Anette Sand-Eriksen, Erlend Nordlie

6 The High-Medieval Royal Manor Complex

In 2017, the remains of a 51 meters long and 10 meters wide masonry building were excavated south of the 13th-century St Óláfr's Church at Avaldsnes. These remains represent the eastern wing of the high-medieval royal manor complex at Avaldsnes, of which the church constituted the northern wing. This chapter describes and discusses the layout, functions, and building history of the eastern wing. Part of the eastern wing was discovered and partially excavated in 2012; interpretations based on earlier results will be re-evaluated in light of new evidence. Historical sources, a selection of recovered artefacts, and results from scientific analyses are brought into the discussion. Central themes of discussion are the building history of the complex, the functions of its components and of the whole, and the possibility of continuity between the medieval manor and the rectory that later occupied the same site. The most important results are strong indications of precisely such continuity, evidence of at least two building phases around AD 1250 and 1300 and of a much larger and more monumental manor complex than was previously realised. Also, several observations indicate the distinctly multifunctional nature of the complex, well-suited to the geographical site and to the royal administration of the period.

The 2017 excavation at Avaldsnes uncovered the ruins of two connected masonry buildings (A60010 and A60020) that constituted the east wing of a high-medieval royal manor complex (Figs. 6.1–6.2). These buildings are closely connected to St Óláfr's Church – at one point they were physically joined to it. It is generally accepted that the construction of the church was initiated by King Hákon IV Hákonarson, and probably finished before the end of his reign in 1263 (Lidén 1999a:123–30). Excavation results show that at least one part of the east wing was built in parallel with the church, the rest within 3–6 decades. Although details of the building history remain somewhat unclear, 1250–1320 at Avaldsnes was clearly a period of great activity and grand planning of an exceptional nature for a non-urban site. This necessarily implies the manor's centrality within the royal administration of the time; the importance of Avaldsnes and the resources invested there must be regarded in light of the 1247 and 1308 papal privileges, confirming the King's right to elect and organise his own royal chapel clergy to churches built by himself, his ancestors, or successors (Helle 1999:54–6, 69, 75). As such, the building remains found at Avaldsnes provide new opportunities for exploring aspects of medieval Norwegian history (for instance, Hommedal, Ch. 7 and Opsahl, Ch. 8). Excavation results, historical sources, and comparable building types and sites indicate the manor's multifunctional nature, including storage

Anette Sand-Eriksen, Erlend Nordlie, Museum of Cultural History, University of Oslo

Fig. 6.1: Components of the high-medieval manor complex, including observations from previous excavations, and extent of excavated areas. Illustration: I. T. Bøckman, MCH.

and protection of goods and valuables, control of traffic along the coast, local and regional administration, and accommodation for the royal entourage. Members of the royal collegiate may also have resided and worked in the buildings.

Fig. 6.2: Overview of the 2017 ARM Project excavation. Area 1 to the left with A60020 and Area 2 to the right with A60010 and A60030, connecting the buildings to St Óláfr's Church. Photo: T. Olsen, Linsaa. Model: S. Kristiansen, MCH.

The buildings of the east wing are not described or even explicitly mentioned in any surviving contemporary sources. A substantial building complex at Avaldsnes is, however, implied by King Hákon VI Magnússon's formidable compensation claim after a destructive raid by the Hanseatic League in 1368 (RN 7:46; Opsahl this vol. Ch. 8). Moreover, early modern historians and antiquarians c. 1600–1800 mention masonry remains near the church, variously interpreting them as traces of an older church, a chapel, a vestry, or a chapter house (Lidén 1999a:134–5; Skre 2018b:14). Even the earliest source to explicitly mention masonry remains, Peder Claussøn Friis around 1613 (Friis 1632:67; Storm 1881:LXVI–LXIX, 324–5), apparently had no knowledge of the monumental royal manor complex that stood there 250 years earlier. The east wing and the high-medieval manor complex as a whole seem to have been forgotten within a few centuries, while St Óláfr's Church continued to be used and a rectory was built directly on top of the royal manor's eastern wing. Even so, the destruction in 1368 cannot have been complete; as will be demonstrated in this article there are indications that at least some parts of the masonry eastern wing were still in use in the 17th century. More likely, the association of the building remains with a royal manor were lost during the 15th and 16th centuries while the site and surviving structures were occupied by the rectory.

6.1 Discovering the Avaldsnes Royal Manor

The 2011–12 excavations at Avaldsnes aimed at investigating changes in settlement patterns, building types and agricultural strategies and output, monumentality

oriented towards the Karmsund Strait, and other indications of aristocratic presence and superregional networks through the first millennium AD (Skre 2018c:58). These excavations constitute the most extensive campaign of fieldwork conducted at Avaldsnes, extending over two seasons and encompassing excavation areas totaling nearly 5,300 m², revealing extensive remains from the period in focus, as well as both earlier and later periods (Bauer and Østmo 2018a:71).

With just two weeks left of the planned fieldwork, the project unexpectedly discovered the ruins of a c. 8 meters long and 9 meters wide cellar in a high-medieval masonry building. Because the circumstances permitted neither the time nor the resources for further excavation, it was decided that the partially excavated ruin would be covered and the trenches filled and closed. The excavation results were published in the first volume from the Avaldsnes Royal Manor (ARM) project, where one chapter was dedicated to the high-medieval building remains revealed in 2012 (Bauer 2018b:277–307).

The building remains extended beyond the northern end of the excavated area (Bauer 2018b:280), suggesting the possibility that the building had been part of a larger royal complex at Avaldsnes, leading to a number of new research questions regarding the size, shape, building history, and use of the high-medieval manor complex, as well as its significance in broader contexts. Because the possibility of uncovering evidence for researching high-medieval kingship was not known when the ARM project was planned, it had not been accounted for in the research plan developed during the 2007–9 pilot project phase. Following the unexpected discovery of high-medieval remains in 2012, a plan for further excavations was produced during the following months (Bauer 2013). A GPR survey was carried out in 2013 (Stamnes and Bauer 2018:365), with the partial aim of gaining further information about possible medieval structures. One of the surveyed areas was part of the cemetery just south of the chancel of St Óláfr's Church, where a late 18th century report of remains of an octagonal masonry construction (Hansen 1800:259) suggested that further medieval structures related to the manor complex may have been preserved. The GPR data showed a number of high-reflective anomalies coinciding with the reported site of the octagonal building, 16 paces south of the church (Stamnes and Bauer 2018:365).

6.2 Excavating the Avaldsnes Royal Manor

Based on historical sources, geophysical surveys, and the 2011–12 excavations as well as previous archaeological surveys from 1985 onward (an overview is provided in Bauer and Østmo 2018a:66–70), an excavation plan was developed with the aim of fully investigating known and suspected medieval building remains through a thorough excavation of two areas (Bauer 2013). In 2016, funding and excavation permits were secured, and in 217 excavations were conducted. A modern pathway

and an underground high-voltage cable, both of which prevented excavation, separated the two excavation areas. Area 1 covered an area south of the pathway and underground cable, where the first remains of medieval masonry were found in 2011–12, while Area 2 lay to the north, mostly inside the cemetery of St Óláfr's Church (Fig. 6.3). Within these areas a total of 633.5 m² were excavated.

Fig. 6.3: Topography of Avaldsnes and the two excavation areas, separated by a gravelled path leading down to the strait and islets to the east. The cellar in the southern part of Area 1 is situated in a depression, while the northern part of A60020 and A60010 are placed on higher-lying bedrock. Along the northern edge of Area 1 a high-voltage cable is buried beneath the path, at least partially placed in the high-medieval subterranean passageway (cf. Fig. 6.1). LiDAR produced by Blom Geomatics AS. Illustration: I. T. Bøckman, MCH.

The excavation set out to address the following specific objectives:

- Size and extent of the high-medieval masonry building, including rooms and the possibility of other wings adjoined/annexed to the larger high-medieval complex
- The function, dating, and use of the building and the larger complex, with possible changes of use over time
- Potential evidence of walkways in connection to the building(s) and middens with medieval domestic waste
- The transition to and traces of later rectory buildings and gardens after the destruction of the high-medieval manor in the 14th century

Bearing in mind that objectives would in all probability have to be reconsidered during the 18 weeks of fieldwork, the excavation strategy was built around

highlighting the first two objectives through open-area excavation, starting with trenching and mechanical removal of topsoil. The trenches would then be expanded based on presumed continuation of exposed features. The main excavation method applied was single-context excavation (Harris 1979), where individual contexts are excavated in their reverse chronological sequence – by exposing, documenting, and removing one horizon until a new one appears. In order to elaborate upon and reveal further information about the construction and stratigraphy, several crosscutting sections were established, allowing profile documentation as well as collection of samples for scientific analysis in accordance with the excavation objectives. To comply with the third objective, trenches were dug outside buildings in areas that were likely to contain traces from medieval occupation, such as middens, pathways, and the like. Traces of the post-medieval rectory were documented and removed in the same manner, in the course of uncovering medieval remains.

The excavation areas, structures, finds, samples, and sections were recorded using a Trimble TSC3 total station. The data were imported into and analysed in an Intra-site Information System, *Intrasis* version 3.1.1, and later processed in Esri ArcMap 10t and Adobe Illustrator for map production. Recorded features were given unique denominations consisting of one or two letters, depending on type of feature, relation, and subclass (such as ‘P’ for samples, with ‘PK’ for charcoal samples, and ‘PM’ for macrofossil), and a five-digit code, with the exception of context-less features, finds, and samples, which were assigned a six-digit code. Meta-features or superstructures consisting of several excavated features, such as buildings A60010 and A60020 or a distinct building component (e.g. A60022A), were created during post-excavation work.

All field documentation used the national museum IT collaborative MUSIT’s application for tablets – containing context sheets, field diaries, and photo lists. Such data were backed up daily and loaded into *Intrasis*, thus compiling an updated, on-site, comprehensive geographic information system of the excavation data. Samples were collected from structures of special interest, such as micromorphological sample packages from sections and macrofossil samples from features with the potential for preserved organic material. The latter were processed in a flotation tank, dried and sorted on site or at the museum before a selection was forwarded for scientific analysis to Rachel Ballantyne at the McDonald Institute for Archaeological Research, University of Cambridge. Analysis of micromorphology was conducted by Richard Macphail at University College London. Samples for 14C dating were selected from macrofossil material and analysed by Göran Possnert and Lars Beckel at Ångströmlaboratoriet at the University of Uppsala. Results (Ballantyne 2018; Kveiborg 2018; Macphail 2018; Possnert and Beckel 2018) will be presented under their respective structures where relevant. In the following, results from 14C datings are given in terms of 1 σ ; the calibration curve for each dating is found in the appendix to this chapter.

6.3 Before 1250: topography and archaeology

Kormt¹ is the largest island in Rogaland County, southwestern Norway, located in the north-westernmost part of the county (Fig. 6.4) Facing the North Sea in the west, the island is characterized by moorland in the south and a mainly agricultural landscape in the north, as well as several sugar-white sandy beaches in the south-west. The geology of Kormt consists of both sedimentary and igneous rocks: granites, metamorphic sandstones, quartz, and pillow lava deposits (Cannell et al. 2018:435). The excavation areas lie on the edge of an undulating bedrock plateau some 20 meters above sea level, ending to the east in a steep scarp (Fig. 6.3), allowing a vista over the Karmsund Strait and mainland to the east (cf. Cannell et al. 2018:426). The placement of A60020's cellar in a natural depression near the edge of the plateau probably reflects a conscious exploitation of the natural landscape. On a larger scale, so does the strategic siting of the manor by a bottleneck at the southern end of the sea-route, near relatively productive land in northern Kormt. Otherwise the wind-swept coastal landscape is only modestly fertile, and the local combination at Avaldsnes of resources, opportunities for control, and ease of communication appears to be the main reason why aristocrats preferred to reside here (Skre 2018c:53).

Already in the Bronze Age, if not earlier, these circumstances resulted in the accumulation of wealth and power at Avaldsnes, one expression of which was an exceptional concentration of monumental grave mounds and cairns. Northern Kormt again saw aristocratic settlement from c. AD 200 (Skre 2018d:750–8). At that time the farmyard was fixed to the area of the high-medieval royal manor, where it continued to be located until c. AD 1900. The cooking pit and the cremation grave discovered during the 2017 excavation should be understood in the context of the Iron Age farmyard. The grave was found while uncovering a stone pavement within the high-medieval eastern wing, and contained 1,950 grams of burnt and fragmented bones in a severely damaged ceramic urn (S13897/3–5). Due to the poor preservation of the bones, only 10% of the material could be identified, but the osteological analysis determined that they belonged to a healthy individual of unknown sex, aged between 20 and 60/70 years. The grave contained a spindle whorl in burnt clay (S13897/1) and several decorated comb fragments (S13897/2), which placed the grave in the Roman Iron Age (AD 1–400). Three previously excavated cremation graves c. 200 meters to the south belonged to the same period (Sjurseike 2001; Østmo and Bauer 2018c:245, fig. 12.1 nos. 9–11), as do raised stones and several secondary graves in older mounds within a 200 meters radius (Østmo and

¹ The current name of the island is Karmøy. To avoid confusion with Karmøy Municipality, which includes other islands as well as parts of the mainland, the earlier name 'Kormt', closer to the Old Norse *Kormt*, is used here to designate the island upon which Avaldsnes is situated (Skre 2018a:9).

Fig. 6.4: Avaldsnes on Kormt, with the Karmsund Strait separating the island from the mainland to the east. Kormt is the largest island in Rogaland County, southwestern Norway. Illustration: I. T. Bøckman, MCH.

Bauer 2018c:fig. 12.1, tab. 12.1). The cooking pit, which was cut by a post-medieval rectory cellar, in all likelihood belongs contextually and chronologically with the c. 120 pits discovered in 2011–12 to the west and south of the medieval manor site, with dates spanning from c. 350 BC to AD 600 (Bauer 2018a:254).

Although scant, the post-600 and pre-high-medieval archaeological and written evidence suggests more or less continuous aristocratic presence – definitely from around AD 900 (Østmo and Bauer 2018a:92–7, 2018b:126–8, 135; Skre 2018d:759–64), when Avaldsnes became one of the manors for the first Norwegian kings. They were Christians since around AD 1000, and saga accounts indicate that Avaldsnes had a church then (Saga Ólafs hins helga 1900:120). Several church buildings may have replaced each other before the building of the present St Óláfr's Church c. 1250. In line with what was common elsewhere in Scandinavia, they were probably built on the same site.

