn of the 19th century antiquarian interest for the castle was stimulated by the Finnish archaeological commission in its attempts to restore the castles of Finland. Archaeological work at Kastelholm started in 1950 and was followed up with excavations on varying scales during the 60's and 70's. In 1983 the present five-year project was started. A problem during the earlier excavations has been understanding the different building phases which the castle has undergone and establishing the relationship between the rather fragmentary remains and the archaeological finds.

As part of the five-year plan an intensiv study of Kastelholm and its immediate surroundings will be undertaken. During the course of this work medieval archaeologists will with the help of different natural sciences try to recreate the natural environment and conditions for the medieval inhabitant of the castle and at the same time reconstruct its different building phases.

Introduction

Medieval archaeology is a relatively new field on Åland and so far limited to the castle of Kastelholm. It is actually the largest antiquarian project so far on Åland, comprising representatives from archaeology, art history and quaternary geology within the staff.

The castle is situated in the north-east of the main island, on the inner shores of a sound which discharges into Lumparen. The castle is today situated on a narrow strip of land which is steep to the west and gently sloping to the east. In the south a narrow land bridge connects the castle area to higher ground, but the remains of at least one moat imply that the castle was once completely surrounded by water. The castle is long and narrow, oriented north-south on the small peninsula. Its western half has been built on a rocky ridge at the highest point of the peninsula whereas the eastern half seems to rest on clay or fine sand.

The castle's present layout shows a foundation enclosed by a large ringwall with a concentration of building remains around a larger courtyard in the north and a smaller courtyard in the south. They are separated by a high tower which connects both courtyards. The building material consists primarily of red granite with brick occurring in

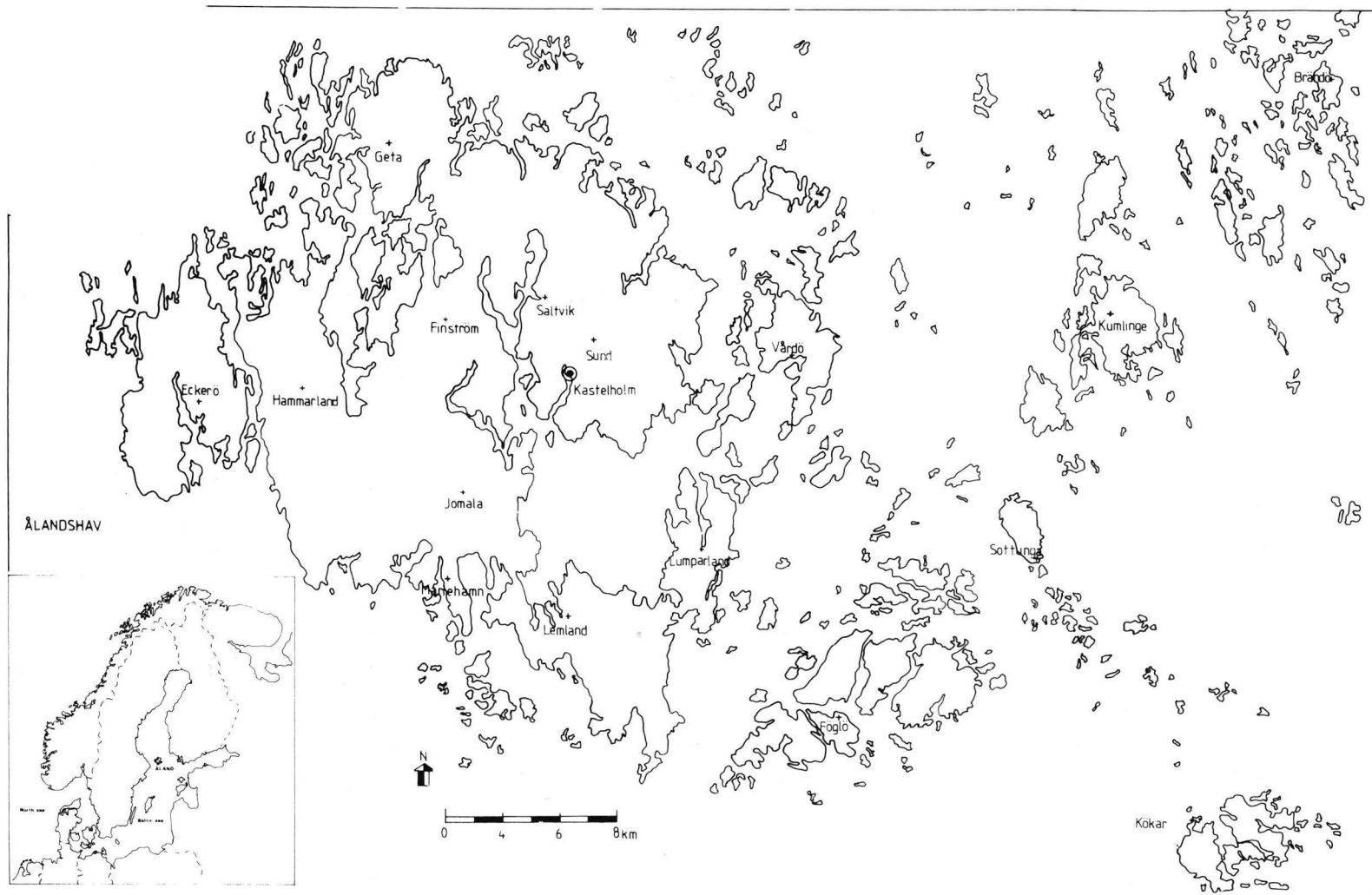


Fig. 1. Map of Åland.

younger building stages and around window and door openings. Among the building remains that are visible within the castle today traces of older foundation walls, which have been hidden by the raising of the courtyard groundlevel can be found. Outside the castle, surrounding the peninsula, a large pilework system has been found with its eastern portion above water.

