

**ARHEOLOOGILISED  
VÄLITÖÖD  
EESTIS**

**ARCHAEOLOGICAL  
FIELDWORK  
IN ESTONIA**

**2003**

Koostanud ja toimetanud  
*Ülle Tamla*

Muinsuskaitseamet  
Tallinn 2004

© 2004 Muinsuskaitseamet  
Uus 18, Tallinn 10111, Eesti  
National Heritage Board  
Uus 18, Tallinn 10111, Estonia

*Esikaas: 13.–14. saj. Liivimaal löödud brakteaat.*

*Tagakaas: Tinaraamis klaas (fragment vitraažist?) Piritalt.*

*Cover: Bracteate of the 13<sup>th</sup>–14<sup>th</sup> century, minted in Livonia.*

*Back cover: Glass in lead frame (fragment of a stained glass window?) from Pirita.*

*Toimetuskolleegium:*

Ants Kraut  
Erki Russow  
Toomas Tamla  
Ülle Tamla  
Agne Trummal  
Heiki Valk

Uus 18, Tallinn 10111, Eesti  
e-mail: [info@muinas.ee](mailto:info@muinas.ee)

*Kujundus ja makett:*

Jaana Kool

**TARTU ÜLIKOOI  
RAAMATUKOBU**

ISSN 1406-3972

Trükitud AS Pakett trükikojas  
Laki 17, Tallinn



# FOSSIL FIELDS OF ILMANDU AND MURASTE, NORTH ESTONIA

**Valter LANG, Helena KALDRE, Marge KONSA,  
Margot LANEMAN and Helen VAAB**

*Tartu Ülikool (University of Tartu), Lossi 3, 51003 Tartu, Eesti (Estonia)  
valter.lang@ut.ee*

In the course of a landscape survey carried out in 1994, a large number of low and turf-covered clearance cairns, baulks and field terraces were discovered between the villages of Ilmandu and Muraste, west of Tallinn. Those field remains were located in six different groups (I-IV of Ilmandu and I-II of Muraste). Judging by their character and appearance, the fossil fields were expected to be of different ages, from the Early Iron Age to Modern times. The first mapping and trial excavations at complex I of Ilmandu were carried out in 1994-1995 (Lang 1995). It became evident that the excavated remains were rather late in date, belonging to the 16<sup>th</sup>-18<sup>th</sup> centuries (Table 1, date no. 1). The fieldwork was continued in 2002 at complexes I of Muraste (Lang 2002) and III of Ilmandu, while the whole area (ca. 1 sq. km) was mapped completely and investigated archaeologically in August 2003 (Fig. 1; Lang *et al.* 2004). The fieldwork of the last two years was requested and financed by several building enterprises with the purpose of releasing the whole area of the fossil fields from the protection of the law.

The landscape with the field remains around Ilmandu and Muraste is a rather flat alvar-type pasture, not used agriculturally in recent years. However, in the course of extensive land improvement of the 1950-1960s, the whole area was severely disturbed: the original soil cover together with boulders has been removed in some places, many clearance cairns and baulks have been demolished, new "cairns" of soil and rubbish have been heaped up here and there. Therefore it was difficult to find and map all the possible traces of cultivation, more so because the area was covered with high grass. One may be sure that the preserved field remains constitute only a small part of what still existed here 60 years ago.

## ILMANDU I

Group I of Ilmandu (11 ha) was first mapped in 1994 (Lang 1995, Fig. 1); however, as it was done rather primitively with the help of a compass and tapelines, we decided now to map it again by using a theodolite (Fig. 2). However, a portion of this group was no longer observable due to the high and thick grass because the area has not been grazed or mowed for many years. Although both of the



