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RESCUE EXCAVATIONS ON THE LATE IRON AGE SETTLEMENT OF AINDU

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In 1992 rescue excavations on the Late Iron Age settlement of Aindu, discovered accidentally in the course of land improvement and road construction works the same spring, were carried out by the Archaeological Laboratory of Tartu University.[1] The site, lying some 4 km north of the town centre and about 1 km north of the town border of Viljandi, is situated on arable land, 110—170 m east of the Tallinn—Viljandi highway and 125—220 m north of the Aindu I farm house, west of Lake Karula (Fig. 1). On the background of the surrounding ordinary brownish soil the cultural layer could easily be distinguished as a circular area of intensively black earth (Plate VIII, *1*, *2*). The dark soil plot, whose upper layers had been damaged and partly removed by the recent bulldozer works, had the diameter of some 50—60 m. A cultural layer of a considerably lower intensity could be observed 20—30 m to the south and to the west of the dark area. The settlement site was sloping down in two directions: from the west to the east — towards Lake Karula, and from the south to the north — towards a spring site. In spite of recent intensive drainage works and the dry summer, the spring, coming out of the hill-slope and running down towards the lake, was still there. In the east the cultural layers were bordered by wet lakeside turf soil. As the wetland strip between the "black earth" and the lake was rather extensive, it seemed that the settlement place had not stretched down to the water at the time of its functioning either, but had been separated from it by an area unsuitable for housing and living. Since the settlement was sloping down in two directions, the thickness of the cultural layer was rather uneven. In its peripheral areas the intensive black layer was melting into ordinary brownish soil with a thickness of 30—35 cm; however, near the spring it stretched to 1.2 m.

The excavations were carried out on an area of 192.5 m², damaged by road construction. According to the nature of the cultural layer, two different parts can be distinguished within the excavated area.

On the southern peripheral edge of the settlement site, outside the borders of the intensively black cultural layer, an area of 116 m² was investigated. There the cultural layer with the initial thickness of some 30—35 cm had mostly been removed by the bulldozer. Therefore only its partly disturbed lowest parts with the thickness of 5—10 cm, lying on natural intact subsoil, could be examined.

The cultural layer of this area was of a rather low intensity, consisting of greyish-brown soil. The amount of stones was not large; the majority of them were unburnt. From ancient construction remains in this area two fireplaces were discovered. One of them, having an irregular shape and the diameter of about 2 m (Plate IX, *1*), consisted of burnt granite stones (diameter 8—15 cm) lying in two layers. At the fireplace four bigger stones (diameter 30—40 cm) with the probable

[1] The finds: TÜ 70 (collected from the field in early spring before the excavations) and TÜ 71 (excavation finds) are situated at Tartu University, Department of Archaeology.

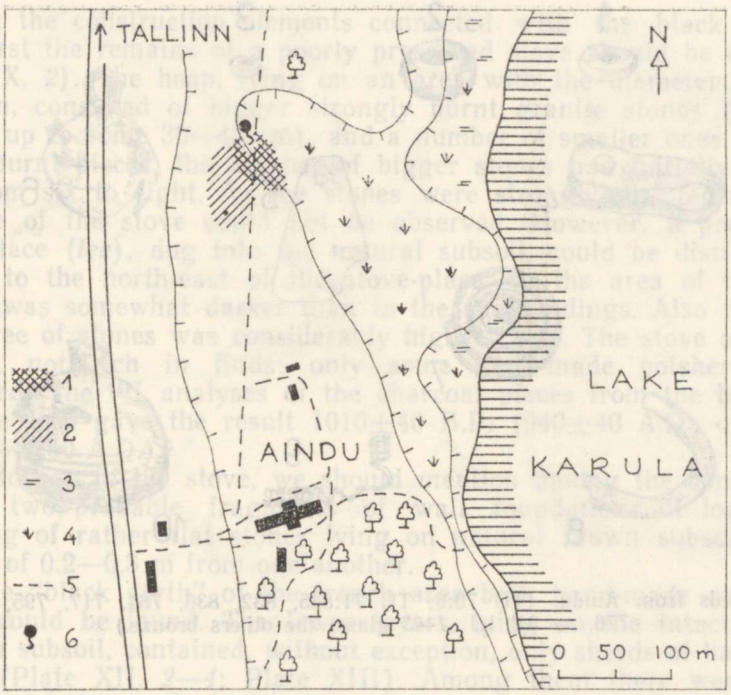

Fig. 1. Location plan of the settlement of Aindu. *1* intensively black cultural layer, *2* thin medieval cultural layer, *3* wetland, *4* low grassland, *5* local road, *6* spring-place.

