

ARCHAEOLOGICAL STUDIES ON THE KÕPU PENINSULA

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During the landscape survey carried out on the Kõpu Peninsula in Hiiumaa in 1994, several new Stone Age sites were found in the coastal formations of the Litorina Sea and the Ancylus Lake. The artefacts found there suggested that some of the sites might be even earlier than the first examined Early Neolithic Site (Kõpu I), belonging probably to the Late Mesolithic period (Kriiska, 1995a). This hypothesis gave reason for a new archaeological expedition.

In 1995 excavations were carried out in two settlement sites: Kõpu IV and VIII. Also the landscape survey on ancient coastal formations was continued (Kriiska, 1995b). The work was financed by PACT, the Estonian Science Foundation (grant to Lembi Lõugas), and the newspaper *Maaleht*.

KÕPU IV SITE

The Kõpu IV site is situated 650 m north-east from site I at the Kiduspe–Kõpu Road, a score of metres from the road leading to the village of Ülendi (Fig. 1). This site has quite an extraordinary position. Namely, the cultural layer lies on a rather steep ancient coastal formation 28–32 m a.s.l. (Fig. 2; Plate I, 1). The lower part of the site was excavated. Subfossil molluscs gathered in the immediate vicinity of the site represent typical fauna of the Ancylus Lake (Tavast, 1995, p. 12).

The excavations were simultaneously of conservational purpose as the cultural layer had been damaged due to quarrying sand. This purpose determined also the form and size of the excavation area (Figs. 2, 3). The total area under investigation was 31 m². The whole surface was hand-screened.

In 1994 the complex of stones and the coal surface were investigated in the centre of the ruined area. The findings indicated that there had been a fire pit. It turned out to be surprisingly well preserved and big (maximum size *c.* 5 × 5 m), embracing the whole central part of the excavation area (Fig. 3; Plate I, 1). The fire pit had been deepened unevenly into the ground. It was up to 0.5 m deep and consisted of eight stone layers. There was dark coaly soil and much decomposed stone rubble between the stones. The stones in the fire pit were mainly 10–15 cm in diameter, the biggest ones 30 cm (Fig. 3; Plate I, 2). Coaly spots could be seen also outside the fire pit. At least two of them could have formed separate fire pits.

The artefacts were situated inside and outside the fire pit, more often on its edges (Fig. 3). In the excavation area, the layer comprising the finds was 30–35 cm deep. Outside the fire pit the artefacts were located in a rather dirty sandy surface. The excavation profile shows that such a dirty sandy surface with some coaly places comprising finds can be as thick as 1–1.2 m. It is possible that the top part has been flushed down from the bank.

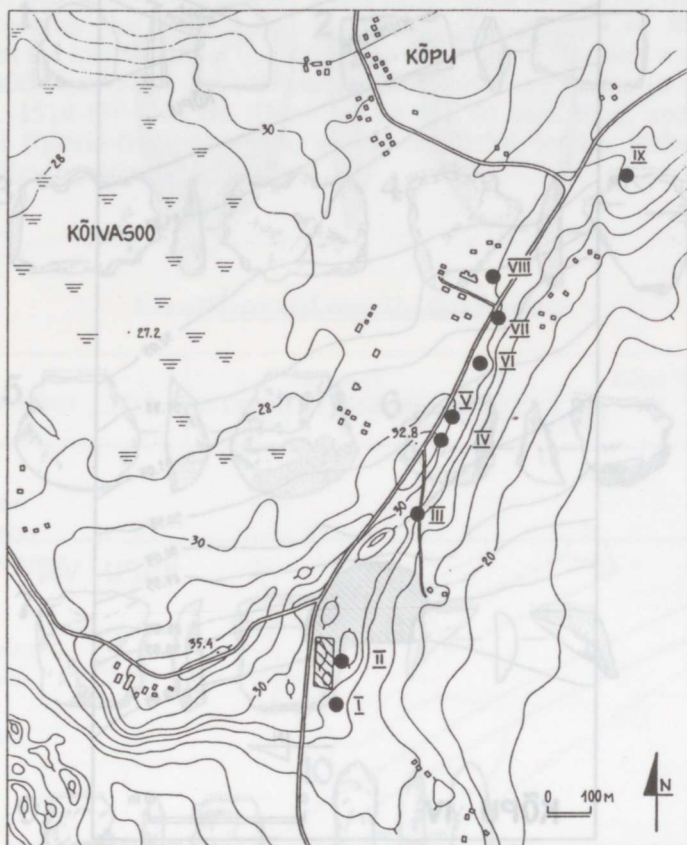


Fig. 1. Location plan of Stone Age sites on the Kõpu Peninsula.

