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SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE

SÉANCES DE LA SOCIÉTÉ PRÉHISTORIQUE FRANÇAISE
2-2

MESOLITHIC PALETHNOGRAPHY

RESEARCH ON OPEN-AIR SITES BETWEEN LOIRE AND NECKAR

PROCEEDINGS FROM THE INTERNATIONAL ROUND-TABLE MEETING IN PARIS (NOVEMBER 26–27, 2010)

as part of sessions organised by the Société préhistorique française

Published under the direction of

Boris Valentin, Bénédicte Souffi, Thierry Ducrocq,
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Head office : 22, rue Saint-Ambroise, 75011 Paris (France)
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The Mesolithic site of Haute-Île at Neuilly-sur-Marne (Seine-Saint-Denis): preliminary results

Joël Confalonieri and Yann Le Jeune

Abstract: A Mesolithic site was discovered during an archaeological evaluation of Haute-Île at Neuilly-sur-Marne (Seine-Saint-Denis) carried out by a mixed team from the INRAP and the council of Seine-Saint-Denis. The site is found on the right bank of the Marne River valley at an average altitude of 40 m NGF. This 65 ha area is found some 15 km upstream of Paris in one of the last bends of the Marne and has been designated a departmental park since 2005. The Mesolithic levels identified during a preliminary archaeological diagnostic in 2003 and 2004 lie within a paleosol on the edge of a paleochannel. These well-preserved levels are spread over a surface of a little less than 3 ha of which only 1.5% has so far been excavated. The Mesolithic levels contain abundant lithic artefacts, stone features and a burial. Based on an initial typological study they can be assigned to a succession of Middle and Late Mesolithic occupations fostered by the simultaneous presence of a river ford and open wetland banks creating an ideal location for hunting and setting up camp. The nearby banks of the paleochannel also produced Mesolithic artefacts, while an older level of a seldom-observed Holocene riverbank remains to be investigated. The Mesolithic site of Haute-Île still holds enormous archaeological as well as geoarchaeological potential and will probably be the focus of research in coming years.

This article presents a Mesolithic site identified at Neuilly-sur-Marne during the creation of a 65 hectares departmental park by the council of Seine-Saint-Denis. As the site has not yet been excavated, the data presented here comes from an archaeological diagnostic along with a series of complementary observations. The council plans to further investigate the site integrating other partners for an as yet undefined excavation. The 2 or 3 hectares on which the site is found are no longer threatened by the construction of the park and the fact that the land is owned by the department presents interesting perspectives.

A SPECIFIC ALLUVIAL SEDIMENTARY CONTEXT

Valley floors are well-known for preserving archaeological remains (Brown, 1997); site of Haute-Île in the Marne Valley has produced numerous traces of occupations spanning the Mesolithic to the modern period. Here we discuss the topographic context of the site and present a general stratigraphic model specifically focusing on the stratigraphies associated with the Mesolithic and Neolithic material. These results represent but part of the geoarcheological results obtained during the study of the meander.

A valley open to Holocene sedimentation

The lower Marne Valley represents a hydrological context particularly open to Holocene alluvial sedimentation. Starting from Changis-sur-Marne, 60 kilometres east of Paris, the slope of the Marne lessens and the river begins to form large meanders (fig. 1). This weak neotectonic context linked to minimal uplift (Antoine et al., 2007; Jost et al., 2007) is not conducive to significant incision or the formation of pronounced alluvial terraces. Consequently, the Marne has a weak debit in this low lying

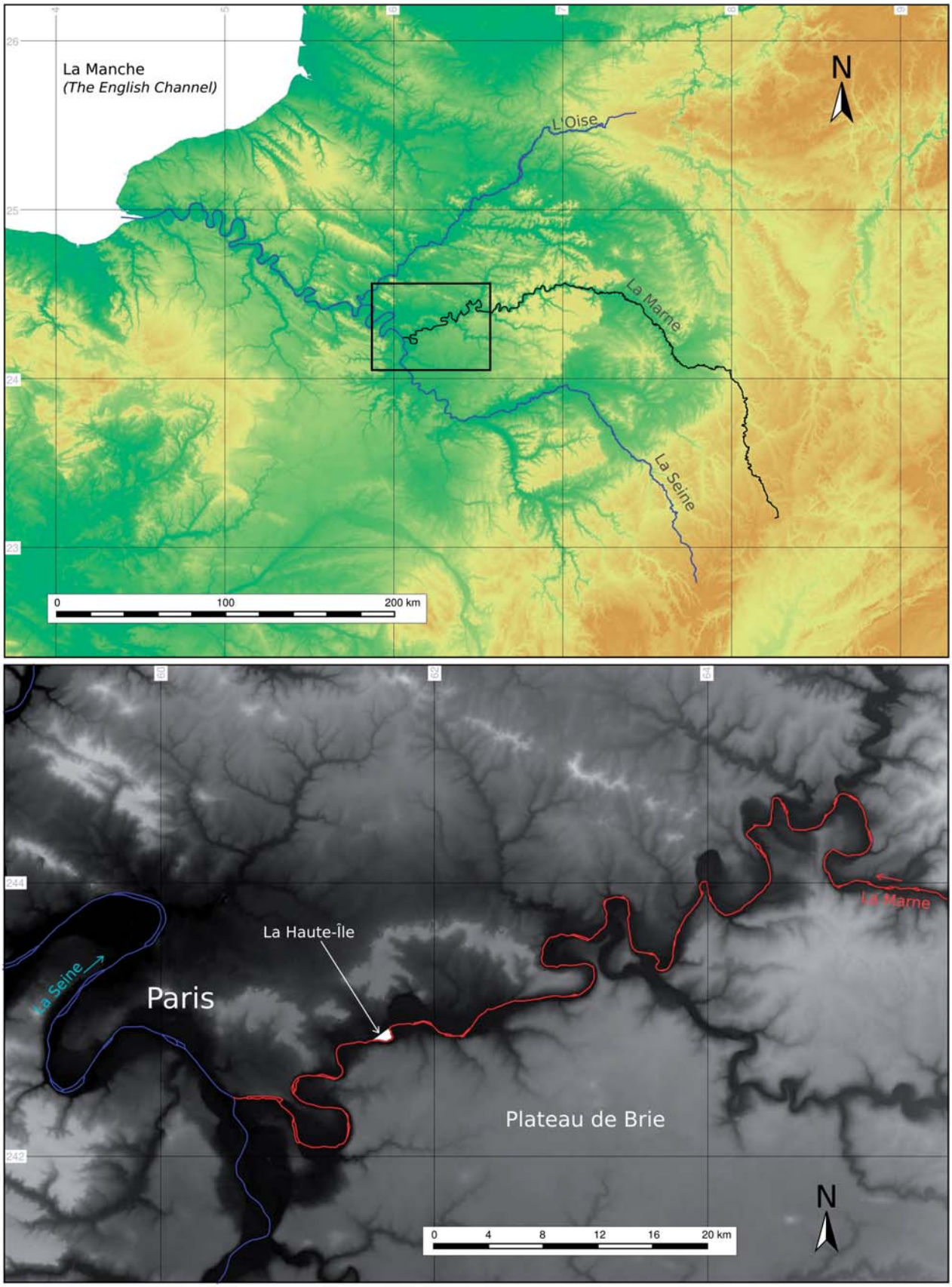


Fig. 1 – Haute-Île at Neuilly-sur-Marne. Topographic position of the meander in the Paris Basin (Lambert II projection, data source SRTM 4.1 – JPL/NASA and BDalti IGN).

valley at the centre of the Paris Basin, as well as a tendency to discharge sediments within meanders readily preserving complex sedimentary records. The Tertiary substrate in the vicinity of Haute-Île, as well as a large portion of its watershed, also present favourable contexts for the mobilisation of silty-clays and calcareous sediments with a significant loess component (Pastre et al., 2006). These types of deposits are especially well-represented in the north-east of the Île-de-France region (fig. 2; Antoine, 2002).

The meander of Haute-Île is currently in a flood zone (fig. 3) and is repeatedly submerged when the river floods despite dams lining the course of the Marne and upstream reservoirs designed to stabilise the course of the Seine (Villion, 1997). Although the course of the river is today significantly altered by human intervention and canalisation, these flood zones can still be considered locations where clayey-silts (overflow silts) were recently or are currently deposited.

A meander-scale stratigraphic model

Research concerning the Haute-Île meander focused on modelling the Holocene stratigraphy in order to evaluate the preservation potential of archaeological remains over the 65 hectares of the future park. As part of this rescue project, the department originally investigated the area upstream from the archaeological diagnostic (Lanchon et al., 1999). A mechanical auger survey, under the direction of Jean-François Pastre, enabled a preliminary schematic stratigraphic model of the meander to be constructed (fig. 4). These results were complemented by an electromagnetic survey detailing the morphology of the ancient island (gravel dome) at the centre of the meander (fig. 5; Vergnaud et al., 1999) where traces of Mesolithic to Late Iron Age occupations were recorded (Lanchon et al., 1999).