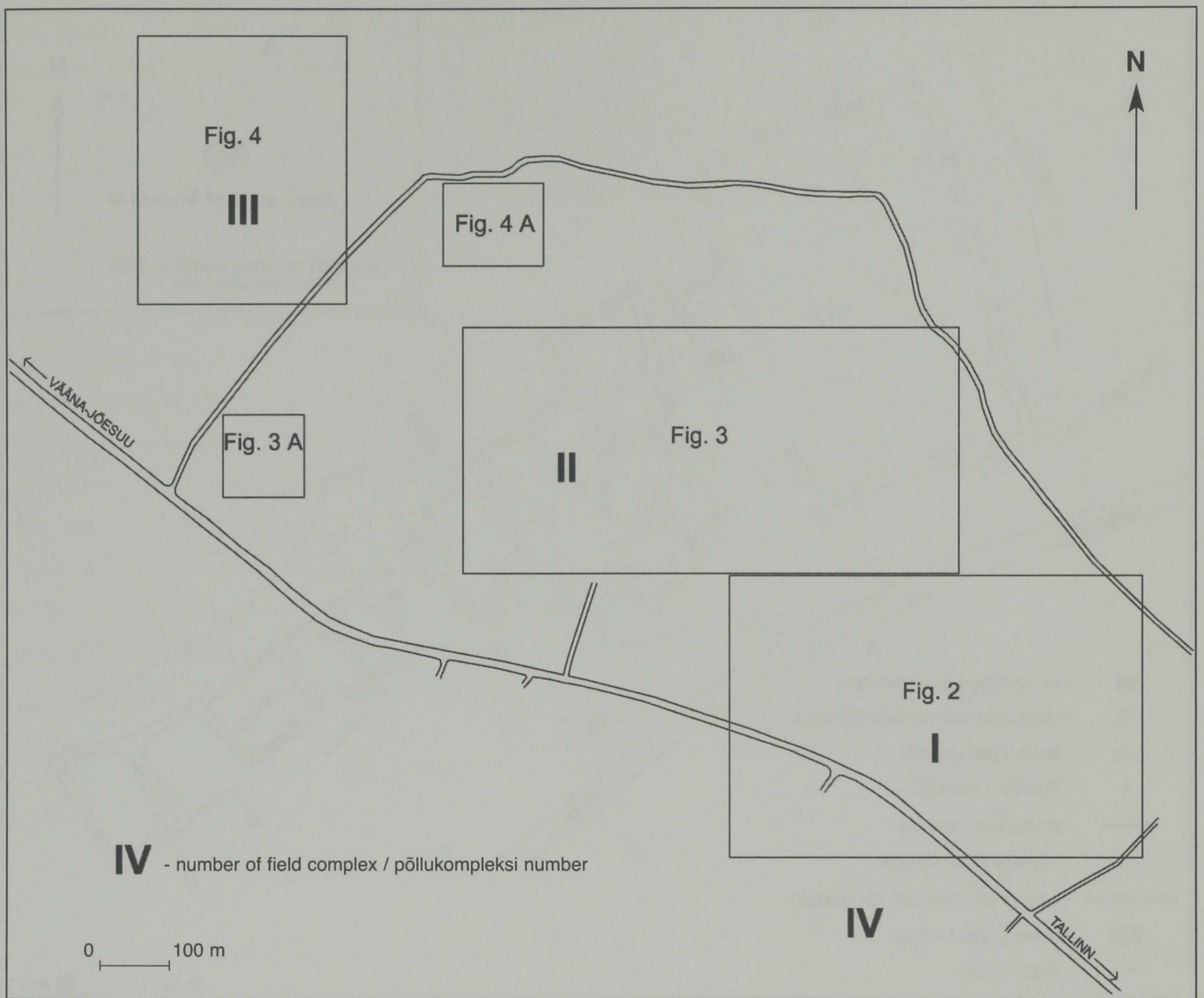


Fig. 1. Map of fossil fields at Ilmandu.

Joon. 1. Ilmandu fossiilsete põldude plaan.

maps do mostly coincide, the field remains on the earlier map are slightly dislocated towards the east (the measuring was started from the westernmost central part). Also, some baulk remains and cairns, seen on this earlier map, are not represented on the recent map because they were already invisible.

This field group consisted of two main parts, one of which was located in the central and southeastern portion with block-shaped fields and another in the northwestern corner with strip fields. The field plots in the southeastern part (altogether ca. 60) were smaller, the surface of the plots being 629 m<sup>2</sup> on the average, while they were much larger in the centre (1434 m<sup>2</sup> on the average). The rectangular plots were surrounded with rather wide (6–8 m) earthen baulks. The field strips in the northwestern part were usually 11–16 m wide, separated from each other with narrower baulks, terrace edges and ditches.