Fig. 4. Kõpu IV. Quartz scrapers (1–8), a knife (9), and a blade (10) (AI 6054: 97, 10, 224, 145, 106).

During the excavation in 1995 and the investigation in 1994, 546 artefacts were disinterred¹, 313 of them (57.3%) were of flintstone and 219 (40.1%) of quartz (including some of quartzite), 7 (1.3%) of sandstone, and 7 of other rocks (biotite gneiss, leptite, granite fegmatite, quartz-feldspar-gneiss) (Tables 1, 2).² Flakes make up the majority of the flintstone finds. Only seven blades were found and artefacts showing secondary processing were totally missing among the flintstone finds.

Flakes without secondary processing (94.5%), a blade-like flake included, predominate among the quartz finds. There are only two quartz blades (0.9% of all quartz artefacts) (Fig. 4, 10) and in one case it is probably a core. As to the artefacts of secondary processing, mainly scrapers (Fig. 4, 1–8) and a knife (Fig. 4, 9) were found. Burins are entirely missing. There are seven side scrapers and one end scraper among the eight scrapers found there (3.7% of the quartz finds). They have been made of a blade-like flake (5) or a flake (3). In shape they are triangular (2), irregular (2), segmental (1), trapezoidal (1), rectangular (1), or square (1). One scraper has two edges. Edges are mainly narrow (6), convex and less than 2 cm wide (4), straight (3), concave (1), or even wavy (1).

¹ Find material from the archaeological excavation AI 6054:1–287; artefacts from the investigation AI 6021:160.

² Rocks determined by Tiia Rodi.

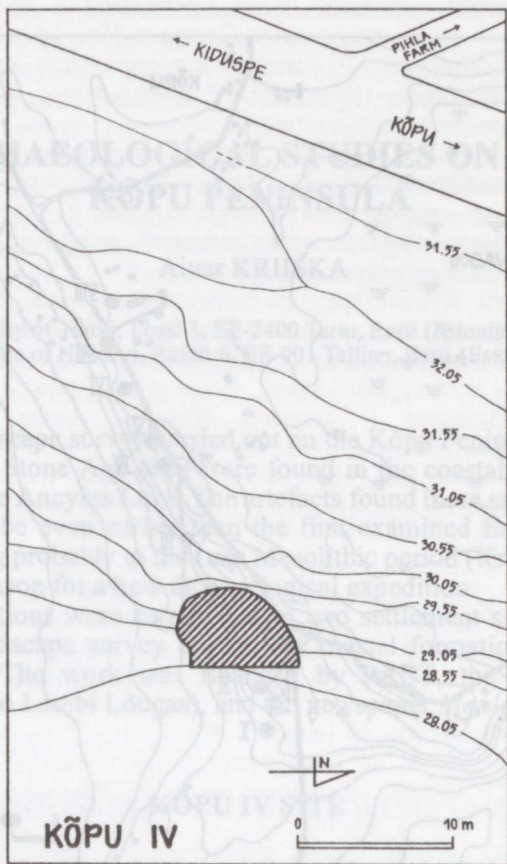


Fig. 2. The plan of the Kõpu IV site.

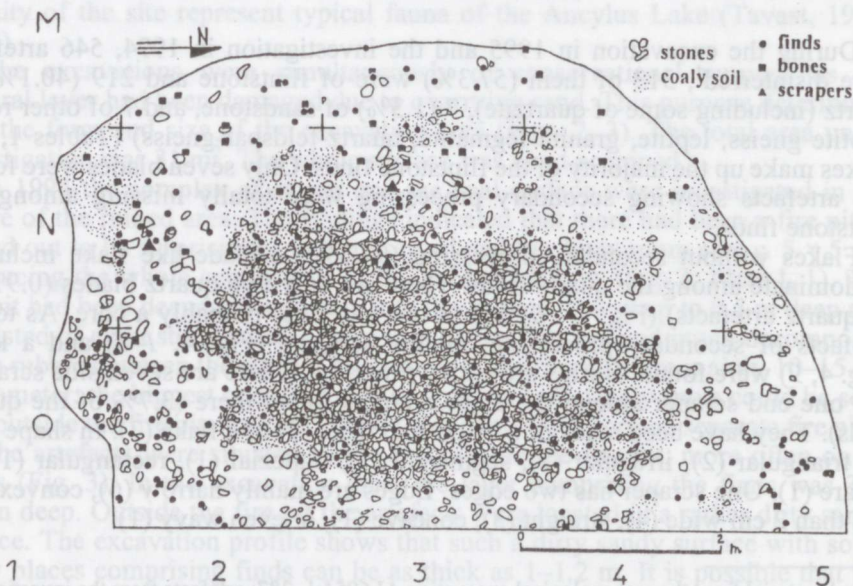


Fig. 3. Kõpu IV. The plan of the excavation area.