No remains of masonry buildings pre-1250 have been definitively identified, with the possible exception of some intriguing soapstone portal components with Romanesque features, held by *Nordvegen Historiesenter*. These were found in 1984 in the basement of the modern church tower from the 1920s, but there is no record of how they came to be there (Vea pers. com.; Haugesunds Avis 7.5.1984). With some minor exceptions, the 2017 excavations in the cemetery did not penetrate into intact deposits that pre-dated the high-medieval building remains, and no early-medieval features were identified. In 2011–12, a handful of early-medieval dates were obtained from deposits to the west and southwest of the areas excavated in 2017 (Østmo and Bauer 2018a:95–7). The preserved evidence was too insubstantial to give a clear picture of the nature of the manor in this period, but did show that activity continued into the 12th century; although no structures or deposits have been documented from the late 12th and early 13th century, it seems extremely improbable that the site was abandoned. More likely, material remains from this period were removed or truncated beyond recognition by the extensive later disturbances of deposits to the west and south of the 2017 excavation areas. Sections documented in and near the high-medieval buildings also seemed to show that some topsoil or turf was removed before construction began, perhaps in the process destroying traces of 12th- and early 13th-century activity.

6.4 The high-medieval manor complex: physical remains

While the 2012 excavation and the subsequent geophysical investigations in 2013 showed that further masonry remains were likely to be found, the extent revealed in 2017 was unexpected, and much more substantial and complex than anticipated. In both excavation Area 1 and 2 ruins were covered by grass turf and demolition

rubble, and truncated by several disturbances. Remains of the larger rectangular building A60020 were covered by 15th- to 19th-century rectory building remains, garden soil and several stone-paved surfaces in Area 1 (Fig. 6.5). The building is truncated in the north by a high-voltage cable and a pathway towards the harbour and islands in the east. In Area 2 north of the truncations, traces of A60020 were found on both sides of the cemetery wall, while inside the cemetery, just south of St Óláfr's Church's chancel, extensive and relatively well-preserved remains of building A60010 and connecting wall A60030 were discovered (Figs. 6.6–6.7). These remains were covered by 20 cm to 1 meter thick deposits extensively truncated by numerous burials from c. 1600–1900. All the medieval buildings, including the church, are constructed in rubble-core masonry, either built directly on bedrock or on foundations consisting of ditches filled with rubble without any mortar. Both construction methods, and the two in combination, are common for medieval masonry buildings in Norway (Ekroll 1997:76). The character of the masonry is typically high-medieval, with mostly unworked stone; large stones of uneven shapes are surrounded and supported by smaller pinning stones set in lime mortar.

Fig. 6.5: Area 1 and A60020 during excavation, seen from the south. Left: in the foreground a thick deposit of garden soil levelled out the depression in which the cellar is placed, thinner heavily truncated deposits in the background. After seven weeks of excavation, A60020 is still covered by several flagstone pavements from the post-medieval rectory. Right: deposits have been removed outside the building on the west and east sides, partially removed inside the cellar and to the south of the building. This was the situation after thirteen weeks of excavation, and compared with the picture to the left illustrates the complex stratigraphy and disturbances of the post-medieval rectories. Photo: MCH.

In the north-eastern part of the island and the adjacent mainland the bedrock is dominated by extremely friable green schist, completely unsuited for building purposes. More suitable glacially transported stone, readily available locally on beaches and in cultivated fields (Geis 1967:108–10, 124), appears to have been used

Fig. 6.6: Phase 1; the similarities between St Óláfr's Church and A60010 suggest that they were constructed within a short period of time, the archaeological evidence makes it plausible that A60010 was planned alongside the church from the beginning. Certain style elements point toward a culmination of Phase 1 before 1275. LiDAR produced by Blom Geomatics AS. Illustration: I. T. Bøckman, MCH.

Fig. 6.7: Phase 2; finds and radiocarbon dates indicate primary use of A60020 in the 3–5 decades around 1300, and although construction work in Phases 1 and 2 may have overlapped, work on A60020 and A60030 definitely began later than that on A60010 and the church. LiDAR produced by Blom Geomatics AS. Illustration: I. T. Bøckman, MCH.

throughout the manor buildings. The exception is quarried and worked soapstone, several fragments of which were found in the demolition deposits (S13896/10–22, and S13896/73). Some finely worked soapstone is also still *in situ* in the masonry, framing doors and embellishing a corner. Similar architectural soapstone elements also occur in St Óláfr's Church; identical ornaments and mouldings in the portals of the church and A60010 suggest the two buildings were built in close parallel.

6.4.1 Main phases

The known history of the high-medieval manor complex can be arranged into three main phases based on excavated features, written sources, and architectural elements, relevant details of which will be further elaborated below. *Phase 1* starts with the construction of St Óláfr's Church around 1250 and likely includes the construction of A60010, while *Phase 2* is defined by the addition of A60020 and A60030 around 1300. After completion, the mentioned structures formed a continuous east wing – a 70 meters long masonry façade facing the harbour and the Karmsund Strait. The transition from Phase 1 to Phase 2 cannot be precisely dated. Details of the building history of the east wing will be discussed more thoroughly below, but it is safe to assume that extensive building activity took place at Avaldsnes in the period 1250–1320. The east wing was clearly completed and in use before the Hanseatic League's attack in 1368. However, as the 2017 excavation showed indications of continued use after the attack, it cannot have been completely destroyed, and the manor thus had a *Phase 3* after 1368.

Phase 1 – AD 1247–c. 1300

According to Hákonar saga Hákonarsonar ([1964]:314) the construction of a church at Avaldsnes – which can be safely assumed to be the extant St Óláfr's Church – was among the “good works” of King Hákon IV Hákonarson. The style of the church windows, portals, and masonry is typical of his reign (1217–63), most likely the latter half. A likely incentive to begin building was a letter from Pope Innocent IV in 1247, confirming the king's right to elect clergy to churches that were built by himself, his ancestors, or successors (Bagge 1976:48–9; DN 1:43). Seemingly contradicting the saga, the will of Hákon V, written between 1312 and 1319, stipulates that the royal income from Kormt was to be allocated toward construction of the church until its completion (DN 4:128; Lidén 1999a:130). The apparent conflict between the saga and the will can be resolved if we assume the provision in the will concerned parts of the building that were not essential to the function of the church, but still closely connected to it. A candidate could be the unusually large western tower (as suggested by Lidén 1999a:131), which unfortunately was completely replaced

during restorations in the 1840s and 1920s; whether it was stylistically in line with the preserved parts of the church is impossible to determine from depictions of the tower ruin before it was torn down, and the potentially informative joints between tower and nave were destroyed in the same process.

Perhaps be the most parsimonious solution to the contradiction between the saga and the will would be that work on the manor complex as a whole could have been funded by the same income (again suggested by Lidén 1999a:134); a credible solution as the manor in Hákon V's time would have been further bound to the church by the formal establishment of the royal collegiate, after Pope Clement V granted the king permission to organise his own chapel clergy in 1308.

Similarities between the church and A60010 suggest that they either were constructed in parallel or within a short period of time; these consist of the very similar character of the masonry in general, and the style of the portals, which have identical dog-tooth ornamentation and column base mouldings. The archaeological evidence makes it plausible that A60010 was planned alongside the church from the beginning, and that St Óláfr's Church and A60010 were erected before A60020 and A60030. As will be discussed later, the dimensions of A60010's preserved masonry indicate a building of substantial height, which along with its proximity to the church is reminiscent of medieval free-standing towers known from several sites in Sweden (e.g. Lovén 1996:365–71; Ödman 2002:18–19), as well as Stavanger Cathedral in Norway (Ekroll 1997:144).

Phase 2 – c. 1300–68

Construction work allocated here to Phases 1 and 2 respectively may have overlapped, and determining an exact date for the transition between the two is neither possible nor essential for the understanding of the manor complex. Style elements and archaeological evidence that will be discussed below do however indicate that Phase 1 culminated before 1275, compatible with the saga statement that the church was completed during the reign of Hákon IV (1217–63). A radiocarbon date from oven A60022A in building A60020 supports dating Phase 2 to the 14th century, with a grain of barley dating to AD 1295–1395 (Ua-57493).²

Three dateable silver coins found adjacent to fireplace A60022B in A60020, support dating the primary use of the building to the 3–5 decades around 1300. The coins have been identified as Edwardian Long Cross pennies, first struck during the reign of Edward I of England in 1279, continued by Edward II, and ending with the reign of Edward III 1327–77. Long Cross type pennies were in use until the end of the 15th century, but certain features place the Avaldsnes finds early in the series.

² See appendix for more details on radiocarbon dates referred in this chapter.

The legend on the best preserved coin, S13896/1, appears to be written with a Roman N rather than the Lombardic n. This seem to be the case on the two other coins, S13896/2 and 3 as well, although their legends are not as clear. All three coins are very similar in other features too. Their alloy composition (With and Oschmann 2018:10), smaller size (1.7–1.9 cm), and the Roman N seem to exclude coins struck during the reign of Edward III – that is, after 1327. Furthermore, S13896/1 appears to have a bifoliate crown, which in most cases means that the coin belongs to the reign of Edward II, 1307–27 (Savage 2014:20–2; Wood 1989:44). This relatively narrow time frame matches the radiocarbon date very well, lending further support for dating the construction and primary use of the building to the decades around 1300.

The masonry buildings examined in 2017 formed the east wing of the manor complex. Along with the church, these buildings would have defined the northern and eastern sides of the manorial courtyard (Fig. 6.7), with other features possibly representing the courtyard's western limit. A 25 meters long stone-paved walkway (A32545) was discovered during the 2011–12 excavations and interpreted as belonging to the high-medieval manor due to its orientation and placement (Bauer 2018b:302). The walkway is parallel to A60020 at a distance of 57 meters, and may have led to the western entrance to the church in the tower. A ditch (A18206) 5 meters further east, also excavated in 2011–12, was however interpreted as defining a boundary between cultivated areas to the west and the courtyard to the east (Bauer and Østmo 2018b:149). This would have left the walkway outside the courtyard, if contemporary; there is a possibility the ditch belongs to a phase earlier than the walkway and A60020. While the walkway was impossible to date directly, fill in the ditch was dated to 1299–1394 (Ua-45344), perhaps indicating an expansion of the courtyard toward the west around the time A60020 was built.

A subterranean passageway beneath the courtyard area probably belonged to the high-medieval manor as well (Fig. 6.7). First discovered in 1923, segments of the passage were investigated in the 1980s and during the 2011–12 excavations. Measuring 0.5 meter in width and 1 meter in height, it was cut into bedrock with a roof consisting of large stone slabs, with slabs lining parts of the walls. A total of 30 meters was uncovered, but due to modern truncations, neither end has been found (Hemdorff 1986:8; Bauer 2018a). The function of the passageway cannot be established with certainty, but the prevailing interpretation has been that it functioned as a secret passage or escape tunnel; an interpretation as a drain or water channel can be excluded due to the shape of the terrain. Judging from its orientation and course, the passageway likely led from somewhere in the courtyard (possibly another building) into A60020; the eastern end seems likely to have been inside the latter as no traces of the passageway were found to the east of the building. Unfortunately, the area inside A60020 where the passageway could have emerged was damaged by a post-medieval cellar. Although the tantalising possibility emerged during the excavation that this cellar was placed in an older cut, no evidence was found to either prove or disprove the idea.

The courtyard where the passageway may have originated would likely have had various wooden buildings to house workers, livestock, and supplies and possibly workshops. No traces of such buildings have been found, but the wooden architecture of the time did not necessarily involve subsurface foundations; in the preservation conditions at Avaldsnes remains of medieval timber buildings cannot be expected to survive.

Phase 3 – 1368–1698

Although the manor was attacked and burnt by the Hanseatic League in 1368, the 2017 excavation showed that it cannot have been completely destroyed. No observations could be directly related to the 1368 attack; all traces of masonry collapse and most signs of fire were found above post-medieval deposits, likely evidence of the fire in 1698. Some fragments of soapstone building elements for instance had soot on some faces, which shows that they were *in situ* in the walls during a fire; however, which fire is impossible to determine from the evidence found. Lack of archaeological evidence for the 1368 attack in itself suggests that the east wing or at least parts of it were used in the 15th–17th centuries (Fig. 6.8). A medieval coin (S13896/4) identified as a *hvid* issued by King Hans (1483–1513) found in the privy A60025 supports this continuity. A similar coin (S12779/1) dating to the short interregnum period preceding King Hans' reign was found in 2012 in a disturbed context (Østmo 2018:518), another indication of late medieval activity on the site. Moreover, a barley grain from the uppermost in a sequence of burned layers in the privy was radiocarbon dated to AD 1490–1670 (Ua-57492). Below this were found two thin layers containing burnt organic matter interpreted as stable floor waste, which may have been charred during a building fire; on the other hand, the presence of insects suggests that it had been decaying long enough to become colonised before being burnt (Ballantyne 2018). From the lowermost layer in the sequence a fragment of bark with sapwood edge was radiocarbon dated to AD 1490–1640 (Ua-57498).

6.4.2 A60010 – Northern building

Originally a free-standing rectangular masonry building with at least two entrances (Fig. 6.9), A60010 was erected c. 9 meters to the south of the chancel of St Óláfr's Church. The remains measure 8.65 by 12.1–12.6 meters externally, with masonry preserved in heights above the plinth from close to zero in the east to a little over one meter in the west. Except for a few small trenches, excavations did not penetrate beneath the plinth level.

The generally well-preserved state of the masonry is somewhat surprising considering the amount of activity and truncations in the cemetery over the centuries.

Fig. 6.8: Phase 3; the manor was attacked and burnt by the Hanseatic League in 1368, but not completely destroyed. Observations and results from the excavation suggest that parts of the east wing were used in the 15th–17th centuries. LiDAR produced by Blom Geomatics AS. Illustration: I. T. Bøckman, MCH.

Fig. 6.9: Northern building A60010. Unbound joints where it meets A60020 and A60030 show that A60010 originally was free-standing, with a doorway in the northern wall (directly opposite the chancel portal), and a portal in the western wall. Details of the latter are identical to corresponding features of the southern nave portal of St Óláfr's church, suggesting they were built in parallel. Illustration: I. T. Bøckman, MCH.

Still, several 17th to 19th century burials disturbed or destroyed parts of the walls. Seedlings planted in the 1950s grew over the decades into massive hardwood trees; three of them grew directly on top of the southern wall and their roots have broken up the masonry (Fig. 6.10). Although cut down during excavation, the tree roots, as well as the current cemetery wall, prevented complete exposure of A60010's southern wall. Fortunately, the other walls were completely exposed, and it was possible to free just enough of the southern wall to ascertain the shape and size of A60010 and investigate abutting structures.