Background

The question of when the first buildings were erected at Kastelholm has been a matter of dispute in later years. Historical sources first mention the castle in 1388 as a property left by the Swedish landlord Bo Jonsson Grip — deceased in 1386. From the same year information on a warden being at Kastelholm also exists. It is remarkable that Kastelholm does not appear in Bo Jonssons testimony of 1384 together with other Finnish castles at Turku, Viipuri, Häme, Raseborg and Korsholm which, in addition to Åland,

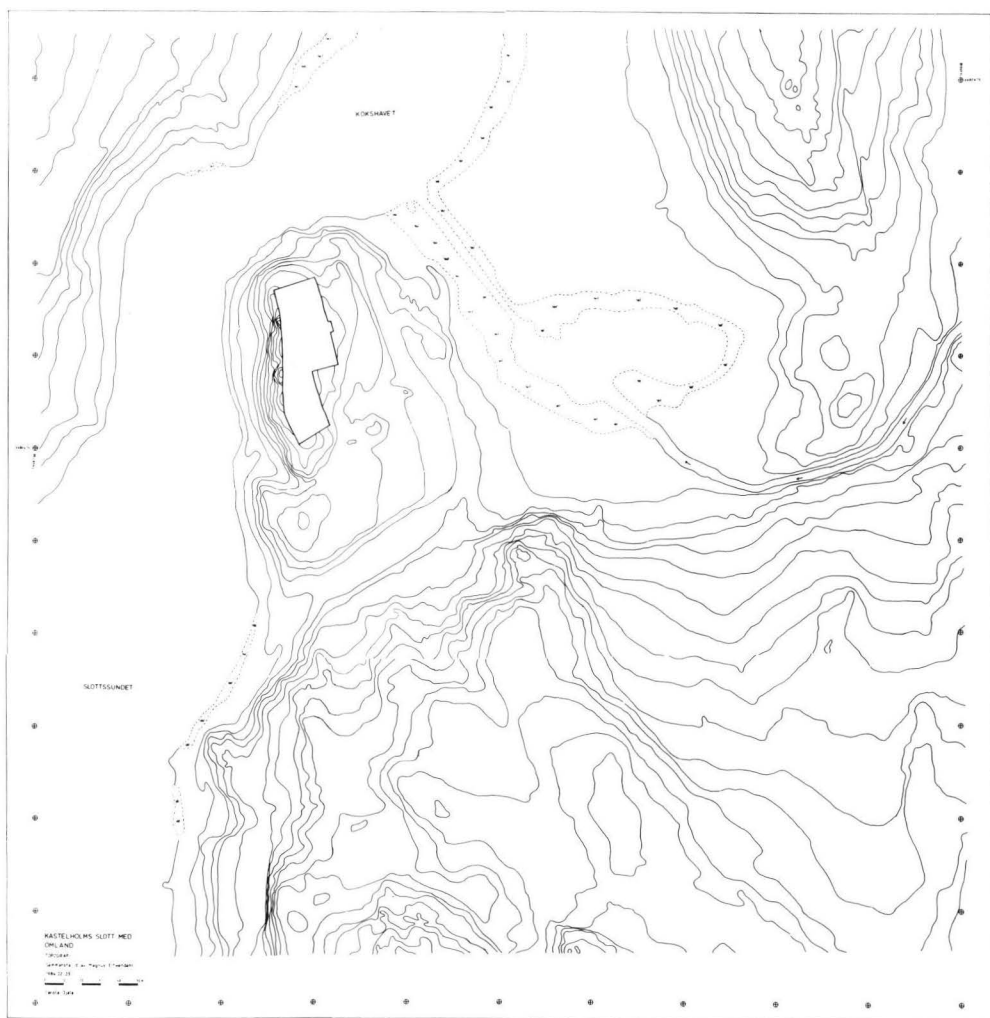


Fig. 2. The topography of the Kastelholm area.

were under his administration. This could mean that Bo Jonsson Grip had initiated some kind of building work, although it does not rule out the possibility of a mere enlargement of an older construction; perhaps no more than a tower, since it does not seem to be of importance to the administration of the area (Hausen, 1934; Fritz, 1973).

Art historians have to some extent looked closer at building features within the castle and found certain elements, especially around the tower, which resemble features in the Åland church towers and in the oldest parts of Turku Castle. These buildings were presumably erected during the late 13th century and with a building technique that suggests an influence from Gotland (Gardberg, 1967).

Local historians are in agreement regarding the similarity between the tower at Kastelholm and the Åland church towers, but they differ in their dates. They propose an alternate view of the historical development of the northern Baltic and the role of the knights of St John in the area during the early medieval period. Åland historians see the castle as the result of the early crusaders in Finland during the late 12th century. According to local historians, remnants of this early medieval castle can also be seen in other parts of the building apart from the tower. As Swedish rule took over Finland, Åland and the castle lost importance because the area was no longer suitable to be under the administration of a local castle (Drejser, 1983).

The Kastelholm project

In 1983 the present work was arranged as a five-year project, aiming to restore the castle and its surroundings to their latest 17th century building period without altering its character of a ruin. The principal goal of both archaeological and architectural research is to seek support for the different restoration programmes, but it also attempts to shed light on the castle's older history, which still remains obscure (Elfwendahl, 1983).

The castle gradually decayed during the 17th century, and it was practically abandoned during the 18th century as a result of the expansion of a demesne of the Crown just to the south-east of the castle. These events have contributed to the destruction of a great deal of important information on the buildings at Kastelholm. Difficulties in documentation work also arise from the fact that extensive repair work has been carried out within the castle since the late 19th century, which in many cases contributed to obliterate certain original details. Only the north wing has fairly well preserved information from earlier periods, because of its continuous use as a storehouse for 200 years until the 1930's.