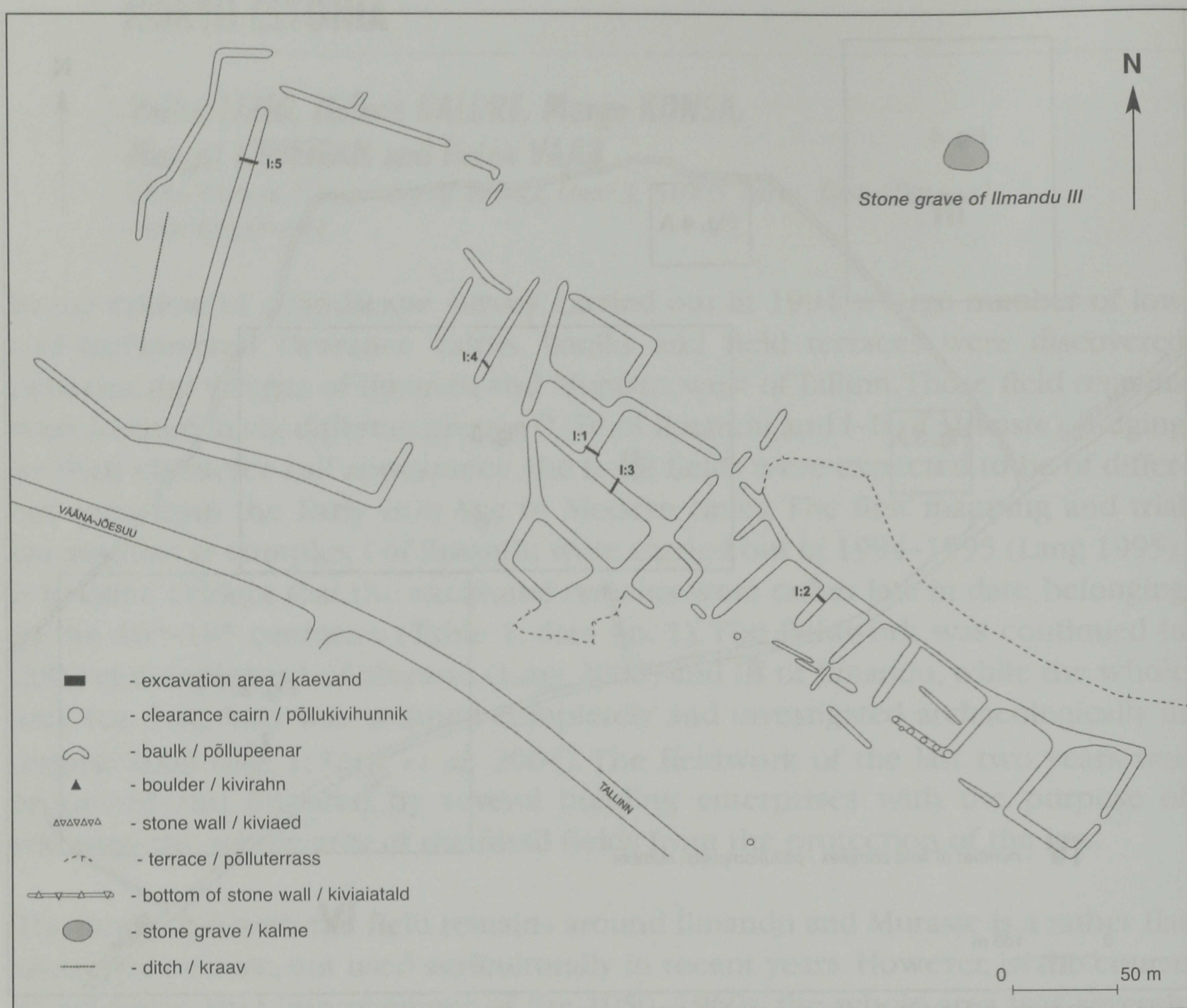


Fig. 2. Map of fossil field remains in group I of Ilmandu.  
Joon. 2. Ilmandu I põllujäänuste rühma plaan.

Three trenches (nos. I: 3–5) with a width of 1–1.5 m were excavated through the baulks in 2003 (two trenches were already dug in 1994–1995). The baulks here consisted mostly of earth ploughed together; stones were rare and concentrated along the centre line of the baulks. As the excavation of all trenches yielded ceramics of mostly postmedieval origin (for instance, those with glazed surfaces), the whole group should be rather late in date. Charcoal was usually found as few small pieces. Presently only two radiocarbon dates are available. The sample for one of these was already taken in 1994 from the central portion with block-shaped fields, and the date agrees well with the finds from the baulks (Table 1, date no. 1). Another sample comes from the long fence surrounding a block of strip fields in the northwestern corner (Table 1, date no. 2). The date of this sample (11<sup>th</sup>–12<sup>th</sup> centuries), however, is too early in comparison with the potsherds