The sedimentary sequences that can be associated with the Mesolithic material (corresponding to the Preboreal, Boreal and part of the Atlantic chronozones) are poorly preserved due to significant erosion by later river channels (Le Jeune et al., 2005). Particular attention should however be paid to the clayey organic level (fig. 4, facies no. 7) representing a facies of a slightly sloped wetland bank that gently progrades in concert with the rising level of the Marne during the early Holocene. This depositional context created favourable conditions for the preservation of much deeper Mesolithic occupations

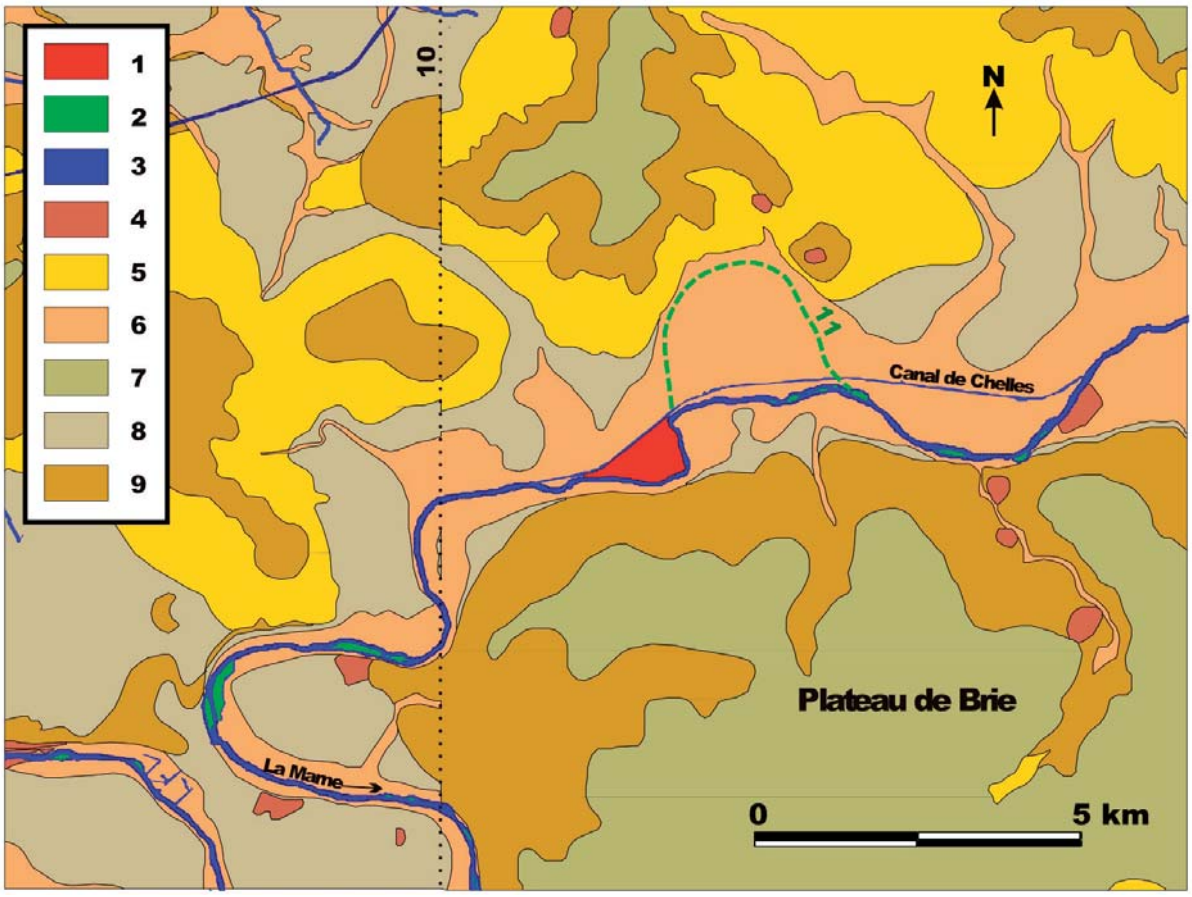


Fig. 2 – Haute-Île at Neuilly-sur-Marne. Geological setting of the site. 1: the site of Haute-Île; 2: islands; 3: present course of the river; 4: fill; 5: colluvium; 6: recent alluvium (Holocene); 7: plateau silts (intact and reworked loess); 8: ancient alluviums; 9: Tertiary deposits; 10: limit between the two geological maps; 11: approximate position of the ancient Chelles meander. Geological data extracted from Lagny geological maps (Caudron and Labourguigne 1971) and Paris (Soyer 1955).

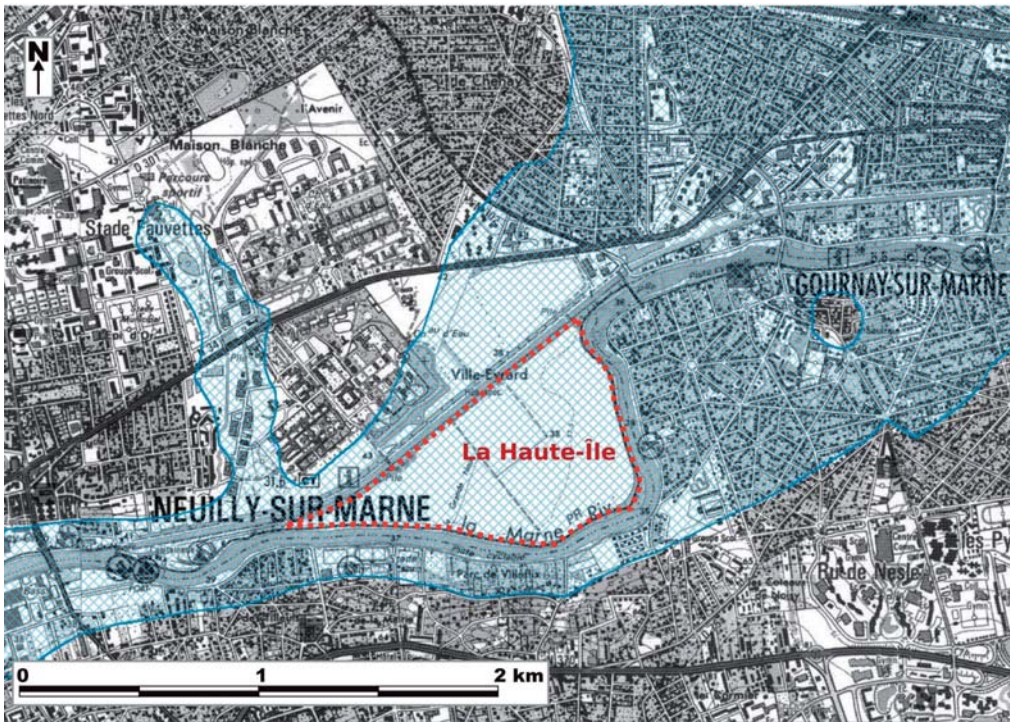


Fig. 3 – Haute-Île at Neuilly-sur-Marne. Topographic map (IGN 1/25000). In blue, high water levels (flood of 1910 based on a document from the DIREN of Île-de-France).