Fig. 6.10: A60010 during excavation, large tree stumps and cemetery wall obscuring the southern wall. In the foreground, one stump has been removed, freeing the south-western ashlar A66666 (right). Between A66666 and the north-western ashlar A62060 (left), the western portal is centrally placed. One can also glimpse the plinth dropping towards the east along the northern wall, following the undulating bedrock (facing east). Photo: MCH.

Walls and floor

The walls are of high quality at least equal to that of the church walls and with near-regular coursing, at least where the walls are preserved in sufficient height to judge (Fig. 6.11, compare Fig. 6.16). A60010 and the church also have similar frequencies of pinning stones in the wall faces, proportionally less than the later

Building A60020

Building A60010

St. Óláfr's Church

Fig. 6.11: Sections of wall from A60020, A60010 and the southern wall of St Óláfr's church. While cement obscures the pinning in the latter, the silhouettes of the larger stones show that comparatively little space is left for pinning, and the general impression is that this masonry resembles the example from A60010 more than that from A60020. The drawings are based on photographs, which are not as clear due to differences in lighting, stone and mortar colour and soil remaining in the joints. In all three cases the pictured masonry is immediately above the plinth. Illustration: A. Sand-Eriksen, MCH.

building A60020 (Fig. 6.11). Because the use of pinning generally increases in the late 13th and early 14th centuries, this is one indication that A60010 was built in parallel with the church, or very nearly so. The possible chronological implications of pinning stone use will be discussed in greater detail later in this chapter.

Deviating slightly from the church's orientation, A60010 has a near exact cardinal alignment, with the eastern and western walls externally measuring 8.65 meters and the northern wall 12.1 meters. Due to poor preservation of wall faces, the south-eastern corner of the building is not well defined. Judging from the preserved remains, the southern wall appears to be slightly longer than the northern wall, likely around 12.6 meters. Wall width fluctuates slightly from c. 1.25 meter in the narrowest part to 1.35–1.5 meter in the sections sufficiently well preserved to be measured reliably, leaving a floor area of about 5.8 by 9.45 meters. Although difficult to measure precisely, the walls of the church appear to have roughly the same thickness.

The western wall is well preserved, with a rectangular ashlar in both of its corners, the north-western a finely cut soapstone (Fig. 6.10). As neither the north-eastern nor the south-eastern corners are sufficiently preserved, there is a possibility that they had ashlar corners as well. All corners in St Óláfr's Church have soapstone ashlars, while the better preserved southern corners of A60020 have no ashlars, further underlining the closer relationship between A60010 and the church.

The wall plinth and foundation of A60010 varies in shape and level, but appears generally substantial. A shovel-dug test pit on the outside of the northern wall indicated that the foundation is as wide as the plinth, which is 10–20 cm wider than the wall. As there are no masonry remains of the east wall, it can only be traced as partially worked bedrock, in some places with mortar preserved *in situ*. The plinth is generally more distinct and visible on the inside of the building than on the outside, and clearest along the western part of the northern wall. Following the terrain the northern plinth appears to diminish and drop in two steps east of the northern entrance (Fig. 6.10). The first drop is only around 15 cm, while the second measures c. 40 cm; such a height difference may indicate that the floor had two levels, where the smaller drop could represent a footstep. While there are a number of possible explanations for such a feature, the most likely has to be the undulating nature of the bedrock.

No definite evidence of more than one floor or any traces of internal structures was found. The dimensions and construction of the preserved walls and foundations would likely have allowed several floors, and would otherwise represent an unnecessary investment of labour and material. Where possible, the walls were placed on bedrock, further increasing their load-bearing capacity.

Western portal

Near the middle of the western wall of A60010 parts of a 0.68 meter wide entrance is preserved (Fig. 6.12), consisting of a finely cut threshold stone, placed on large

Fig. 6.12: Although only 0.68 meter wide the western portal in A60010 would have made a stately impression with its decorated columns and ashlar frame, cf. Fig.13 (facing east). Photo: MCH.

flagstones that partly extend underneath the walls on either side of the opening. Column bases of soapstone rest partly on the threshold stone and partly on a large flagstone projecting from under it. On top of the southern column base there is a soapstone ashlar, constituting a continuation of the column base. The same block also has preserved some of the transition from base to column. While no part of the column itself is left, a fragment of so-called dog-tooth ornament by the side of the column remains. Both the profile of the column base and the dog-tooth ornament are identical to those extant on the southern nave portal of St Óláfr's Church (Fig. 6.13); further parallels with other buildings will be discussed below.

Northern entrance

In the northern wall of A60010 there are also traces of an entrance (Fig. 6.14), directly opposite the chancel portal, slightly east of the middle of the northern wall of A60010. Unlike the western portal there are no worked stones left, but there are impressions in *in situ* mortar that appear to be from ashlars. Additionally, there is a carefully placed horizontal flagstone, which is unlikely to be a masonry binder due to its parallel orientation with the wall. A more likely explanation would rather be

Fig. 6.13: The southern nave portal of St Óláfr's church to the left, and the southern column base of A60010's western portal to the right. Both with the same dog-tooth ornament, although damaged in the latter case. Photo: MCH.

that this is a door sill, similar to the one on the inside of the threshold in the western portal. Adjacent to it are fragments of another larger flagstone, which could have served as a base for a threshold stone, as in the western portal. Although the exact width of the opening cannot be established, the size of the flagstones, the *in situ* impression in the mortar to the west, and A60030 to the east seem to indicate an opening of more or less the same size as in the western portal. Total width including decorative elements would have been less than 1.4 meter.

6.4.3 A60030 – Connecting wall

Between the northern wall of A60010 and the southern wall of the chancel, remains of wall A60030 were found (Figs. 6.15–6.16). A60030 has the same orientation as the east wall of the chancel and the long walls of A60020, thus deviating somewhat from the alignment of A60010. A60030 has a typical high-medieval masonry style similar to the other building remains. An unbound vertical joint where it meets A60010 shows that the latter is older; A60030 also covers part of the flagstone interpreted as a threshold base in the northern entrance discussed in the previous paragraph. It seems most likely that A60030 was built in the same phase as A60020.

A60030 consists of a single masonry wall slightly wider than one meter, of which a length of 7.5 meters was uncovered and examined. The northern end was not completely uncovered, as doing so would have risked damaging the southeastern corner of St Óláfr's church and obstructed use of the chancel portal during excavation. Additionally, there were signs that 19th and 20th century work on the church had disturbed the area, for instance cement on nearby exposed segments of the church wall base. Therefore, about 1.2 meter has been left unexamined between A60030 and the south wall of the chancel. Nevertheless, it is safe to assume that

Fig. 6.14: Northern entrance seen from outside A60010. The threshold base appears to represent in situ fragments of a larger flagstone door sill indicated by a dotted line, originally supporting the door frame and possibly a threshold similar to the one in the west. This stone and the smaller flagstone beyond it in the centre of the wall are oriented parallel to the wall, and cannot have functioned as binders. The smaller flagstone in the centre of the wall is furthermore completely uncharacteristic of the rubble core of the wall elsewhere. The dark dotted line to the right shows the placement of A60030. Illustration: I. T. Bøckman, MCH.

the wall has met the chancel's southern wall in a unbound joint similar to the one at the southern end of the wall.

Post-medieval burials had disturbed nearly all soil on both sides of A60030, and damaged some parts of the wall. However, due to an outcrop of bedrock where soil cover was too shallow to accommodate burials, a small patch of intact stratigraphy (C66660, Fig. 6.17) on the west side of A60030's northern end was preserved, the only such found in the cemetery. A silty deposit (6) contained the only identified concentration of soapstone fragments from stone working in all of the excavation areas. This layer covered two yellowish silty layers (7a and 7b), similar to those found beneath structures and cultivation layers in other trenches and interpreted as undisturbed geological substrate. These two layers seem to show that when A60030 was built, turf and any cultivated soil had been removed down to a level where areas of

Fig. 6.15: The remains of wall A60030, discovered between the northern wall of A60010 and the southern wall of the chancel. Illustration: I. T. Bøckman, MCH.

bedrock were exposed. Although it could not be established with certainty, the layer containing soapstone waste appears to pre-date A60030. If this is the case, the soapstone working would be connected to the construction of the church or A60010 rather than to A60030, as both buildings contain soapstone elements, whereas no traces of such elements were identified in the preserved remains of A60030.

Under the demolition refuse (2a and 4) a dark layer (5) was exposed, likely representing accumulation against A60030 before demolition. This and the first layer above it (4) could also represent levelling layers under a flagstone pavement between the chancel and A60010, but no observations confirmed a paved surface. Nevertheless, there can be no doubt that there was some traffic across this area, and as it would have led directly into the chancel, the surface is unlikely to have been either mud or rubble.

Furthermore, as the chancel door originally could have been barred only from the outside, the space outside it was almost certainly enclosed (Lidén 1999a:135). There

Fig. 6.16: High-quality masonry, A60010 (forefront) and St Óláfr's Church chancel in the background (compare Fig. 6.11). Above the western side of the chancel portal there appears to be an unbound vertical joint of several meters (facing north). Photo: MCH.

may also have been a construction outside the church above the chancel portal – an above-ground passageway leading into the church and a room above the chancel (cf. Lidén 1999a:121). As will be discussed later, similar passages are known from other medieval churches, providing the users a measure of security and comfort.

Within the area excavated to the west of A60030, no traces of a wall parallel to A60030 west of the portal were found. As the entire well-preserved northern wall of A60010 has been exposed and examined, traces of another western wall related to A60030 would have been found if present (Fig. 6.9). Even so, the proposed passage above A60030 could have been supported by cantilevered beams from A60030, possibly also from the chancel and A60010. Presuming the construction was placed more or less directly above the chancel portal, it would be rational to place A60030 as close to the portal as possible to minimize structural stresses and risks. A60030's placement 80 cm west of the chancel's southeastern corner, left only about 20 cm of wall between the chancel portal and A60030. This hypothesis also presupposes

Turf	Stone
Post-1698 levelling layer	Stone with mortar
Transition layer	Bedrock
Demolition refuse	Macrofossil sample
Demolition refuse	
Demolition refuse or levelling	
Colluvium or levelling	
Silt layer with soapstone fragments	
Geological substrate	

Fig. 6.17: Section C66660, immediately west of A60030, in front of the chancel portal. Illustration: I. T. Bøckman, MCH.

the existence of a floor above the chancel, a possibility supported by the small window high in the gable of the chancel and parallels in other medieval churches, such as Dønnes church and possibly Tingvoll church (Lidén 1999b:136–7). It seems unlikely that the single wall carried a superstructure entirely constructed of masonry, but a wooden gallery or covered passage is feasible, maybe with an eastern masonry wall directly over A60030. Wooden pillars or a wooden wall west of the chancel portal could also be an alternative or supplement to cantilever support for the upper part of the structure.

The chancel wall above the western side of the portal appears to have an unbound vertical joint of several meters (Fig. 6.16), immediately east of the soapstone frame of the eastern tracery window. This irregularity has previously been interpreted (Bagge 1976:172) as showing that the chancel at some point was extended eastward, or that the tracery windows are secondary (Bauer 2018b:295; Lidén 1999a:130). However, the former hypothesis is difficult to accept, as there is no similar irregularity in the northern wall of the chancel (Fig. 6.18), and the latter hypothesis remains uncertain: stylistically the tracery is not incompatible with the accepted building period of the church around 1250 (Lidén 1999a:123–5; Ekroll and Stige 2000:136; window styles and dating are discussed in greater detail below). No such joints occur on the western side of the window nor on either side of the second tracery window further west in the chancel wall. In light of the discovery of A60030, it seems more

Fig. 6.18: The northern chancel wall of St Óláfr's Church, photographed in the 1930's. More recent photos obviously exist, but are seldom as clear. While the masonry is somewhat obscured by render, there are no obvious breaks in the north wall. The eastern side of the eastern window opening is much nearer the corner of the chancel on the inside than on the outside, due to the c. 1.5 meter thick walls and the much wider inside opening. In other words, the window could hardly have been placed further east. Originally published by: Norman. Photo: unknown, The Norwegian Directorate for Cultural Heritage's archives.

plausible that the irregularity in the chancel wall is connected to the blocking of an opening from an above-ground passage into a room above the chancel. A60010 also fits well into this picture, both physically and functionally, as will be discussed later.

6.4.4 A60020 – Southern building

A60020 consists of building remains found in Areas 1 and 2, increasingly fragmented towards the north, representing a large rectangular masonry building measuring 9–9.2 by 41.9–43.2 meters externally. The width of the walls varies from 1.1 to 1.45 meter, dimensions substantial enough to support further masonry floors. In Area 1, the remains were truncated by groundwork conducted when constructing the rectory buildings and their gardens. It is highly likely that parts of the masonry from the high-medieval buildings were reused up until the rectory fire in 1698, and that collapsed rubble or demolition deposits from the older building were cleared to make room for new constructions. After the fire, a garden was laid out over the southern end of A60020 and new rectory buildings were raised over the middle part; north of Area 1 too little remained to speculate on the post-medieval history of the building.

In the southern end of Area 1 the garden deposits were especially thick, due to the leveling out of originally undulating terrain. Consequently, they covered masonry preserved in heights from 1 to nearly 2 meters. This lower-lying part of A60020 has been interpreted as a cellar – while it was placed in a natural depression, and consequently not truly subsurface, it was 2–3 meters below the ground floor of the rest of the building and likely had storage functions. North of the cellar, where the bedrock rises, the remains vary from worked bedrock, some with *in situ* mortar, to 0.5 meter high masonry. In this part of Area 1, remains from the post-medieval rectory complexes consisted of numerous overlapping stone-pavements and deposits containing household refuse and stone rubble. The 2011–12 excavations provided much information about the rectory phase at the site, in particular after the 1698 fire (Bauer 2018c), while the 2017 excavation found less evidence from this phase. The pre-1698 rectory, and particularly the possible continued use of medieval buildings after the 1368 fire, will be discussed later in this chapter.

Outer masonry walls

The outer walls contain stones more roughly broken in varying shapes and sizes laid in less regular courses than A60010. Much of the walls of A60020 are c. 1.1–1.2 meter wide, which is somewhat narrower than A60010; however, certain sections in the southern part of the east wall measure 1.3–1.45 meter in width. The most likely explanation for this difference is the need for additional strength in the lowest-lying part

of A60020, which was partially weakened by the opening for the cellar door in this part of the wall.

