

Villu Kadakas

NEW DATA ON THE FIRST STONE CHURCH OF JÕELÄHTME

The Jõelähtme church is one of the closest medieval parish centers to Tallinn, some 16 km east of Tallinn. As is typical in Estonia, there are very few written records to rely on concerning its medieval building history. The parish was first mentioned ca 1241 in “*Liber Census Daniae*”, among other early parishes in northern Estonia¹. The study of the building started in 1972, with the work of Villem Raam, but much of its building history is veiled because of several secondary building activities, the lack of written records and limited opportunities for fieldwork. In 2007, a new opportunity arose to study some of its details, which provided the basis for writing this article. For the author, the fieldwork of 2007–2008 was the second time² to proceed with the studies of a medieval church building which Villem Raam once planned in detail and started, but for various reasons did not manage to complete himself. Although the main questions which Raam brought up have not yet been clearly answered, the new fieldwork provided significant information and somewhat changed the previous knowledge of the building history of the church.

¹ Paul Johansen, *Die Estlandliste des Liber Census Daniae* (Kopenhagen: H. Hagerup, Reval: F. Wassermann, 1933), 387.

² The first case being the Jõhvi church: Villu Kadakas, “Jõhvi Church – a Peculiar Fortification Seized in the Livonian War Near Narva”, *Castella Maris Baltici* 8 (Riga: Institute of the History of Latvia, 2007), 93–100.

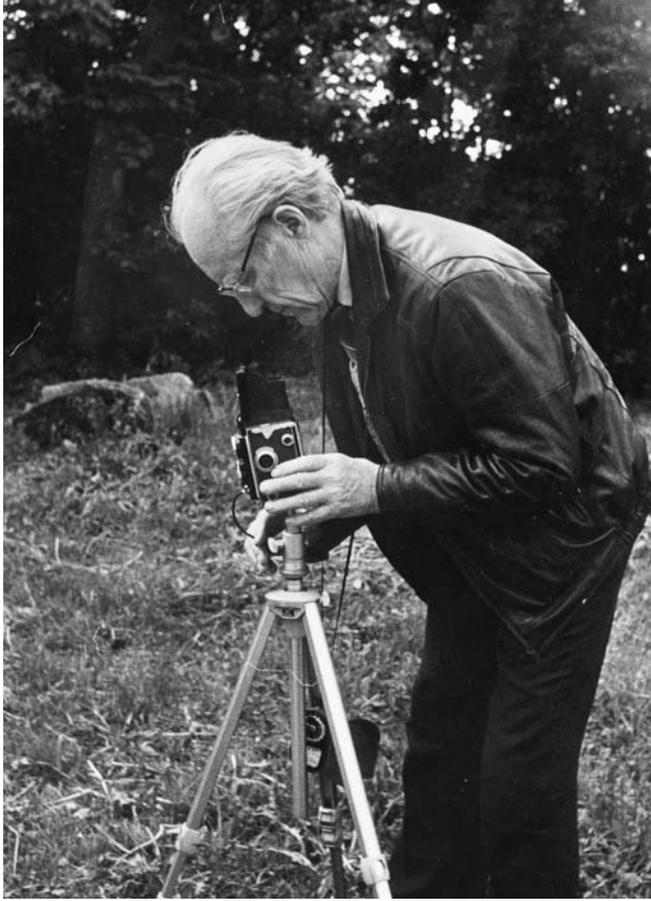


Fig. 1. Villem Raam taking photos of Jõelahtme church in 1985. Photo from the Archives of the Estonian National Library (Eesti Rahvusraamatukogu arhiiv).

Raam was the first to study the medieval Jõelahtme church building, carrying out small scale fieldwork in 1972³ and 1987⁴, the results of which he published in an article in 1990⁵ (Fig. 1). In 1997, Raam compiled concise results.⁶

³ Villem Raam, *Aruanne Jõelahtme kirikus tehtud väliuurimuslike šurfide kohta* (Tallinn, 1973, Manuscript in the Archives of the National Heritage Board [Muinsuskaitseamet, MKA], P-1616).

⁴ Villem Raam, *Aruanne Jõelahtme kiriku väliuuringutest* (Tallinn, 1988, Manuscript in MKA, A-1946).

⁵ Villem Raam, "Uut Harju vanadest kirikutest (Jõelahtme ja Kose)", *Eesti ehitismälestised. Aastaraamat*, toim. Tiit Masso (Tallinn: Valgus, 1990), 141–175.