Dating

In connection with the start of the present project, archaeological activity at the castle was increased. The earlier excavations, which primarily consisted of test trenches and minor excavations connected with different buildings within the northern portion of the castle, have today been replaced by excavations covering large areas around the outlying parts of the castle.

Thanks to these large excavations a new image of Kastelholm is slowly taking shape from the material retrieved from thick layers of building refuse. The original landscape of the castle surroundings is beginning to emerge together with earlier unknown 15, 16 and 17th century constructions outside the castle. Excavation work is now also yielding sufficient amounts of finds to allow the identification of different find horizons relating to the different building phases. Eventually the finds will provide a better pos-

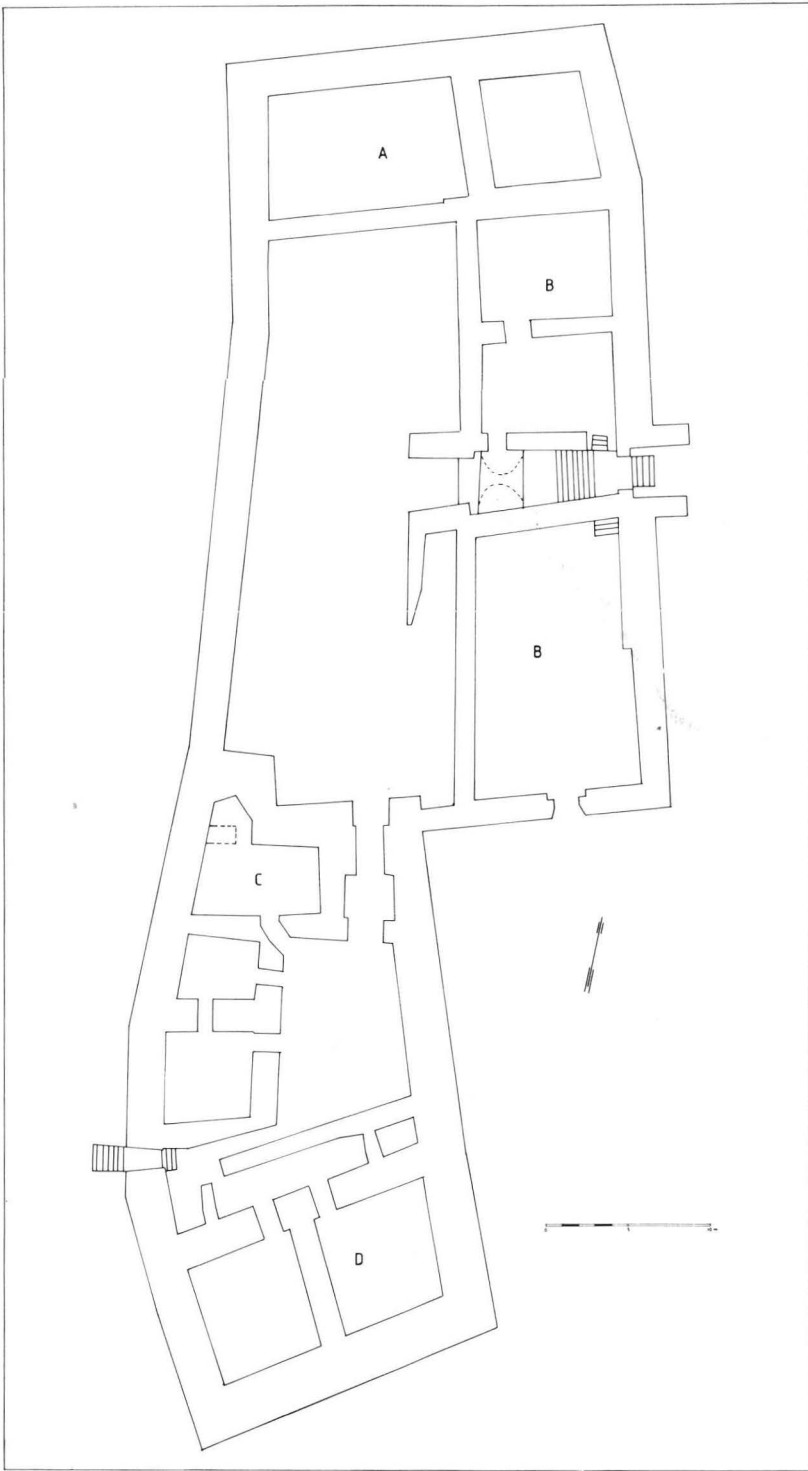
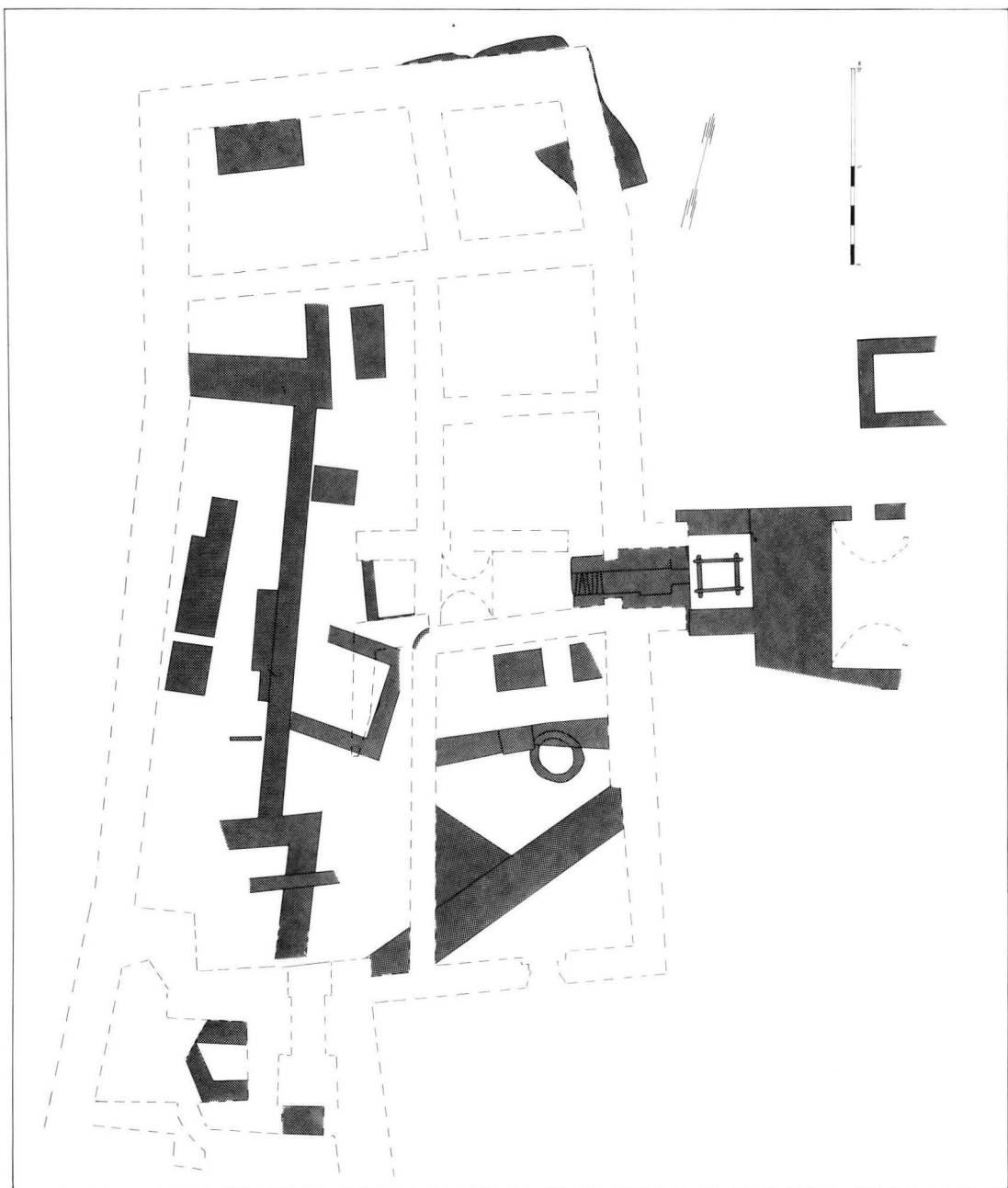
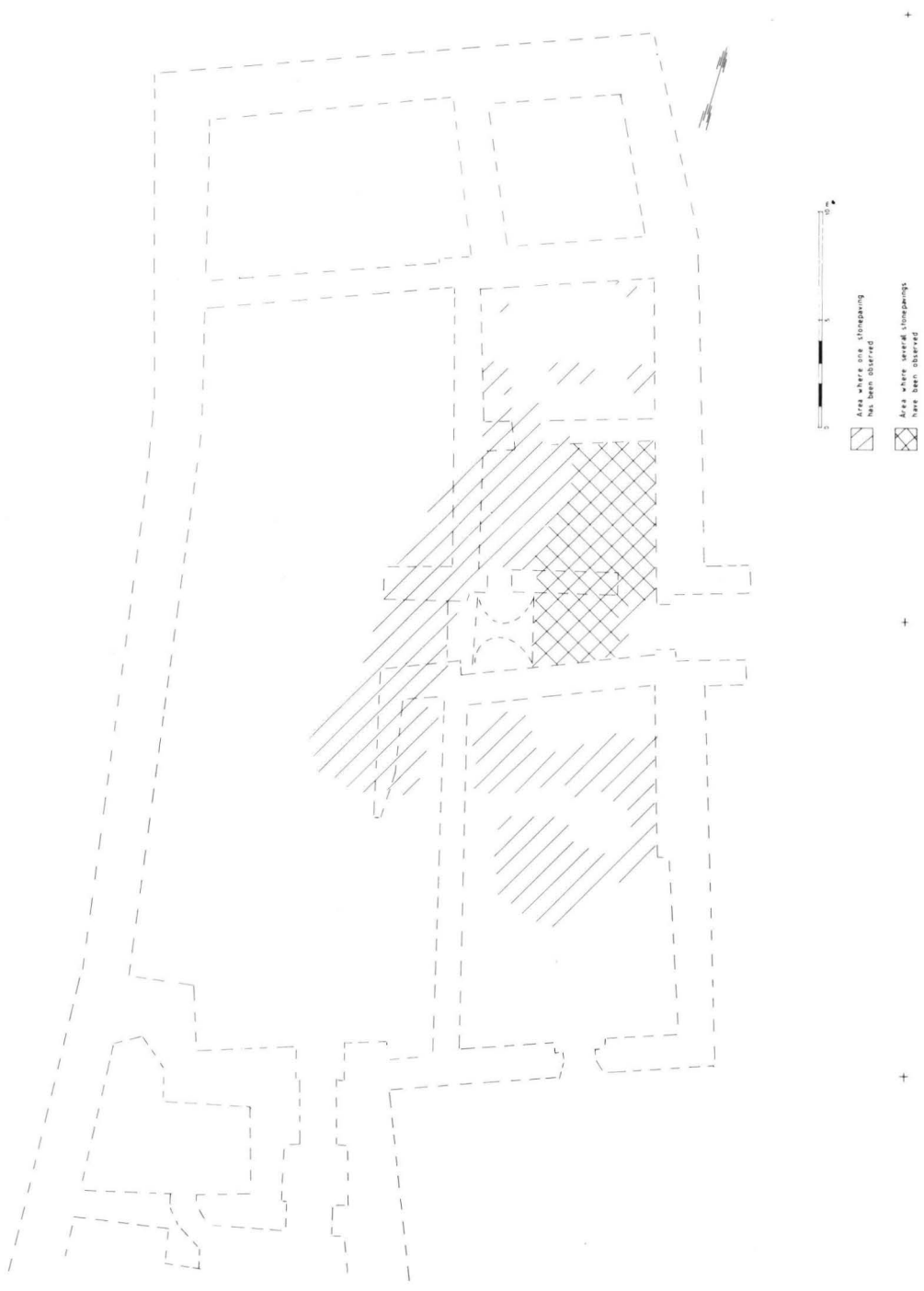


Fig. 3. The castle of Kastelholm. Building layout at the beginning of the 20th century. A. North wing, B. Eastern wing, C. Tower, D. South wing.