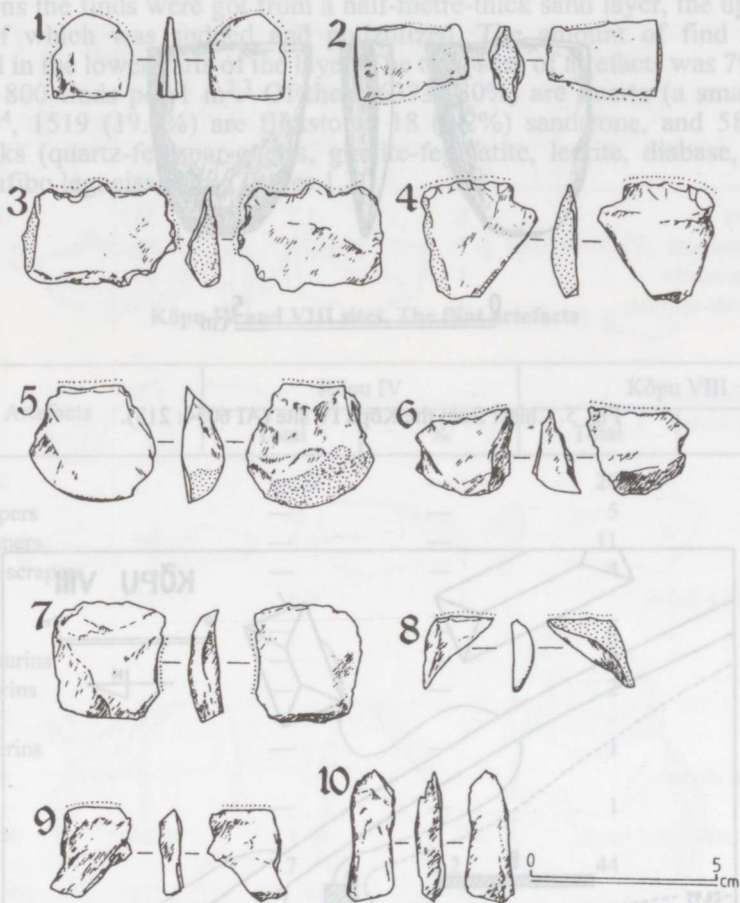


Fig. 4. Kōpu IV. Quartz scrapers (1–8), a knife (9), and a blade (10) (AI 6054: 97, 10, 254, 145, 106, 252, 208, 176, 10, 275).

Only one polished stone artefact was found – part of the edge of a quartz-feldspar-gneiss chisel of quite an extraordinary shape (Fig. 5). Seven polish stones or their fragments were found.

The charcoal found at the fire pit was radiocarbon dated to 6757 ± 51 BP (Tln-2016), which corresponds with 95% of probability to 5683–5573 BC (cal.). Another charcoal test from the fire pit ^{14}C dates to 6640 ± 60 (TA-2533), corresponding to 5592–5444 BC (cal.). The coal gathered in the whole excavation area and round the fire pit gave a younger date. However, this may be caused by coal pieces originating from burnings after the cultural layer was formed in the test.

KŌPU VIII SITE

The site is situated 400 m north-east from site IV near the schoolhouse of Kōpu (Fig. 1). The cultural layer is on the coastal formation that is 28–29 m a.s.l. (Fig. 6). A small test excavation of 3 m² had been started already in 1994, in the

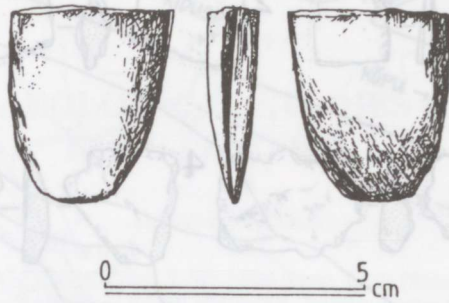


Fig. 5. Chisel from the Kōpu IV site (AI 6054: 213).