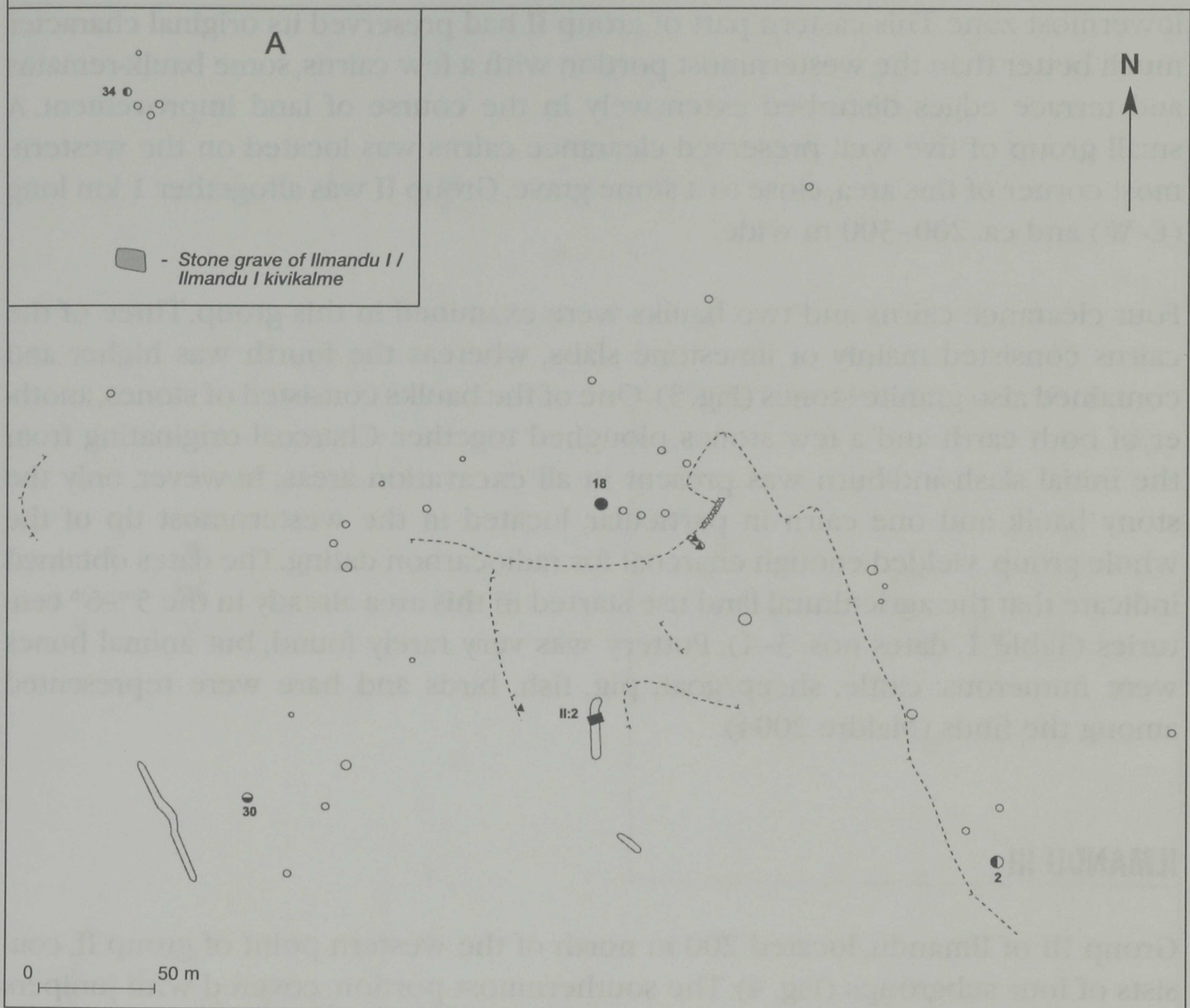


Fig. 3. Map of fossil field remains in group II of Ilmandu.

Joon 3. Ilmandu II põllujäänuste rühma plaan.

found there; it certainly indicates some earlier cultivation at this location, as shown by the long parallel plough-marks discovered beneath the baulk. Animal bones found from these baulks are few in number and belong to cattle, sheep/goat, pig and hen (?) (Maldre 2004).

## ILMANDU II

The field remains of group II were located ca. 70–100 m north and northwest of group I of Ilmandu, on the opposite side of a low and wet area unsuitable for cultivation (Fig. 3). 31 clearance cairns and some small sections of baulks were observed in the eastern portion of this group, expanding as an arc around this



lowermost zone. This eastern part of group II had preserved its original character much better than the westernmost portion with a few cairns, some baulk-remains and terrace edges disturbed extensively in the course of land improvement. A small group of five well preserved clearance cairns was located on the westernmost corner of this area, close to a stone grave. Group II was altogether 1 km long (E-W) and ca. 200–300 m wide.

Four clearance cairns and two baulks were examined in this group. Three of the cairns consisted mainly of limestone slabs, whereas the fourth was higher and contained also granite stones (Fig. 5). One of the baulks consisted of stones, another of both earth and a few stones ploughed together. Charcoal originating from the initial slash-and-burn was present in all excavation areas; however, only the stony baulk and one cairn in particular, located in the westernmost tip of the whole group, yielded enough charcoal for radiocarbon dating. The dates obtained indicate that the agricultural land use started in this area already in the 5<sup>th</sup>–6<sup>th</sup> centuries (Table 1, dates nos. 3–4). Pottery was very rarely found, but animal bones were numerous: cattle, sheep/goat, pig, fish, birds and hare were represented among the finds (Maldre 2004).

### ILMANDU III

Group III of Ilmandu, located 200 m north of the western point of group II, consists of four subgroups (Fig. 4). The southernmost portion, covered with junipers and measuring 170 x 120 m, has preserved its ancient nature the best: there are both stony baulks surrounding field plots of rather irregular shape and 30 clearance cairns in this area. Eight cairns of larger size (8 m in diameter) have been encountered here as stone-cist graves; nevertheless, they were probably still formed in the course of cultivation. This subgroup was not investigated archaeologically, as it remains outside the zone of the new buildings.

Some 50 m north of this well-preserved area there were 13 clearance cairns sparsely located over a couple of hectares. Four cairns of this second subgroup were excavated in 2002; they were typical for the cairns of Ilmandu (Fig. 6). All excavations yielded enough charcoal for radiocarbon dating (Table 1, dates nos. 5–9). One may conclude that agricultural land use had been continuous in this particular area from the 4<sup>th</sup>–6<sup>th</sup> up to the 11<sup>th</sup>–12<sup>th</sup> centuries. Date no. 8 (Table 1) comes from the uppermost layer of a cairn and indicates a rather late activity. Osteological material from these cairns is similar to that found from the others,