4 b
Extent of stone paved area.

sibility of dating the different layers, which was often a problem in earlier investigations.

The interpretation of the early history of the castle is not without problems. The above mentioned diverging opinions about the earliest stages of the castle have given rise to a blurred picture which cannot be brought into focus without the use of a more concrete dating basis. When the present project started, the natural sciences became an integral part of the archaeological work. They are primarily used for dating but they also contribute to a wider view and increased understanding of the environment and living circumstances of the castle inhabitants. For part of this work contact has been established with laboratories in Sweden and Finland.

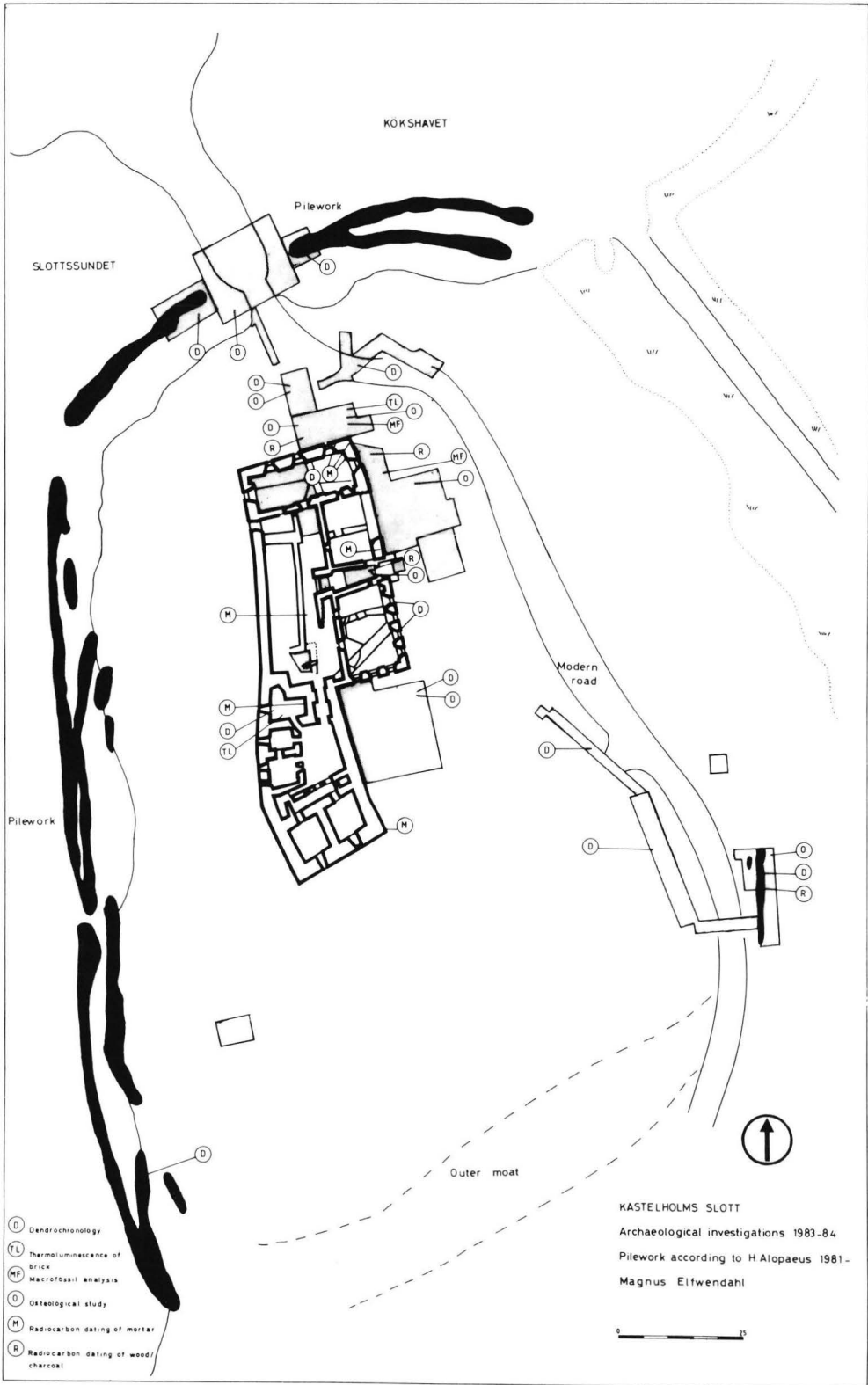
Radiocarbon dates of twigs and small charcoal fragments from the oldest layers of certain key areas provide a starting point for dating when finds fail to give a clear overall estimate. Radiocarbon dating will therefore help us understand these older layers which mostly consist of wood refuse and other organic material. Radiocarbon samples have also been analysed from the pilework around the castle to help out with the floating tree ring chronology.

To get a better dating of the different wooden constructions which are now being unearthed regularly in areas belonging to the earlier waterfronts at the castle, a large dendrochronological programme has been set up. In its first phase it aims to establish a relative tree ring chronology. Eventually we hope to develop a general curve for the area. So far some 600 samples have been taken and handed over for measuring. A problem in establishing a longer curve has been the lack of longer tree ring series for the period before the 18th century. However we are hopeful as future excavations are planned in areas where waterfront constructions can be expected. At present therefore all larger pieces found in younger occupation layers and all pieces that seem to constitute burnt building remains are retrieved in search of a link with the Middle Ages.