purpose of heat accumulation were lying. Near the fireplace four low post holes with the diameter of about 30 cm, dug into the subsoil of light sand, were discovered. The post holes seem to refer to the existence of a light building of conical shape with the bottom diameter of some 3.5—4 m. Buildings of such type (*koda*) served in Estonia as summer kitchens up to the beginning of this century, on the islands also later.[2] As the post holes were covered by burnt hearth-stones, the building seems to be older than the fireplace. From the area of the fireplace several pieces of hand-made pottery with both smooth and coarse surfaces containing sand and having mostly a dark greyish-brown colour were discovered. Among the finds especially some edge fragments of fine bowls (Plate XI, *7*), sherds of vessels with a shoulder rim (Plate XI, *1*, *2*, *11*), and pieces of pottery ornamented with fingernail or fingertip impressions (Plate XI, *3—5*) are worth mentioning. From the fireplace also a small bronze loop (Fig. 2, *4*) was found. The concentration of pottery within the fireplace area was considerably higher than in the surroundings.

The other fireplace with the diameter of about 1 m consisted of one layer of smaller burnt-through stones. From this hearth only some pieces of simple hand-made pottery, including a fragment of a rimmed bowl, were disinterred.

The pottery from the preserved lowest parts of the cultural layer, lying on natural intact sand, represented the same types as found from the fireplaces. Here, three bottom fragments with textile impressions (Plate XI, *9*, *10*), two pieces with a geometric ornament (Plate XI, *12*, *13*), and some fingernail-impressed sherds must be noted. On the basis

[2] **Habicht, T.** Rahvapärane arhitektuur. Eesti rahvakunst II. Tallinn, 1977, pp. 40—44.

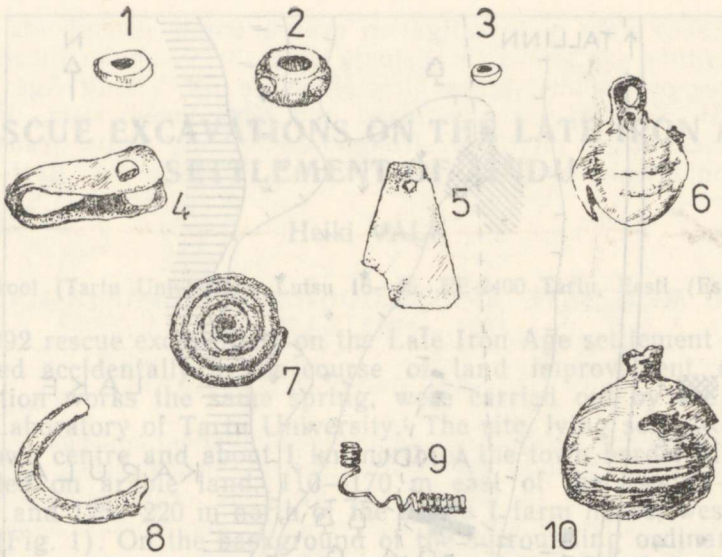

Fig. 2. Finds from Aindu. (TÜ 70:9; TÜ 71:845, 832, 836, 784, 717, 795, 799, 786, 776. — All 1:1. *1—3* glass; the others bronze.)

of the similar nature of the ceramics, the finds from the undisturbed layers of the southern region can be regarded as belonging to the same, quite limited chronological period.

The rest of the excavation plot — an area of 76.5 m² — was situated within the area of the intensive black cultural layer. The main part of the investigated plot was formed by a north—south-directional trench with a length of 16 and a width of 4 m (Plate VIII, *2*). Also in this area the upper 25—30 cm of soil, probably mixed by ploughing, had been removed by the bulldozer. The thickness of the remaining cultural layer was increasing along the slope from the south towards the spring in the north. Correspondingly, the thickness of the excavated layer was also growing from the south to the north from about 25 to 40 cm. In the northern part of the trench the lowest cultural layers remained unexcavated because of limited time. To the southern end of the trench an adjacent plot of 12.5 m², undamaged by the bulldozer, was later added. In this area the thickness of the cultural layer was about 45—50 cm.