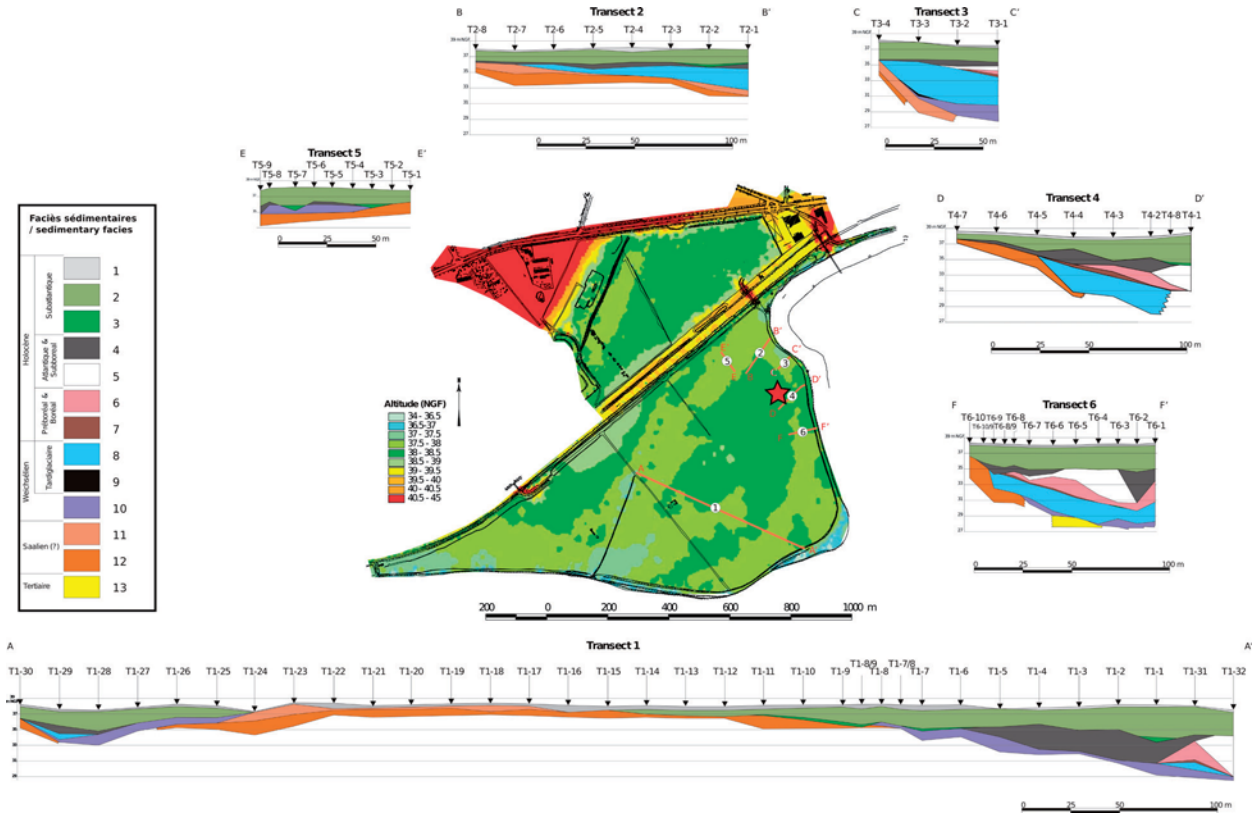


Fig. 4 – Haute-Île at Neuilly-sur-Marne. Schematic sections based on transects of the mechanical auger survey and the position (indicated by a star) of the Mesolithic material documented during the archaeological diagnostic (sections with a depth:length ratio of 4:1). 1: top soil; 2: grey-beige clayey-silts; 3: clayey-silts containing organic debris; 4: organo-mineral silts with vegetal debris; 5: calcareous tufas and peat beds; 6: calcareous silts with organic traces; 7: clayey peat; 8: reduced clayey-sandy silts; 9: clayey silts with organic traces 10: sandy-clayey gravels; 11: silty oxidized sands; 12: partially calcitic, sandy oxidized gravels; 13: compacted brown-green clays (modified after Lanchon et al., 2005).

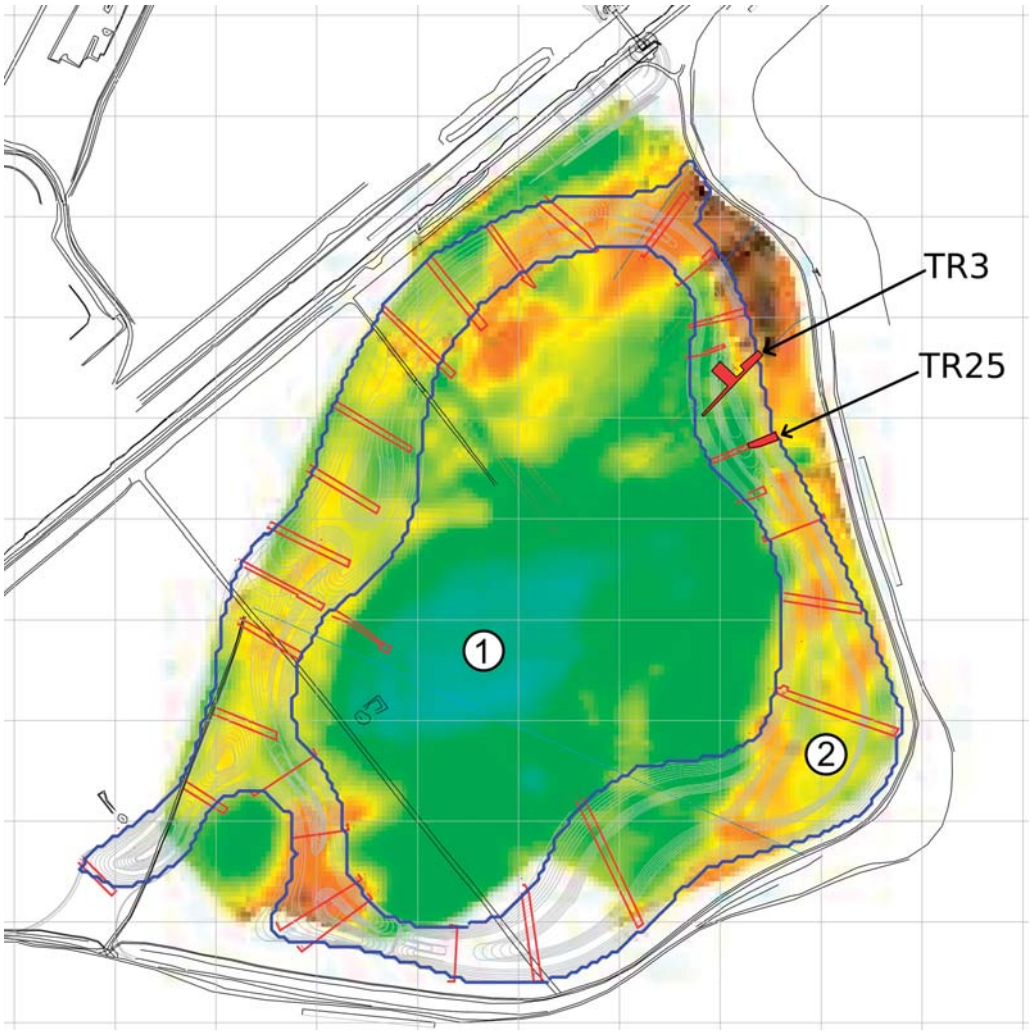


Fig. 5 – Haute-Île at Neuilly-sur-Marne. Synthesis of the geophysical surveys. The background of the map represents measured resistivity (Lambert grid by hectometre). 1: cool colours correspond to resistant surfaces (gravels and sands forming the paleo-island); 2: warm colours correspond to conductive zones (silty-clays and organo-mineral sediments filling the channels). The limits of the project for deepening the park's basins are in blue with the trenches of the diagnostic in red (after Vergnaud et al., 1999 and Le Jeune et al., 2005).

well-below the present low water level of the river situated at around 34 m LGF.

The results of the study carried out before the archaeological diagnostic allowed the initial project for exploiting the gravels forming the island to be modified, while at the same time limiting any possible impact on the archaeological sites. Paradoxically, the archaeological diagnostic concerned surfaces where the risk of disturbing the remains was the weakest, namely the paleo-channels (fig. 5)

Several trenches were dug as part of the preliminary study with the third (fig. 5, TR3) producing Mesolithic and Neolithic material preserved within a complex soil level on the banks of the ancient island and the area bordering the paleo-channel. This archaeological level is located on the section of the island where the bank is most pronounced (fig. 4), perhaps due to the attractiveness of having direct access to a straighter section of water. This diagnostic provided additional geoarchaelogical information allowing the sedimentary dynamic associated with the channel to be characterised (Lanchon et al., 2004; Le Jeune et al., 2005).

Stratigraphy of the channel in proximity to the Mesolithic material

Investigations of trench 25 during the archaeological diagnostic (Lanchon et al., 2004; Le Jeune et al., 2005) provided an occasion for precisely recording the stratigraphy of both the channel and the banks of the island (fig. 6 and fig. 7) in immediate proximity to the bank soil level where a Mesolithic burial was also found (see below).
As the level of the Marne rose at the beginning of the Holocene, the wetland bank progressively overtook the Tardiglacial silts leaving behind organic deposits (fig. 6, no. 10) that were subsequently covered by calcareous sediments (no. 9) associated with deeper waters. The bank's organic deposits also follow the water level

Fig. 6 – Haute-Île at Neuilly-sur-Marne. Trench 25 (see fig. 5: TR 25 and Le Jeune et al. 2005). A: 'accumulated soils'; B: channel; C: basal Holocene peaty clay (photo J. Confalonieri, CG 93).

variations of Marne River forming stratified sequences of peats alternating with calcareous silt deposits. This depositional regime seems to end with the development of a highly erosive channel (fig. 7) that locally remobilised Tardiglacial sediments resulting in the formation of 'soft rollers' (fig. 7, no. 5). Although the formation of this channel has not yet been precisely dated, it could correspond to a hydrological change produced by climatic deterioration at 8200 cal BP (Dansgaard et al., 1993; Orth et al., 2004), increasing river flow and ultimately leading to an incision.

Once the channel had formed, it was first progressively infilled by calcareous tufa and organic sediments which were gradually overlain by clayey silts from the Subboreal onwards (Le Jeune et al., 2005).

THE DEVELOPMENT OF A GEOARCHAEOLOGICAL MODEL

These results form the basis of a geoarchaeological model for evaluating the preservation potential of archaeological material at Haute-Île. Future research will undoubtedly strengthen this approach. Three favourable contexts for the preservation of Mesolithic remains have already been identified (fig. 8).

'Mobile' Early Holocene riverbanks

The connection between rising Holocene river levels and the preservation of Mesolithic material has already been documented for the Somme Valley (Ducrocq, 2001) and at the site of Warluis (Coutard et al., 2010). As the level of the Marne rose, a gently sloping bank emerged in time with the growing level of the river burying the older banks under peats and calcareous sediments (fig. 8, A and B). Although artefacts have not yet been recovered from these levels, their preservation potential is undeniable. Traces of fire (burnt earth and charcoal) have been detected in cores (fig. 4, near T6-5) from a peat level at 31.25 m LGF, more than two meters below the present low water level of the Marne. If these traces of fire are not natural phenomenon, they must be the linked to Mesolithic activity dated to between 8699 and 8347 BC (9295 ± 45 BP, Lyon-3055).

