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THE END OF THE MESOLITHIC ON THE SWISS PLATEAU AND THE NORTHERN JURASSIAN MASSIF

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THE END OF THE MESOLITHIC ON THE SWISS PLATEAU AND THE NORTHERN JURASSIAN MASSIF

Laure BASSIN

Abstract

The end of the Mesolithic and the transition toward the Neolithic in Switzerland is currently being studied through the technical systems of lithic tool manufacturing at two important sites: Arconciel/La Souche (Fribourg, Switzerland) and Lutter/Abri Saint-Joseph (Alsace, France). The various innovations and/or continuities in the lithic industries of these two sites have been analyzed with the aim of determining the evolution and distribution of lithic manufacturing techniques at the end of the Mesolithic and understanding, within these assemblages, possible influences from the Neolithic sphere.

Keywords

Second Mesolithic, Mesolithic-Neolithic transition, Arconciel/La Souche (Fribourg, Switzerland), Lutter/Abri St-Joseph (Alsace, France), evolution of techniques.

In Switzerland and in the Jurassian Massif, as in other regions of Western Europe, two phases are distinguished in the Mesolithic (Marchand, 2008). In terms of lithic industries, the first phase is characterized by diverse microliths (triangles, segments, diverse points) and by the manufacturing of products with little standardization. The second phase is distinguished by specific tool types (Montbani bladelets and trapezes) and the introduction of the indirect percussion technique. These modifications in the technical systems during the Second Mesolithic seem to have been diffused from the eastern or southern Mediterranean basin toward Western Europe starting in 7 000 BC (Perrin *et al.*, 2009). At around 6 600 BC, this change occurred in Switzerland with the first industries with Montbani bladelets and trapezes (or geometric bi-truncations), which probably arrived from the west (Nielsen, 2009: 684-685; Mauvilly, 2013: 108).

The diffusion of the Second Mesolithic in Europe, preceding that of the Neolithic, raises questions concerning its origin, developments and the relationships between hunter-gatherer and agropastoralist populations (Perrin *et al.*, 2009). In this context, the Swiss Plateau is an interesting study zone due to its geographic location in the center of Europe: on one hand, it is traversed by several natural circulation routes, such as the Rhone and Danube Valleys, and on the other, it is enclosed by two large mountainous massifs, the Jura and the Alps. Due to this paradox, it appears that its situation was unusual, especially at the end of this period: at around 5000 BC, when nearly all of Europe ventured into the Neolithic, the status of the Swiss Plateau remains unknown (Voruz, 1991; Denaire *et al.*, 2011).

To gain a better understanding of the features linked to both continuity and innovation in the technical systems of regional Mesolithic populations, the lithic industries of two recently excavated stratified sites are currently under study: the first, Arconciel/La Souche (Fribourg, Switzerland), is located on the Swiss Plateau, at the foot of the Prealps, and the second, Lutter/Abri St-Joseph (Haut-Rhin, France), in the northern *Arc Jurassien*. These two rock shelters have several fundamental elements that can contribute to our understanding of the Second Mesolithic in this region.

First, in terms of geography, Arconciel/La Souche is located on the border of the Swiss Plateau, which has a natural north-east/south-west orientation, while Lutter/Abri St-Joseph is at the foot of the Jurassian Massif, turned toward the north: they are thus situated on two different circulation routes that are at the origin of distinct cultural differences. At Lutter / Abri St-Joseph, pot sherds attributed to the Grossgartach and two sherds with Linearbandkeramik type decorations, show contacts with Danubian Neolithic cultures (Arbogast et al., 2011; Jeunesse et al., 2014), while Arconciel/ La Souche displays more ambiguous influences with both shell ornaments from the Mediterranean - probably arriving from the Rhone Valley, and a small decorated terracotta object resembling Balkan pintadera (Mauvilly et al., 2008, 2013). The lithic industries of these two sites corroborate this cultural orientation. At Lutter / Abri St-Joseph, in the levels concerned, the stylistic influences can be linked with the northern Jura and the Danubian cultures; through Bavans points, for example, which are found at sites from the end of the Mesolithic in eastern France, as well as triangular weapon armatures of the Linearbandkeramik style. At the same time, a local component is seen in the typology with small symmetric points with invasive abrupt retouch and a concave base (Arbogast et al., 2009: 42-44). The lithic industry of Arconciel / La Souche has not yet been linked to cultural spheres as Lutter / Abri St-Joseph has with the indigenous cultures of the northern Jura and the Danubian Neolithic cultures. A detailed study of the tools, weapon elements and their manufacturing techniques will provide information on the influences or local components of this assemblage.

Concerning raw material economy, these two sites are interesting in that they contain the main stones used for tool manufacturing in the region. These are the flints of the Jurassian massif, the siliceous stones of the Prealps and Alpine quartz. These two sites each present specific examples of the organization of the débitage of these stones. At Lutter / Abri St-Joseph, the use, from the Mesolithic to the Neolithic, of the same raw material - small cortical nodules of different flints found nearby in the Jurassian limestones - resulted in a dominant manufacturing strategy that was similar in the different phases of the occupation of the site. Blades and bladelets were the intended products. The latter, taking advantage of the natural convexity of the small flint nodules, did not involve extensive core preparation or intensive maintenance phases. At Arconciel/La Souche, the raw materials are much more diverse. Since there are no primary sources of siliceous rocks in immediate proximity to the site, various stones carried by glaciers and deposited by moraines, by river systems or by the movements of human groups, were used to manufacture tools. The three main rock types are from the Prealps: radiolarites, fine-grained quartzites and flint. There is also flint from the Jurasian massif, as at Lutter / Abri St-Joseph, as well as flint imported from eastern France (Mauvilly et al., 2006: 115-121). Since these stones have very different qualities, different manufacturing strategies were employed by the knappers at Arconciel/La Souche, and the results of studies of the economy of raw materials at this site will thus be interesting.