This small undamaged area as well as the bulldozer-made profiles of the future road show that the upper 15—20 cm of the cultural layer consisted of a rather homogeneous fine black soil. Evidently, this layer was formed of ground carried down from higher areas as a result of erosion. In general, the cultural layers of the northern excavation area contained, however, large numbers of burnt-through granite pieces with the average diameter of some 5—10 cm. Quite often, the stones formed about 1/3—1/2 of the volume of the excavated soil. The stones were predominantly very strongly burnt. In some places probable fireplaces with a considerably higher concentration of stones and higher degree of their disintegration could be distinguished. The cultural layer between the stones consisted of very intensively dark black soil, coloured by soot and small charcoal pieces. Except for charcoal and animal bones, no organic stuff was preserved. The black cultural layer was lying on a layer of greyish brown fine soil with a thickness of about 10—15 cm. The brown intact soil, undisturbed by human activities, covered the natural subsoil, i.e. yellow sandy clay, and contained no finds.

From the construction elements connected with the black cultural layer, first the remains of a poorly preserved stove should be described (Plate IX, *2*). The heap, lying on an area with the diameter of about 2—2.5 m, consisted of bigger strongly burnt granite stones (diameter initially up to some 30—40 cm), and a number of smaller ones. Judging by the burnt pieces, the number of bigger stones had initially been at least from six to eight. As the stones were strongly disintegrated, the structure of the stove could not be observed. However, a presumable hearth-place (*lee*), dug into the natural subsoil, could be distinguished directly to the north-east of the stove-place. In the area of the stove the soil was somewhat darker than in the surroundings. Also the burning degree of stones was considerably higher there. The stove area was, however, not rich in finds: only some hand-made potsherds were discovered. The ^{14}C analyses of the charcoal pieces from the bottom of the stove area gave the result 1010±40 B.P. (940±40 A.D.; calibrated age 900—1150 A.D.).[3]

In addition to the stove, we should mention among the construction remains two probable fragments of wall foundations of log-houses, consisting of rather flat stones lying on natural brown subsoil at the distance of 0.2—0.3 m from one another.

In the "black earth" of the trench area both hand-made and wheel pottery could be found. The lower layers, lying on the intact natural brownish subsoil, contained, without exception, only sherds of hand-made pottery (Plate XII, *2—4*; Plate XIII). Among them there were pieces of different bowls — both with a strongly expressed (Plate XII, *4*; XIII, *4*) and a rather weak shoulder rim (Plate XII, *2*, *3*), as well as of almost rimless vessels (Plate XIII, *2*, *7*). One fragment was decorated with a geometric ornament (Plate XIII, *4*). Among the hand-made pottery, containing mainly fine and medium sand, sherds with a smoothed surface prevailed, but in some cases also coarse surfaces (Plate XII, *4*; XIII, *1*, *5*, *6*) occurred. Differently from the southern excavation plot, no sherds decorated with fingernail impressions were found from the lower layers of the northern trench area. The radiocarbon dating of a piece of charred timber taken from the lowest layers showed it to originate from 1205±40 B.P. (745±40 A.D.; calibrated age 645—895 A.D.).[4]

In general, ceramics of both South-East and North-West Estonia from the last quarter of the 1st and the beginning of the 2nd millennium A.D.[5] can be regarded as essential comparative material for the hand-made pottery of Aindu. Still, the pottery of Aindu is somewhat different. Compared with South-East Estonian pottery, an essential dissimilarity is the scarcity of sherds decorated with dot ornamentation. Dot ornamentation occurs only on three potsherds from Aindu; moreover, it never occurs by itself but as a part of geometric ornament (Plate XI, *12*, *13*; XIII, *4*). Another peculiarity worth stressing is the small amount of pottery containing coarse stone rubble and having an uneven surface. In South-East Estonia, however, sherds of such type form the overwhelming majority: 75—80% of the whole material.[6] Moreover, not a

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[3] Analyses made in Tartu, at the Institute of Zoology and Botany, Radiocarbon Laboratory. Sample TA-2410.

[4] TA-2409.

[5] **Аун М.** Лепная керамика городищ и селищ Юго-Восточной Эстонии во второй половине I тыс. н. э. — ENSV TA Toim. Ühisk., 1976, No. 4, pp. 343—364; **Lang, V.** Iru linnuse peenkeraamika V—X sajandil. — Proc. Acad. Sci. Estonian SSR. Social Sci., 1985, No. 2, pp. 193—210; **Lang, V.** Ühe savinõutüübi ajaloost Loode-Eestis. — In: Muinasaja teadus I. Arheoloogiline kogumik I. Tallinn, 1991, pp. 45—63.