The masonry varies in preservation, from relatively well-preserved to greatly disturbed and truncated (Fig. 6.19). Starting in the southern end, the largest section of coherent masonry measures 9 meters east–west and 14.8–24 meters north–south, varying from c. 0.5 to 2 meter in height. While the eastern wall has at least one preserved wall face for the entire 24-meter length, all that remains of the western wall’s northern part is the plinth; if this part of the wall had any openings, no

Fig. 6.19: Southern building A60020; well-preserved masonry in the south, greatly disturbed and truncated in the north. Area 1 ends with the diagonal grass strip, where an underground high-voltage cable is buried by a gravel path to the harbour in the east. The rectangular cut in the middle of the picture, adjacent to the grass strip, is the post-medieval rectory cellar. By the northeast corner of this cellar, a small section of the eastern wall reappears. Photo: T. Olsen, Linsaa. Model: S. Kristiansen, MCH. Illustration: I. T. Bøckman, MCH.

traces would be preserved. In the northernmost part of Area 1, the eastern wall is truncated by a post-medieval rectory cellar, measuring c. 2.2 by 3.5 meters. North of the cellar, on the edge of Area 1 a small part of the eastern wall was preserved; this could not be followed further due to the adjacent high-voltage cable. In Area 2 remains from the eastern and western walls were found on both sides of the cemetery wall; on the southern side they consist of stone rubble, mortar and worked bedrock, with no preserved hearting, while to the north they had the same character as the remains in Area 1: plinth and masonry faces were preserved. The latter remains about A60010, which was thus already standing when A60020 was erected.

Although A60020 is built using the same materials and techniques as A60010, the larger proportion of pinning stones, rougher stonework, and more irregular courses suggest a somewhat later date (Fig. 6.11). More irregular stones, less even coursing and larger proportions of pinning were increasingly used during the high medieval period (Ekroll 1997:85–6; Lidén 1976:40–1; Hommedal pers. com. 21.2.2017); in Bergen much of this development seems to have taken place in the second half of the 13th century (Kristoffersen 1984:31). A60020 thus seems to be built after A60010, a sequence further supported by the unbound joints where the buildings meet. Even if the terrain was dictated to some extent by the buildings' plan and placement, the orientation of A60020, deviating from A60010's near-perfect cardinal alignment, could be a further indication that they were not only built at different times, but that A60020 was not planned at the time when A60010 was laid out.

A60024 – Drainage

Drainage of groundwater and surface runoff from the west of A60020 would have been a necessity, as an area of several hundred square meters drained mainly into the depression where the cellar was built. The exact size of this basin is impossible to measure due to modern disturbances, and some water may have drained into fissures in the bedrock. Nevertheless, the amount of water was significant enough to include drainage ditch A60024 in the building plans, built before the cellar walls were raised (Fig. 6.20). The ditch is c. 30–40 cm deep and 0.95 meter wide; a section of 2.8 meters was uncovered inside the cellar. It continued under the western wall of A60020, the bottom of it at a level slightly below the deepest foundations observed (Fig. 6.21).

A 17th-century disturbance of c. 1.6 meter in diameter cut the ditch near the middle of the cellar, allowing the cross section of the ditch to be examined without damaging it further. Whereas the bottom of the ditch was unlined, the sides were strengthened with flagstones, and larger flagstones covered the entire construction. Tests with an auger indicated the ditch continues 2.5 meters westward

Fig. 6.20: The original cellar in the southern end of A60020. Illustration: I. T. Bøckman, MCH.

outside A60020. Similar tests inside the cellar suggest that the drainage system originally continued across the entire room, before ending somewhere beneath the base of the eastern wall. The drainage ditch appears to have released all the water collected in the west into the south-eastern foundations, which were laid in an area of particularly stony soil. This well-drained soil appears to have been deposited there in connection with the laying-out of the foundations, and along with the slope and shape of the terrain would have allowed the water to escape. The foundations themselves may thus have had a draining function, with A60024 mainly serving to convey the water from the deepest part of the western foundations eastward.

Fig. 6.21: Drainage ditch A60024 continues under the western wall of A60020. The ditch was cut, likely in the 17th century, and emptying this cut exposed a cross section as seen in the foreground (facing west). Photo: MCH.

Cellar and doorway

The southern part of A60020 (Fig. 6.20) was covered by nearly 2 meters of deposits, mainly humic soils deposited there in connection with the post-1698 rectory garden, levelling out the east–west oriented depression in which the cellar room is located. The nearly quadratic room is constructed of four inter-binding walls measuring c. 6.6 meters internally east–west and 7.4 meters north–south, giving the cellar 50 m² of floor area. Three of the walls are part of the building’s outer walls, discussed above, while the northern wall is internal. However, the wall’s dimensions, foundations, and general construction do not differ from the outer walls, perhaps indicating a load-bearing function related to further internal masonry walls in upper floors.

A 1.28 meter wide doorway is situated in the middle of the cellar's eastern wall. This is nearly 20 cm wider than the widest of two doors in the stone cellar from the first half of the 13th century at Aga in Hardanger (Berg 1995:176), and comparable to or somewhat wider than three cellar doors from around 1300 recently documented in Oslo (two of them in the bishops' fortified complex; Edman pers. com; Langvik Berge pers. com.). After the 2012 excavation the doorway was interpreted as walled up (Bauer 2018b:283); however, further excavation in 2017 found no break between the fill in the doorway and the demolition rubble found on either side of the eastern wall.

At the bottom of the door opening there is no distinct raised threshold such as the one found in the portal in A60010, but rather a roughly level area paved with flagstones. The door jambs are of cut soapstone; the southern jamb now has one block, 0.56 meter high, while the northern has two blocks totaling 1.2 meter, partially resting on the threshold. Both jambs have equally deep inward-facing rebates while the corners on the outside are chamfered (Fig. 6.22). No traces of hinges were found, and it is unknown whether the door was single- or double-leafed. The width of the doorway suggests it could have been double-leafed, as a single leaf would have been c. 1.3–1.5 meter wide depending on construction details, to some extent obstructing movement and storage space (cf. Bauer 2018b:289). However, the discovery of a ramp (Fig. 6.23) placed far enough from the entrance to leave space for an inward swinging single-leaf door, could suggest the opposite. If the door was double-leafed the ramp might have been placed closer to the doorway, to utilize more of the room.

With the exception of flagstones in the doorway, no trace of flooring was found, and the room may have had an earthen floor. Deposits sampled for micro-morphology analysis certainly showed evidence of trampling, partially in damp conditions, and probable deposition of turf, soil, and stone for ground raising (Macphail 2018:13–16). Some of the trampling observed may be connected to the construction phase rather than being direct evidence for an earthen floor, but it seems unlikely that a different type of floor could have been removed without leaving any trace. An east–west oriented section (C666264, Fig. 6.23, placement shown on Fig. 6.20) through the cellar showed no such traces, but revealed an interesting declivity towards the doorway, interpreted as traces of a ramp between the door and a raised floor level in the western part of the cellar. The ground-raising deposits raised the surface in the central part of the room by perhaps as much as 40–50 cm, and thinning towards the east created a roughly 3/10 slope. The width of the doorway would have allowed passage of large barrels, bales of goods, and even small carts; a ramp rather than one or more steps would have facilitated the movement of items further into the room. An observed difference in height between the western and the eastern wall plinths, the former 20–40 cm higher than the latter, supports the idea of a ramp and a raised flat area as original elements of the plan.

Fig. 6.22: The 1.28 meter wide cellar doorway oriented towards the harbour in the east is one argument for interpreting the cellar as a storage room. Pictures showing the doorway seen from the outside (facing west) and inside (facing east). Both doorjambs have inward facing rebates, meaning the door swung inwards. Photo: MCH.

Possible structural elements were found in a stone rubble and mortar deposit inside the cellar, for instance two finely shaped and dressed soapstone fragments and several non-diagnostic fragments. One of the identifiable fragments appears to have belonged to a transverse arch (S13896/10), while the other is a pentagonal fragment (S13896/15), likely from a ribbed vault (Fig. 6.24). Their identification as vault stones is not definite; alternatively, they could be from tracery windows, or from another room, as there is no other evidence for a vault in the cellar, which certainly had no tracery windows. As the cellar door was barred from the inside (Fig. 6.22), it is very likely the cellar could also be accessed from inside the building, most probably through a trap door in the roof (Hommedal pers. com. 2018). This is an argument against a vault in the cellar.

Fig. 6.23: The east–west-oriented section through the cellar revealed an interesting declivity in the stratigraphy towards the doorway. The feature is interpreted as traces of a ramp from the door up to an elevated platform in the western half of the room. Illustration: I. T. Bøckman, MCH.

Discovered in the rubble spilling through the cellar door was another finely cut soapstone with several profiles (S13896/16, Fig. 6.25), clearly from the corner of a window frame. Seen from the outside, the stone would have been placed in the lower left corner of the window. A rebate facing outward originally held a wooden window frame in such a manner that no water could run off the window into the building, and shows that the stone comes from a window that had glass or some other covering rather than from a loophole or similar uncovered opening. The outside edges of the window opening were chamfered like those of the cellar door and the windows on the church. While the stone has some damage to edges and corners, the dressed faces are well preserved without obvious weathering or wear; likely the stone remained in its original place until being deposited in the cellar with other rubble, and was not redeposited afterwards. On the basis of these assumptions it would appear that the wall the window belonged to remained standing until the cellar door went out of use.

A60021 – Ground floor partitions, internal walls

Remains of the ground floor of A60020 are preserved from the northern wall of the lower floor storage room and to the northern end of Area 1. Traces of partitions show that there were at least two rooms in this section of the ground floor. There may well have been more rooms on this level; arguments for further possible divisions will be presented after discussion of the preserved partitions.

Fig. 6.24: Finely dressed soapstone fragments from vaults or tracery windows. Photo: T. Gil Bell, AM. Model: S. Kristiansen, MCH.

Fig. 6.25: S13896/16; cut soapstone fragment from a window opening. Measurements: height 18 cm, width 36 cm and length 39 cm. Photo: T. Gil Bell, AM. Model: S. Kristiansen.

The likely vertical continuation of the cellar's northern wall would probably have constituted a partition between a room above the cellar and the ground floor rooms to the north. Just north of the cellar there are two internal walls, A60021A and -B, defining at least two rooms: a 3.25 by 5.1 meters room in the southeastern corner of this area, and a larger room taking up the rest of the space in A60020 north of the cellar (Fig. 6.26).

The two internal walls are both secondary to the walls of A60020, as shown by unbound vertical joints, but it has not been possible to determine when precisely they were added. As their dimension and construction are sufficient for them to bear part of the load of the buildings upper parts, they may have been added while the building project as a whole was still in progress. The internal walls are similar in their masonry and materials to other walls in the complex, other than being relatively narrow at about 0.8–0.9 meter wide. Still, they would have had some load-bearing capacity, and unlike the outer walls would be mostly free from the pressure of the roof. It is thus possible that at least part of their function was to support further internal walls or other heavy structures on the floor above.

With the exception of the southern side of A60021B, where there is a plinth of flagstones similar to that found under much of A60020, the internal walls are laid directly on bedrock and have no other foundations. Some traces of cutting into the bedrock nevertheless seem to show that an effort was made to provide a level base for the walls.

East of A60021A and south of A60021B, inside the eastern ground-floor room, the bedrock level drops 1.5 meter north to south (Fig. 6.27). This would obviously not work as a floor, and presumably the eastern room had a wooden floor at the

Fig. 6.26: The ground floor level in the middle of building A60020. This part of the building seems to be separated into at least two rooms by two internal partitions. Certain features suggest the rooms may have been used storing and preparing food. Illustration: I. T. Bøckman, MCH.

Fig. 6.27: The ground floor in the middle of building A60020, with oven A60022A marked in orange, fireplace A60022B in red and stone-paved floor A63400 in white. External and internal wall remains are given dark shading. The picture also shows the bedrock dropping towards the south inside the eastern room, leaving a possible crawl space. Illustration: I. T. Bøckman, MCH.

level of the surrounding rooms, leaving a crawl space underneath the eastern room. In King Hákon's Hall in Bergen, bedrock outcrops take up significant floor space in two out of three rooms in the basement, and those rooms were used for storage (e.g. Ekroll 1997:136; Fischer 1980:128). Although small, it is likely that the space underneath the eastern room would have been similarly utilized – perhaps for storage of goods requiring darkness, a degree of humidity, and stable temperature, like a root cellar. No specific support for this theory was found while excavating the room itself, but the interpretation of the space as a storage room for food does fit well with the discovery of a collapsed oven (A60022A) and a fireplace (A60022B) just outside this small room (Fig. 6.26). Certain observations indicate the oven was used for food processing (further discussion of the oven and the fireplace below).

As mentioned earlier, the preservation of A60020's masonry remains varies greatly within Area 1, a difference probably explained by the shallower bedrock level in the north. This also affects the internal walls; the remains of A60021B

consist mainly of plinth and *in situ* traces of mortar, while the southern two thirds of A60021A have significant portions of wall face preserved, built of stones large enough that the rubble core constitutes less than one third of the width. Unfortunately, the original intersection of the two is completely truncated, and no traces of any openings were found. An entrance into the room is perhaps most plausible in the northern end of A60021A, but as most of A60021B consists of only wall base, an entrance might equally have existed somewhere along that wall. Moreover, the possibility cannot be excluded that this wall continued further west to close off a western room of about 2.7 by 5.1 meters. A 5–10 cm deep, roughly 45 by 18 cm cut (A66782A, Fig. 6.26) in the bedrock, 1 meter from A60021B, could indicate the placement of a doorjamb or a wooden wall stud.

No distinct traces of internal divisions further north were found, but the placement and construction of the fireplace, could indicate a division immediately north of it (Fig. 6.26). Some support for such an interpretation could come from the shape and extent of the flagstone pavement or floor A63400 (Fig. 6.27), of which no traces were found north of the northern edge of the fireplace.

A60022 – Fireplace and oven

Approximately 3 meters north of internal wall A60021B an open masonry fireplace (A60022B) was discovered, consisting of a 40–50 cm oval-shaped hearth, 13 cm deep with a rounded bottom (Fig. 6.28). The hearth contained red, burned silt and ash with charcoal fragments. The hearth is situated on top of a 0.5–1.1 meter wide and 1.7 meter long stone foundation. Part of this, c. 1 by 1 meter situated directly underneath the hearth, is made up of large, neatly placed stones. At the northern

Fig. 6.28: The fireplace hearth, facing north. At the northern edge two unevenly burnt stones indicating a possible northern wall can be seen. The right picture, facing north, shows the difference in the hearth's foundation, the right half being less even. Photo: MCH.

edge of this part of the foundation there are two stones that project slightly above the level of the hearth, both with traces of burning on the side facing the hearth. This seems to indicate that the fireplace had a northern wall, which could mean that it occupied the corner of the room and was open to the west and south. The fireplace probably had a masonry superstructure channeling smoke to a chimney or a vent in the wall; without any superstructure over the fireplace the room would need a smoke vent in the roof. While common in wooden buildings (Christie 1974:22–4), this arrangement is not known from medieval masonry buildings in Norway, and is perhaps less likely in a royal manor. It would furthermore preclude a floor above the fireplace, for which there are other arguments presented below.