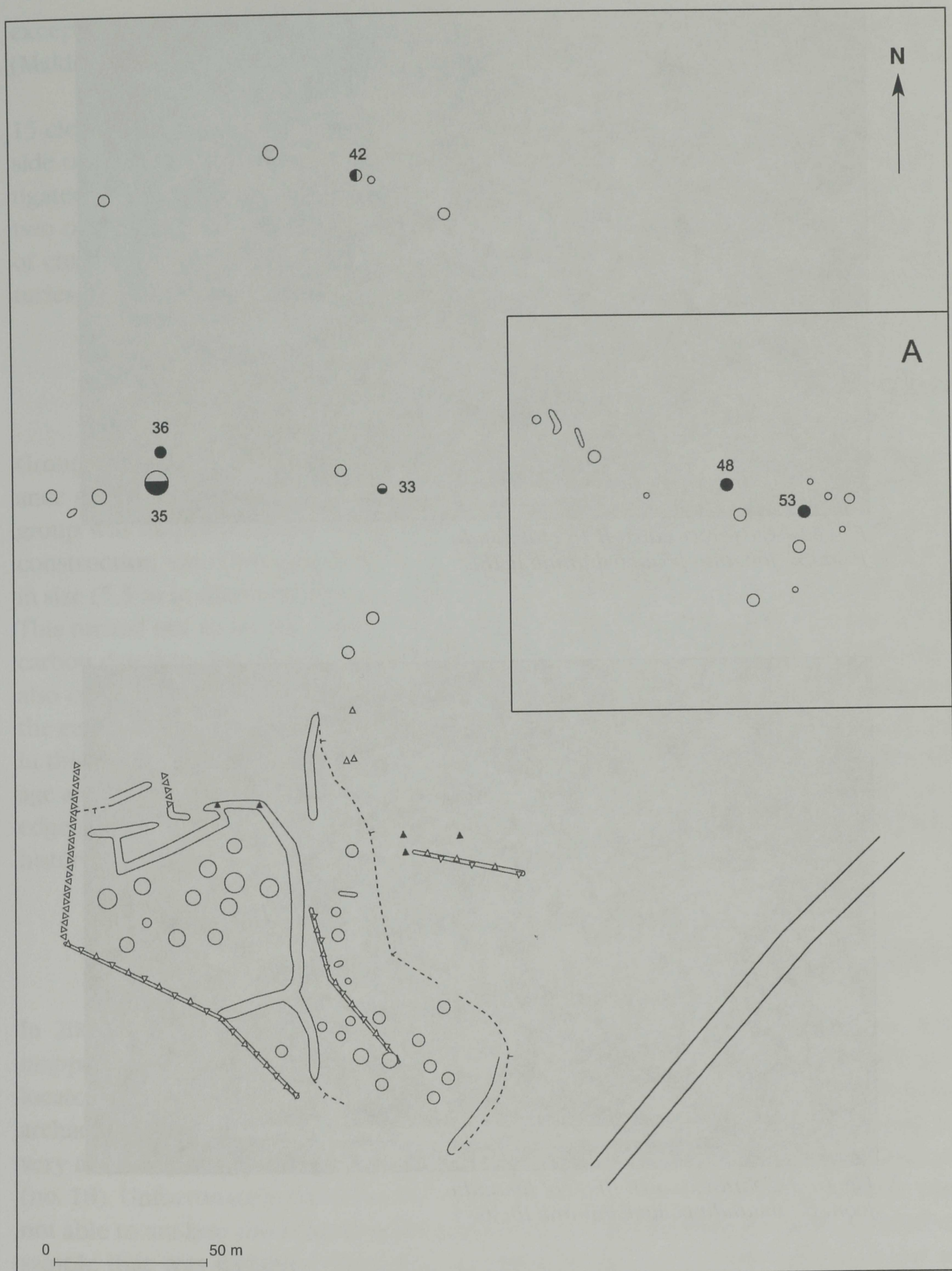


Fig. 4. Map of fossil field remains in group III of Ilmandu.  
Joon. 4. Ilmandu III põllujäänuste rühma plaan.





Fig. 5. Clearance cairn II:18 of Ilmandu.  
Joon. 5. Ilmandu põllukivihunnik II:18.



Fig. 6. Clearance cairn III:36 of Ilmandu.  
Joon. 6. Ilmandu põllukivihunnik III:36.



except for the bird and hen bones occurring here in rather large numbers (Maldre 2004).

15 clearance cairns are preserved ca. 350 m north of the latter area, on the other side of a low and wet area without traces of cultivation. This area was not investigated. 350 m east of the second subgroup is the fourth subgroup with 14 cairns, two of which were excavated. One of these cairns was extremely rich in pieces of charcoal and, as revealed by two samples, it was created in the 11<sup>th</sup>–12<sup>th</sup> centuries, as was the other cairn excavated in this group (Table 1, dates nos. 10–12).