⁶ Villem Raam, "Jõelahtme Maarja kirik", *Eesti arhitektuur* 3 (Tallinn: Valgus, 1997), 16–17.



Fig. 2. Jõelähtme church from the south-east. Photo by Peeter Säre.

The present limestone church building consists of a square three-aisled nave, a rectangular vaulted chancel and a western tower (Fig. 2). Raam identified the present nave as the oldest part of the building, erected by about 1330, at the latest. The nave is approximately in the shape of a square, which is quite exceptional among the medieval churches in Estonia. For some reason, the eastern wall of the nave is significantly shorter (about 65 cm; the full length is about 13.1 m inside) than the rest of the walls (about 13.8 m inside). The first nave had no separate chancel. According to Raam's interpretation, the first stone nave, built in the period of Danish rule, originally had an exceptional

gallery for the king or regent in the west part of the nave. The gallery could be reached by a staircase in the western wall, which starts from the southwestern corner of the nave. The original staircase to the attic started in the northeastern corner of the nave and ascended westwards, but its lower part was filled in 1878, when the north windows were built (there were none before). The west gable had a slender cantilever belfry tower on the northern part of it. Two supporting pillar stumps of the tower on the eastern side of the west gable in the attic have been preserved. Raam also discovered stumps of earlier walls in the northern and southern ends of the eastern gable, which he identified as remains of quadrangular protruding turrets once standing on the eastern corners of the nave, unique in the medieval churches of Estonia. Also exceptional are two 40 cm deep segment arched niches on the eastern façade of the nave, situated symmetrically below the gable. Raam believed that there had been a third niche, which was on the main east-west axis. Most of the niches were destroyed or covered when the present chancel was built.⁷

The original nave was covered with nine vaults resting on rectangular pillars as a three-aisled church, probably built during the second half of the 14th century. The western gallery was demolished. About the same time, a sacristy was erected on the northern side and a porch on the southern side of the nave. Both were demolished during the reconstruction work of 1878. The present chancel was erected during the first half of the 15th century. During the Livonian War, the building probably suffered a lot – both gables of the nave were damaged, and the towers on the gables were mostly demolished. Later, a slender tower was built on the top of the west gable on the central axis, the nave windows were widened and a small ossuary was built on the northern side of the chancel. The church went through a thorough change in 1878. The southern windows of the nave were given pointed tips again and three similar windows were broken into the northern wall, the rectangular pillars were cut octagonally, the vaults were covered with “groins” and “cantilevers” made of a thick layer of plaster, the chancel arch was widened, and the sacristy and

⁷ Raam, “Jöelähtme Maarja kirik”, 16.

the southern porch were demolished. After a fire in 1910, the tower on the western gable was demolished and, in 1911–1912, a big tower was erected on the western side of the nave.⁸

During the fieldwork of 1972, test pits were dug outside the contact points of the nave and the chancel. Combining it with visual observations in the attic, Raam determined that the chancel was a later addition to the nave⁹. Through visual observation, Raam discovered the segment arched niches in the eastern wall of the nave and earlier tower remains in the eastern gable¹⁰. In 1987, Raam checked the measurements and earlier plans of the church, and dug a test pit near the western portal, identifying it as a later addition from the end of the 15th or the beginning of the 16th century¹¹. The knowledge of the form of the church before the 1878 reconstruction is mostly based on analysis of a ground plan from 1725 drawn by the priest H. Ch. Wrede¹². Raam identified several study issues which remained unsolved. He suggested that the demolished sacristy foundations be studied with test pits, that the outside of the nave walls be studied by removing plaster near the supposed earlier tower remains in the attic, and that the supposed hewn limestone decorations of the nave and chancel be sought by removing plaster in the appropriate places.

Later fieldwork was limited. During the replacement of the floors in 2002, an approximately 30-cm-thick layer of debris was removed from the church. Over two hundred medieval and early modern coins were collected, the oldest from the 14th century¹³. A walled up simple doorway with a pointed arch was discovered in the northern wall of the nave, and was identified as a doorway to the former sacristy¹⁴. Parallel one-meter-wide, irregularly laid foundations of limestone were found, running in an east-west direction between

⁸ *Ibidem*, 17.

⁹ Raam, *Aruanne Jõelähtme kirikus tehtud väliuurimuslike šurfide kohta*, 3–4.

¹⁰ *Ibidem*, 5.

¹¹ Raam, *Aruanne Jõelähtme kiriku väliuuringutest*, 9.