Radiocarbon dating of mortar has been undertaken in order to trace information in different parts of the existing building structures which seem to contain remnants of older phases but where traditional dating methods are not applicable. Dating will therefore greatly help research into older structures and it will be especially helpful in those parts of the castle where building remains are fragmentary and lack clear connection with nearby occupation layers or other constructions.

Thermoluminescence dating (TL) has so far been used on a limited scale. Samples here can sometimes meet unusual problems. Measuring bricks is normally a key instrument in most building investigations, especially when clear architectural details are missing. Bricks have been shown to have different sizes during different building phases, a fact which could have been a help when studying the bricks found mainly in younger buildings at Kastelholm but also around window and door openings. The problem in using bricks to trace the different building phases in complicated at Kastelholm by the fact that during the 16th century, bricks were brought from different religious institutions in Turku which were pulled down after the Reformation. We can therefore expect bricks of older size and shape in younger constructions. The place from which TL samples are taken is therefore of great importance. The possibility of the sample being a brick from Turku must be ruled out. The same applies to samples taken from archaeological excavations. In the last case only bricks from the oldest layers have currently been of interest in the analysis programme. The above-mentioned

Fig. 5. D Dendrochronology, TL Thermoluminescence of brick, MF Macrofossil analysis, O Osteological study, M Radiocarbon dating of mortar, R Radiocarbon dating of wood/charcoal.



also applies to those bricks which have been submitted for archaeomagnetic analysis within a larger project.

The different dating methods involving the natural sciences which have been employed at Kastelholm will probably present a fairly clear picture of the different components found in the castle when the present large excavations are completed. No method is ment to date whole structures by itself. Instead the work aims at aligning all the dating methods and collating them with the archaeological results.

In search of everyday life and older settlements

The scientific methods which aim at examinig the different elements which were once part of everyday life within and around the castle are closely connected with the normal routines at the excavations. Since 1983 all osteological finds retrieved in the course of the excavations have been collected. So far about 500 kg has been examined by the staff. Most seems to be household refuse, although slaughter refuse is traceably (Carlsson, 1984). We hope that in the future, the analyses will give a better view of how the osteological finds differ from those from medieval towns in Sweden and Finland.

Possible macrofossil remains from the various occupation layers may be of help in reconstructing the former vegetation pattern of the castle's surroundings. No samples have yet been analysed but work is scheduled to begin during the coming winter 1984/85.

Finally the first part of a large scale phosphate programme has been carried out during 1984. The aims are to find out to what extent the nearby prehistoric cemeteries from the Late Iron Age could be related to unknown settlements. This could present a clearer picture of the early medieval settlement pattern in the area. Of great interest in this work is a medieval settlement area just east of the castle peninsula. It lies next to one of two totally excavated cemeteries within the area of the phosphate survey.

The natural sciences and archaeologists have so far only begun their work at Kastelholm and other disciplines will most certainly become involved in the near future as new questions arise.

Concluding remarks

Thanks to the involvement of the radiocarbon laboratories at Uppsala and Helsinki in the dating programme, preliminary dating results in connection with the archaeological research can be presented here.

The available results so far from samples dating constructions and the oldest occupation layers seem so far to correspond well with the present archaeological results. In some respects they also modify our view of the different building phases which have been carried out during the medieval period at the castle. So far no known structure or occupation layer seems to be older then the 14th century, at least not within the north-eastern parts of the castle.

Radiocarbon dating of samples of mortar, wood and charcoal from the excavations in the north-eastern and northern parts of the castle so far undertaken suggests that the first erection of stone constructions took place during the 14th century (Sonninen et al. and Olsson this volume). Archaeological results indicate the possibility of older structures prior to the ring wall in this area, perhaps involving a great deal of timberwork. There is a large amount of wood refuse in the oldest occupation layers.

Around the north-eastern corner archaeological excavations exposed a large burned layer (Burned layer A) that seems to pre-date the present stone constructions (Fig. 6).