## ILMANDU IV

Group IV of Ilmandu is located ca. 200 m south of group I and consists of clearance cairns, turf-covered baulks and stone walls. Only one small portion of this group was mapped and investigated in 2003, as its major part stayed outside the construction site. Two cairns were excavated here, one of which was rather big in size (5.5 m in diameter) and contained both limestone slabs and granite stones. This turned out to be the oldest cairn excavated so far at Ilmandu – it was radiocarbon dated to the 4<sup>th</sup>–3<sup>rd</sup> centuries BC (Table 1, date no. 13). This early date was also confirmed by the finding a potsherd of the so-called Ilmandu type, dated to the early Pre-Roman Iron Age (Lang 1995, Fig. 3). The excavation of the other cairn in this group yielded surprisingly ca. 200 dog bones (an adult, one of 4–6 month age and 4–5 newborn puppies; Maldre 2004). The bones were found beneath the edge stones of the cairn; the dogs were possibly buried there already in the prehistoric times.

## MURASTE I

In 2002, the northeastern-most area (ca. 4 ha) with 12 clearance cairns was mapped in group I of Muraste (Fig. 7). The cairns were scattered over the area and located without any order. Four low and turf-covered cairns were also excavated archaeologically; they consisted of limestone slabs. Charcoal occurred only in very few and small pieces, except for one cairn located separate from the others (no. 18). Unfortunately, the Laboratory of Geology of the University of Tartu was not able to analyse the sample taken from beneath the lowermost stones. Another sample that was gathered from the uppermost layers was radiocarbon dated to the Middle Ages (464±75 BP, i.e. AD 1330–1615; Tln-2759). Judging by the appearance and character of the Muraste cairns, they are most likely prehistoric forma-



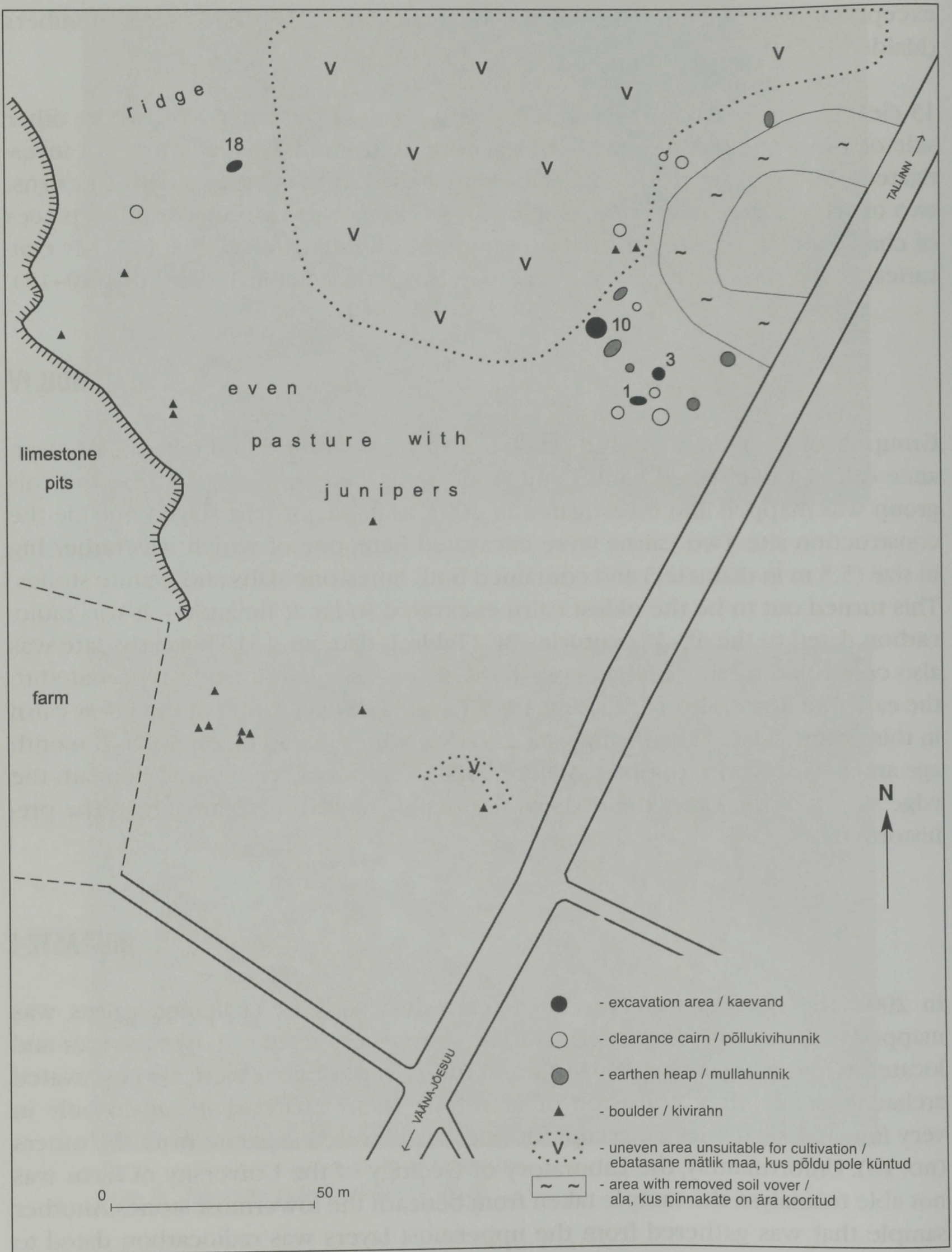


Fig. 7. Fossil field remains in group I of Muraste.  
Joon. 7. Põllujäänused Muraste I rühmas.



tions. This supposition is also confirmed by two small sherds of hand-moulded pots found in one of the cairns.