[6] **Аун М.** Лепная керамика, pp. 346, 352.

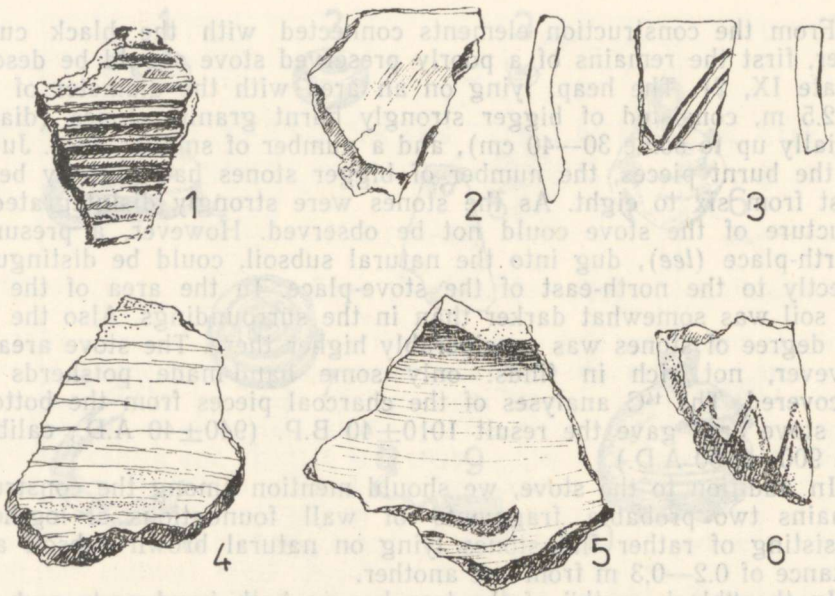

Fig. 3. Finds from Aindu. (TÜ 71:798, 755, 742, 853, 850, 838. — All 1:1.)

single sherd with small holes at the edge, characteristic of the "Rõuge type", was disinterred from Aindu. In comparison with North Estonia, as essential peculiarities of the fine pottery from Aindu lack of certain vessel and ornamentation forms[7] as well as long persistence of the rim tradition should be stressed. In North Estonia, the rimmed vessels disappeared in general already during the 7th and 8th centuries.[8] The occurrence of rimmed vessels and fingernail ornamentation can be regarded as features connecting the hand-made pottery of Aindu with the traditions of South-East Estonia.

In the upper layers there was besides simple hand-made pottery (Plate XIV, *3—5*) also wheel pottery, often decorated with line ornament (Plate XIV, *6—9*; Fig. 3, *1*). In the same context a small knife, three fish-hooks (Plate X, *2*, *8—10*), and an awl must be noted, too. The upper layers of the black earth contained in addition some iron slag, including a plane-convex piece of forge-slag. The deeper layers with exclusively hand-made pottery were very poor in metal items. In this context only a big key for timber locks (Plate XIV, *1*), belonging to a type represented in the Birka graves and settlement of the 9th—10th centuries[9] and occurring in Novgorod up to the early 12th century[10], can be mentioned. From the same layer several edge fragments of bowls made of fine clay were found (Plate XIV, *2*; Fig. 3, *2*, *3*).

As described above, the thickness of the cultural layer increased considerably toward the northern end of the trench, nearest to the spring. In this area, also the upper parts of the cultural layers, removed by the bulldozer in other places, could be examined. The intensively black layer contained mostly wheel pottery, decorated with line and wave

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[7] See: **Lang, V.** Iru linnuse peenkeraamika, Fig. 4:*II*, *III*.

[8] **Lang, V.** Ühe savinõutüübi ajaloost, pp. 56—58.

[9] **Ulfhielm, A., Arwidsson, G.** Schlüssel. — In: Birka. Untersuchungen und Studien. II:3. Systematische Analysen der Gräberfunde. Stockholm, 1989, p. 127, Fig. IV A:1.

[10] **Колчин Б. А.** Хронология Новгородских древностей. — In: Новгородский сборник. 50 лет раскопок Новгорода. Москва, 1982, p. 161, Fig. 3.

