Postglacial pioneer settlement in the Sarvinki area, Eastern Finland

A red ochre grave in Rahakangas 1 site

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Introduction

In 2009-2010, small trenches were excavated at the Early Mesolithic site Rahakangas 1 in Joensuu, Eastern Finland. A red ochre grave with preserved tooth enamel was discovered at the site. The radiocarbon date of the charcoal from the filling of the grave is 2000-2500 years younger than the other dates (Table 1). Nevertheless, the grave can be considered to be the oldest one with preserved osteological material in Finland (Pesonen *et al. subm*.).

The red ochre grave

In a depth of 30-45 cm beneath the surface, an oval shape of red ochre, only 70 x 40 cm in size, was observed. The orientation of the feature was from South-West to North-East (Figs. 1-3). Small and fragile pieces of enamel and one intact incisor were discovered in the south-western part of the grave. The tooth broke into pieces when it was lifted (Fig. 4).

Judging from the location of the tooth fragments, the head of the deceased had been towards South-West, and this part of the grave was more intensively colored by red ochre. The bottom of the grave was flat and there were no traces of any larger pit around the red ochre area. A part of the head side of the grave was lifted as such for further excavation in a laboratory.

At least two more teeth, a premolar and a molar tooth, were exposed during a preliminary investigation in the laboratory. According to osteologist Kati Salo, the molar belongs to a child or a juvenile, judging by the minor wear on it (Fig. 5). Also the small size of the grave supports this interpretation. No grave goods were found in the grave.

The red ochre grave in Rahakangas 1 site is an exceptional discovery in Finland, since only six other Mesolithic grave sites have been discovered so far. (Fig. 6; Table 2). Finnish Mesolithic graves are single graves, except for the Jönsas site in Vantaa and Knaapi site in Lieto. Besides Rahakangas 1, organic material, i.e. pieces of enamel, has been reported only in Äkälänniemi site in Kajaani.

The dating of the grave

A piece of charcoal from the sand filling of the grave was radiocarbon dated to Late Mesolithic (Table 1), i.e., 2000-2500 years younger than the dates received from the burnt bone material in the settlement. Thus the coexistence of the grave with the Early Mesolithic occupation cannot be verified yet. However, further attempts to date the site use are on their way.

Fig. 1. The red ochre feature indicating the grave of a child or a juvenile at Rahakangas 1, eastern Finland. Photo: P. Pesonen.

Fig. 2. The red ochre grave of a child or a juvenile at Rahakangas 1, eastern Finland, in detail. Photo: P. Pesonen.

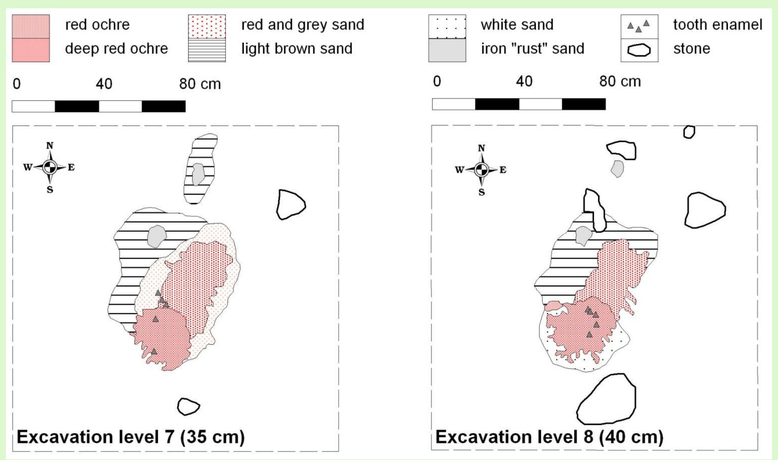

Fig. 3. Drawings of the grave in excavation levels 35 and 40 cm under surface.

Fig. 4. An incisor of a child or a juvenile at Rahakangas 1. Photo: E. Hertell.

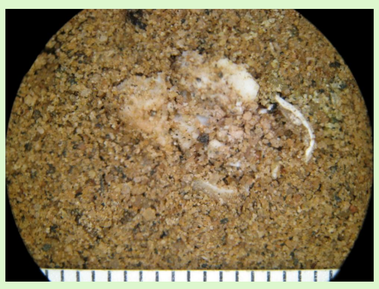

Fig. 5. A molar of a child or a juvenile at Rahakangas 1. Photo: P. Pesonen.

Burnt mammal bones from the settlement site:	Lab code	calibrated
9461+61BP	Hela-2380	9125-8575 cal BC
9405+80BP	Hela-882	9122-8458 cal BC
Charcoal from the grave:		
7726+58 BP	Hela-2379	6651-6459 cal BC

Table 1. Radiocarbon dates from the Mesolithic Rahakangas site 1 in Joensuu, Eastern Finland. Calibration with 95.4 % confidence level, OxCal v. 4.17 (Bronk Ramsey 2009), IntCal09 calibration curve (Reimer *et al*. 2009).

Site	Number of Mesolithic graves
Joensuu Rahakangas 1	1
Kuusamo Jokela	1
Kajaani Äkälänniemi	1
Kuortane Haavistonharju	1
Vantaa Jönsas	15
Vantaa Gröndal 2	1
Lieto Knaapi	3

Table 2. Mesolithic graves in Finland.

Discussion

Several Mesolithic single graves and cemeteries are known from Eastern Fennoscandia, Eastern Baltic and North-West Russia (Fig. 6). Variations occur in several aspects, e.g. in 1) the number of burials, 2) the number of inhumations in one grave, 3) the location at or outside the settlement site, 4) the orientation towards a compass point, and 5) the age and sex of the individuals buried. However, the practice of inhumation and the use of red ochre are more or less common to all. These customs also link Rahakangas 1 with the burial practices in a wider area. According to current knowledge, the grave in Rahakangas 1 site is a single grave. Single graves have been interpreted as signs of a rather mobile community, who buried their dead during seasonal migrations or pioneer expeditions. These graves usually represent individuals of different age and both sexes (e.g. Sulgostowska 2006).

Fig. 6. Some burial grounds with Mesolithic graves in Northern Europe.

Many of the hunter-gatherer cemeteries have been used for a long time. The famous Zveinieki cemetery in North Latvia has been used over four millennia, since Early Mesolithic (Zagorska 2006). To give another example, the burial ground of Popovo in Russia was used by the Early Mesolithic settlers, but also by the later occupants (Oshibkina 1989; 2008). The Popovo site is connected to the Veretye cultural complex, which is also the potential origin for the first settlers in the Rahakangas 1 site. The grave in Rahakangas 1 seems to be very similar with the graves at Popovo, except that no organic materials (apart from enamel) were preserved at Rahakangas 1.

The remarkably long periods of the site use reported in the Mesolithic cemeteries may indicate that also the grave in Rahakangas 1 site was connected to the settlement site, despite the considerable gap in the dates. The link between the occupants and the deceased may not be a contemporaneous one but rather a mental link preserved in the landscape. There are several examples of burying the dead at ancient settlement sites in the prehistory of the eastern Fennoscandia. Whether this practice was conscious or not, remains unclear.

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17th EAA Annual meeting
Oslo, Norway
September 14th – 18th 2011

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