¹² Raam, "Uut Harju vanadest kirikutest", 162; *Kirche und Gemeinde von Jeegelecht in der ersten Hälfte des 18. Jahrhunderts*, transkribiert, übersetzt und kommentiert von Tiina Kala (Tallinn: Muinsuskaitseamet, 2006), 32.

¹³ Mauri Kiudsoo, "Additions to the numismatic collections in 2002", *Archaeological Fieldwork in Estonia 2002* (Tallinn: National Heritage Board, 2003), 221–225.

¹⁴ Ilmar Kannelmäe, *Jõelähtme kiriku pöranda rekonstrueerimise projekt. Arhitektuuri ja chituse osa* (Tallinn, 2002, Manuscript in MKA, P-12061), 5.

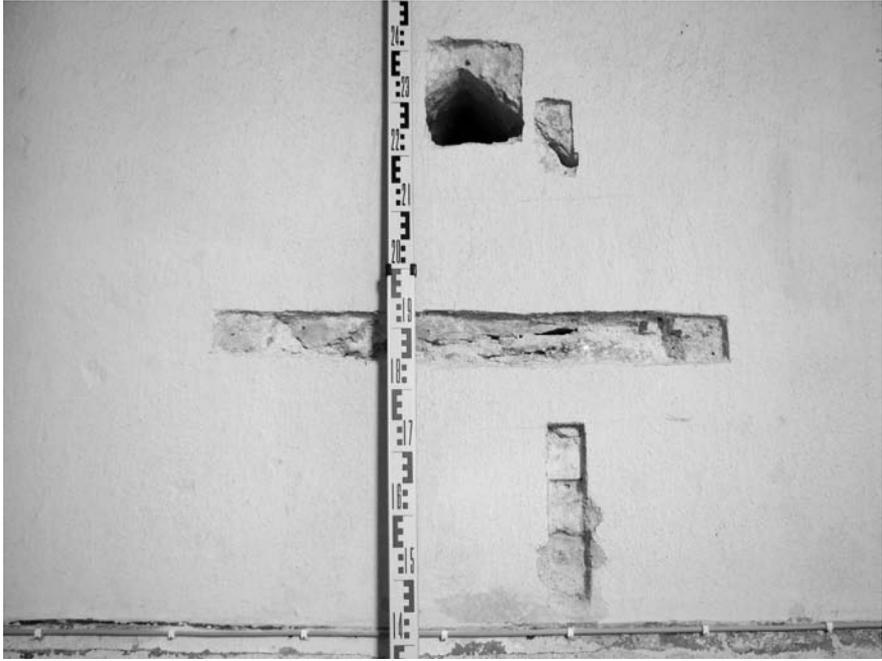


Fig. 3. Outlines of the piscina niche with a pointed arch in the southern wall of the chancel. Photo by Villu Kadakas.

the western pillars and the western wall of the nave, and one similar foundation between the southeastern pillar and the eastern wall was discovered¹⁵. During the same work, a few test pits were dug by the art historian Kersti Markus and the archaeologist Marika Mägi in the western part of the nave to study these foundations¹⁶. Markus and Mägi concluded that the foundations were contemporary with the original stone nave and probably supported two rows of posts for the original wooden ceiling¹⁷. Illar Kannelmäe concluded that both western foundations were built secondarily near the foundations of the western wall¹⁸.

¹⁵ *Ibidem*.

¹⁶ Marika Mägi, Kersti Markus, *Aruanne Jõelähtme kiriku põrandasse tehtud proovišurfidest* (Tallinn, 2003, Manuscript in MKA, A-5049).

¹⁷ *Ibidem*, 6.

¹⁸ Mägi, Markus, *Aruanne Jõelähtme kiriku põrandasse tehtud proovišurfidest*, 3; Kannelmäe, *Jõelähtme kiriku põranda rekonstrueerimise projekt*, 5.

Later, Kersti Markus presented the new data from the fieldwork of 2002 and developed the concept of the church's building history, placing it in the wider context of the formation of rural parishes east and southeast of Tallinn and of the changes in building patronage. Markus did not alter the building's main chronology set by V. Raam.¹⁹

In the summer of 2006, the geologist Kaarel Orviku and Rev. Margus Kirja used ground-penetrating radar to search for irregularities in the masonry inside the lower walls of the nave and chancel²⁰. They were hoping to find walled up liturgical niches in the chancel, and the doorway of the staircase in the eastern part of the northern wall of the nave. They found expected irregularities in logical places, and an unexpected one in the eastern wall of the south aisle. In 2007, the author of this article was called to study the places indicated by the radar scan, to search for plaster-covered masonry details of the nave interior, and to study the complicated masonry in the attic as well.