The part of the fireplace structure (Fig. 6.28), between the hearth and the wall is difficult to interpret. No direct parallels are known, and no preserved features explain why the hearth itself was not placed closer to the wall, as were for instance fireplaces in the Archbishop's Palace in Trondheim (Hommedal 1997:18) and St Óláfr's Monastery in Oslo (Hommedal 1986:85, 90). Conceivable reasons are connected to a chimney or other vent, perhaps placed to avoid conflict with structural elements such as vault ribs and consoles; other possibilities include wooden structures or furniture placed along the eastern wall, which would have required a certain distance to an open fireplace, or simply the need for working space around the fireplace.

Apart from the 3.3 by 3.7 meters section of a stone-paved floor (Fig. 6.27) adjacent to the fireplace, no features indicating the further arrangement or layout of the room were discovered. However, directly south of A60022B, the stone paving had apparently been removed or never laid – possibly another hint at wooden constructions along the wall south of the fireplace. Either way, a leveled base layer had been deposited there (A61666, Fig. 6.26). On the surface of this underlying sand and gravel layer three silver coins were found (S13896/1–3), a find context that could indicate they were lost during the building's period of use. The coins will be discussed later, but it is worth mentioning here that all three have been identified as Edwardian Long Cross pennies, struck in the period 1279–1377. Only one of the three coins may be securely dated to a narrower part of this period (S13896/1, Fig. 6.29), with traits linking it to Edward II (reign 1307–27).

At the northern end of the stone-paved floor, poor preservation made it impossible to determine whether it originally continued further. As the end of the pavement coincided with the fireplace's likely northern wall, it is possible that the floor and the room it was in ended here. This would support the above-mentioned hypothesis that the fireplace was in the north-eastern corner of the room. Above the leveled base layer in which the coins were discovered, two whetstones (S13896/72)³ were found in a demolition deposit, one from each side of the fireplace – possibly

³ A total of eight whetstones were found, all catalogued under S13896/72. Mentioned artifacts were recorded as F62552 (1 by 8 cm fragment) and F62529 (2.5 by 10 cm fragment).

Fig. 6.29: S13896/1; the best preserved of three Edwardian Long Cross pennies, it has distinct features most likely dating it to the reign of Edward II, 1307–27. Photo: R. With, AM.

an indication that the room (or rooms) had practical functions. On the other hand, two hewn soapstone fragments, again from either side of the fireplace, could imply a higher-status room. The fragment found south of A60022B is 40 cm long and sooted, with several house marks (*bumerker*) and a possible mason's mark (S13896/11, Fig. 6.30) on one of the faces, apparently from the framing of a door or window opening. Three of the six sides are broken, but one side has traces of mortar. The inscription of house marks is well known from stones found around doors, such as on the portals of St Óláfr's Church. As it was found near the fireplace, the fragment could conceivably be from that structure too, but the layer in which it was found may have been disturbed by clearing and building work after the fire in 1698. The

Fig. 6.30: Soapstone ashlar and possible sculptural fragment. S13896/11 (left) has *bumerker* and a possible mason's mark on one side, which also has traces of soot; found close to A60022B, it could stem from the fireplace construction itself. Measurements: height 10.5 cm, width 24 cm and length 26–34 cm. S13896/13 (right) was also found near the fireplace. Measurements: height 3 cm, width 8 cm and length 13 cm. Photo: T. Gil Bell, AM. Model: S. Kristiansen, MCH.

fragment found north of the fireplace (S13896/13, Fig. 6.30) appears to be from a decorative or even sculptural element, and was unfortunately found in a similar context to the previous fragment.

The remains of the collapsed oven A60022A (Fig. 6.31) were discovered in the western of the two rooms north of the cellar. Due to this area's degree of disturbance and the complexity of its stratigraphy, the oven's original size and shape were unclear. The only clearly defined part is the 1.5 by 1.7 meter partially preserved chamber, with what appears to be an opening towards the north. The chamber is constructed of stone and silty clay, without mortar, and was filled with red, burned silt, ash, and charcoal. A sample from the chamber was dated to 1295–1395 (Ua-57493), the assumed primary use of A60020 in the High Middle Ages.

Fig. 6.31: The partially preserved chamber of oven A60022A (facing south), see Fig. 6.25 for placement within building A60020. Photo: MCH.

Not enough of the oven is preserved to ascertain its original shape, height, or function; however, certain observations may provide some indications. As no slag, other vitrified material, or metal prills were found, the oven seems not to have been used for high-temperature processes such as metal- or glassworking. This leaves two obvious plausible uses for the oven: heating the building or cooking. Cooking use seems more likely, as the fireplace would have heated the large ground-floor room to the

north of the cellar; if there was no partition between this room and the space where the oven stood the latter would be superfluous and oddly placed. On the other hand, the oven seems oversized for a smaller separate room. If it was used for heating other rooms, for instance through a hypocaust system, this would have required complex masonry on the upper floor for which there is no physical evidence or contemporary parallels. Two admittedly weak arguments in favour of such an arrangement are the placement of the oven against an internal wall, meaning the smoke necessarily had to pass through a masonry chimney through the floor above, and the existence of the internal masonry walls in themselves, capable of carrying further masonry higher up. Unfortunately, no trace of the chimney itself was preserved. Fireplaces, ovens, and chimneys were usually built against or partially within an external wall, but a similarly placed oven by an internal partition is known from St Òlàfr's Monastery in Oslo (Hommedal pers. com. 21.2.2017; Hommedal 1986:85, 90).

Assuming that the oven was used for cooking, the partially preserved chamber appears to be too near the floor for practical cooking *in* the chamber. A more likely explanation is that the excavated chamber may have been purely for burning fuel, with cooking taking place on top of the oven. Finds of several fragments of stone griddles (S13896/71 and S13896/75) for cooking flatbreads (Weber 1989:7) could be related to the use of the oven. The griddles would originally have been 30–50 cm in diameter; fragments of such griddles are common in high-medieval domestic contexts. While the fragments were not found in direct stratigraphic connection to the oven, they (and a number of quernstone fragments) nevertheless showed a distinct spatial distribution: all were found within an 8 meters radius around the oven, mostly to the south of it. No similar fragments were found to the east of A60020, in its northern half, or near A60010. While the distribution does not prove anything, given the disturbed nature of much of the stratigraphy it does suggest that the use of griddles and querns took place primarily in the southern part of A60020.

Macrofossil material from a sample taken from the oven chamber contained charred cereal grains. Most of the grains were whole and found together with weed seeds and an intact oat floret (Ballantyne 2018), material which may seem to indicate an early stage of food processing. The existence of weed seed and encased grains in the material cannot however exclude actual cooking, since they may have entered the chamber through being picked out and discarded while preparing food. It is more likely that drying or roasting of whole grains prior to hulling, crushing, or grinding would take place on a larger scale in a separate building.

A60023 – Buttresses?

Two wall segments (A45720 and A45745) of roughly the same dimensions and construction as the walls of A60020 were found abutting the outer south-western corner of the building (Fig. 6.32–6.33). These are not bound structurally to the walls of

Fig. 6.32: Features by the southwest corner of A60020. A20774 and A50030 were only superficially investigated in 2011–2012, and were only partly reexcavated in 2017. Illustration: I. T. Bøckman, MCH.

A60020, and are a secondary addition. The wall segments were discovered in 2012 (Bauer 2018b:290–1) and interpreted as buttresses to support a weakened or poorly built part of A60020. Slight differences in the texture and colour of the mortar compared to that in the walls of A60020 (Bauer 2018b:283) are further evidence that the buttresses were built later. Although the length of the interval cannot be decided, the masonry is clearly medieval, a conclusion supported by the stratigraphy in the area.

While it is possible that the wall segments are buttresses built in response to structural damage or weakness in the walls near this corner, no obvious signs of instability were observed in the masonry there. Problems may have appeared higher up

Fig. 6.33: The western part of A60023 (facing east). Photo: MCH.

in the walls, but since the south-western corner appears undamaged and is built mostly on bedrock, any instability cannot have resulted from weak foundations. Therefore, the previously proposed parallel (Bauer 2018b:290–1) with the buttresses of the medieval church at Voss does not seem convincing, as that church is built on sand and has very obvious problems with uneven settling of the walls, already apparent during the building process (Berg 1977:18, 52–3). Due to its position in the terrain and the climate of the region, the southern part of A60020 was potentially exposed to both groundwater flow and surface runoff that might weaken the mortar in the walls. However, this risk was at least partially removed by the drainage system described above, and there was no obvious mortar failure near the supposed buttresses.

However, structural problems in the walls that *might* have begun to appear during the high medieval use of A60020 were observed 2–3 meters to the north and

east of the south-western corner, where parts of the inner face of the wall were sagging into the room. While the sagging in the south wall may well have occurred as late as after the area was converted to a rectory garden, the problem with the inner face of the western wall obviously began earlier; an internal buttressing wall (A61076) was added there in the 17th century. The outer wall face appears unaffected, and the observed damage is not consistent with problems that would be solved by adding external buttresses.

With these observations in mind, other possible interpretations of A60023 have to be considered. Their purpose could be to strengthen A60020 in connection with changes to the original plan, such as extra floors or some type of projecting structure at this corner. A60023 may also have been built in connection with a partially projecting upper floor or external gallery otherwise supported by corbelling or cantilevering along the rest of the western and southern wall, as at the bishop's residence in Stavanger (Ekroll 1997:144–5). Above-ground external galleries are known from other high-medieval buildings (e.g. Ekroll 1997:138).

It is also conceivable that the western part of A60023 represents the remains of a wall originally extending westward from the corner of A60020 (Fig. 6.32). In 2011–12, a possible wall foundation in line with the western part of A60023 was found (Bauer and Østmo 2013:87, 94). At the time, A60023 was interpreted as having a clear-cut end towards the west, leaving a gap of 0.5 meter between the structures. Further excavation in 2017 showed that A60023 continued westwards, and in fact overlapped with structure A50300. According to documentation from the 2011–12 excavation the latter appeared very similar to, and was and likely the same as A20774; however, both were only superficially investigated at the time. Constructed of flagstones covering a stone-filled ditch, both structures were interpreted as remains of a drainage ditch meant to lead water under A60020 (Bauer and Østmo 2013:94). In light of the new westward extent of A60023 and comparison with plinths and foundations in A60010, A60020, and A60030, A20774 and A50300 may more plausibly be interpreted as part of A60023. Another argument against interpreting A20774 and A50300 as a drainage ditch is the discovery of A60024 under A60020 (Fig. 6.20), only 2 meters to the north. This structure is more obviously designed for drainage and better placed, lying lower in the terrain and not up against bedrock. On the basis of these arguments, it appears that the western part of A60023 originally was at least 5.7 meters long, an implausible size for a buttress for a building less than 10 meters wide.

It is tempting to interpret this wall segment as part of a curtain wall closing off the southern end of the manor courtyard, but this would require a separate explanation for the southern part of A60023, which is difficult to find. The southern part is identical to the western part in construction and general appearance, and both have the same mortar type that differs slightly from that used in A60020. The bedrock on which it was partly built continues rising to the south of the present end, so it is possible that the southern end is a result of the demolition of the wall segment to its present height rather than an original end. If one disregards the buttress

interpretation, the two parts of A60023 together suggest the possibility of a room to the south of the southern wall of the east wing, joined to the south-western corner of A60020. Demonstrably later than A60020, it is unclear whether the hypothetical building or room represented by A60023 was finished before 1368, and it probably disappeared along with A60010 and A60030 in the late medieval period.

A60025 – Privy

Against the outside of the eastern wall of A60020, about 7 meters north of the cellar entrance, a cut in the bedrock has created a level surface measuring 1.3 by 1.5 meter (Fig. 6.34). Based on the shape, size, and placement, parallels in contemporary buildings, as well as certain observations in the fill, it appears to be the base of a privy structure projecting from the wall higher up. Such a projecting construction may have been connected to residential rooms above the ground floor of the building, as at the contemporary *Steinhuset* ('the Stone House') in Gran where a privy projected slightly from eastern wall on the first floor (Rosborn 1991:5–6, 9, 11). This floor probably had a residential function, and the privy was placed on the wall facing outward from the courtyard of the original complex.

Fig. 6.34: Structure A60025. Left; the two uppermost layers have been removed, the first a mixed silty sand and stone layer covering an *in situ* burnt layer, dated to 1490–1670. The picture shows the next burnt layer, dated to 1470–1640. Right; the cut has been emptied, showing the difference in depth; 5–10 cm in southwest and 45 cm in northwest. Coin S13896/4 was found in the layer removed between the pictures; the axe S13896/8 was partially covered by the layer. Part of the axe is visible in between the stones to the north on the picture to the left (facing west). Photo: MCH.

The western edge of the cut is nearly flush with the line of the eastern masonry wall, while the southern and northern edges are perpendicular to the wall. As the bedrock rises towards the north the edges are not equally high: in the south-western corner

the cut was 5–10 cm deep, while the north-western corner was c. 45 cm deep. Although the fissured bedrock, sloping terrain, and shallow cut were less than ideal for preservation of organic material, partially mineralised plank remains were found between the stones and along the western wall, in addition to an abundance of charred plant remains found in the fill of A60025. The uppermost layer was an *in situ* burned deposit containing florets and grains of hulled six-rowed barley (*Hordeum vulgare*), lesser amounts of cultivated oats (*Avena sativa*), and many small arable weed seeds, outnumbering the cereal remains. One barley grain from this context was radiocarbon dated to AD 1520–1660 (Ua-57492). Below this, two very thin layers contained similar archaeobotanical material, charcoal, traces of charred insects, and a compact, leafy organic matter, possibly stable or byre floor waste. The material may have been charred during a building fire, but the presence of insects suggests that it lay open and decaying for long enough to become colonised (Ballantyne 2018). A fragment of bark with sapwood edge from the lowermost of these layers was radiocarbon dated to AD 1490–1640 (Ua-57498). Additionally, an apparent late-medieval silver Danish *hvid* (S13896/4) of King Hans was found in this layer. Coins of his reign (1483–1513) were the first to be minted in both Denmark and Norway (Galster 1972:45), but it has not been possible to assign this particular coin to a specific mint. A similar coin (S12779/1) dating to the short interregnum period preceding King Hans' reign was found in 2012 in a disturbed context (Østmo 2018:518).