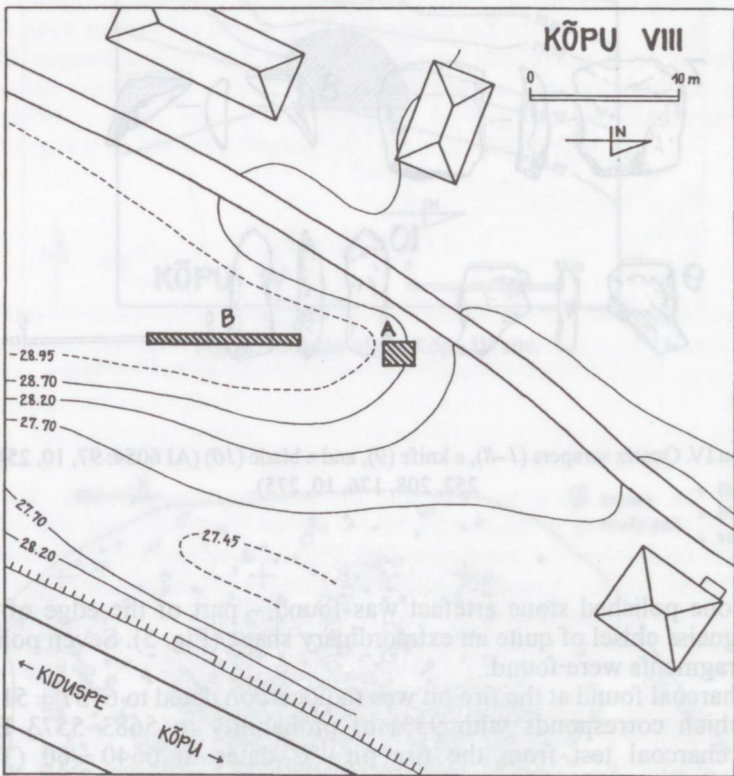


Fig. 6. The plan of the Kōpu VIII site.

summer of 1995 it was finished and in addition a trench of 7 m² was excavated. The whole surface was hand-screened.

No constructions were found in site VIII although test holes were made to look for their existence. However, the area was very rich in finds. In both test

excavations the finds were got from a half-metre-thick sand layer, the upper 20–30 cm of which was sodded and podzolized. The amount of find material decreased in the lower parts of the layer. The total sum of artefacts was 7968, that is nearly 800 finds per 1 m².³ Of these 6373 (80%) are quartz (a smaller part quartzite)⁴, 1519 (19.1%) are flintstone, 18 (0.2%) sandstone, and 58 (0.7%) other rocks (quartz-feldspar-gneiss, granite-fegmatite, leptite, diabase, granite, gabbro, amfibio legneiss, etc.) (Tables 1, 2).

Kõpu IV and VIII sites. The flint artefacts

Table 1

Artefacts	Kõpu IV		Kõpu VIII	
	Total	%	Total	%
Scrapers	—	—	20	1.3
end scrapers	—	—	5	
side scrapers	—	—	11	
end-side scrapers	—	—	4	
Burins	—	—	6	0.4
middle burins	—	—	4	
angle burins	—	—	2	
Scraper-burins	—	—	1	0.07
Knives	—	—	1	0.07
Blades	7	2.2	44	2.9
Blade-like flakes	10	3.2	71	4.7
Cores	—	—	1	0.07
Flakes and flint lumps	296	94.6	1385	91.2
Total	313	100	1519	100

— not found.

The main part of the finds consists of quartz- and flintstone flakes without secondary processing (Fig. 7, 10) and fen lumps. Also 69 quartz (1.1% of all quartz finds) and 44 flintstone blades (2.9% of flint) were found (Fig. 7, 4, 5, 7–9). The length of quartz blades is 0.9–4.8 cm, 59.4% of them are less than 2.5 cm long. The width is 0.4–2.4 cm; 60.9% being up to 1.1 cm wide. One ridge occurs in case of 45 blades, 21 blades are without ridges, and 3 have two ridges. Flintstone blades are 0.8–4.7 cm long, with 65.9% shorter than 2 cm. The width is 0.4–2.0 cm, a quarter being 0.5 cm wide. Thirty-three of the blades have one ridge, five have two-ridges, and six are without ridges. Blade-like flakes number 143, 72 of them are of quartz (1.1% of quartz) and 71 of flintstone (4.7% of flint).

³ AI 6021:1–157, 164–857.

⁴ In the artefact analysis the percentages of quartz and quartzite are presented together.