The fieldwork started in the chancel and both expected liturgical niches were easily found. In the eastern part of the southern wall, a simple niche with a pointed arch was discovered. The filling masonry has not been removed yet, but probably the niche was a simple piscina (Fig. 3). The other niche was discovered in the northern part of the eastern wall. It was a simple rectangular cabinet with limestone jambs, roughly hewn and quite typical of the work of the masons of Tallinn in the late medieval period (Fig. 4). Grooves for a door and remains of iron hinges in the southern jamb indicate that it once was a closed cabinet – an aumbry would be expected in such a place. The niches do not contradict the dating by V. Raam of the chancel to the first half of the 15th century, although some irregularities in the aumbry masonry may indicate that it was added or rebuilt later. Comparing the mortar used in filling the masonry, the piscina was filled only during the 1878 interior remodeling, but the aumbry had been filled before that time, probably during the 17th or 18th century.

¹⁹ Kersti Markus, "Keskaegsed maavaldused – uus allikas arhitektuuriuurijale", *Acta Historica Tallinnensia*, 10 (2006), 8–11.

²⁰ This was the first case in Estonia where ground penetrating radar was used for this specific purpose. The evident success indicates a wide perspective for using the method in Estonian churches in the future.



Fig. 4. Discovering the aumbry niche in the eastern wall of the chancel - plaster partly removed from the masonry (in the middle of the photo). Photo by Villu Kadakas.

Next, the expected doorway of the northern wall of the nave was searched for. Removing the plaster revealed a clear vertical joint 163 cm west of the eastern wall. A parallel joint of the other jamb of the

doorway was searched for on both sides, but in vain. Soon it was obvious that there was no filled doorway between the sacristy portal and the eastern wall and some other explanation should be sought for the vertical joint. Either the staircase's doorway was completely removed by later work, or the staircase never reached the nave's floor level here. In any case, it is clear that the staircase's doorway was not removed when the nave's north windows were made in 1878, because all the masonry in the area is much older. As will become evident further, it has to be excluded that the staircase ever started to ascend from the floor level in this area. The staircase's doorway was probably somewhere high above the floor level, where it was accessible from a gallery in the nave, or from a ladder, for defensive calculations, as was traditional in the case of many medieval churches in Estonia, or from the sacristy's attic. It would be difficult or impossible to find remains of the doorway because it would have been in the area of the present middle window.

Inspecting the mortar in the vertical joint indicated that the mortar of both wall parts is slightly different and the masonry to the east was built later than the masonry to the west, which includes the former sacristy's doorway. Observing again the whole northern wall of the nave showed that it consists, in fact, of three different parts, which are not positioned on the same straight line but on three lines of different angles (Fig. 5²¹). One of the two breaks in the three lines is directly on the vertical joint. The other break is situated exactly the same distance towards the west from the sacristy's doorway as the vertical joint is towards the east.

This unexpected symmetry quickly led to the hypothesis that the middle part of the nave's northern wall is the original southern wall of the sacristy and that only the adjoining parts of the northern wall were originally built for the northern wall of the nave, i.e. while erecting the present nave, the southern wall of an earlier sacristy was incorporated. Such a sequence is not known in any medieval church in Estonia, although erecting the sacristy as the first stage

²¹ The plan is based on the measured plan by R. Jaaksoo. See R. Jaaksoo, *Jõelähtme vald. Jõelähtme kirik. Ülesmõõtmisjoonised* (Tallinn, 1951, Manuscript in MKA, Ü-152).