In the same layer a fragmentary frame or rough lining of stones appeared along the northern edge and around the north-eastern corner. An axe head (S13896/8, Fig. 6.35) with plank remains stuck to its side was found between the layer and the stones. There were also mineralised wood fragments inside the eye of the axe, likely traces of the handle. The shape and weight of the axe head indicate a felling axe, possibly also used for coarse woodworking and construction work, typologically dated to the 13th century or possibly the two preceding centuries (Vike pers. com. 15.9.2017; Nøttveit 2000). It seems likely that the axe is related to the construction phase and assumed primary use of A60020 in the High Middle Ages. The above 15th–17th century dates of primary deposits, on the other hand, together with the find of a late-medieval coin, shed some light on the post-1368 history of A60020, indicating that the privy was in use up until the 1698 fire. This continuity will be discussed in greater detail below.

6.4.5 The 1368 attack and 15th–17th-century continuity

Although it is neither certain, nor likely, that the manor was left in total ruins, the formidable reimbursement claim (RN 7:46; Opsahl this vol. Ch. 8:##) indicates that significant parts of the royal manor complex must have been damaged. As previously mentioned, excavated features and observations point to the manor complex being used after the 1368 attack. There is also a possible written source: in 1374 Hákon VI had a letter (DN 15:29) written while staying at or near Avaldsnes. Some scholars take

Fig. 6.35: Axe head S13896/8 after conservation. Patches of mineralisation have been left on where it preserves traces of organic material, but the shape and general state of the object are clear. Photo: R. With, AM.

this as indication that the manor was not entirely in ruins at this point (Helle 1999:99), while others have argued that the letter could have been written aboard a ship (Mundal 2018:44–5). The original letter is not preserved, but from the existing copy, the letter appears to have been written *in* and not *by* the Karmsund Strait, implying that the manor buildings at least were not fit for royal use at the time. However, it cannot be determined whether this means they were awaiting repairs, under repair, or being repurposed. The lack of archaeological evidence directly related to the attack strongly indicates one of the three possibilities, as it proves that traces of fire and any collapsed rubble in the area were cleared away, while surviving structures were at least partially reused. For instance, the privy was probably constructed for the high-medieval complex, as shown by the 13th-century axe head (S13896/8) found at its base, but also contained *in situ* deposits containing a late-medieval coin (S13896/4) and radiocarbon dated to the 15th–17th century. This continued use of the privy is a strong indication that the walls of A60020 were still part of a standing building at the time.

Evidence of certain changes made in the 17th century *over* deposits containing typical 17th-century refuse shows that A60020's cellar continued to be used into at least the early 17th century, probably right up to the fire of 1698. These changes were a staircase into the cellar, a secondary supporting wall inside the cellar (Fig. 6.36), and a likely drainage cut in the cellar floor, truncating the original medieval drainage ditch (Fig. 6.20 and Fig. 6.21). The staircase was discovered during the 2011–12 excavation and correctly identified as secondary (Bauer 2018b:284), while the other two features were found in 2017.

During the construction of the post-1698 rectory, deposits containing numerous finds spanning the 15th–17th centuries were used for levelling. Together with

Fig. 6.36: 17th century changes in the medieval cellar; in the northwest corner a secondary staircase built partly into the wall is marked in red, while an internal buttressing wall in the foreground is coloured yellow (facing northwest). Photo: MCH.

previously documented *in situ* late-medieval to early-modern deposits only a few meters to the west of A60020's western wall (Bauer and Østmo 2013:182–3) and the finds and dates from the A60025, this supplies further evidence of continued use of at least parts of the manor complex in the 15th and 17th centuries.

While A60020 survived the 1368 attack sufficiently intact structurally to allow reuse of some of the walls at the very least, A60010 and A60030 do not seem to have survived. It appears likely that the masonry remains identified by Peder Claussøn Friis (1632:67) as a royal chapel were from A60010, implying it was completely ruined in the late 16th century when he frequented Avaldsnes (Skre 2018b:13–14). In the north-western corner of A60010, burnt deposits seemed to show a small *ad hoc* hearth, radiocarbon dated to the 18th century (Ua-57495 1660–1950 and Ua-57502 1660–present, but from the calibration curves both are most likely from the 18th century; see appendix). However, 18th–19th-century descriptions and depictions have no structures where A60010 and A60030 once stood (Bauer 2018c:310–13). Rather, the older pre-1840s cemetery wall crossed the area; although it is unclear exactly where its course ran, it must have been built over the remains of A60010 or A60030. It is possible the 18th-century hearth in the corner of A60010 dates to an episode where the ruins were

partially uncovered, perhaps in connection with reconstruction work after the 1698 fire. Other deposits or structures that might have shed further light on the history of A60010 and A60030 after 1368 have not been found. Further south, the observations from the privy and the reuse of the cellar show that masonry from A60020 survived 1368 and was incorporated in the rectory buildings that burned in 1698. During the subsequent rebuilding and the establishment of a new rectory garden, all above-ground traces of A60020 seem to finally have been removed or covered as well; they are not visible in depictions from the 1730s/40s onward (Bauer 2018c:fig. 15.1–3).

Besides the actual building history (and “ruin history”) of the manor buildings, the question of when the royal manor became a rectory is difficult to answer confidently due to a lack of sources. This may be a clue in itself, as the 1374 letter is the last royal document from Avaldsnes, perhaps indicating that it soon afterwards ceased functioning as a royal manor. Because A60020 was not abandoned, it seems plausible that the rectory or a precursor institution was established around this time. No documents directly related to the transition from royal manor to rectory at Avaldsnes are known, but in light of the general development in Norway and the documented history of the manor, it is reasonable to assume it took place in the 15th century. Certainly, by the time of the reformation in 1537, the farm was not royal property but belonged to the church and its priest (Bauer 2018c:322). Possibly this was the *de facto* situation in 1429 as well, when the bishop in Stavanger apparently was in a position to dispose of income to St Óláfr’s Church according to his own wishes (Lidén 1999a:136). Although the process is not well documented (Sandvik 1965:57, 59–60; Stylegar and Brendalsmo 2006:146), it appears that actual rectories only started to appear in the late medieval period (Stylegar and Brendalsmo 2006:152), and the lapse of the Avaldsnes manor from royal control may well fit into this general trend. Opsahl (Ch. 8) shows that the late 14th century saw a lasting reorientation of royal interest and activity in south-eastern Norway; combined with the increasingly complete domination of the Hanseatic League over trade between Norway and Western Europe, this no doubt left Avaldsnes much less essential to the royal administration in the late 14th and 15th century.

6.5 The Avaldsnes high-medieval royal manor complex

Both buildings and the wall connecting the manor to St Óláfr’s Church exhibit a masonry style securely placing them in the High Middle Ages. As argued earlier, the profound similarities between the portals in A60010 and the church indicate that they were built in close parallel, and probably planned at the same time. Although A60020 and A60030 are built with the same type of materials and basic techniques, unbound joints and a certain development in masonry style (Fig. 6.11) confirm that

A60010 originally was a free-standing building. How long it remained that way before being connected to A60020 in the south and to the church via A60030 to the north cannot be determined accurately based on the preserved remains.

The evidence that A60010 was originally free-standing, combined with its close proximity to St Óláfr's Church, brings to mind different building types that are not necessarily mutually exclusive. The siting, size, and plan are reminiscent of ruins that have been interpreted as canon residences, but well-documented examples are not known from medieval Norway. For instance, Ekroll (1997:135) proposes this interpretation for a ruin removed in Trondheim in the 1940s, but does not elaborate his argument beyond stating that it stood in a churchyard. South of the Hamar cathedral, stone cellars have also been presented as remains of canons residences, but they have not been archaeologically investigated (Sæther 1995:78); in Oslo similar remains were partly removed without any investigation around 1900, and the remainder excavated later offered no real clues as to their function (Fischer 1936:3, 6). Interpreting A60010 specifically as a chapter house is no less problematic, as the few examples from Norway belong to cathedrals and monasteries.

Neither alternative is impossible; the papal letter of 1308 implies that St Óláfr's Church already had a collegiate at that time (Helle 1999:75). Still, given the lack of finds, building elements, or written sources that would further elucidate the functions of A60010, it seems more plausible to place it in the wider *kastal* category as a likely multifunctional multi-storey building with at least the appearance of a defensive tower. According to measurements of a number of 12th- and 13th-century towers in Sweden, the thickness of the walls of A60010 is within a range where a height of more than 10 meters would be possible; indeed one tower in Kumla in Närke had similar walls and was more than 18 meters high, while another in Harmånger in Hälsingland, where the walls are only 20 cm thicker, is nearly 20 meters high (Lovén 1996:367, 369). These heights do not include gables, roofs, or wooden superstructures. Unfortunately, few comparable buildings have both recorded wall thickness and original height, and in many cases there are doubts regarding the possible existence of vaults, which require thicker walls to accommodate outward pressure. No building parts that could be ascribed to vaults were found near A60010.

Less towerlike (but still towering) contemporary Norwegian buildings may perhaps also support the idea that A60010 was at least 10 meters tall. The previously mentioned *Steinhuset* at Gran has walls that vary from 1.2 to 1.8 meter in width (from available documentation they appear to be around 1.5 meter for the most part), and was originally at least 10 meters high with two storeys completely above ground and a partially subsurface cellar (Rosborn 1991:3, 8). The mid-13th-century grand hall building now known as *Håkonshallen* in the royal manor in Bergen has walls about 1.7–1.9 meter thick, as well as two storeys above a partially subterranean cellar. The latter was around 2 meters high originally, the first floor was about 3 meters high, and the second more than 5 meters high (Fischer and Fischer 1980: pl.8; Hommedal, Ch. 7). While the walls of A60010 are somewhat thinner, this does

not necessarily mean the building was lower; in the case of *Steinhuset* the walls had to support two vaults, while *Håkonshallen* is nearly twice as wide as A60010, meaning the roof exerted a much greater lateral pressure on the walls.

Free-standing medieval towers (Fig. 6.37) similarly sited adjacent to churches are known chiefly from Sweden, especially in the eastern regions and most commonly on Gotland (e.g. Lovén 1996:365–71; Ödman 2002:18–19). *Kastal* is a term used in Swedish and to some extent in Norwegian literature, derived from Latin *castellum*, meaning a fortified stronghold or tower (Lewis and Short 1891:297). While the word is found in medieval texts, it seems to have been used interchangeably with other terms and for several quite different structures and complexes (Eriksson 1995:13–14). In modern (especially Swedish) literature, it is used in a more narrow sense for free-standing towers near churches. Almost all examples of such towers are connected to churches strategically situated near important roads and crossings, and to particularly rich churches (Lovén 1996:370). Although they appear to be defensive structures, the degree to which they were defendable in practice varied, and their defensive value is often unclear.

Fig. 6.37: Valleberga in southern Sweden, a heavily altered medieval church with a relatively intact medieval *kastal* south of the chancel. Foto: K. Adolfsson (www.adolfsson.photo).

Some similar buildings existed in medieval Norway, such as near the cathedral in Stavanger (Ekroll 1997:144) and adjacent to churches in Jämtland (Lovén 1996:365). Freestanding towers not associated with churches existed as well, for instance on a cliff by the river harbour of Skien (Ekroll 1997:181) and near the river harbours in Trondheim (Ekroll 1997:134–5). Both are likely dated to the 12th or early 13th century, and their siting near the harbours is likely significant. Two other early 13th-century towers were built as part of smaller fortifications on holms in Mjøsa and Glomma (Fischer 1951:212–18; Eriksson 1995:131–6), strategically placed in the middle of traffic in respectively the largest lake and river in Norway. Later, under Håkon IV's successor Magnús VII (reign 1263–80), towers combining defensive, residential, and possibly other functions were built in Bergen and Tønsberg, but these

examples are more obviously integrated parts of major fortified complexes (Belsvik 1997:46; Eriksson 1995:36–40, 145). The central keep of Akershus Fortress may originally have been designed in the same period as a free-standing tower (Eriksson 1995:149), but this is impossible to prove or disprove at present. In the bishop's manor in Hamar another likely free-standing tower from the second half of the 13th century was subsequently incorporated into a more extensive fortification (Sæther 1995:60–2). All in all, both dating and physical context would seem to place A60010 somewhere between these examples. Although the multiple functions of all these towers are not completely known nor necessarily uniform in time and space, some suggested functions may serve as a starting point for the further interpretation of A60010, and of the royal manor complex as a whole.

Kastal type towers were mainly placed along important thoroughfares of the time, and it is likely they had communicative functions and administrative roles, for instance connected to the collecting and safe keeping of taxes. The royal manor complex at Avaldsnes was ideally placed for such functions – monitoring the Karmsund Strait, a bottleneck in the *Norðvegr* and a natural site for an administrative center capable of managing both taxes and trade.⁴ Such multi-functionality fits well with A60010 and A60020 and their connection to the church; in 1308, Pope Clement V granted the king permission to organise his own chapel clergy, further strengthening the position of the royal canons and thereby the state administration.

Parallels to the combination of economic administration, royal representation, monumentality, and defence are most obvious in the royal castles in the major towns of the time, but partial parallels exist in more rural settings elsewhere in north-western Europe. Jes Wienberg (2003:22) has shown that several churches around the Baltic in the High Middle Ages had multiple functions, and furthermore were increasingly fortified after c. 1240. The fortification, however, was generally not very strong, and may have been designed to give a superficial impression of strength or to serve as a symbolic demonstration of power (Wienberg 2003:26). In a similar but more general vein Charles Coulson (1996:179–80) has argued that medieval 'fortification' of houses, manors, and castles, through for example crenellated rooftops, did not necessarily relate to *de facto* military improvement but should rather be regarded as a reflection of status, position, and wealth. Defence may not necessarily have been the original or primary function of A60010; nevertheless, it is reasonable to assume that it was at least one of the considerations involved, especially in view of the valuables accumulated both in the church and in the rest of the manor.

Christian Lovén (1996:370) states that all known examples of *kastal* in Sweden are placed to the south of the churches with which they are associated, where they could guard the main entrance to the church. A60010 conforms to this pattern, and

⁴ In Chapter 8 in this volume, Erik Opsahl documents the frequent royal visits to Avaldsnes and describes the functions of the royal manors and chapels within the administration of the time.

its position slightly beyond the south-eastern corner of the church would have made it possible to cover both the main entrance and the eastern wall of the chancel with its three windows, as well as flanking the eastern wall and providing an unhindered view of any approach toward the church and the manor from the harbour in the east. Including the church tower, the manor as a whole would have had an extensive view of any approach. Originally at least 22.6 meters high and measuring c. 10 by 12 meters externally, the church tower was exceptionally large (Lidén 1999a:116–17, 119). In fact, within a 2.7 km radius no terrain west of the strait stood higher than the church tower. There is no doubt that such vantage points conferred a military advantage, regardless of the actual defensive strength of the buildings themselves.

