Evergem-Nest, Mesolithic habitation in the harbour of Ghent: a preliminary report

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Abstract

Recent excavations in the harbour of Ghent revealed new evidence of Mesolithic occupation in the sandy lowlands of northern Belgium. The preliminary data suggests several small occupation areas inhabited during the Early and/ or Middle Mesolithic. Indications of older habitation during the Final Palaeolithic, probably dated at the transition of the Younger Dryas to the early Preboreal, have been found as well. The importance of both sets of material is, by the good preservation in situ, already apparent.

Keywords: Final Palaeolithic, Early Mesolithic, Sandy Flanders, prehistoric flint assemblages.

1. Introduction

The development of c. 50 ha of agricultural land into an industrial commercial area¹ in the municipality of Evergem could only be initiated after the terrain was archaeologically explored. This development area is located in the harbour of Ghent, between the canal Gent-Terneuzen and the Doornzeelse straat, along the Gentweg, Kleine Nest en Grote Nest². Approximately 35 ha of the development area could be surveyed by test trenches. This research revealed not only Iron Age pottery and traces of (post)medieval occupation, but also a larger area with a well preserved podzol and numerous flint artefacts (Laloo & Blanchaert, 2010a). In the second stage of the archaeological research the section with traces of prehistoric occupation was explored in more detail by an archaeological auger survey (Laloo &

Blanchaert, 2010b). This survey resulted in the selection of five separate zones with high archaeological potential that all needed to be excavated. This article will focus on the preliminary results of these excavations.

The information on prehistoric occupation in the region around Evergem mainly consists of survey finds. These revealed several occupation sites in the region around the development area dating from the Final Palaeolithic to the Neolithic. Information was mainly gathered from the area around the Moervaartdepressie, some 10 km northeast of the research area (Vanmoerkerke & Verlot, 1984; Van Vlaenderen et al., 2006), and the Kalevallei (Van Der Haegen et al., 1999)³. Evidence from excavations is rather limited as the Early Mesolithic site of Desteldonk appeared to be poorly preserved (Ryssaert et al., 2007). The research at Kluizendok revealed a large scale Roman rural occupation and some Early Iron Age features. In those features, and in the depression in which they were found, several Neolithic flint artefacts were gathered. These artefacts showed traces possibly caused by re-use in Iron Age or Roman times (Laloo et al., 2009). It is

¹ The development of the area is conducted by Ghent Industrial Investment nv (G2I) and covers a total area of c. 160 ha. Earlier research was published by Cherretté et *al.* 2005. The terrain currently under investigation, i.e. c. 50 ha, is phase 3 of the whole development operation.

² Lambert72-coordinates: X = 107300 Y = 202400 (centre of development area), X = 107338 Y = 202051 (centre of archaeological auger survey).

³ This area includes the large sand ridge Maldegem-Stekene and the sand ridge along the Nieuwe Kale.

believed that the results from the excavations at Evergem-Nest may improve the general knowledge on short-term occupation sites *in situ*.

2. The different excavation zones

The archaeological auger survey, covering an area of c. 15,000 m² with roughly 400 boreholes positioned in a 5 x 5 m staggered grid (Laloo & Blanchaert, 2010b), marked out five different zones with flint artefacts. These five zones (zones A to E)⁴ (fig. 1) are situated in an area of approximately 7800 m² and are characterised by a well preserved podzol. Because the soil profile was largely intact, hopes were high of finding non-disturbed flint scatters.

Zone A (c. 150 m²) is located furthest to the south. Moving up to the north are zone B (c. 300 m²), zone C (c. 1500 m²), and zone D (c. 500 m²). Finally zone E (c. 150 m²) is located at the other side of a gas pipe. For safety reasons a certain distance needed to be maintained between the two excavation areas flanking the gas pipe. This somewhat hindered the excavation of one of the flint concentrations bordering the gas pipe.

3. Methodology

A large grid consisting of 5×5 m excavation units, divided in squares of 50×50 cm, was plotted over the whole area covering the five zones. Each zone was mechanically stripped of its plough layer and subsequently examined for archaeological remains. In order to do so, squares of 50×50 cm were dug out in a staggered grid of 2×2 m in layers of 10 cm. Subsequently, the gathered soil was sieved over meshed of 2 mm. Once the sieving residue was dry it could be examined for the presence of archaeological indicators such as flint, charcoal, and burnt hazelnut shells. Based on the amount of flint per square of $50 \times 50 \times 10$ cm, the areas to be further excavated were defined. The excavation of the lithic concentrations followed the same



Fig. 1 – Results of the archaeological auger survey and the five different zones selected for excavation (triangles: flint artefacts) (adapted from Laloo & Blanchaert, 2010b).

⁴ After the auger survey an excavation grid needed to be realised. This necessitated the renaming of the zones.

methodology, i.e. wet sieving over 2 mm meshes of units of 50 \times 50 \times 10 cm.