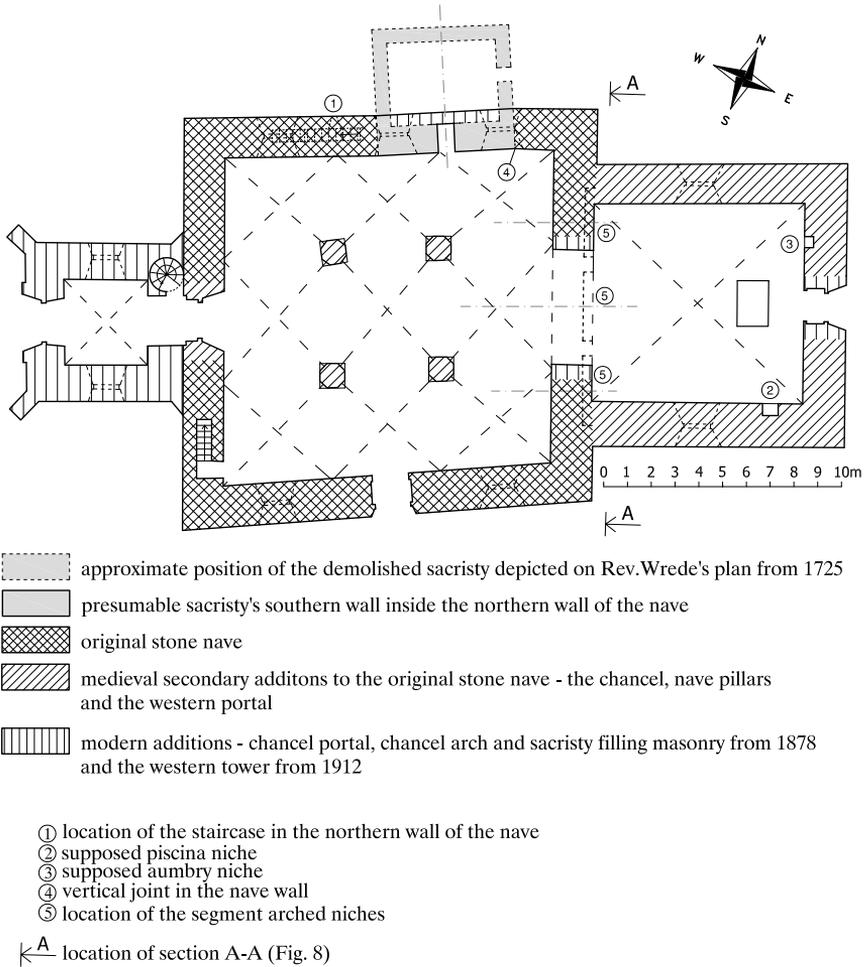


Fig. 5. Ground plan of Jõelähtme church below window level. Plan by Villu Kadakas (based on the plan by R. Jaaksoo).



Fig. 6. Partly opened sacristy doorway.
Photo by Villu Kadakas.

of a stone church next to an earlier wooden church was common on the Finnish mainland²², the Turku Cathedral probably being one of the best known examples²³. A small part of the plaster was removed from the wall about 416 cm west of the other break as well, but no clear vertical joint was found. It is possible that the older sacristy wall was incorporated by partly demolishing the sacristy's masonry to join the two walls better, which would have left no clear vertical joint. There is another indication supporting the hypothesis. The northern wall of the nave is about 175 cm thick, but the sacristy's doorway is only about 120 cm deep. At that distance from the inner surface of the wall, the doorway ends and is blocked by later filling masonry, inserted during the 1878 work (Fig. 6). It seems that the wall of the sacristy was only 120 cm thick, i.e. part of the sacristy interior was

²² Markus Hiekkanen, "Near but far. Finnish and Estonian church architecture in the Middle Ages", *Suomen Museo 1991* (Helsinki: Suomen muinaismuistoyhdistys, 1992), 25.

²³ Knut Drake, "Åbo domkyrkas första murade sakristia", *Hikuin*, 33 (2006), 239–248.

inside the northern wall of the nave. Such a situation is hardly likely if the sacristy and the nave were built together as one whole or the sacristy was built later.

If this hypothesis is correct, it means that the sacristy was probably the oldest part of the Jöelähtme church built of stone. This was a typical sequence when a wooden church was replaced by a stone building step by step, starting with a sacristy²⁴. This means that the sacristy of the Jöelähtme church was probably erected on the northern side of a wooden nave. There is very little to say about the absolute dating of the sacristy. The doorway has a simple pointed arch, which excludes very early dating, as the doorway seems to have been built together with the sacristy wall. We will know nothing more about its decorations or about the ground plan until its foundations under the present churchyard have been studied.