The channel

These organic levels with high archaeological potential were at least partially eroded by the formation of a paleochannel near the banks of the paleo-island and probably resulted from a significant change in the hydrological dynamic (ca. 8200 cal BP?, see above) and an increase in the level of the river (fig. 8, C) entailing the partial erosion of the old banks. This channel seems to have persisted until it was infilled by clayey silts derived from erosion associated with the development of agriculture in the Marne's watershed (fig. 8, D; Pastre et al., 1997; Le Jeune et al., 2005; Pastre et al., 2006).

This channel containing Mesolithic material was rapidly investigated during the archaeological diagnostic (Lanchon et al., 2004). Although the sedimentary facies observed in the fill do not indicate a high-energy depositional context, a mix of artefacts from the eroded bank and paleochannel cannot be ruled out and needs to be re-examined taphonomically in the future.

'Accumulated soils' near the bank

From the early Holocene to about the Iron Age, the residual glacial gravel dome forming the centre of Haute-Île (fig. 5) was spared the flooding of the Marne. Traces of Mesolithic and Neolithic occupations were found near the straight bank adjacent to the paleochannel. The lack of a sedimentary component in the banks' formation explains why Mesolithic and Neolithic material is found mixed within the same complex soil unit that accumulated over several millennia of pedogenesis. Successive deposits of silt overflow from the flooding of the Marne are responsible for the preservation of this level (fig. 8, D; Pastre et al., 1997; Le Jeune et al., 2005; Pastre et al., 2006). Furthermore, pedogenesis, notably connected to biological activity, is itself responsible for the progressive burial of the material (Thinon, 1994; Texier, 2000). This last phenomenon, as well as the local mobilisation of sediment by water action, sometimes allows 'levels'

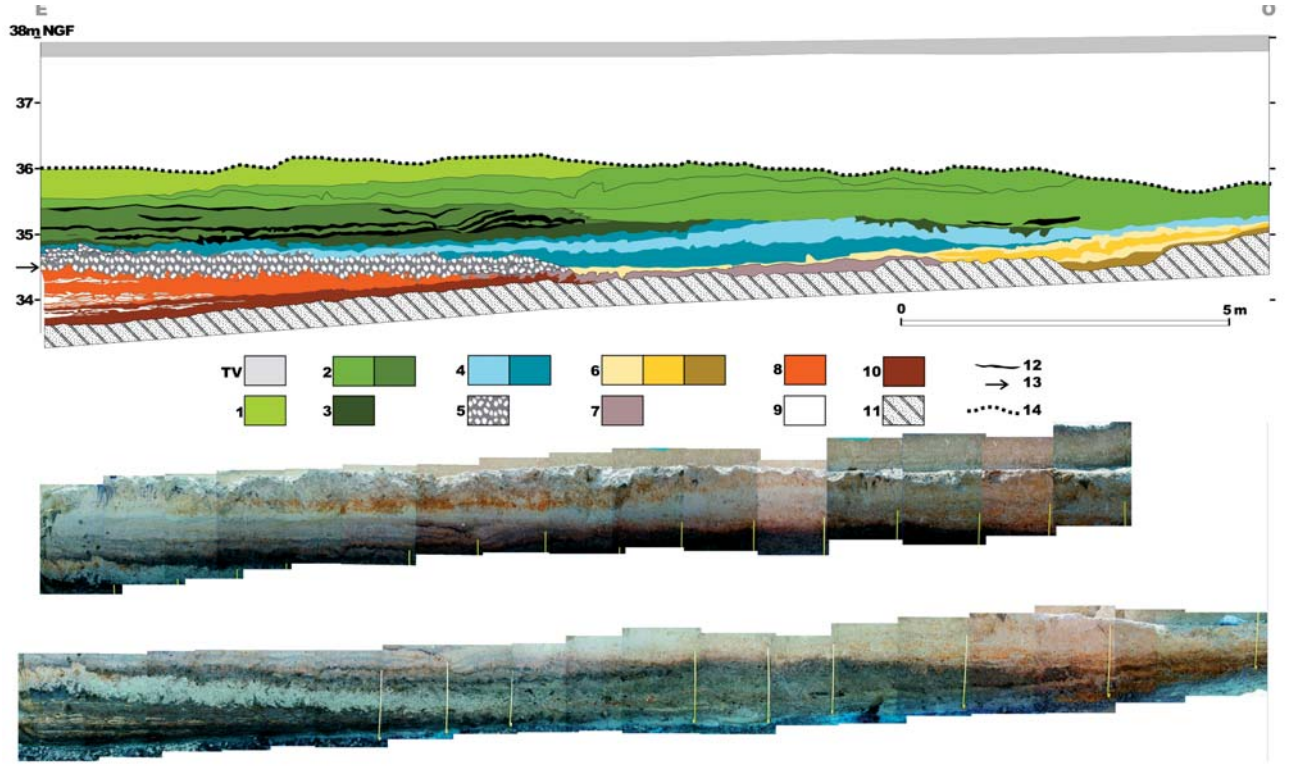


Fig. 7 – Haute-Île at Neuilly-sur-Marne. Simplified profile of the western part of trench 25 (see fig. 5: TR 25 and Le Jeune et al., 2005). Colour gradations indicate a stronger organic material component. TS: top soil; 1: very homogeneous beige to light brown clayey silts with a marked polyhedral structure, numerous channels, traces of roots, brown to ochre coloured oxidation traces (several mm in length) at the base, millimetre sized traces of charcoal and very localised 'horizons' marked by calcite concretions known as loess dolls ('poupées de calcites'); 2: grey to light grey sandy silts, homogeneous and finely stratified at the base with a large polyhedral structure. Millimetre to centimetre sized ochre coloured oxidation stains (at the top) and local centimetre long lenses riche in organic material and millimetre to centimetre sized charcoal; 3: grey-brown clayey-silt, massive, rich in fragments of organic material including millimetre to centimetre sized fragments of wood, wood carbon and numerous mollusc shells ; 4: kaki to grey-brown organo-mineral silt, massive, rich in wood measuring up to tens of centimetres, presence of centimetre sized wood charcoal, very significant presence of mollusc shells sometimes forming beds over several centimetres, the organic material is rich in leaves with a localised felt-like aspect; 5: massive organo-mineral silty clay formed of grey to light blue, millimetre to centimetre sized 'soft rollers' (formed from sediments derived from 11) in a grey clayey matrix rich in fibrous organic material (mix of 8, 10 and 11); 6: shelly tufaceous sand with oncolites, dark grey to whitish, localised presence of millimetre to centimetre sized grey to black beds richer in organic material, numerous centimetre sized wood fragments, oncolites often developed around complete shells, rare traces of centimetre sized charcoal; 7: sandy-clayey sand, rich in centimetre sized wood fragments, presence of centimetre long beds of partially shelly sands; 8: massive sandy peat rich in fragments of organic materials, considerable presence of leaves and centimetre sized wood; 9: massive whitish calcareous silt, finely stratified peats, rich in mollusc shells, rare millimetre sized charcoal fragments; 10: brown-black peat rich in millimetre sized organic material, centimetre sized fragments of wood, considerable presence of millimetre to centimetre sized fragments of charcoal, humified roots and rootlets; 11: very homogeneous grey blue silt-sandy clay, rare gravels; 12: level rich in organic material; 13: low-water altitude of the Marne; 14: limit of investigations (security platform).

within these soil complexes to be distinguished. Further defining the preservation quality of this archaeological signal is one of the future research objectives for the site of Haute-Île.

ARCHAEOLOGICAL RESULTS FROM THE DIAGNOSTIC (TRENCH 3)

The archaeological diagnostic at Haute-Île (fig. 5) took place over several field seasons between 2000 and 2004. The deepening and refilling of the old channels of the Marne had two objectives: encouraging the development of wetland biodiversity and minimising the impact of the construction on any preserved archaeological material. In the end, very little archaeological material was identified during the diagnostic and only a single area in and around trench 3 (fig. 9) to the west of the park produced structured levels dating to the Mesolithic, Neolithic and Bronze Age.

Between 2000 and 2004, 372 m^2 were excavated in the sector of trench 3 under the direction of Yves Lanchon (INRAP). A significant quantity of archaeological material