Once A60010 was physically connected to A60020 in the south and St Óláfr's Church through A60030 in the north, its defensive value likely would have diminished – personnel in the upper storeys of A60010 no longer had direct control over the whole of the base of the building. Access to all connected buildings would subsequently have to be denied to potential attackers, and the size of the crew required to defend the east wing as a whole would have to be several times the number of men required to defend A60010 alone.

As the connection of structures made the manor complex as a whole harder to defend, the construction of A60020 can be interpreted in two ways in terms of military planning: either the fortification was deemed less important at the time and not emphasised as much in the further development of the manor, or, conversely, defense was indeed more important and a larger crew was necessary. This does not mean that A60020 itself was primarily a defensive building, but rather that there is a possibility that the additional building mass, accumulation of valuables, and likely added or expanded functions represented by A60020 required a strengthened garrison. If true, a further expansion of the manor complex might have been considered, that is adding south and/or west wings, or otherwise enclosing the complex. Work on an expansion may even have been initiated; the discovery that the western buttress by the south-western corner of A60020 extended farther west than was realized in 2012 (cf. Bauer 2018b:fig. 14.2), and may have continued more than 5 meters westward, adds a tangible basis to this theory.

A stone fragment that may be part of a battlement (S13896/17, Fig. 6.38) could indicate that A60020 had a crenelated parapet or rooftop; it was found in the central part of A60020, but in a layer of rubble that was probably deposited after the 1698 fire, and is unfortunately not possible to place more precisely. While the actual defensive strength of the building is uncertain, opportunistic attacks may have been deterred through the illusion of fortification – a tactic known from churches around the Kalmar Strait in Sweden (Søgaard 2005:58; Wienberg 2000), and from the northernmost medieval stone church in Norway, Trondenes Church. At Trondenes the most impressive part of the walls, up to 3 meters high and including two small towers, face the shoreline (Søgaard 2005:30–6), a parallel to the grand impression given by the eastern wing at Avaldsnes to those approaching from the east (Fig. 6.39).

Fig. 6.38: S13896/17; stone fragment that may be part of a battlement. Measurements: height 12 cm, width 22 cm and length 42 cm, the possible embrasure measures 12 by 17 cm. Photo: T. Bell Gil, AM. Modell: S. Kristiansen, MCH.

Fig. 6.39: Suggested reconstruction of the High Medieval Royal manor at Avaldsnes, seen from the harbour northeast of the manor. Illustration: R. Børsheim/Arkikon.

A particularly wide cellar door towards the harbor might therefore seem counter-intuitive; however, the door could probably be defended from the upper storeys, where there may even have been a crenelated parapet (Fig. 6.38). Furthermore, the door was likely barred from the inside when not in use, with ample room for a thick

bar and solid hinges in the nearly 1.5 meter thick wall. Barring the door from the inside would necessitate some sort of passage to the cellar from the floor above. No traces of the room above the cellar are preserved, but the approximate level of the floor, as indicated by the raised bedrock and the partially preserved flooring and structures found in the rooms north of the cellar, would not have allowed for any elaborate construction. The cellar measures only c. 7.5 by 6.5 meters internally, and with its two levels would not have much floor space to spare. A smaller wooden stairway, accessible through a trapdoor, seems the most plausible solution.

As stated above, preserved building remains confirm that A60020 had at least two floors built in masonry, including the cellar, while their dimensions support the idea of an additional third floor. Based on the examples given in the discussion of A60010's height above, a reasonable estimated height for A60020's cellar and ground floor would be around 6 meters, as the highest level of the cellar floor appears to have lain nearly 3 meters below the ground floor. An additional third floor above this, either in masonry or timber, would easily bring the total height to around 10 meters, similar to the original height of the church (Lidén 1999a:119).

Considering that the excavated features indicate the ground-floor rooms in the middle section of A60020 were to some extent used for food storage and preparation of food and beverages, the floor(s) above could have functioned as the royal residence, with an audience chamber or hall and a bedchamber, and possibly rooms for privileged guests. If so, there is a possibility that the ground floor oven heated one or more of these rooms. Furthermore, the second floor could have contained rooms allocated for the royal-chapel clergy, such as sleeping quarters and sitting rooms, and certainly a study or office, as the clergy constituted a vital part of the royal administration (cf. Bagge 1976:85–7; Stylegar 1996:33).

With this in mind, A60030 was likely built not merely to close the gap between A60010 and St Óláfr's Church, but possibly to support an aboveground passage into the chancel. As both the church and A60010 are older than A60030, this seems to imply that both the former buildings had to have their walls opened when A60030 was built, although this is not necessarily the case: A60030 may have replaced an earlier wooden construction that had been part of the church and A60010 complex from the beginning. Apart from the solid masonry of A60030 itself, capable of carrying more than its own weight, there are three main arguments for an above ground passage into the chancel. First, the irregularity in the chancel wall above the portal indicates a walled-up opening. Second, the placement of A60030 so close to the chancel portal could be an indication that it performed a load-bearing function for a structure with little support to the west of the portal. Third, the existence of similar structures in a number of high-medieval, high-status churches with adjacent masonry buildings has been confirmed by physical evidence found at the medieval cathedrals in Oslo and Hamar (Ekroll 1997:141, 143), as well as written evidence regarding the cathedrals of Trondheim and Bergen and in connection with a church in the royal castle on Holmen in Bergen (Ekroll 1997:108–9).

The maintenance of such a passage into a church may have served as a status symbol, allowing the users to enjoy more or less private access to parts of the church not open to the general public, such as the chancel, western galleries, or second-floor chapels. The passage may also have had some defensive value, both as elevated platforms and in providing escape into the sanctuary of the church from buildings with no such protection. A60030 certainly played a passive defensive role by denying access from the east and providing passage between the manor buildings and the church, and could have had an active defensive function if its superstructure was designed as a firing platform. In either case, it closed the gap between church in the north and the other buildings of the east wing to the south, completing a continuous masonry façade 70 meters long. The manor buildings were no doubt a striking sight from the sea in the east, especially considering the rarity of stone buildings at the time. Apart from a small stone church, much less conspicuously sited on the farm Bø approximately 1.7 kilometres to the north (Haaland 2001:42, 50), there were probably no contemporary masonry buildings on Kormt. All significant traffic from waters and lands further south to and from Bergen and Trondheim, in many respects the most important towns in Norway at the time, passed through the Karmsund Strait, and therefore the occupants would have benefited from presenting an impressive and imposing façade toward the strait.

Finally, the descriptions above make clear that the octagonal building that was supposed to have stood to the south of the chancel of St Óláfr's Church (Bauer 2018b:295–6; Stamnes and Bauer 2018:365–7 and fig. 16.20) never in fact existed there; such a building may have stood further to the west, south of the nave rather than south of the chancel. A number of (mostly late) 13th-century English cathedrals (and one Scottish) had octagonal chapter houses, all of which were closer to the chancel than the naves; on the other hand, most of these were also to the north of their respective cathedrals.

6.5.1 New light on certain details of St Óláfr's Church

The aforementioned irregular masonry above the chancel portal, along with the placement of the portal and the style of the two adjacent windows have been interpreted as evidence that the chancel was altered or expanded eastward after the church was finished (Bagge 1976:174; Bauer 2018b:295). The chancel's two plate tracery windows definitely contrast with the simpler lancet windows found in the rest of the church, but this does not exclude the possibility that they are contemporary with the others. Plate tracery was first used in England and France in the early 13th century (Lidén 1976:59), whereas its adoption in Norway is generally accepted to have occurred in Bergen after the catastrophic 1248 fire (Ekroll 1997:50–1; Lidén 1999a:124). It is possible that the fire and the subsequent building boom destroyed even earlier examples of tracery and related stylistic elements in Bergen (Ekroll and Stige 2000:183–4); given the town's status

at the time, developments in western Europe would not necessarily take decades to influence architecture there. Gothic elements certainly influenced stone-building milieus along the west-Norwegian coast before 1248, such as Dale Church in Luster from the second quarter of the 13th century (Hoff 2000:28–9) and parts of Fana Church in Bergen, which probably dates to the 1220s (Lidén 1994:11–12, 2003:7–9). As St Óláfr's Church is likely built after 1248, these arguments are not essential, but they show that by that time, elements of Gothic style had already been spreading in western Norway for at least a decade or two. Portals and other details similar to those of A60010 and St Óláfr's Church (Fig. 6.13) are found in Dale Church (Ekroll and Stige 2000:184), in Voss Church from the second half of the 13th century (Ekroll and Stige 2000:150–4), and in Utstein monastery from the same period (Lidén 1999a:131; Ekroll and Stige 2000:130).

In any case, rebuilding in Bergen after 1248 coincided with the construction of new stone buildings at the royal castle on Holmen in Bergen. This must have resulted in an immense increase in demand for skilled workers in relevant fields that was likely partly satisfied by English craftsmen and locals, who together formed companies of builder-architects that developed a rather distinct “Bergen Gothic” style. The style spread to several subsequent building projects in Hordaland and neighboring landscapes (Ekroll and Stige 2000:46–7; Lidén 2003:28–9).

Building projects initiated by Hákon IV (reign 1217–63) seem to generally incorporate the the period's current architectural innovations (Ekroll 1997:30), and as plate tracery was being replaced by bar tracery after 1270⁵ (Lidén and Magerøy 1990:92–3; Ekroll 1997:30) it is entirely plausible that the Avaldsnes tracery windows are built before the last quarter of the 13th century. The use of different window types in St Óláfr's Church (Fig. 6.40), although not common, is hardly unique: the nearby Kvinnherad Church from the second half of the 13th century has tracery windows in the eastern and southern walls of the chancel, but lancet windows in the northern wall and elsewhere in the church. There is no indication that this is not the original arrangement there (Ekroll and Stige 2000:140). The monastery church at Utstein, also from the second half of the 13th century, is another example of parallel use of lancet windows and plate tracery, and is similarly influenced by the “Bergen Gothic” style.

The placement and style of the chancel's two northern windows and the lack of discernible breaks in the northern wall (Fig. 6.18) also argue against an expansion of the chancel. The windows are identical to the other lancet windows in the church, and the eastern window is placed so near the corner that it cannot realistically have been there before the hypothetical extension; there is no trace in the northern wall to indicate that the window has been moved eastwards. Furthermore, if the chancel was expanded, the eastern wall would have to be secondary – a

5 A well-preserved and documented example is the Franciscan church that currently serves as Bergen Cathedral; it was built in the 1270–80s with bar tracery but also with dog-tooth ornament and column bases similar to the ones in A60010 and St Óláfr's Church.

Fig. 6.40: Simplified drawings of the window types in St Óláfr's Church, seen from the outside. From the left to the right: Plate tracery window, two are found on the south wall of the chancel (Fig. 6.16). "Trinity window" composed of three lancet windows, on the east wall of the chancel. Simple lancet window, on the north wall of the chancel; the original windows of the nave are the same style. The proportions and shape of the lancet windows are echoed by the chancel portal (compare Fig. 6.16). Illustration: I. T. Bøckman, MCH.

proposal for which there is no evidence. The lancet-style trinity windows in this wall are a typically early Gothic feature (Ekroll and Stige 2000:33, 138), indicating that it is contemporary with the rest of the church. This is further supported by the fact that the finely worked soapstone ashlar in the eastern corners of the chancel are identical to those in the corners of the nave, although their surface treatment and shape cannot date them more precisely than between 1200 and 1500 (Lidén 1976:21). Admittedly, in case of an expansion they could have been reused without reworking – just as the ashlar in the western tower were used to replace ones missing from the western corners of the nave in the 1830s (Lidén 1999a:121).

All in all, however, the most parsimonious explanation would be that no expansion took place. The chief remaining argument for a possible alteration is the unusual placement of the portal, very close to the southeastern corner of the chancel. Hans-Emil Lidén (1999a:132–3) has pointed out that choir stalls occupied the space along the chancel's inner walls, and questions whether the portal had to be relocated to make space for additional choir stalls in the early 14th century when the number of clergy at Avaldsnes possibly increased, or whether sufficient space already existed. The latter is not improbable; a number of royal chapel clerics likely accompanied Hákon IV on journeys between the royal manors (Bagge 1976:135–6; Helle 1999:69–71), and spacious choir stalls may therefore have been included in the original building plans, proscribing a more common centrally placed chancel portal. Additionally, while Hákon V's royal chapel organisation and clergy was only officially approved by the pope in 1308, the letter confirming their privileges seems to imply that St Óláfr's Church already had a collegiate at that time (Helle 1999:75). As the early 14th-century royal clergy at Avaldsnes cannot have numbered more than seven (Helle 1999:98), it seems unlikely that their

number increased enough to warrant significant alterations to the chancel building itself.

The discovery of A60010, probably planned and built in parallel with the church, shows that the chancel portal and the northern doorway of A60010 are placed directly opposite each other, thus leaving little support for the idea that the chancel portal was moved or added to obtain this alignment. The most plausible building history of the chancel is that it was finished near the end of Hákon IV's reign in its current shape and size. Although not immediately obvious, a small window on the top of the eastern wall of the chancel indicates that originally there had been a room above the chancel. The churches at Voss and Fana have similar windows (Lidén 1999a:121), probably added for the purpose of letting light into the small chapel or other room above the chancel.

With these results, it is clear that the royal manor at Avaldsnes continued to hold an important place in the administration of the region and the medieval Norwegian kingdom up to the end of the latter as an independent entity. Monumental masonry buildings with possible defensive functions were built in at least two phases c. 1250–1320, reflecting the enduring importance of the site through several royal reigns. Had it not been for the dramatic changes in the economic and political situation in the late 14th century, it is difficult to imagine the attack in 1368 leading to the same swift dereliction and steep descent into obscurity for the royal manor complex at Avaldsnes.