The hypothesis of the earlier sacristy may show the staircase of the northern wall in a new light. It is possible that only a part of the staircase had to be fully constructed, because the older masonry of the sacristy was partly used. From the attic, the new staircase might have descended exactly to the sacristy's southern wall, allowing access to the attic of the sacristy. The upper surface of the southern wall of the sacristy may have been used as the basis for the horizontal continuation of the new staircase, avoiding demolishing the old sacristy's masonry. The southern gable of the sacristy, if it was built of stone, was probably much narrower than the sacristy's southern wall itself, perhaps a third of the thickness of the present nave's wall – it might have been later used as a wall between the nave interior and the staircase. If the staircase reached the attic of the sacristy, there might have been no reason to descend further towards the east. If it reached eastwards from the sacristy, it probably continued horizontally to the southeastern corner of the sacristy and started to descend only thereafter. The staircase obviously could not have reached the floor in the northern wall of the nave, but must have turned into

²⁴ Markus Hiekkanen, "The Reformation and unfinished churches in Finland", *Archaeology of Reformation 1480–1580. Papers given at the Archaeology of Reformation Conference, February 2001*, ed. by David Gaimster & Roberta Gilchrist. The Society for Post-medieval Archaeology. Monograph I (London: Maney, 2003), 78–79.

the eastern wall before. Thus, the doorway was searched for in the wrong place.

Checking the other walls of the nave and chancel showed that the other walls were all built in one straight line without any breaks. As Raam noticed earlier, the eastern wall of the nave is about 65 cm shorter than the other walls. The nave is not just narrower in the east, but the south wall is positioned awry compared to the other walls, which meet each other at about a 90° angle. Such asymmetry is quite typically a result of building a stone nave around a timber church, keeping the timber church until the stone nave is more or less finished, as pointed out by Markus²⁵. Significantly, the southern wall of the nave and the southern wall of the sacristy are quite parallel to each other, perhaps indicating the orientation of the former wooden church.

In 2006, plaster was removed from the eastern façade of the nave during repairs. It was discovered that the segment arched niches, found by Raam in 1972 on the eastern façade of the original nave, visible above the chancel attic, do not extend to those surfaces, but their outer ends are completely hidden by the later chancel walls. Hence, the niches were studied again. The inner ends of the niches, i.e. the ends closer to the central axis of the church, were demolished when the chancel vault was built.

Fortunately, the highest points of the segment arches have been preserved and are visible (Fig. 7, 8). Therefore, it is possible to measure the central axes of the niches. The extent of the niches towards the center of the façade makes it possible to calculate their minimum width (about 290 cm) and maximum width (about 470 cm). In an unpublished report, Raam used the bigger number to describe the niches²⁶, but has not repeated this in publications, probably doubting the measurements himself. Comparing the measurements indicated that the central axes of the niches have been set on the unpublished drawings and the single published plan misleadingly incorrect²⁷. The

²⁵ Markus, "Keskaegsed maavaldused – uus allikas arhitektuuriuurijale", 9.

²⁶ Raam, *Aruanne Jõelähtme kirikus tehtud väliuurimuslike šurfide kohta*, 9.

²⁷ Raam, *Aruanne Jõelähtme kiriku väliuuringutest*, fig. 1; Raam, "Uut Harju vanadest kirikutest", fig. 3.

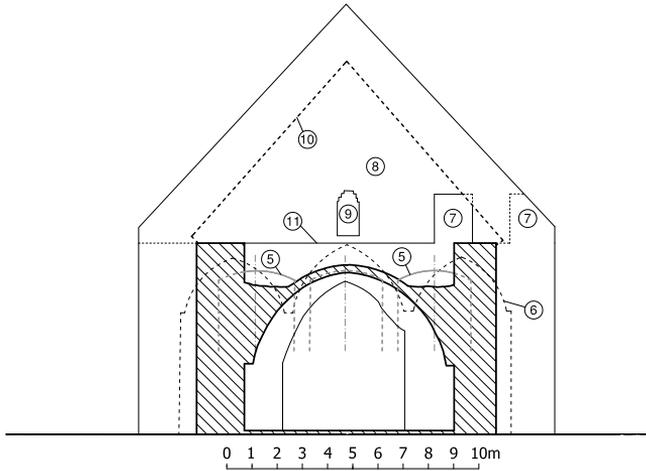


Fig. 7. Segment arch of the southern niche in the eastern wall of the nave seen above the chancel vault. Photo by Villu Kadakas.

niches are much closer to each other than expected, leaving no room for the third niche of the same size in the middle if these were 4.8 m wide. In the case of narrow niches, e.g. 2.8 m, the third one would fit fine, as supposed by Raam²⁸.