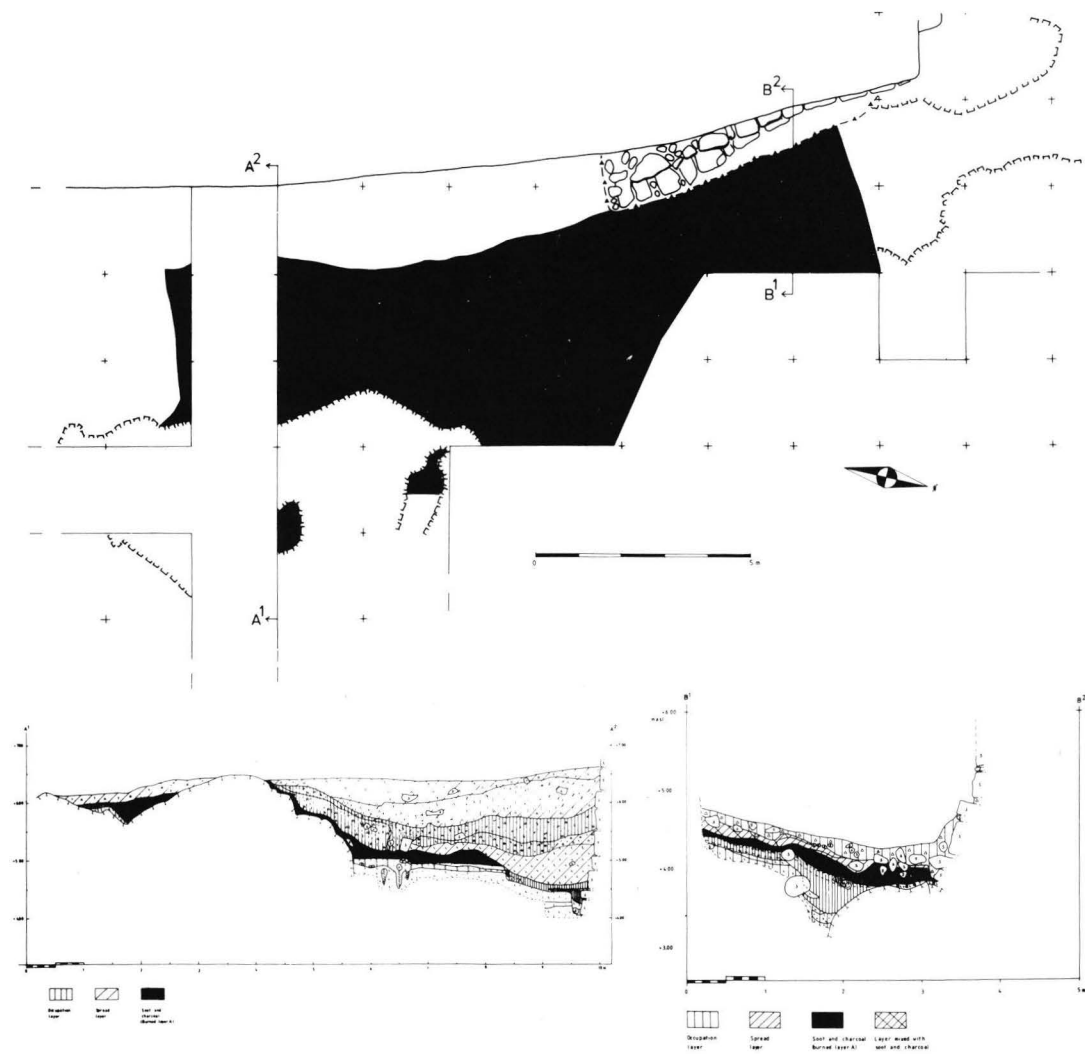
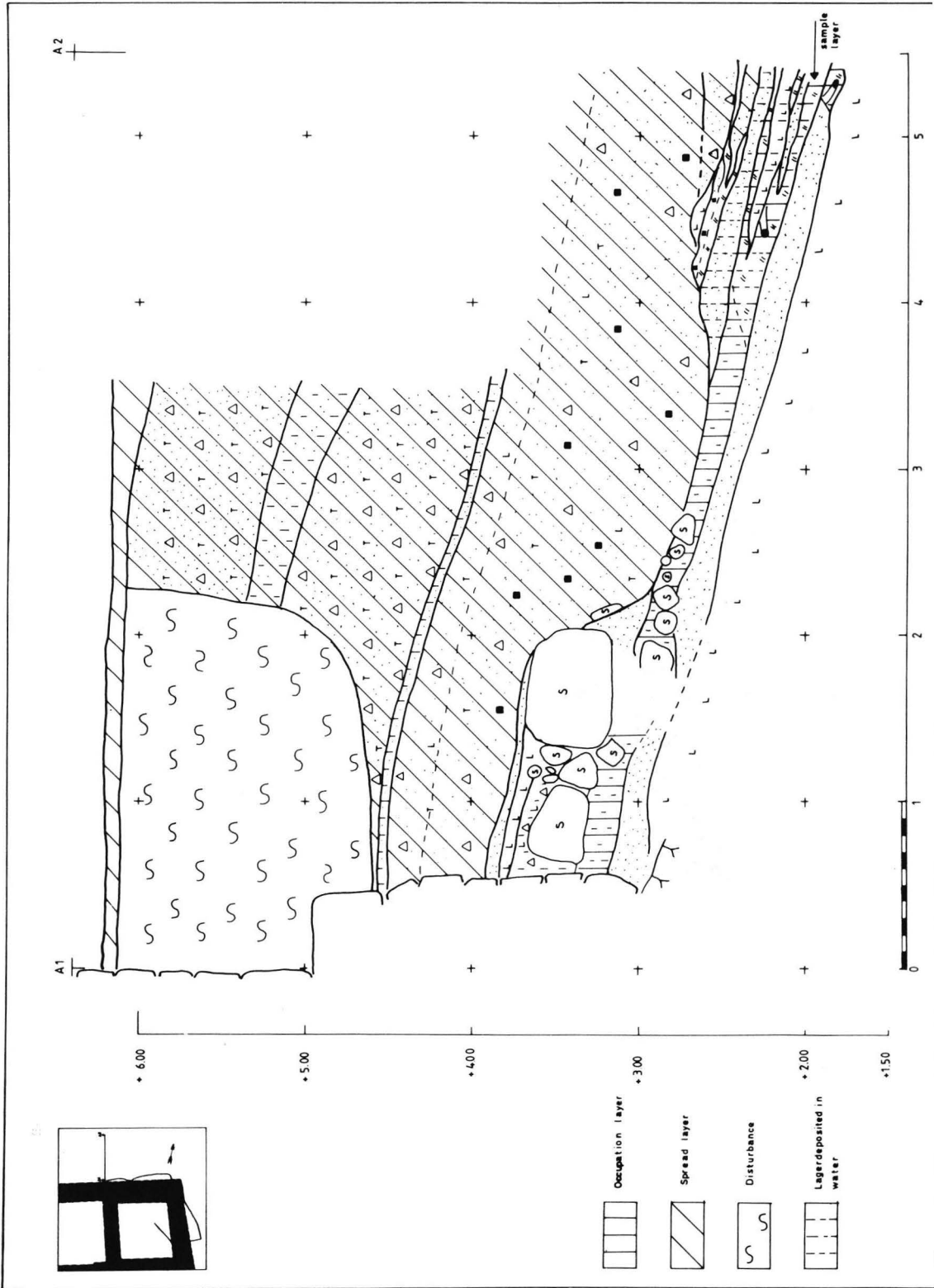


Fig. 6. Uppermost. Site plan outside the north-eastern parts of the castle showing the extension of burned layer. A. Radiocarbon sample no 3. Bottom. Profile A₁—A₂ and B₁—B₂ showing burned layer A in connection with the stone structures.