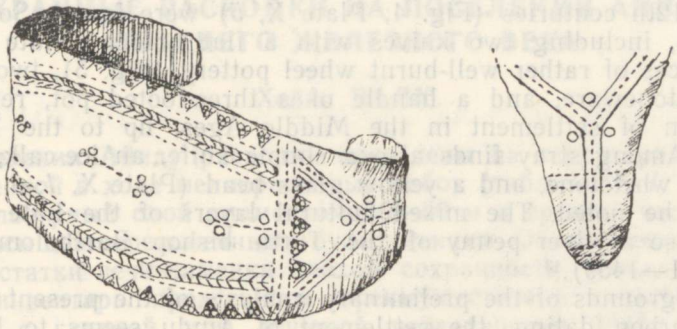

Fig. 4. Bracelet from Aindu. (TÜ 71:174. — Bronze. 1:1.)

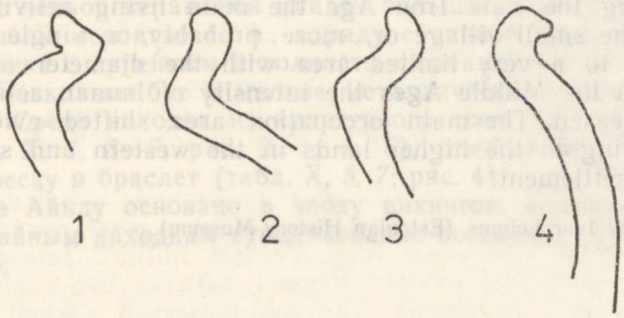

Fig. 5. Medieval pottery profiles from Aindu. (TÜ 71:82, 11, 141; TÜ 70:79. — 1:1.)

ornament (Fig. 3, *4—6*). However, also sherds of hand-made vessels occurred. From this area many smaller items were discovered. Two small bells with an oblong slit can be dated with the help of finds from Novgorod. One of the bells (Fig. 2, *10*) represents the type occurring there between 1076 and 1299; the other (Fig. 2, *6*) is quite similar to the form dated to appear since 1025.[11] A broken spiral ring of iron and a small trapezoid pendant (Fig. 2, *5*) date from the second half of the Late Iron Age, too. Bronze items are represented also by a small spiral from dress-ornamentation, a flat spiral, a fragment of a buckle (Fig. 2, *7—9*), and some links of fine bronze chains. Finally, three small yellow beads of "biser" type, occurring in Novgorod since 1116[12], and one yellow bead with blue "eyes" (Fig. 2, *2, 3*) were discovered from this layer. The finds seem to date the layer to the end of the Late Iron Age, predominantly to the 12th century.

The same layers were characterized by a relatively high concentration of animal bones. In the layers with hand-made pottery the number of bones was considerably smaller.

From the settlement area, partly disturbed by the bulldozer works, also a number of stray finds, mostly pottery, were gathered. Among them pieces of a light brown rimmed bowl with a smooth surface (Plate XIV, *1*) are of special interest. From the area prepared for road construction a flat bronze bracelet and a small penannular brooch of

[11] **Лесман Ю. М.** Хронология ювелирных изделий Новгорода. — In: Материалы по археологии Новгорода 1988. Москва, 1990, pp. 61—62, Tables 6, 3.3, and 3.4.

[12] **Лесман Ю. М.** Погребальные памятники Новгородской Земли и Новгород (проблема синхронизации). — In: Археологическое исследование Новгородской Земли. Ленинград, 1984, Table III.

the 11th—12th centuries (Fig. 4; Plate X, *5*) were found. Some of the stray finds, including two knives with a flat holder (Plate X, *3*, *4*), several pieces of rather well-burnt wheel pottery (Fig. 5), two pieces of imported stoneware, and a handle of a three-footed pot, refer to the continuation of settlement in the Middle Ages, up to the 16th—17th centuries. Among stray finds also a simple knife, an ice-calk, a bronze pendant, a whetstone, and a yellow glass bead (Plate X, *1*, *6*, *7*; Fig. 2, *1*) should be noted. The mixed cultural layers of the Late Iron Age included also a silver penny of the Tartu bishop Bartholomeus Savijerwe (1441—1459).[13]

On the grounds of the preliminary analysis of the present finds and the radiocarbon dating, the settlement of Aindu seems to have been founded in the Viking Period, probably not later than in the 9th century. The location of the settlement was evidently greatly determined by the lake and, especially, the spring, serving as a source of drinking water. During the Late Iron Age the main living activities and the housing of the small village or, more probably, a single farm, were concentrated to a very limited area with the diameter of only some 50—60 m. In the Middle Ages the intensity of human activities seems to have decreased. The main occupation area shifted evidently away from the spring to the higher lands in the western and south-western parts of the settlement.