Kōpu IV and VIII sites. Quartz and quartzite artefacts

Artefacts	Kōpu IV		Kōpu VIII	
	Total	%	Total	%
Scrapers	8	3.7	35	0.5
end scrapers	7		15	
side scrapers	1		16	
end-side scrapers	—		4	
Burins	—	—	17	0.3
middle burins	—	—	5	
angle burins	—	—	12	
Knives	1	0.5	3	0.05
Blades	2	0.9	69	1.1
Blade-like flakes	1	0.5	72	1.1
Cores	—	—	5	0.08
Points	—	—	6	0.09
Striking stones	—	—	1	0.02
Flakes and quartz lumps	207	94.5	6164	96.7
Total	219	100	6373	100

A total of six cores were obtained, four from quartz (Fig. 8, 2), one from quartzite (0.08% of quartz), and one from flintstone (0.07% of flintstone).

The number of small tools of secondary processing was 83 (1.0% of all the finds). Most of them were scrapers, altogether 55 (66.3% of the small artefacts of secondary processing). Thirty-two scrapers are made of quartz, three of quartzite (0.5% of the quartz finds), and twenty of flintstone (1.3% of flintstone). Side scrapers number 26 (15 of quartz and 11 of flint) (Fig. 7, 3; Fig. 8, 5, 6), 21 (14 of quartz, 2 of quartzite, and 5 of flint) are end scrapers (Fig. 7, 1, 2; Fig. 8, 1), and 8 (3 of quartz, 1 of quartzite, and 4 of flint) are end-side scrapers. They are made of flake (27 of quartz, 3 of quartzite, and 13 of flint), blade-like flake (5 of quartz and 5 of flint), or blade (2 of flint). Scrapers are of trapezoidal shape (11 of quartz, 1 of quartzite, 7 of flint), triangular (3 of quartz, 1 of quartzite, 11 of flint), oval (6 of quartz, 1 of flint), five-cornered (among them are 5 quartz scrapers of regular form, while 2 of quartz and 1 of quartzite are irregular), rectangular (2 of quartz) and square (1 of quartz), or of irregular form (2 of quartz, 1 of flint). Scrapers are mainly with a narrow edge. Five flintstone scrapers have two edges and one has even four edges. Seven quartz and quartzite scrapers have two edges. For the most part (7) the scrapers with several edges have one edge at the end, two edges at the side; 2 flintstone and 2 quartz scrapers have two side edges (one flintstone scraper has two edges even on one side) and one quartz scraper has two end edges. The edges of 17 quartz, 3 quartzite, and 7 flintstone scrapers are convex; 15 quartz and 6 flintstone scrapers have straight edges; 4 quartz,

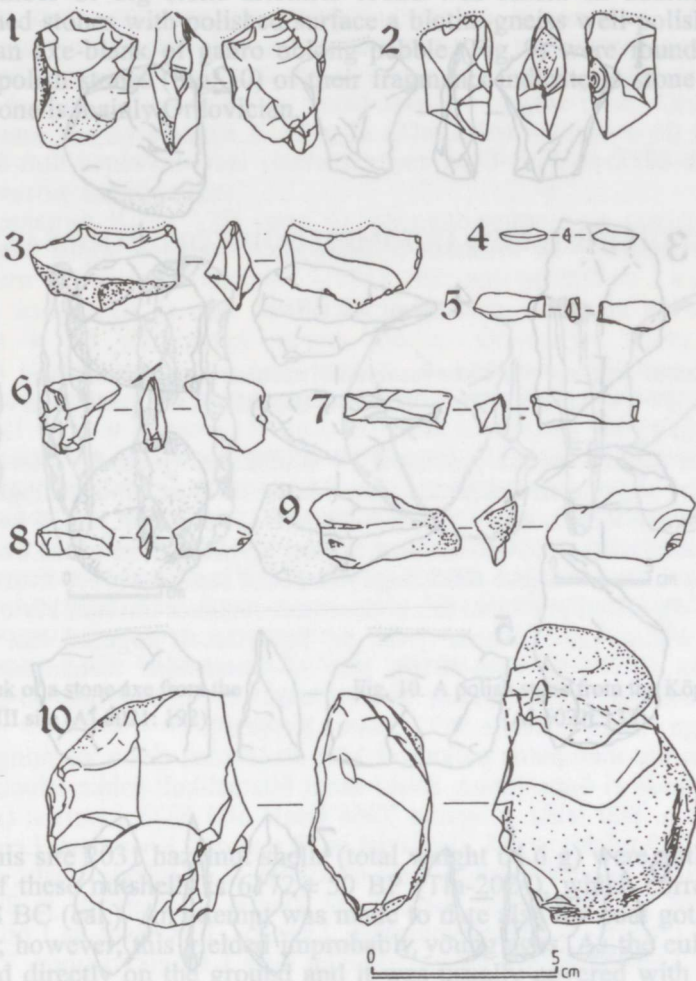


Fig. 7. Flintstone scrapers (1-3), chips (4, 5, 7-9), a burin (6), and a flake (10) from the Kōpu VIII site (AI 6054: 141, 114, 109, 150, 49, 98, 74, 126, 148, 109).