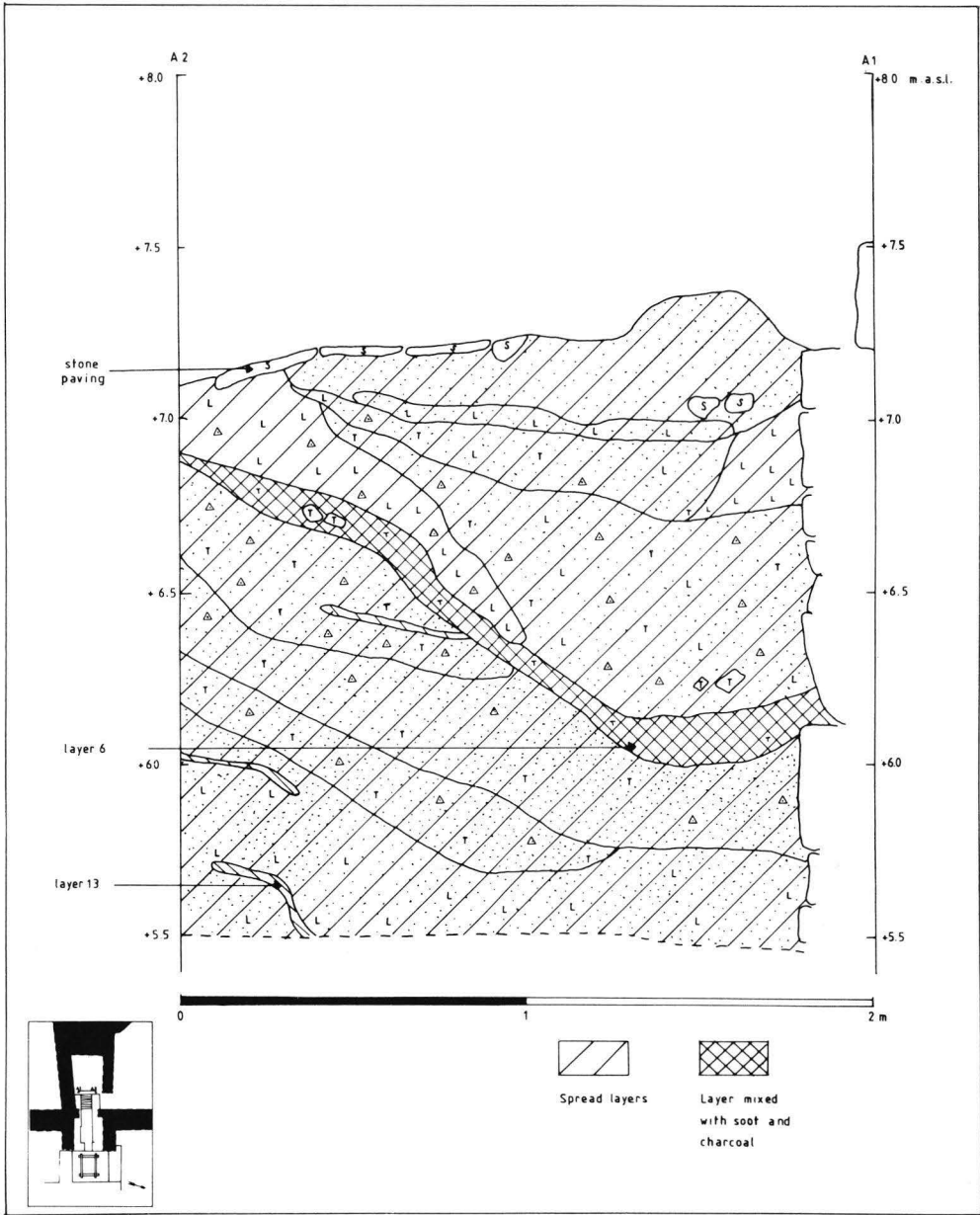


Fig. 8. Eastern entrance. The Hall. Position of radiocarbon sample no 4 and 5 (Layer 13 and 6).

It was not possible to determine to what extent this burned layer had covered the area because it has been badly disturbed by later activities in its northern, western and southern sections. A corresponding layer, which however, lacks the large concentration of soot and charcoal, was found just north of the castle (Fig. 7). Radiocarbon sample no 3 (U-6164) received an ^{14}C age of 595 ± 55 B.P. for a charcoal remnant from burned layer A, while radiocarbon samples no 6 and 7 (U-6179, U-6180) from branches

found in connection with the oldest occupation layer on the north side yielded ^{14}C ages of 615 ± 50 B.P. and 505 ± 50 B.P. (for calibration curves, see Olsson this volume).

Within the castle, by the present eastern entrance, radiocarbon samples were collected from under a stone paved area in two separate spread layers containing a large amount of soot and charcoal. This has produced new information concerning the large stone paved area found in the northern courtyard (Fig. 4 and 8). There are several overlapping paved areas in the eastern part of the courtyard which according to archaeological finds, were in use during the 15th century and most probably the early 16th century. In a later phase, the northern part of the eastern wing was erected on the paved area. The two sampled layers yielded the same radiocarbon date: 570 ± 50 B.P. (U-6177, U-6178), (Olsson this volume).

Radiocarbon results so far collected from the outlying north-eastern part and inside the eastern entrance suggest that the area may have been paved soon after the north-eastern wall had been erected. The thickness of the spread layers and the identical dates yielded by separate stratigraphical horizons at the present entrance may indicate an earlier, still unknown, larger filling operation in the northern courtyard, in order to gain sufficient height to connect the paved area with an expanding medieval building layout. This building layout is still unknown to a great extent, but thanks to investigations in collaboration with the natural sciences it is slowly emerging.

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