References

- Bagge, Sverre 1976: *Den kongelige norske kapellgeistlighet 1150–1319*. Universitetsforlaget, Oslo.
- Ballantyne, Rachel, Stella Macheridis, Emma Lightfoot and Alice Williams 2018: Biological Remains. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 455–509. De Gruyter, Berlin.
- Ballantyne, Rachel 2018: Assessment of plant remains and invertebrates from the 2017 excavations at Avaldsnes. Cambridge. Unpublished report, MCH.
- Bauer, Egil Lindhart 2018a: Political and Ritual Aspects of Cooking Pits. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 253–75. De Gruyter, Berlin.
- Bauer, Egil Lindhart 2018b: The High-Medieval Royal Manor. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 277–307. De Gruyter, Berlin.
- Bauer, Egil Lindhart 2018c: The Post-Medieval Rectory. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 309–23. De Gruyter, Berlin.
- Bauer, Egil Lindhart and Mari Arentz Østmo 2013: *Rapport Arkeologisk utgraving. Kongsgårdprosjektet Avaldsnes*. Avaldsnes prestegård, 86/1, Karmøy kommune, Rogaland. Unpublished report, MCH.
- Bauer, Egil Lindhart and Mari Arentz Østmo 2018a: Excavations and Surveys 1985–2012. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 65–82. De Gruyter, Berlin.

- Bauer, Egil Lindhart and Mari Arentz Østmo 2018b: Prehistoric Agriculture. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 137–55. De Gruyter, Berlin.
- Belsvik, Cato 1997: *Tønsberg – Kongens by*. Tønsberg.
- Berg, Arne 1977: *Voss kyrkje. Vangskyrkje på Voss*. Kirstes Boktrykkeri, Oslo.
- Berg, Arne 1995: *Norske tømmerhus fra mellomalderen*, 5. Landbruksforlaget, Oslo.
- Cannell, Rebecca J.S., Paul N. Cheetham and Kate Welham 2018: Geochemical analysis using X-ray fluorescence. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 421–54. De Gruyter, Berlin.
- Christie, Håkon 1974: *Middelalderen bygger i tre*. Universitetsforlaget, Oslo.
- Coulson, Charles 1996: Cultural realities and reappraisals in English castle-study. *Journal of Medieval History*, 22:171–207.
- Ekroll, Øystein 1997: *Med kleber og kalk. Norsk steinbygging i mellomalderen*. Det Norske Samlaget, Oslo.
- Ekroll, Øystein and Morten Stige 2000: *Kirker i Norge. Middelalder i stein*. ARFO, Oslo.
- Fischer, Gerhard 1936: *Mariakirken i Oslo*. Fortidsminner, 14. Grøndahl & Søn, Oslo.
- Eriksson, Anna Lena 1995: *Maktens boningar. Norska riksborgar under medeltiden*. Almqvist & Wiksell International, Stockholm.
- Fischer, Gerhard 1951: *Norske Kongeborger*, 1. J. W. Cappelens Forlag, Oslo.
- Fischer, Gerhard and Dorothea Platou Fischer 1980: *Bergenhushus*. Norske Kongeborger, 2. Gyldendal Norske Forlag, Oslo.
- Friis, Peder Claussøn 1632: *Norriges oc omliggende Øers sandfærdige Bescriffuelse: indholdendis huis vært er at vide, baade om Landsens oc Indbyggernis Leilighed oc vilkor, saa vel i forðum tid, som nu i vore Dage*. Melchior Marzan, Kiøbenhaffn.
- Galster, Georg 1972: *Unionstidens udmøntninger. Danmark og Norge 1397–1540, Sverige 1363–1521*. Dansk Numismatisk Forening, Copenhagen.
- Geis, Hans-Peter 1967: Geologi og petrografi på Nord-Karmøy. In: Gundersen, Per Kr. and Magne Gustavson (eds.): *Norges geologiske undersøkelse Årbok*, 1966, no. 247. Universitetsforlaget, Oslo.
- Haaland, Kjetil H. 2001: *Fra Rogalands middelalder. Bygdekirker i stein. Monumenter over fylkets aristokrati*. Solum Forlag, Oslo.
- Hákonar saga Hákonarsonar* [1964]: Sturla Þorðarson, translated by Anne Holtmark. H. Aschehoug, Oslo.
- Hansen, P. 1800: Historiske Efterretninger om Kong Augvald og andre Mærkværdigheder paa Augvaldnæs. *Archiv for Skolevæsenets og Oplysnings Udbredelse i Christiansands Stift*, 1:259–68. P. Poulsen, Copenhagen.
- Harris, Edward C. 1979: *Principles of Archaeological Stratigraphy*. Academic Press, London.
- Helle, Knut 1999: Olavskirken 1250–1350 – sognekirke og kongelig kapell. In: Langhelle, Svein Ivar and Birger Lindanger (eds.): *Kongskyrkje ved Nordvegen. Olavskyrkja på Avaldsnes 750 år*, pp. 54–103. Lokalhistorisk stiftelse, Aksdal.
- Hemdorff, Olle 1986: Lønnegang fra middelalderen ved Avaldsnes kirke. *Haug ok heidni*, 1:8–9.
- Hoff, Anne Marta 2000: *Dale kyrkje 750 år*. Nord 4 bokverksted, Bergen.
- Hommedal, Alt Tore 1986: *Olavsklosteret i Oslo. Bygningshistorikk, med dateringsforsøk av klosteranlegg og eldre bygningsdelar*, Del I: Tekst. Unpublished thesis, University of Bergen.
- Hommedal, Alf Tore 1997: «Dei gløymde romma» i Erkebispegården. *Spor*, 1:17–19.
- Kveiborg, Jacob 2018: Osteologisk rapport over de brænde knogler frå branngrav 62250, Kongsgårdprosjektet Avaldsnes, prosjektnr. 280141, saksnr. 2009/5750. Unpublished report, MCH.

- Kristoffersen, Siv 1984: *En bygningsarkeologisk undersøkelse av erkeistolens gård i Bergen*. Unpublished Master thesis, University of Bergen.
- Lewis, Charlton T. and Charles Short 1891: *A new Latin Dictionary*, Harper & brothers, New York/Oxford.
- Lidén, Hans-Emil 1976: *Middelalderen bygger i stein*. Universitetsforlaget, Oslo.
- Lidén, Hans-Emil 1994: *Hordaland*, 1. Norges kirker. Gyldendal, Oslo.
- Lidén, Hans-Emil 1999a: Olavskirken på Avaldsnes. In: Langhelle, Svein Ivar and Birger Lindanger (eds.): *Kongskyrkje ved Nordvegen. Olavskyrkja på Avaldsnes 750 år*, pp. 104–60. Lokalhistorisk stiftelse, Aksdal.
- Lidén, Hans-Emil 1999b: Norsk middelaldersk steinarkitektur. In: Hoff, Anne Marta and Alf Tore Hommedal (eds.): *En gullgubbe*. Alvheim og Eide, Øvre Ervik.
- Lidén, Hans-Emil 2008: *Kirkene i Hordaland gjennom tidene*. Eide forlag, Bergen.
- Lidén, Hans Emil and Ellen Marie Magerøy 1990: *Bergen*, 3. Norges kirker. Gyldendal, Oslo.
- Lovén, Christian 1996: *Borgar och befästningar i det medeltida Sverige*. Kungl. Vitterhets Historie och Antikvitets Akademiens Handlingar, Antikvariska serien, 40. Stockholm.
- Macphail, Richard 2018: Kongsgårdprosjektet Avaldsnes 2017; Karmøy Municipality, Rogaland, Norway: soil micromorphology including SEM/EDS. Unpublished report, MCH.
- Mundal, Else 2018: Avaldsnes and Kormt in Old Norse Written Sources. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 35–52. De Gruyter, Berlin.
- Nøttveit, Ole Magne 2000: Middelalderens våpen fra Vestlandet. Unpublished thesis. University of Bergen.
- Ödman, Anders 2002: *Borgar i Skåne*. Historiska Media, Lund.
- Østmo, Mari Arentz 2018: Artefacts from the 2011–12 Excavations. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 513–26. De Gruyter, Berlin.
- Østmo, Mari Arentz and Egil Lindhart Bauer, 2018a: Site Periods and Key contexts. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 83–102. De Gruyter, Berlin.
- Østmo, Mari Arentz and Egil Lindhart Bauer 2018b: The Prehistoric Settlement and Buildings. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 103–35. De Gruyter, Berlin.
- Østmo, Mari Arentz and Egil Lindhart Bauer 2018c: Grave Monuments. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 227–51. De Gruyter, Berlin.
- Possnert, Göran and Lars Beckel 2018: Resultat av 14C datering av makrofossil och träkol från Kongsgårdprosjektet Avaldsnes 2017, Avaldsnes, gm. 86 bnr. 1, Rogaland fylke, Karmøy kommune, Norge. (p.1454). Uppsala University. Unpublished report, MCH.
- Rosborn, Sven 1991: *Bygningsarkeologiske undersøkelser*. Steinhusetts venner, Jaren.
- Saga Ólafs hins helga* [1900]: Sturla Þorðarson, translated by Gustav Storm. J.M. Stenersen & Co, Kristiania.
- Sandvik, Gudmund 1965: *Prestegard og prestelønn. Studiar kring problemet eigedomsretten til dei norske prestegardane*. Universitetsforlaget, Sarpsborg.
- Savage, Carl 2014: *Introduction to medieval coins and identification guide for archaeologists*. BAJR Practical Guide Series, no. 37.
- Sjurseike, Ragnhild 2001: Rapport om arkeologiske undersøkelser av tre gravanlegg og restaurering av gravhaug på Avaldsnes prestegård, gnr 86, bnr. 1, Karmøy kommune. Unpublished report, AM.
- Skre, Dagfinn 2018a: Rethinking Avaldsnes and Kormt. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp.1–10. De Gruyter, Berlin.

- Skre, Dagfinn 2018b: Exploring Avaldsnes 1540–2005. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 11–34. De Gruyter, Berlin.
- Skre, Dagfinn 2018c: The Avaldsnes Royal Manor Project's Research Plan and Excavation Objectives. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 53–61. De Gruyter, Berlin.
- Skre, Dagfinn 2018d: Aristocratic Presence along the Karmsund Strait 2000 BC–AD 1368. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 749–64. De Gruyter, Berlin.
- Stamnes, Arne Anderson and Egil Lindhart Bauer 2018: Geophysical Surveys. In: Dagfinn Skre (ed.): *Avaldsnes – A Sea-King's Manor in First-Millennium Western Scandinavia*, pp. 327–78. De Gruyter, Berlin.
- Storm, Gustav (ed.) 1881: *Samlede Skrifter af Peder Claussøn Friis*. Den norske historiske Forening, Kristiania.
- Stylegar, Frans-Arne 1996: Sancti Laurentis de Lista – et kongelig kapell på Huseby. *Årsskrift Agder historielag*, 72:30–36.
- Stylegar, Frans Arne and Jan Brendalsmo 2006: Prestebol og prestegjeld på landet i Stavanger bispedømme i middelalderen. *Hikuin*, 33:145–55.
- Sæther, Tor 1995: *Hamar i middelalderen*. Hedmarksmuseet og Domkirkeodden, Hamar.
- Søgård, Inge 2005: *Trondenes kirke i skjæringspunktet mellom øst og vest. Var Trondenes kirke befestet i Middelalderen?* Unpublished Master thesis, University of Tromsø.
- Weber, Birthe 1989: *Bakstheller – en handelsvare*. Fortiden i Trondheim bygrunn, Folkebibliotektomta, Meddelelser, 15. Riksantikvaren, Trondheim.
- Wienberg, Jes 2003: Østersøens flertydige kirker. *Bornholmske samlinger*, 3:17:10–35.
- With, Ruben and Cora Oschmann 2018: Oppdragsrapport. Kongsgårdsprosjektet Avaldsnes. Konserveringsrapport for gjenstander funnet i forbindelse med utgravningene på Avaldsnes. AM sakssnummer/Journalnummer: 05/00062. Unpublished report, MCH.
- Wood, Mayhew 1989: The classification of class 10. In: Jeffery J. North (ed.): *The J.J. North collection: Edwardian English silver coins 1279-1351. Sylloge of Coins of the British Isles*, 39:42–55. Oxford University Press, Oxford.

Appendix: Radiocarbon datings

All radiocarbon datings from the ARM excavation 2017 have been calibrated according OxCal v4.2.3 (Reimer et al. 2009); they are all listed by laboratory number, and with respective calibration curves.

All dating results referred to in the text are given in terms of 1σ (68.2% probability). If this includes more than one time interval, only the start of earliest and the end of the most recent is indicated in the text.

LAB NO.	SITE, SAMPLE NO.	MATERIAL	RADIOCARBON AGE BP	CALIBRATED 1 SIGMA	CALIBRATED 2 SIGMA	CONTEXT
Ua-57492	P6478828	<i>Hordeum vulgare</i>	287 +/- 31	AD 1522–1654	AD 1491–1664	A64740 <i>Burnt layer in privy A60025</i>
Ua-57493	P6481131	<i>Hordeum vulgare</i>	629 +/- 30	AD 1296–1391	AD 1287–1399	A60022A <i>Oven</i>
Ua-57494	P6511033	<i>Hordeum vulgare</i>	904 +/- 31	AD 1045–1175	AD 1039–1209	A64870 <i>Silty layer outside of cellar door</i>
Ua-57495	P6636862	Unknown	150 +/- 30	AD 1670–1943	AD 1667–1951	A66360 <i>Burnt layer in building A60010</i>

LAB NO.	SITE, SAMPLE NO.	MATERIAL	RADIOCARBON AGE BP	CALIBRATED 1 SIGMA	CALIBRATED 2 SIGMA	CONTEXT
AVALDSNES						
Ua-57496	P6435024	Corylus avellana	3351+/- 34	BC 1691–1561	BC 1737–1531	A64076 Layer, unknown type
Ua-57497	P6435125	Salix/ populs	3228 +/- 32	BC 1522–1452	BC 1607–1429	A64323 Layer, unknown type
Ua-57498	P6603745	Bark with sapwood edge	339 +/- 30	AD 1491–1632	AD 1471–1640	A66011 Charcoal lens in privy A60025
Ua-57499	P6629358	Corylus (wood)	3612 +/- 33	BC 2024–1930	BC 2119–1887	A66644 Cultivation deposit
Ua-57500	P6629459	Corylus avellana, Hordeum vulgare	904 +/- 31	AD 1045–1175	AD 1039–1209	A65910 Construction layer
Ua-57501	P6635661	Pinus sylvestris	303 +/- 30	AD 1522–1645	AD 1489–1652	A66280 Burnt layer
Ua-57502	P6657067	Calluna	195 +/- 30	AD 1662–1952	AD 1648–1955	A66560 Burnt layer
Ua-60550	P6240915	Pinus	457 +/- 28	AD 1427–1450	AD 1415–1466	A62400 Hearth
Ua-60551	P6261216	Betula	1742 +/- 29	AD 250–336	AD 235–386	A62575 Layer, unknown type