1 quartzite and 5 flintstone scrapers have concave edges; and 2 quartz and 10 flintstone scrapers have wavy edges. Flintstone scrapers do not measure more than 3.5 cm, but one of them is even a microscraper. Quartz and quartzite scrapers are usually bigger, their length is between 2.5 and 4.5 cm.

Burins found numbered 23 (27.7% of the smaller artefacts), 17 of them are of quartz (0.3% of the quartz finds) and 6 of flint (0.4% of the flint finds). Corner edges occur in case of 12 quartz and flintstone burins (Fig. 7, 6; Fig. 8, 3) and 5 quartz and flintstone burins have an edge in the middle (Fig. 8, 6). Burins are made of flake (14 of quartz and 5 of flint), blade-like flake (2 of quartz and 1 of flint), and blade (1 of quartz). They are triangular (8 quartz and 5 flint burins), trapezoidal (6 quartz), oval (1 quartz and 1 flint), rectangular (1 quartz), and irregular (1 quartz) in shape. Quartz burins are 1.5-5.1 cm long, mostly 2.5-3.5 cm. Flintstone burins are 2.0-3.9 cm long.

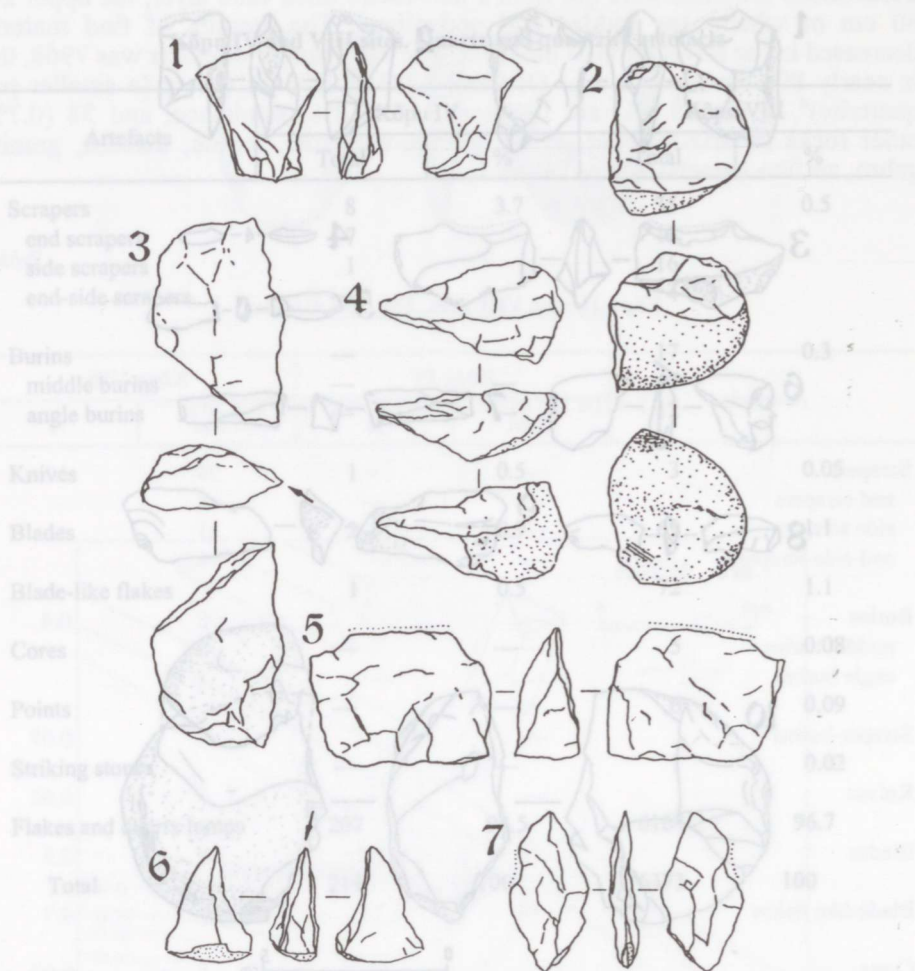


Fig. 8. Quartz scrapers (1, 5, 7), cores (2), burins (3, 6), and a point (4) from the Kōpu VIII site (AI 6021: 36, 59, 46, 33, 29, 108, 96).