4. The flint material from the different sites

The preliminary data shows that roughly 3850 squares of $50 \times 50 \times 10$ cm were excavated in the five different zones. This resulted in the recovery of approximately 7000 pieces of flint, both chips and larger artefacts. The material was dispersed over different sites. In zone A only one site or concentration (excavation units 300-301: c. 64 m²) could be discerned. Zone B was nearly void of flint artefacts and no further investigations were conducted in that area. Zone C proved to be a rather large area with five clusters of different sizes, i.e. one very large concentration (excavation units 122-224: c. 135 m²), a very small concentration (excavation units 325-326: c. 15 m²), a small concentration (excavation unit 226: c. 30 m²), and two concentrations (excavation units 127-128: c. 48 m² and excavation units 229-230: c. 28 m²) that seem to fade together. In zone D at least two small concentrations were spatially separated from each other (excavation units 136-137: c. 12 m² and excavation unit 140: c. 15 m²), accompanied by a diffuse spread of material located in between them (excavation unit 138: c. 15 m²). Finally, zone E contained one large concentration of artefacts (excavation units 148-249: c. 88 m²).

All of the flint concentrations are characterised by larger or smaller amounts of flakes, blades, and chips. Cores and rejuvenation pieces are encountered, yet not on all sites. The same counts for the tools. Different types of microliths, such as crescents, triangles, unilaterally backed points, obliquely truncated points, and points with retouched base, have been found in many of the flint concentrations. Other tools are scrapers, retouched flakes, and a series of different tool fragments. A few microliths with surface retouch have been recognised in the field as well, just as several micro-burins. The lack of trapezes and regular (Montbani) blades would suggest an Early and/or Middle Mesolithic date for most concentrations.

Compared to other excavated sites in NW Belgium, e.g. Verrebroek-Dok 1 (Crombé, 1998; Sergant, 2004), Verrebroek-Aven Ackers (Sergant & Wuyts, 2006; Sergant et al., 2007), Doel-Deurganckdok (Noens et al., 2005) and Oostwinkel-Mostmolen (Crombé, 1998) many, if not all, of the sites excavated at Evergem can be characterised as low density sites, possibly resulting from short-term occupations. For example, the very small site found in Zone C appears to hold fragments of mainly one, and possibly two or three, nodules. One might tentatively presume these flint artefacts to be the result of one knapping event. Several of the artefacts have already been refitted together forming a small sequence. It can however not been ruled out the area is a small dump site as the presence of chips in the exact same raw material, indicating the knapping of flint in situ, is not yet confirmed.

Within Zone C a series of artefacts which differ substantially from the majority of finds could be identified. These include a number of rather broad blades (fig. 2:b), one very long and regular blade fragment (fig. 2:a), a Blanchères point⁵ (fig. 2:c), and a scraper-like tool with bruised edge (fig. 2:d). In contrast to the other finds, all these artefacts are made in a very high quality of flint of exotic origin. All these artefacts most likely belong to an earlier occupation of the area, probably at the transition of the Younger Dryas to the early Preboreal. Indeed, Blanchères points are typical for this phase in the west and north of France (Valentin, 2006; Naudinot, 2008), and are usually found associated with obliquely truncated points and in some instances a few tanged points typical of the (Epi)Ahrensburgian. Hence, it is not unlikely that part of the "Mesolithic" microliths excavated at Evergem are to be dated older. Hopefully future detailed analysis will shed more light on this. Also absolute dating can contribute to a better insight into the internal chronology of the entire site. Even though the amount of burnt hazelnut shells is rather limited, a selection from the different sites will be made to gain insight in the time depth of the habitation at the site Evergem-Nest.

⁵ We would like to thank Dr. Nicolas Naudinot (Université de Rennes) and Dr. Boris Valentin (Université de Paris I) for their contribution to the determination of this artefact.



Fig. 2 – Final Palaeolithic flint artefacts found at Evergem-Nest (in cm).

5. Conclusions

Archaeological research in the harbour of Ghent (municipality of Evergem) revealed a large area of more than 2600 m² showing a well preserved podzol with numerous flint artefacts. Because of the largely intact soil profile it is believed that the flint scatters are still mostly *in situ*. The results of this research will therefore contribute to the knowledge of prehistoric occupation in the region as most information is currently based on field surveys.

The excavations at Evergem-Nest exposed five zones with several flint concentrations ranging from very small (c. 15 m^2) to quite large (c. 135 m^2).

As the amount of flint artefacts per site is rather limited the concentrations may be defined as low density scatters. The recovered artefacts, such as knapping material, microliths, and other tool types, suggest an Early and/or Middle Mesolithic date for most, if not all, of the assemblages. A second set of flint artefacts, of larger dimensions and produced from better quality flint, points to an older Final Palaeolithic occupation phase. The hopes are high that radiocarbon dates of recovered hazelnut shells may shed some light on the relation between the different sites and time depth of the different occupation phases. The results of this research will be published in a GATE report by spring 2011.

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