It appeared that the closer ends of the arches have been fully demolished, but the vertical back walls of the niches continue further towards the middle axis of the church. It seems that these continuations of the back walls of the niches do have a demolished surface, indicating that the jambs of the niches have been demolished in exactly these places. As very little of this demolished back wall masonry is visible for study, this conclusion is not clear and it cannot be excluded that the niches extended further towards the central axis of the church, although it seems improbable.

²⁸ Raam, "Jõelähtme Maarja kirik", 16–17.



- ⑤ contours of the segment arched niches
- ⑥ contours of the nave interior
- ⑦ earlier masonry on the north-eastern corner of the nave - supposedly remains of a quadrangular turret
- ⑧ nave's eastern gable masonry
- ⑨ doorway in the nave's eastern gable
- ⑩ outline of the chancel's roof
- ⑪ horizontal joint between the eastern wall of the nave and the gable

Fig. 8. Cross-section A-A of the chancel. Segment arched niches in the eastern façade of the nave. Drawn by Villu Kadakas.

Even the narrow versions of the niches would have left no proper room for a separate chancel. Raam did not exclude the possibility that there had been an earlier chancel²⁹, but he believed that it was more likely that there was none³⁰. The “no chancel” version is supported by the fact that the sacristy was positioned next to the nave (or rather the nave next to the sacristy, as we saw above), not next to a chancel, as would have been typical. As the nave originally had no windows in the northern wall and probably no separate chancel, it is highly likely that there were windows in the eastern façade. There

²⁹ Raam, *Aruanne Jõelähtme kirikus tehtud väliuurimuslike šurfide kohta*, 4.

³⁰ Raam, “Uut Harju vanadest kirikutest”, 142.

must have been some kind of correlation between the niches and the windows of the eastern façade.

The central axes of both niches are not in random position regarding the nave's geometry. It seems that if the nave were divided into two aisles, both niches would be positioned on the central axis of one aisle. There would be a small space calculated between the two aisles, wide enough for a stone or wooden pillar, supporting vaults or a wooden ceiling. A wooden ceiling with one support pillar was assumed by Raam earlier³¹. Such a position of the niches gives strong evidence that the niches contained windows. Between such wide niches, even accepting the narrow version, there would hardly be room for windows. Church windows positioned in a 40-cm-deep segment arched niche would have been unique in medieval Estonia. Perhaps for this reason and because he had misleading measurement data, Raam said nothing about the eastern windows of the original nave, cautiously speculating that the niches might have been connected with the supposed protruding turrets on the corners of the nave³². As we saw, the niches are, in fact, closer to each other, not at all directly under the supposed corner turrets, as depicted in earlier plans, and therefore can have little to do with the turrets.

Unfortunately, the issue of the central niche and window cannot be studied more closely because the masonry of this part of the wall was later replaced by the chancel arch. The possible existence of a central niche and window also depends on the building material of the nave's ceiling and the number and arrangement of supporting pillars. One central pillar for a wooden ceiling would have somewhat screened the central window, but this would indicate no clear contradiction. A system of a central pillar supporting four stone vaults would have naturally covered the upper part of the middle window. Thus, in the case of three windows, the combination of a wooden roof and three windows is more plausible than the other possibilities.

³¹ *Ibidem*, 144.

³² *Ibidem*, 145.

Two rows of pillars or, rather, wooden posts for a wooden ceiling, as assumed by Mägi and Markus³³, are possible, but rows of posts resting on the discovered foundations would not be consistent with the layout of the niches and presumed windows. Perhaps the discovered foundations have no direct functional relationship to the former ceiling support system of the nave at all and a different function for these should be sought. Mägi and Markus themselves doubted this functional relationship. It is possible that the foundations come from a much later period and supported some light structures built between the nave walls and the present stone pillars. Unfortunately, it was not possible to study the stratigraphic relationship of the foundations and the stone pillars during the floor repairs.

CONCLUSION

The fieldwork of 2007–2008 provided new information concerning the building history of the medieval Jõelähtme church, slightly changing some details but not the main chronology presented by Villem Raam, based on his limited fieldwork during the 1970s and 1980s. In 2007, a simple piscina and an aumbry niche were found in the southern and eastern walls of the chancel, respectively. The niches are in accordance with the dating of the chancel to the first half of the 15th century by Raam. Searching for the portal of the staircase in the northern wall of the north aisle revealed that the staircase did not reach the floor at this place but probably started from the attic of the former sacristy, demolished in the 19th century. Studying the vertical joints and ground plan of the northern aisle indicated that the northern wall consists of three different parts, which are not positioned on the same straight line but on three lines of different angles. Based on that, a hypothesis is presented that the former sacristy probably was built as the earliest stage of the stone church and was later incorporated into the northern wall of the nave. Such