Four artefacts classified as knives were found (4.8% of the smaller finds), two of them are of quartz, one is of quartzite (0.05% of the quartz finds), and one of flintstone (0.07% of the flintstone finds). They have been made of blade-like flake except one that is a quartz knife made of flake. Their shape is trapezoidal, one quartzite knife is five-cornered. The edges are broad (more than 2.5 cm) and mainly slating. The edge of the flint knife is retouched.

Among polyfunctional tools one flint scraper-burin was disinterred. Both its parts have side edges, in the scraper part it is broad and convex.

Among functional tools (that is finds without special processing) six quartz points (0.1% of the quartz finds) could be distinguished (Fig. 8, 4). They all have been made of flake and they are triangular. Points are 2.6–7.0 cm long. One quartz striking stone was also found.

The number of big stone artefacts found was small. In addition to four undetermined stones with polished surface a biotite-gneiss well-polished wedge edge and an axe-blank of gabbro oblong pebble (Fig. 9) were found. Eighteen sandstone polish stones (Fig. 10) or their fragments indicate to stone polishing. The sandstone is mainly Ordovician.

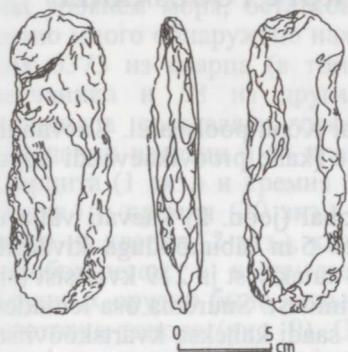


Fig. 9. Blank of a stone axe from the Kõpu VIII site (AI 6021: 192).

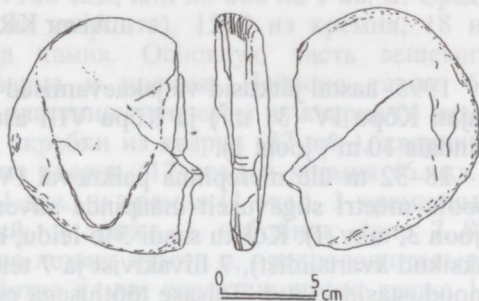


Fig. 10. A polish stone from the Kõpu VIII site (AI 6021: 133).

From this site 2031 hazelnut shells (total weight 64.6 g) were gathered. The ^{14}C date of these nutshells is 6172 ± 50 BP (TIn-2024), which corresponds to 5222–4958 BC (cal.). An attempt was made to date also the coal got at the site Kõpu VIII; however, this yielded improbably young ages. As the cultural layer was located directly on the ground and it was usually covered with a thin sod layer, it is possible marks of later fire making occurred there.

Find material and the datings suggest that the first inhabitants came to Kõpu Island already in the Late Mesolithic. Traces of settlement on the coastal formation of the Ancylus Lake date probably from the maximum water level of the Litorina Sea. The whole settlement has been closely connected with the sea: people followed the transgressing water. The results of the excavations made in 1995 refer also to seasonal settlement, probably the area was frequented by seal hunters (Kriiska, 1995a; Moora & Lõugas, 1995). The bulk of the scanty osteological material consists of bones of ringed seal.⁵

⁵ Preliminary determination by Lembi Lõugas.

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ARHEOLOOGILISED UURIMISTÖÖD KÕPU POOLSAAREL

Aivar KRIISKA

1995. aastal jätkusid väljakaevamised Hiiumaal Kõpu poolsaarel. Kaevandid rajati Kõpu IV (31 m²) ja Kõpu VIII asulakohale (kahe proovikaevandi kogupindala 10 m²; joon. 1).

28–32 m üle merepinna paikneval IV asulakohal (joon. 2) kaevati välja u. poole meetri sügavuselt maapinda süvendatud ca 5 m läbimõõduga kivikolle (joon 3, tahv. I). Kokku saadi 546 leidu, neist 313 tulekivist ja 219 kvartsist (sh. üksikud kvartsiidist), 7 liivakivist ja 7 teistest kivimitest. Suurema osa leidudest moodustasid killud. Teisase töötlusega esemetest saadi kaheksa kvartskõõvitsat (joon. 4, 1–8), täiesti puudusid tulekiviesemed. Ainsaks lihvitud kiviesemeks oli omapärase kujuga talva teraosa (joon. 5). Tuleasemelt kogutud süsi andis ¹⁴C-dateeringuks 6757 ± 51 (Tln-2016), mis 95-protsendise tõenäosusega vastab aastatele 5683–5573 e.Kr. (cal.), ja 6640 ± 60 (TA-2533), mis 95-protsendise tõenäosusega vastab aastatele 5592–5444 e.Kr. (cal.).