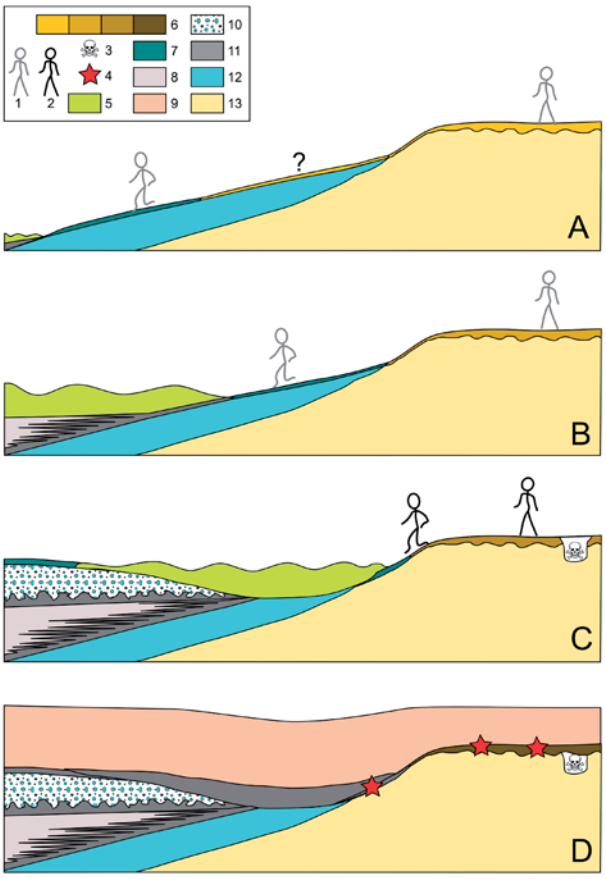
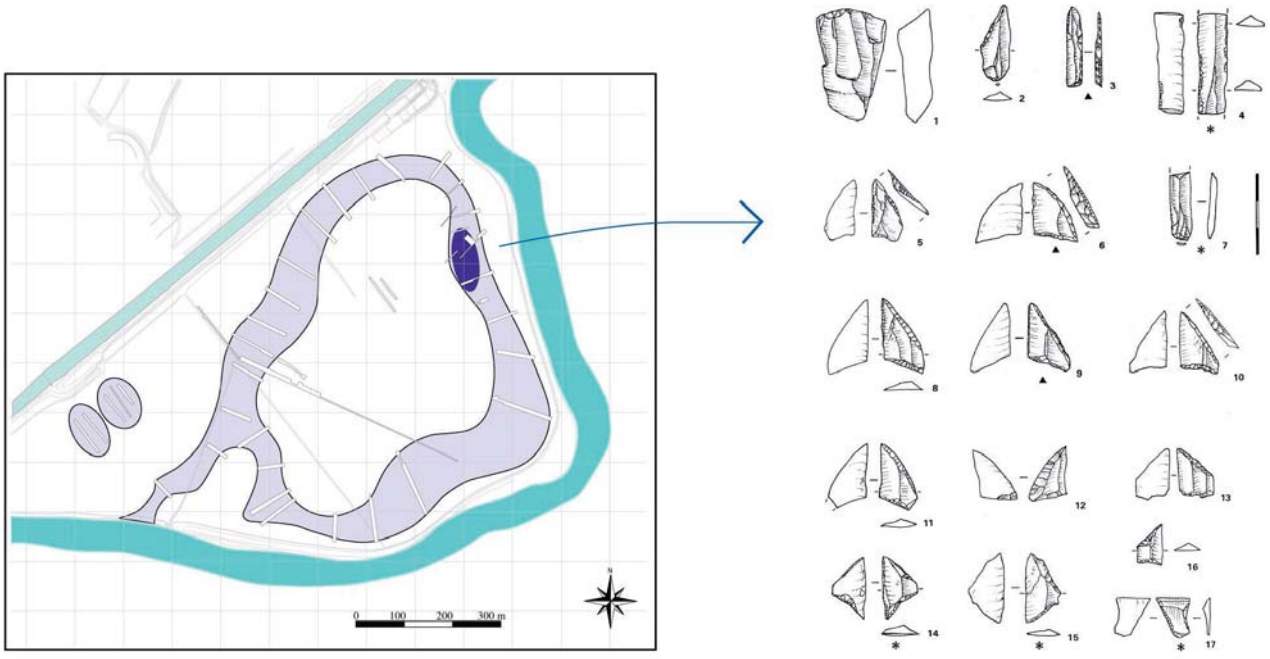


Fig. 8 (left) – Haute-Île at Neuilly-sur-Marne. Geoarchaeological model of the definite or possible Mesolithic occupations. A: early Holocene (Preboreal); B: early Holocene (Preboreal and Boreal), gradual rise in the level of Marne; C: middle Holocene, formation of the erosion channel followed by or contemporaneous with the adjacent occupation (Boreal? and Atlantic); D: late Holocene, massive contribution of silts due to soil erosion (Subboreal and Subatlantic; 1: possible human occupation; 2: definite human occupation; 3: Mesolithic burial; 4: significant presence of artefacts; 5: water level of the Marne; 6: pedogenesis and anthropisation ('accumulated soils'); 7: wetland banks; 8: calcareous silts (see 9 of fig. 6); 9: clayey silts; 10: organic silty clay with 'clay gall' (see 5 of fig. 6); 11: sediments rich in organic material; 12: grey-blue silty-sandy clay (see 11 of fig. 6); 13: sandy gravels, sometimes with calcites (Saalian?).

Fig. 9 (below) – Haute-Île at Neuilly-sur-Marne. Location of the Mesolithic and Neolithic levels in the vicinity of trench 3 identified during the archaeological diagnostic and the lithic industry recovered from trench 3 in 2000 (after F. Bostyn, INRAP).



was recovered over a small area on the edge of the paleochannel and especially in the archaeological level of the bank.

The bank of the paleochannel yielded nearly 10 kg of lithic material, 21 kg of faunal remains and 1 kg of pottery. Difficult excavation conditions starting with the exposure of this extremely waterlogged zone did not permit all the material to be recovered or to treat the organic material, however numerous and well-preserved (leaves, branches, twigs).

The bank zone itself yielded approximately 76 kg of lithic material, 46 kg of faunal remains and 31 kg of pottery. Mesolithic remains were most abundant in this zone and were spread within a very dark and heavily compacted level some thirty centimetres thick. Neolithic material, attributable to a recent phase of the Villeneuve-

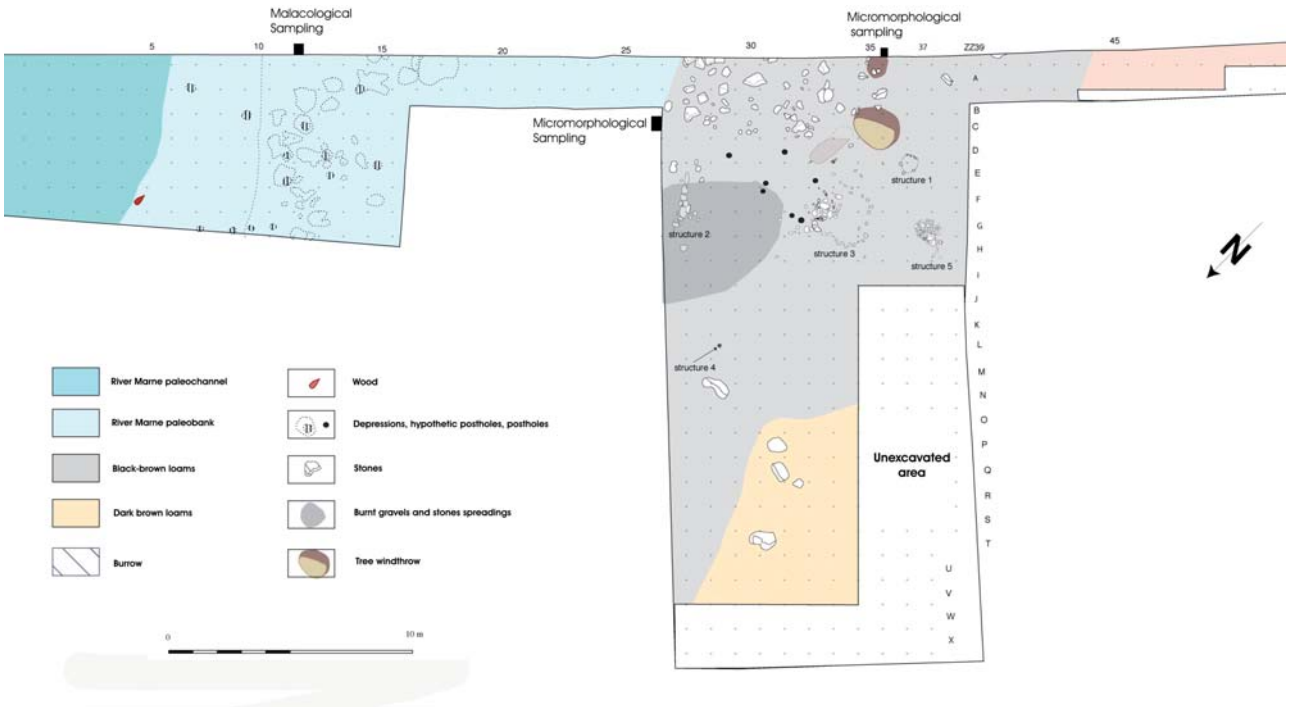


Fig. 10 – Haute-Île at Neuilly-sur-Marne. Extension of trench 3 after the enlargement of the bank zones and the paleochannel between 2000 and 2004. Documentation of the recorded features.

Saint-Germain culture, was found associated with the Mesolithic remains (fig. 10, feature 4; fig. 11 and fig. 12). No clear stratification can be observed within this level overlying the heavily calcitic and indurated banks of the ancient terrace. Excavations were carried out by square metre and included three successive and totally subjective spits (spit 1: upper level; spit 2: intermediate level; spit 3: lower level) enabling the material to be recorded. Artefacts from certain square meters were systematically recorded in three dimensions; however the sediments from the archaeological levels were not sieved.

Even though the archaeological levels seem to have been disturbed, this did not prevent the preservation of clearly discernible features, the most interesting of which are discussed below (fig. 10).