[13] Determined by Ivar Leimus (Estonian History Museum).

PÄÄSTEKAEVAMISED AINDU NOOREMA RAUAAJA ASULAKOHAL

Heiki VALK

Aindu asulakohta uuriti maaparandustööde ja tee-ehituse käigus 192,5 m² suurusel lõhutud alal (tahv. VIII, *1*, *2*). Väga intensiivset, nõgist ja rohkelt põlenud raudkivitükke sisaldavat kultuurkihti leidus 50—60-meetrise läbimõõduga piirkonnas; asula servades esines vähesel määral ka nõrgemat kihti. Ehitusjäänustest leiti koldekohti ja halvastisäilinud ahjuvare (tahv. IX, *1*, *2*), kaks oletatavat palkhoone vundamendikivide rida ning mõned tõenäoliselt ümara püstkojaga seostuvad postiaugud. Leiuaines koosnes valdavalt käsitsikeraamikast (tahv. IX—XIII; XIV, *2*—5); märkimist väärivad mitmed kausikujuliste, nivendiga lauanõude serva- ja õlatükid (tahv. XI, *1*, *2*; XII; XIII, *4*). Lihtsate silutud või ebatasase pinnaga kildude kõrval leiti ka näpi- ja geomeetrilise ornamendiga nõude fragmente, samuti kolm tekstiilijäljenditega anuma põhjatükki (tahv. XI, *3—5*, *9*, *10*, *12*, *13*; XIII, *2*, *4*; XIV, *4*). Ülemistes, nähtavasti valdavalt 12. sajandiga seostuvates kihtides esines käsitsikeraamika kõrval ka joon- ning üksikjuhtudel lainja ornamendiga kaunistatud kedranõude kilde (tahv. XIV, *6—9*; joon. 3, *1*, *4—6*), samuti helmeid ja väiksemaid metallesemeid (tahv. X, *2*, *8—10*; joon. 2, *2*, *3*, *5—10*). Käsitsikeraamikaga kihtidest esindasid metall-leide vaid suur võti ja ripatsi(?) kand (tahv. XIV, *1*; joon. 2, *4*). Põllult ja buldooseriga segatud pinnasest korjati mitmeid juhuleide (tahv. X, *1*, *3—7*; joon. 2, *1*; 4; 5), sh. hoburaudsõlg, ripats ja käevõru (tahv. X, *5*, *7*; joon. 4). Leiuaines ja süsinikuanalüüsid viitavad asulakoha tekkele viikingiajal, arvatavasti mitte hiljem kui 9. sajandil. Põllult saadud juhuleidude põhjal on asustuse püsimine jälgitav 16.—17. sajandini.

ОХРАННЫЕ РАСКОПКИ НА ПОСЕЛЕНИИ АЙНДУ ПОЗДНЕГО ЖЕЛЕЗНОГО ВЕКА

Хейки ВАЛК

На поселении Айнду раскопки проведены на территории 192,5 кв. м, разрушенной в ходе мелиоративных работ (табл. VIII, *1, 2*). Интенсивный культурный слой диаметром 50—60 м в средней части поселения был насыщен пережженными булыжниками. Обнаружены несколько очагов и остатки печи-каменки плохой сохранности (табл. IX, *1, 2*). Вещевой инвентарь представлен преимущественно столовой лепной керамикой с гладкой или лощеной поверхностью (табл. XI—XIII; XIV, *2—5*). Некоторые черепки украшает защипный и геометрический орнамент, а на трех обломках от дна сосуда сохранились текстильные отпечатки (табл. XI, *3—5, 9, 10, 12, 13*; XIII, *2, 4*; XIV, *4*). В слоях с лепной керамикой найден большой ключ (табл. XIV, *1*). В верхних слоях, вероятно 12 в., наряду с лепной встречалась и гончарная керамика с линейным и волнистым орнаментом. В том же слое обнаружены несколько бус и мелкие металлические предметы (рис. 2, *2. 3, 5—10*). Среди находок из культурного слоя, сдвинутого бульдозером (табл. X, *1, 3—7*; рис. 2, *1*; 4; 5), отметим подковообразную фибулу, подвеску и браслет (табл. X, *5, 7*; рис. 4).

Поселение Айнду основано в эпоху викингов, видимо, не позднее 9 в. По случайным находкам существование поселения прослеживается до 16—17 вв.