CONCLUSIONS

In the grounds of the villages Ilmandu and Muraste, there is the largest area covered with remains of fossil fields that has been mapped so far in Estonia. Different field systems are represented here: the clearance cairn fields were most numerous, but some block-shaped fields (both more and less regularly formed) and a few strip-fields occurred as well. As revealed by 13 radiocarbon dates and some other finds, the cultivation of these lands already started in the early Pre-Roman Iron Age and continued up to the Middle Ages and even Modern times. The agricultural land use was concentrated in different places at different times; however, nowadays the whole area is being urbanised and covered with modern dwellings.

Table 1. Radiocarbon dates from fossil fields of Ilmandu.  
Tabel 1. Ilmandu fossiilsete põldude söeproovide analüüsitulemused.

No	Site	Lab. no.	C <sup>14</sup> date	Calibrated date (1 sigma)	Calibrated date (2 sigma)
1	I: 1 baulk (1994)	Tln-1880	245±127	1450-1950	1480-1950
2	I: 5 baulk	Tln-2760	977±56	1001-1157	979-1211
3	II: 2 baulk	Tln-2761	1532±70	435-599	405-653
4	II: 34 clearance cairn	Tln-2802	1258±60	680-860	650-900
5	III: 36 clearance cairn	LE-6352	1600±70	380-550	260-620
6	III: 42 clearance cairn	Tln-2739	910±57	1037-1187	1019-1241
7	III: 33 clearance cairn	Tln-2737	1213±57	721-889	685-963
8	III: 42 clearance cairn	Tln-2738	205±52	1645-1949	1527-1951
9	III: 35 clearance cairn	TA-2807	1350±50	640-770	600-780
10	III: 48 clearance cairn	Tln-2763	931±55	1033-1159	1003-1217
11	III: 53 clearance cairn	Tln-2764	990±60	993-1157	899-1207
12	III: 53 clearance cairn	Tln-2765	978±60	999-1157	903-1211
13	IV: 3 clearance cairn	Tln-2762	2253±77	395-205 BC	513-57 BC



## References

- Lang, V. 1995.** A Pre-Roman *tarand*-grave and late Medieval fossil fields of Ilmandu, NW Estonia. – TATÜ, 4: 4, 429–436.
- Lang, V. 2002.** Aruanne arheoloogilistest väliuurimistest Muraste I fossiilsete põldude jäänustel 5.–9. augustil 2002. (Manuscript in AI.)
- Lang, V., Kaldre, H., Konsa, M., Laneman, M. & Vaab, H. 2004.** Aruanne arheoloogilistest välitöödest Ilmandu fossiilsetel põldudel (17468–17471) 2002–2003. (Manuscript in AI.)
- Maldre, L. 2004.** Aruanne Ilmandu fossiilsetelt põldudelt 2002.–2003. a. kogutud loomaluudest. (Manuscript in AI.)

## ILMANDU JA MURASTE FOSSIILSED PÖLLUD PÕHJA-EESTIS

*Valter LANG, Helena KALDRE, Marge KONSA, Margot LANEMAN ja Helen VAAB*

1994. aastal avastati Harjumaal Ilmandu ja Muraste küla maadel hulk madalaid ja kamardunud põllukivihunnikuid ning põllupeenraid ja künniterrasse, mis paiknesid mitmes väiksemas rühmas (Ilmandu I–IV, Muraste I–II). Esimesed plaanistamised ja väljakaevamised toimusid Ilmandu I kompleksil 1994–1995, järgmised välitööd tehti 2002. aastal Muraste I ja Ilmandu III rühmas, kusjuures 2003. aastal plaanistati peaaegu kogu kõnealune ala (u. 1 km<sup>2</sup>) tervikuna (joon. 1) ning viidi läbi arheoloogilised päästekaevamised.

Ilmandu ja Muraste ümbruse maastik kujutab endast suhteliselt ebatasase ja rikutud pealispinnaga loopealset söötis karjamaad. Seda maa-ala on juba 1950.–1960. aastatel maaparandusega tugevasti muudetud. Siit-sealt on kooritud pinnast, likvideeritud on nii põllupeenraid, kivihunnikuid kui ka üksikuid rahne, mõnda kohta on moodustatud uusi mulla- ja rämpsuhunnikuid. See, mis praeguseni säilinud, moodustab vaid väikese osa siin kunagi olnud põllujäänustest.