The burial

Cécile Buquet-Marcon (INRAP) was involved in the excavation and examination of this feature (Valentin et al., 2008). This inhumation, whose pit is difficult to discern, was dug into the archaeological level penetrating slightly into the top of the sandy-gravelly terrace. Although no artefacts were associated with the burial, a tooth was dated to 7735 ± 45 BP (6642 to 6477 cal BC, at 2 sigmas, Calib Rev5.0.2: Stuiver and Reimer, 1993). Bone preservation is average and, although the skeleton is incomplete, all of the anatomic regions are represented and appear to belong to a single individual. However, the poorly represented pelvis precluded the determination of sex. Pending a more detailed biological analysis, we can nonetheless note that the remains are that of an adult whose skull bears traits of pronounced robusticity. While the limbs seem dislocated, observations made during excavations argue in favour of a primary deposit in a pit that has been heavily eroded. A taphonomic analysis suggests that the deceased was interred in a sitting position. Furthermore, the reduction of the burial's volume, particularly the collapse of the lower limbs, indicates decomposition to have occurred within an empty space.

A stone feature near the burial

An oval stone feature (1.30 m × 1 m) was uncovered in the square meters (G/H 37/38) adjacent to the burial and comprised a single 10 to 15 cm thick level containing mixed limestone (fig. 10, feature 5; fig. 14), but no diagnostic material. Despite its shape resembling a combustion feature, none of the stones seemed to have been heated. While its contemporaneity with the Mesolithic burial cannot be demonstrated, the proximity of the two features leaves open the possibility of a connection.

Other features

Seven, 10 to 15 cm diameter postholes in the form of a trapezoid contained a dark fill, but were void of material (fig. 10, feature 3; fig. 15). The long side (4 m) opened to the north in the direction of the burnt stone pavements, concentrations of charcoal and the Mesolithic industry identified during excavations. The remains of a stone 'levee' oriented north/south (fig. 10, feature 2) were discovered to the east just above the paleochannel which flows along the same axis. Another stone concentration

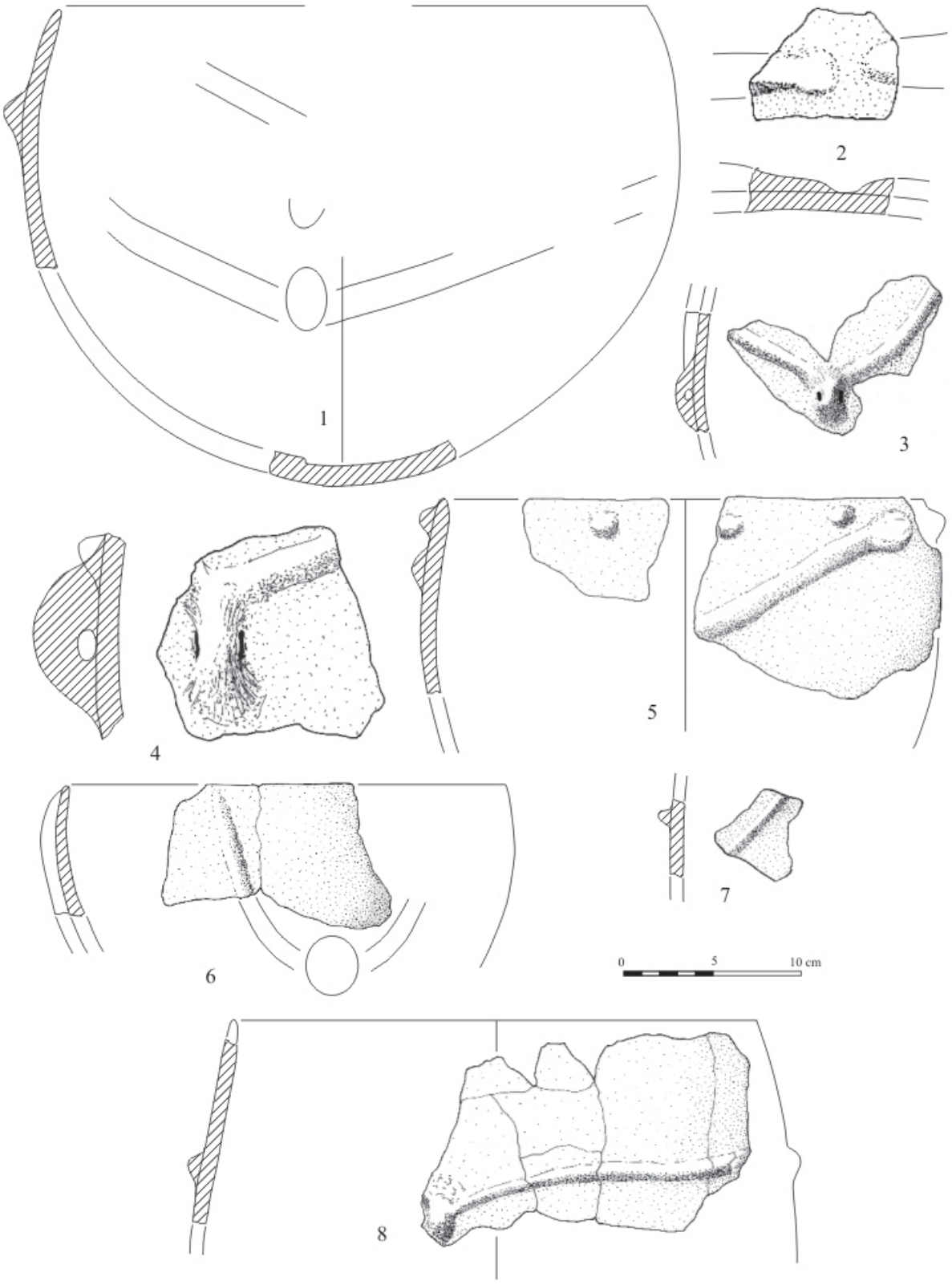


Fig. 11 – Haute-Île at Neuilly-sur-Marne. Trench 3: large vases with 'buttons' and perforated or unperforated cords, Neolithic, Villeneuve-Saint-Germain culture. Several examples were found crushed in-place in the bank zone (drawings SHALE / INRAP).

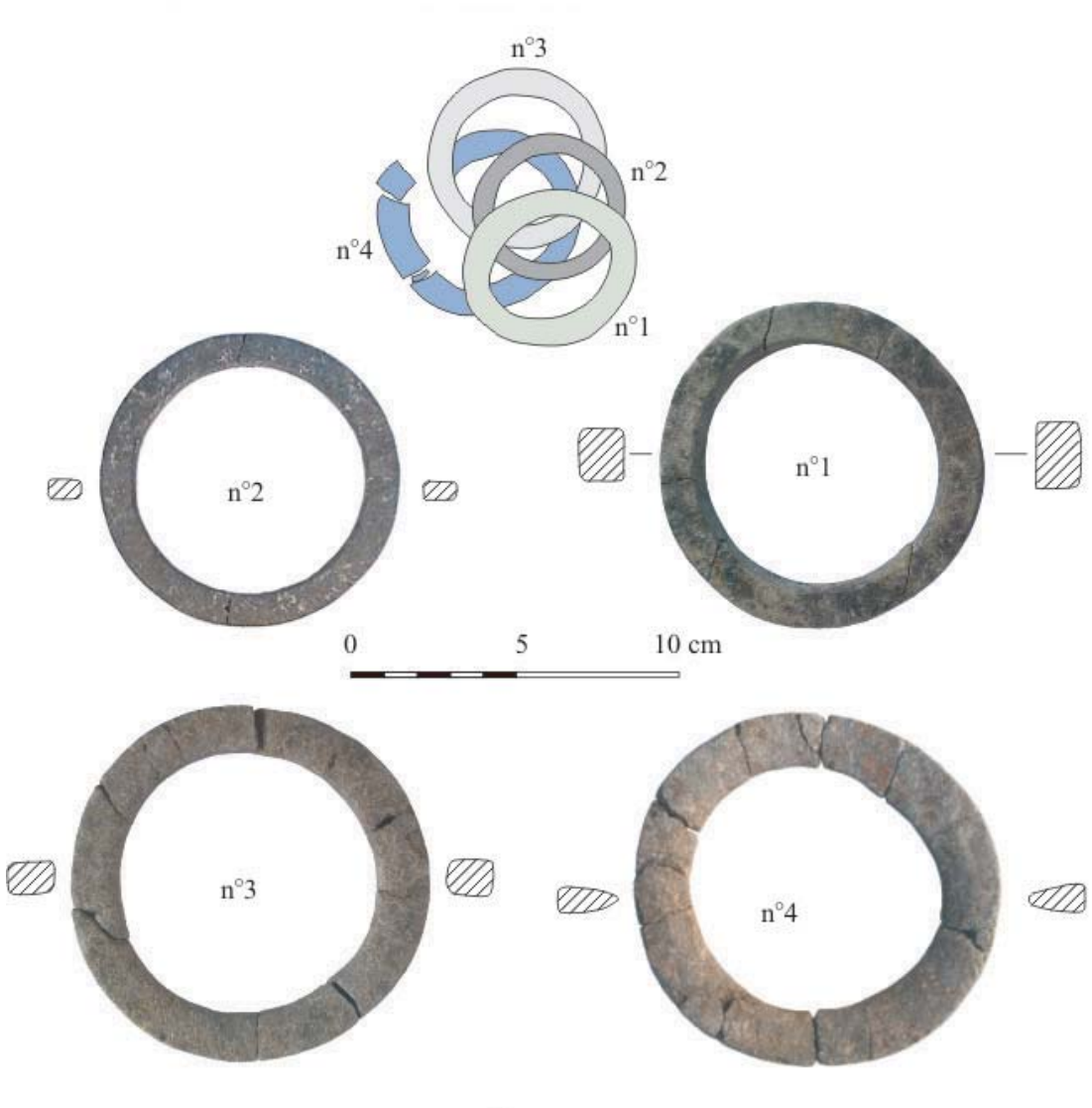


Fig. 12 – Haute-Île at Neuilly-sur-Marne. Trench 3: cache of four bracelets made from micaschist, pelite and primary limestone found in the bank zone, Neolithic, Villeneuve-Saint-Germain culture (photos and drawings Y. Lanchon, INRAP).