28–29 m üle merepinna paikneval VIII asulakohal (joon. 6) mingeid konstruksioone leida ei õnnestunud. Siiski saadi üllatuslikult rohke leiuaines – igalt ruutmeetritl u. 800 leidu. Kogutud 7968 leiust olid 6373 kvartsist (sh. vähene kvartsiit), 1519 tulekivist, 18 liivakivist ja 58 muudest kivimitest. Leidude põhi-osa olid kvartsi- ja tulekivikillud. Leiti 69 kvarts- ja 44 tulekivilaastu; 4 kvartsist, 1 kvartsiidist ja 1 tulekivist nukleus; 32 kvarts-, 3 kvartsiit- ja 20 tulekivikõõvitsat; 17 kvarts- ja 6 tulekiviuuritsat; 2 kvarts-, 1 kvartsiit- ja 1 tulekivinuga; 1 tulekivist kõõvitsuurits, 6 kvartsteravikku ning 1 löögikivi (joon. 7, 8). Suuri kiviesemeid leiti vähe. Mõne kivieseme fragmendi kõrval oli vaid üks talva teraosa ja arvatav kivikirve toorik (joon. 9). Kivilihvimisele osutavad ka 18 lihvimiskivi või nende fragmendi (joon. 10). Asulakohalt kogutud sarapuupähkli koortest tehtud ¹⁴C-dateering andis vanuseks 6172 ± 50 (Tln-2024), mis vastab aastatele 5222–4958 e.Kr. (cal.).

Mõlemad hilismesoliitilised asulakohad tekkisid oletatavasti hülgeküttide hooajaliste peatuspaikadena.

АРХЕОЛОГИЧЕСКИЕ ИССЛЕДОВАНИЯ НА ПОЛУОСТРОВЕ КЫПУ

Айвар КРИЙСКА

Летом 1995 г. были проведены раскопки на поселениях Кыпу IV (площадь раскопа 31 кв. м) и Кыпу VIII (общая площадь двух шурфов 10 кв. м) (рис. 1).

На поселении Кыпу IV (рис. 2), расположенном на высоте 28–32 м над уровнем моря, был обнаружен сооруженный из камней очаг размером около 5 м, углубленный на 0,5 м в материк (рис. 3; табл. I). Вещевой материал состоит из 546 находок, среди них 313 из кремня, 219 из кварца (в том

числе несколько из кварцита), 7 из песчаника и 7 из других пород камня. Основную часть находок составляют отщепы и осколки. Изделия со следами вторичной обработки представлены 8 кварцевыми скребками (рис. 4, 1–8). Орудия из кремня отсутствуют. Фрагмент лезвия долота своеобразной формы – единственное шлифованное орудие (рис. 5). ¹⁴C-анализ угля из очага дал датировки 6757 ± 51 (Tln-2016) и 6640 ± 60 (TA-2533), что с 95%-ной вероятностью соответствует 5683–5573 и 5592–5444 гг. до Р. Х. (с учетом калибровки).

На поселении Кыпу VIII (рис. 6), расположенном на высоте 28–29 м над уровнем моря, остатков сооружений выявить не удалось, но неожиданно много обнаружено находок – 7968 экз., или по 800 на 1 кв. м. Среди них 6373 из кварца (в том числе из кварцита), 1519 из кремня, 18 из песчаника и 58 из других пород камня. Основную часть вещевого материала составляют осколки кварца и кремня. Найдено также 69 кварцевых пластин и 44 кремневые пластины, нуклеусы из кварца (4 экз.), кварцита (1 экз.) и кремня (1 экз.), скребки из кварца (32 экз.), кварцита (3 экз.) и кремня (20 экз.), резцы из кварца (17 экз.) и кремня (6 экз.), ножи из кварца (2 экз.), кварцита (1 экз.) и кремня (1 экз.), 1 кремневый скребок-резец, 6 кварцевых острий, а также 1 отбойник (рис. 7, 8). Крупных орудий было меньше – одно лезвие долота и, предположительно, заготовка топора (рис. 9). Об обработке камня свидетельствуют также 18 шлифованных плит и их фрагментов (рис. 10). Отобранные для ¹⁴C-анализа образцы коры орешника датированы временем 6172 ± 50 (Tln-2024), что соответствует 5222–4958 гг. до Р. Х. (с учетом калибровки).

Оба позднемезолитических поселения являлись, вероятно, сезонными стоянками охотников на тюленя.



Fig. 6. Plan of the site of Kypu VIII. a – trench-mortar, b – shell-crenel, c – Neolithic finds, d – Late Corded Ware.