Ilmandu I kompleks plaanistati esmakordselt 1994 (kokku 11 ha), kuid nüüd plaanistati see uuesti koos kõigi ülejäänud põldudega (joon. 2). Kompleks koosneb kahest osast: kagu- ja keskosas paiknevad kamberpõllud ning loodeosas ribapõllud. Erinevatel aegadel on I kompleksis avatud viis kaevandit (1–1,5 m laiused tranšeed läbi peenarde). Siinsed peenrad on üsna laiad ja koosnevad valdavalt kokku küntud mullast; kive esineb nendes üksnes keskjoonel ja sedagi hõredalt. Kuna seniste kaevandite leiumaterjal on üsna ühesugune (suhteliselt rohkesti glasuuritud keraamikat), siis kuuluvad eri tüüpi põllud siin tõenäoliselt ühte ajastusse, s.o 16.–18. sajandisse (tabel 1, proov 1). Üks varasem dateering (tabel 1, proov 2) osutab ilmselt peenra-eelsele põlluharimisele, millest olid jäänud järele ka adrajäljed.

II kompleksi kadakatega kaetud idaosas registreeriti 30 põllukivihunnikut ja paar peenrajuppi, kaugemal lääne pool leidis ka üksikuid peenraid ning terrassiservi; päris läänepoolses tipus, Ilmandu I kivikalme läheduses, leidis veel viis tugevasti kamardunud põllukivihunnikut (joon. 3). Siin kaevati ühtekokku nelja põllukivihunnikut ning tehti tranšeed kahte peenrasse. Kolm kuhilat koosnesid valdavalt paekividest, neljas oli aga suurem ning sisaldas rohkesti raudkive (joon. 5); üks



peenardest oli kokku visatud kividest, teine aga moodustatud kokkuküntud mullast, kus kive esines vähem. Radiosüsiniku dateeringute alusel on II kompleks rajatud juba 5.–6. sajandil (tabel 1, proovid 3–4).

III kompleks koosneb neljast alarühmast, millest paremini on säilitanud oma muistse ilme lõunapoolne rühm, kus u. 170 x 120 m suurusel kadakasel lapil on tugevasti kamardunud põllupeenrad ümbritsemas üsna ebakorrapärase kujuga põllulappe (joon. 4). Lisaks peenardele on siin tihedalt koos 30 põllukivihunnikut. Kuna see ala jäi ehitustsoonist esialgu välja, siis siin väljakaevamisi ei tehtud. 50 m põhja pool on paarihektarilisel alal säilinud 13 põllukivihunnikut, millest 2002. aastal kaevati läbi neli (joon. 6). Siit kogutud söeproovide analüüs näitas, et põlluharimine sai alguse juba 4.–6. sajandil ning kestis järjepidevalt 11.–12. sajandini (tabel 1, proovid 5–9). 350 m ida pool oli veel 14 põllukivihunnikut tihedalt koos. Siin kaevati läbi kaks paekividest kokku visatud kuhilat, millest üks sisaldas hästi palju sütt. Mõlemad kuhilad dateeriti 11.–12. sajandisse (tabel 1, proovid 10–12).

IV põllukompleks koosnes põllukivihunnikutest, kamardunud peenardest ning vanadest kiviaedadest. 2003. aastal plaanistati sellest kompleksist vaid see osa, mida ehitusfirmad soovisid saada vabaks muinsuskaitse alt. Ühtlasi kaevati läbi pool ühest küllalt suurest põllukivihunnikust ning tranšee ühest teisest kuhilast. Esimesest kaevandist leiti väike potikild, mis esindab varase eelrooma rauaaja nn. Ilmandu tüüpi keraamikat; siit saadi ka samale ajale osutav radiosüsiniku dateering (tabel 1, proov 13). Teise kuhila ääre kivide alt saadi aga suur kogum koeraluid.

Muraste I põllukompleksi kirdepoolses osas plaanistati 2002. aastal 4 ha suurune ala koos 12 põllukivihunnikuga (joon. 7). Mingit kindlamat korrapära põllukivihunnikute paigutuses ei avastatud. Arheoloogiliselt uuriti 4 põllukivihunnikut, mis olid kokku visatud paekividest, suhteliselt madalad ja täielikult kamardunud. Kamardumisastme järgi otsustades peaks tegu olema suhteliselt vanade moodustistega, mille vanus ulatub kindlasti muinasaega. Sütt esines kuhilate all väga vähe, v.a. kuhil nr. 18, mis paiknes teistest eraldi. Selle ülemiste ja äärmiste kivide alt saadud söeproov dateeriti keskajaga. Leitud kaks savinõukildu pärinevad rauaaja käsitsi valmistatud nõudest, kuid on nii väikesed, et ei võimalda täpsemat dateerimist.

## KOKKUVÕTE

Ilmandu ja Muraste küla maadel on plaanistatud seni kõige suurem fossiilsete põldude jäänustega kaetud ala Eestis. Siin on esindatud eri tüüpi põllusüsteemid: kõige levinumad on olnud lihtsad põllukivihunnikute väljad, mõnevõrra vähem leidub kamberpõlde (nii algelisi ebakorrapäraseid kui ka hiliseid korrapäraseid) ning ainult ühes kohas võis kohata ribapõlde. Radiosüsiniku proovide põhjal võib maaharimise alguse dateerida varasesse eelrooma rauaajaga ning see kestis siin kuni uusajani, kuid eri aegadel on selleks kasutatud ilmselt erinevaid kohti. Praegu on käimas selle arhailise agraarmaastiku totaalne ümberkujundamine madaltiheda hoonestusega uuselamurajooniks.