Fig. 13 – Haute-Île at Neuilly-sur-Marne. Trench 3: The Mesolithic burial in the bank zone during excavations (photo V. Brunet, INRAP).

Fig. 14 – Haute-Île at Neuilly-sur-Marne. Trench 3: oval stone feature found about one metre from the burial (photo Y. Lanchon, INRAP).

Fig. 15 – Haute-Île at Neuilly-sur-Marne. Trench 3: western view of the trapezoidal feature composed of 7 postholes. Foreground, remains of the stone levee which originates from the bank of the paleochannel. Background, an anthropic organisation of stones on one of the small sides (photo J. Confalonieri, CG 93).

appeared immediately to the east of the postholes (fig. 10, feature 3) and is clearly the product of human activity as certain large stones were wedged in place by smaller ones.

The lithic industries

The study of the lithic material from trench 3 carried out by Françoise Bostyn (INRAP) and Joël Confalonieri did not include a detailed refitting program. The assemblage consists of material from several successive occupations spanning the Mesolithic to the end of the Neolithic. Significant diversity can be noted in terms of the raw materials employed, as well as the presence of pieces, particularly arrow-heads, from different chronological periods (fig. 16 and fig. 17). Bladelet production is easily distinguishable by the presence of cores, un-modified bladelets (fig. 18) and tools made on blond or black Secondary and Bartonian flint.

The microliths consist of a large collection of trapezoidal or asymmetric triangular forms, in addition to rare examples attributable to a phase of the Middle Mesolithic. These comparably sized pieces made on a variety of raw materials present significant morphological and technical similarities. Almost all of these microliths are lateralised to the right and only two pieces have flat inverse retouch on their base. This component of the assemblage hints at an attribution to the Late Mesolithic based on comparisons with assemblages from the Paris Basin (Hinout, 1990 ; Fagnart, 1991 ; Ducrocq, 2001).

Given limitations imposed by the small surface excavated between 2000 and 2004, these preliminary observations concerning the chronology of the Mesolithic occupations will hopefully be refined by future excavations of the more substantial and less-disturbed levels.

Fauna

A preliminary study of the faunal material from both the bank and the paleochannel investigated in the eastern part of trench 3 was carried out in 2001 by Lamys Hachem (INRAP). The preservation of the material is excellent for the levels of the paleochannel, but less so for the levels of the bank. Given the significant number of bones, only a randomly selected sample of the material recovered from the two sectors was considered in the preliminary study. Approximately 1,300 pieces (13 kg), around a thousand from the paleochannel and half as much from the bank,

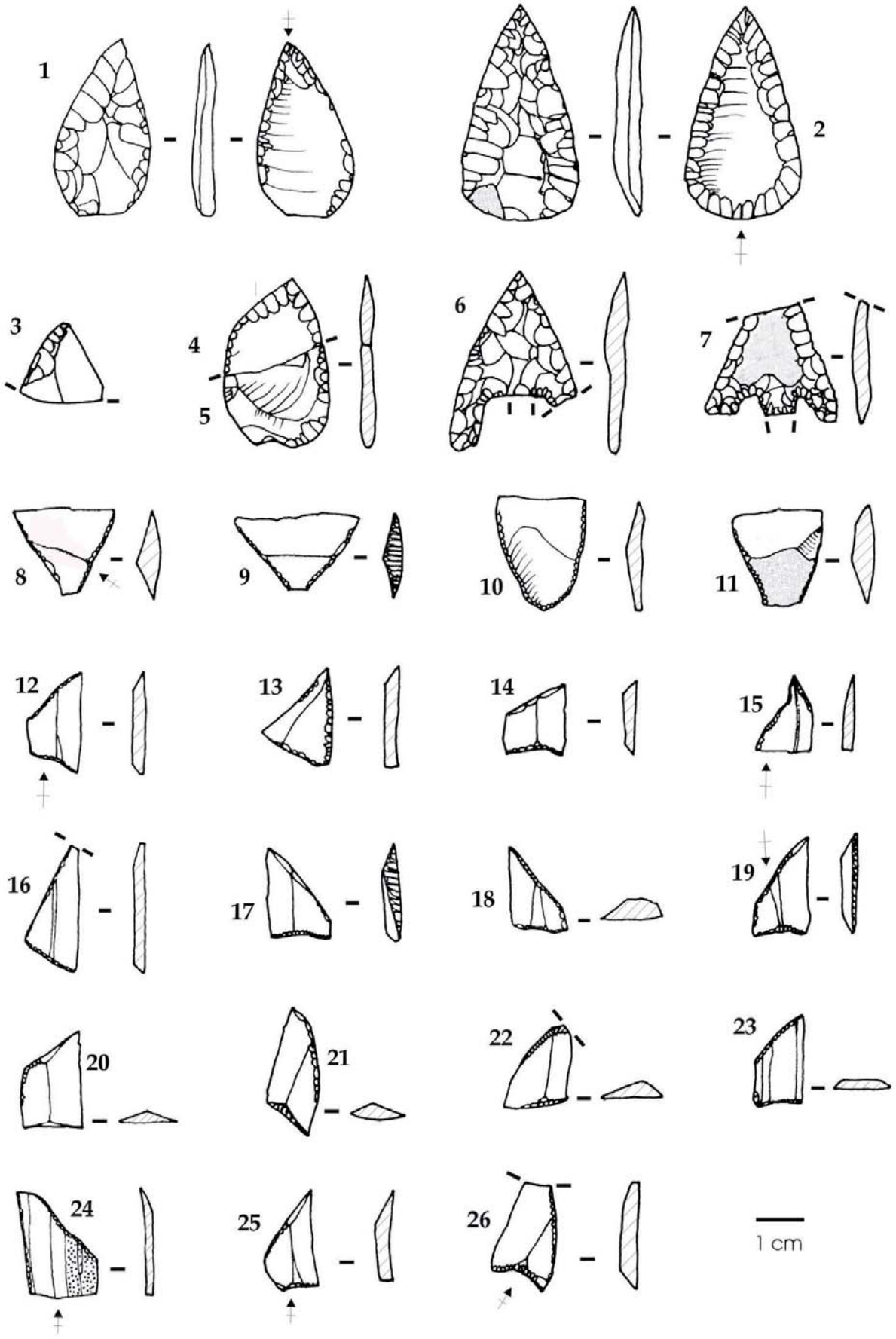


Fig. 16 – Haute-Île at Neuilly-sur-Marne. Trench 3: arrow-heads and microliths (drawings J. Confalonieri, CG 93).

