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Neanderthal News: the Saint-Amand-les-Eaux biface workshops

Numerous Neanderthal artifacts are currently being excavated by a team from the Institut National de Recherches Archéologiques Préventives (Inrap) at Saint-Amand-les-Eaux (Nord). The excavation, taking place, in advance of the construction of a shopping centre, is curated by the Regional Archaeology Service, (DRAC Nord-Pas-de-Calais). An exceptionally well preserved human occupation around 50,000 years old has been found.

Rare stone knapping workshops

During the last glacial period, in an environment similar to that of the Siberian taiga and during a time when temperatures rose slightly in the region, Neanderthals occupied a hillside dominating the Scarpe Valley. At Saint-Amand-les-Eaux, the main activity of this prehistoric group was the production of *bifaces*, a tool characteristic of this period.

Dozens of flint knapping stations have been identified on the ground by the concentrations of flint flakes related to tool production. More than 10,000 stone objects have thus far been recorded by the archaeologists. Until now only one workshop from this period, that of Saint-Brice-sous-Rânes, was known to prehistorians.

Geometric forms and high technical skills

At Saint-Amand-les-Eaux, the small number of objects with adhering cortex (the exterior envelope that covers unworked flint) suggests that the blocks were collected in the Escaut Valley a few kilometres away, where initial flaking took place. The blocks were then taken to the site where they were shaped with soft stone hammers, probably sandstone.

The sixty bifaces thus far discovered have varied forms: triangular, oval, cordiform (heart-shaped), etc. Their morphology, and sometimes their small size, are characteristic of one variant of the Mousterian culture. In particular, their perfect symmetry demonstrates the great mastery and technical skill of these Neanderthals in the production of bifaces. These tools served many purposes, and have been called prehistoric “Swiss Army knives”.

Site function

It is possible that activities other than stone tool production (such as the butchery of hunted animals.) also took place at this camp. However, due to the acidity of the soil, no bone remains are preserved. Prehistorians thus cannot identify all the functions of the site with certainty. However, the transport of flint flakes over several kilometers, the presence of used bifaces and a large variety of tools (scrapers, etc.), are all elements that suggest this was a temporary habitat. A study of the microscopic traces of use on the edges of the tools will probably reveal at least some of the other activities of Neanderthals on this site.

Around 50,000 or 45,000 years ago...a date within 5,000 years?

We know that the tools found at Saint-Amand-les-Eaux belong to the Mousterian culture of the Middle Palaeolithic period, which in Europe was the work of Neanderthals between 300,000 and 30,000 years ago. Prehistorians attribute the tools from Saint-Amand-les-Eaux to the end of this period, from 50,000 to 45,000 years ago. Lacking a deep stratigraphy, the archaeologists will rely on radiometric dates to precisely date this Paleolithic occupation. Thermoluminescence analysis of burnt flint should allow them to date this site, to an accuracy of 5,000 years, in the chronology of the Middle Paleolithic.

Following the discovery in 2005 at Caours (Somme) of a Neanderthal butchery site dated to 125,000 years ago, Saint-Amand-les-Eaux sheds new light on the presence and activities of Neanderthals in northwest Europe and contributes to our knowledge of stone tool production during this period.

L'Inrap

With 1,800 collaborators and researchers, Inrap is the largest archaeological research structure in France and one of the most important in Europe. This national public research institution undertakes the majority of archaeological evaluations and excavations in partnership with private and public developers, a total of nearly 2,500 sites per year in mainland France and its overseas territories. Inrap collaborates regularly with the accredited archaeology services of local regions and departments.

Developer **S.A. Facadis - Centre Leclerc**

Curation **Regional archaeology service (Drac Nord-Pas-de-Calais)**

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