³³ Markus, "Keskaegsed maavaldused – uus allikas arhitektuuriuurijale", 9.

a sequence of building stages demands a new focus of discussion on the demolished sacristy remains and the partly filled staircase in the northern wall of the nave. While planning the nave and the staircase, the builders probably took into consideration the existing sacristy building. As a result, the staircase, if it ever reached the floor of the nave at all, must have descended the nave floor much more eastwards than presumed before. In the attic, the segment arched niches in the outer eastern façade of the nave were studied and measured again and it appeared that the niches have been depicted incorrectly in earlier plans. The niches are, in fact, positioned much closer to each other. If the nave were divided into two aisles, both niches would be positioned on the central axis of one aisle. The hypothesis is presented that before erecting the separate chancel the niches contained the eastern windows of the nave. As Raam supposed that there had been a third niche in between the two partly intact niches, it is further speculated that the supposed third niche contained the third middle window. This article, with its new data, discussion and intermediate conclusions, is a prerequisite to effectively planning further targeted fieldwork, as the building history of Jõelähtme church still has many unsolved issues.

VILLU KADAKAS (b. 1972), MA, archaeologist Agu-EMS Ltd

KOKKUVÕTE: Uusi andmeid Jõelähtme esimesest kivikirikust.

2007.–2008. aasta välitöö pakkus mitmesugust uut informatsiooni keskaegse Jõelähtme kiriku ehitusloo kohta. Muutused mitmed detailid, kuid mitte kirikuhoonet 1970.–1980. aastatel uurinud Villem Raami esitatud ehitusetappide kronoloogia.

2007. aastal leiti muuhulgas kaks liturgilist nišši kooriruumi ida- ja lõunaseinast, millele olid osutanud geoloog Kaarel Orviku ja kirikuõpetaja Margus Kirja korraldatud uuringud georadariga

2006. aasta suvel. Edutult otsiti pikihoone põhjaseina idapoolsest otsast oletatavasti piki põhjaseina pööningule kulgenud müüritrepi portaali. Selgus, et ilmselt pole trepp selles kohas pikihoone põrandani ulatunud, vaid alanud kõrgemalt, kas 19. sajandil lammutatud käärkambri pööningult või avanenud samal kõrgusel põhjalöövi interjööri.

Põhjalöövi plaani ja püstvuukide uurimine näitas, et pikihoone põhjasein koosneb kolmest erinevast seinalõigust, mis ei paikne samas sihis, vaid erineva nurga all osutades nende rajamisele erinevatel ehitusperioodidel. Sellele toetudes esitatakse hüpotees, et kunagine käärkamber püstitati arvatavasti kivikiriku vanima osana ning hõlmati hiljem pikihoone põhjaseina sisse. Vastavalt on pärast käärkambri lammutamist 19. sajandil säilinud selle lõunasein koos teravkaarse portaaliga pikihoone põhjaseina keskosas. Sellist ehitustappide järgnevust ei ole Eesti keskaegsetes kirikutes teadaolevalt seni tuvastatud. Oletus nõuab kogu hoone kujunemisloo revideerimist, sest pikihoonet ja müüritreppi kavandades pidid ehitajad arvestama juba olemasoleva käärkambriga.

Kooriruumi pööningul uuriti ja mõõdeti uuesti üle pikihoone idafassaadis enne koori ehitamist paiknenud laiad segmentkaarsed nišid. Selgus, et need on varasematel plaanidel kujutatud eksitavalt ebakorrektselt. Tegelikuses on nišid olnud tunduvalt kitsamad (umbes 2,8 m) ning paiknenud teineteisele tunduvalt lähemal kui seni oletatud. Kui pikihoone interjäär jagada mõtteliselt kaheks lööviks, siis paikneks kumbki nišš ühe löövi keskteljel. Sellele tuginedes esitatakse hüpotees, mille järgi enne eraldi kooriruumi püstitamist paiknesid niššides pikihoone idaaknad. Kuna Raam on oletanud, et kahe niši vahel on olnud kolmas, siis on selles nišis arvatavasti paiknenud kolmas keskne aken. Sellised ligi 40 cm sügavused aknaid raamistavad segmentkaarsed nišid on Eesti keskaegses kirikuarhitektuuris analoogideta.