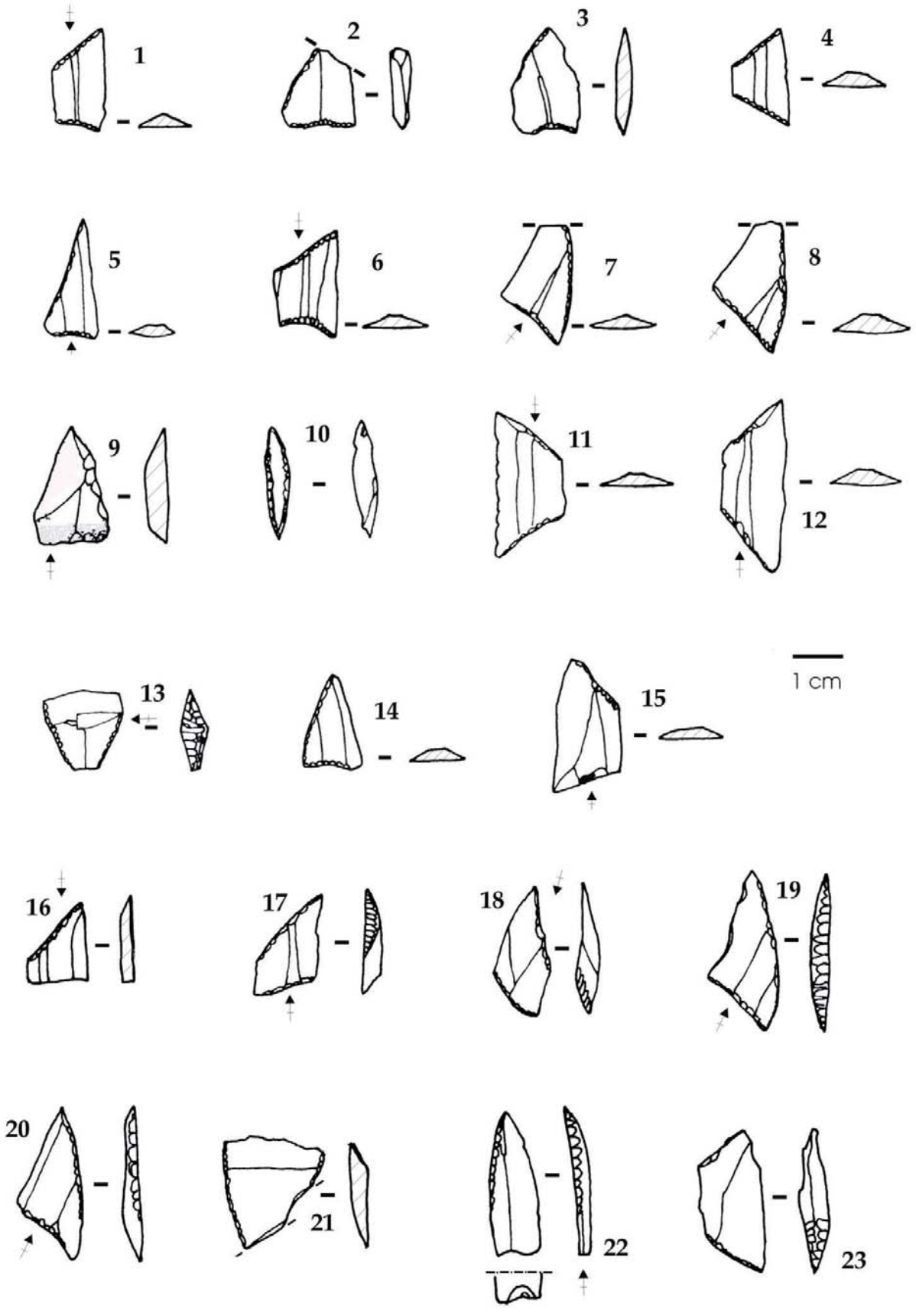


Fig. 17 – Haute-Île at Neuilly-sur-Marne. Trench 3: microliths (drawings J. Confalonieri, CG 93).

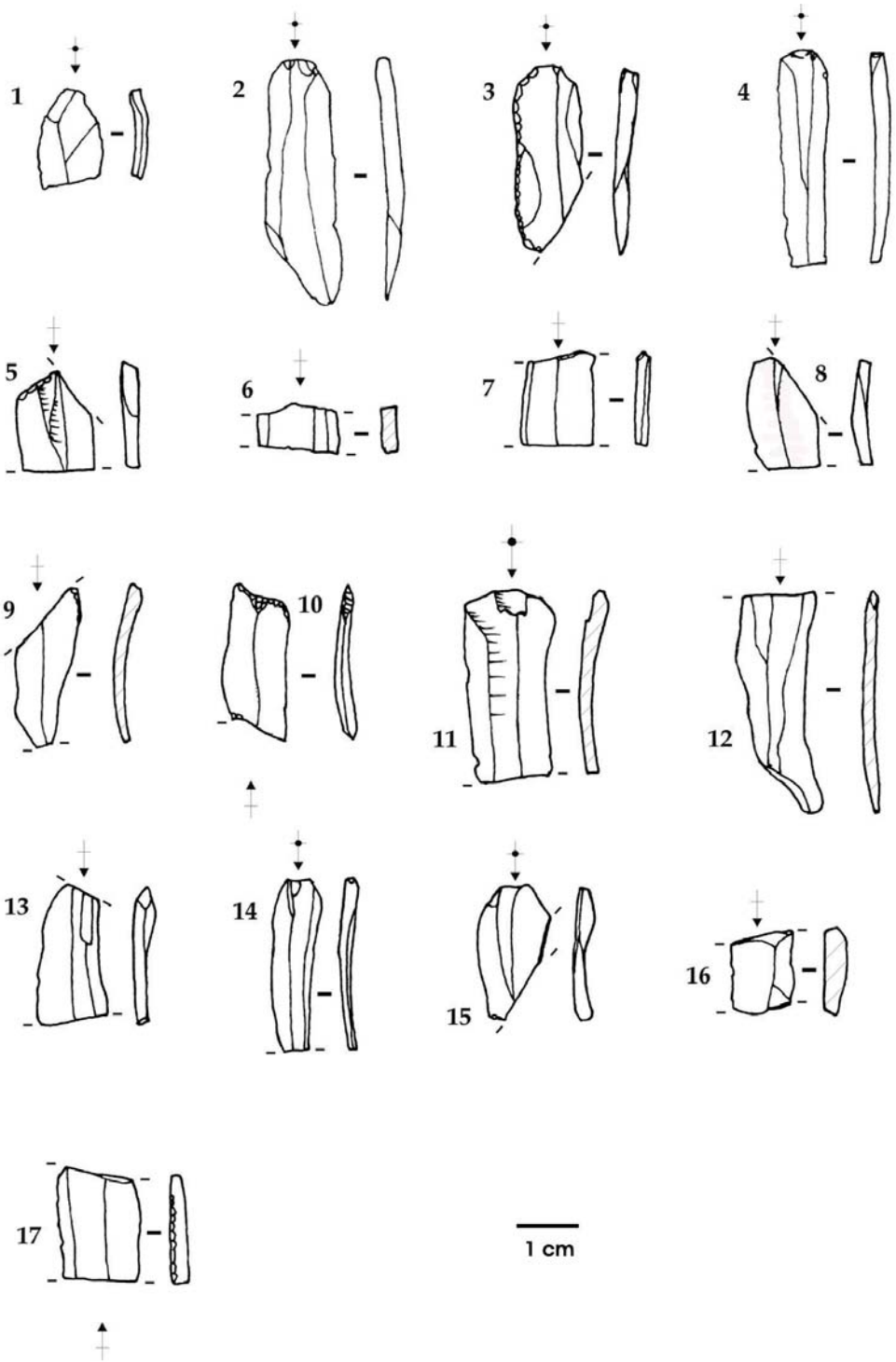


Fig. 18 – Haute-Île at Neuilly-sur-Marne. Trench 3: unretouched and retouched bladelets (drawings J. Confalonieri, CG 93).

were considered in the analysis. In both cases, intentional long bone breakage to recuperate the marrow can be noted. Very few bones are fire altered and are more numerous in the bank sector (7 of 10). The species list demonstrates a very high percentage (96.3%) of wild animals dominated by red deer, followed by roe deer, wild boar and aurochs. Smaller wild fauna are present in very low percentages, principally beaver, with wild cat and pike represented by only a single specimen.

Besides these species, a still undated proximal human femur was found mixed with the fauna from the channel. A series of radiocarbon determinations have been planned in order to clarify the chronological attribution of the fauna.

CONCLUSION

The archaeological diagnostic carried out in a unique institutional context involving both the INRAP and the Centre Départemental d'Archéologie de Seine-Saint-Denis on the site of Haute-Île at Neuilly-sur-Marne has come to an end after five field seasons between 1999 and 2004. The modification of the construction project in accordance with the results of this study represents an aspect of the project that deserves to be stressed. It should also be recalled that if the archaeological potential of the site had not been emphasised from the very beginning of the project by the initial geological study, our concrete understanding of the archaeological occupations would never have been possible.

Regular visits to the site by Mesolithic hunter-gatherer groups produced an abundant lithic assemblage associated with a burial and possibly stone features making 'Haute-Île' an important site for the period. Preliminary typological studies of the lithic industries indicate a succession of Mesolithic occupations fostered by the coexistence of a ford and accessible riverbanks creating an ideal hunting ground.

The Seine-Saint-Denis department is committed to working openly with the scientific community such that the full potential of the site of Haute-Île can be exploited in the future. New artefact studies are already planned as part of the collective research project entitled "The Final Palaeolithic and Mesolithic in the Paris Basin..." Finally, a field school may be launched in partnership with local universities.

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Joël Confalonieri,
Conseil général de la Seine-Saint-Denis
Service du Patrimoine culturel
Bureau de la Médiation
140 avenue Jean-Lolive, 93500 Pantin, France
Jconfalonieri@cg93.fr

Yann Le Jeune
UMR 8591, Service régional de l'Archéologie
DRAC Pays-de-la-Loire,
BP 63518, 1 rue Stanislas-Baudry
44035 Nantes Cedex 1, France
lj.yann@gmail.com

MESOLITHIC PALETHNOGRAPHY

RESEARCH ON OPEN-AIR SITES BETWEEN LOIRE AND NECKAR

Proceedings from the international round-table meeting in Paris (November 26–27, 2010)

as part of sessions organised by the Société préhistorique française

Published under the direction of
Boris Valentin, Bénédicte Souffi, Thierry Ducrocq,
Jean-Pierre Fagnart, Frédéric Séara, Christian Verjux

'Mesolithic Palethnography…': part of this volume's title represents a sort of methodological and theoretical mission statement designed to convey the idea that research concerning the last hunter-collectors is today in desperate need of this type of insight. Since the beginning of the 1990s, a spectacular crop of occasionally vast open-air sites has emerged, one of the notable contributions of preventive archaeology. Several long-term excavations have also added to this exponentially increasing body of information that has now come to include a growing number of well-preserved sites that have allowed us to address palethnographic questions. This volume represents a first step towards revitalising Mesolithic research. Here we have focused on occupations from the 8th millennium cal BC, currently the best documented periods, and limited the scope to Northern France and certain neighbouring regions. The first part contains several preludes to monographs highlighting potential future studies as well as various patterns in the structuring of space and the location of camps. These, as well as other complementary discoveries, provide material for the second part of the volume dedicated to new data concerning the functional dynamics of Mesolithic camps.

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