Finally, in terms of chronology, the two sites are complementary. At Arconciel/La Souche, the archaeological levels are more than three meters deep; they are radiocarbon dated to between 7100 and 4800 BC, with intensive occupations between 6600 and 5800 BC. At Lutter/Abri Saint-Joseph (Alsace, France), the stratigraphy is more compact, but extends from the Early Mesolithic to the Roman period. The levels that interest us, those of the Second Mesolithic and the beginning of the Neolithic, are dated to between 5700 and 4700 BC. Therefore, the specific qualities of these are sites are, for Arconciel/La Souche, a succession of occupations throughout the Second Mesolithic, and for Lutter/Abri St-Joseph, the probable existence of contacts with the Danubian Neolithic.

The technical systems of the lithic tool manufacturing at these two sites are currently under study¹ with the objective of obtaining information on the evolution and distribution of techniques during the Second Mesolithic in Switzerland and in the Jurassian arc. Through this study, we aim to determine the role played by the circulation networks of ideas and by the somewhat marginal aspect of certain geographic zones in the composition of lithic assemblages. The final objective is to enrich and renew reflections on the origin and development of the Second Mesolithic in Europe.

References cited

- Arbogast R.-M., Denaire A., Doppler T., Jacomet S., Jeunesse C., Mauvilly M., Schibler J., 2009 Lutter « Abri Saint-Joseph » (Haut-Rhin), Rapport de fouille programmée 2009, Strasbourg, CNRS, UMR 7044, Bâle, IPNA, 77 p.
- Arbogast R.-M., Denaire A., Doppler T., Jacomet S., Jeunesse C., Mauvilly M., Schibler J., 2011 Lutter « Abri Saint-Joseph » (Haut-Rhin), Rapport de fouille programmée 2011, Strasbourg, CNRS, UMR 7044, Bâle, IPNA, 111 p.
- Denaire A., Doppler T., Nicod P.-Y., van Wiligen S., 2011 Espaces culturels, frontières et interactions au V^e millénaire entre la Plaine du Rhin supérieur et les rivages de la Méditerranée, Bâle, *Annuaire d'archéologie suisse*, 94, 21-59.
- Jeunesse C., Arbogast R.-M., Denaire A., Doppler T., Jacomet S., Mauvilly M., Schibler J., 2014 L'abri Saint-Joseph à Lutter : 9 000 ans d'histoire du Jura alsacien, *Annuaire de la société d'histoire sundgauvienne*, Société d'histoire du Sundgau, 13-44.
- Marchand G., 2008 Dynamique des changements techniques sur les marges du Massif armoricain de l'Azilien au Premier Mésolithique, in Fagnart J.-P., Thevenin A., Ducrocq T., Souffi B., Coudret P. (dir.), *Le début du Mésolithique en Europe du Nord-Ouest*, Actes de la table ronde d'Amiens (9 et 10 octobre 2004), Paris, Société préhistorique française, Mémoire XLV, 52-64.
- Mauvilly M., McCullough F., Dafflon L., 2006 Archéologie de l'abri Arconciel/La Souche, Canton de Fribourg/ Suisse, Rapport de fouilles 1998-2006, Fribourg, Service archéologique de l'État de Fribourg, 171 p.
- Mauvilly M., Dafflon L., McCullough F., 2008 L'abri mésolithique d'Arconciel/La Souche : bilan des recherches 2003-2007, Fribourg, Service archéologique de l'État de Fribourg, *Cahiers d'archéologie fribourgeoise*, 10, 44-75.
- Mauvilly M., Spielmann J., McCullough F., Dafflon L., 2013 Arconciel / La Souche : une page de la recherche sur le Mésolithique fribourgeois se tourne, Fribourg, Service archéologique de l'État de Fribourg, *Cahiers d'archéologie fribourgeoise*, 15, 104-109.

^{1.} In the current state of research, we do not yet have results on this subject. This research is the subject of a PhD thesis at the University of Neuchâtel (Switzerland). It is funded by a project of the *Fond National Suisse* of the scientific research held at the University of Zurich (100012_140419) and the Archaeological Service of the State of Frigourg for Arconciel/La Souche. It is realized in collaboration with the University of Strasbourg (CNRS UMR 7044) for Lutter/Abri St-Joseph.

- Nielsen E. H., 2009 Paläolithikum und Mesolithikum in der Zentralschweiz, Mensch und Umwelt zwischen 17000 und 5500 vor Christus, Luzern, Kantonsarchäologie (« Archäologische Schtriften Luzern » 13), 720 p.
- Perrin T., Marchand G., Allard P., Binder D., Collina C., Garcia-Puchol O., Valdeyron N., 2009 Le second Mésolithique d'Europe occidentale : origine et gradient chronologique (The late Mesolithic of Western Europe: origins and chronological stages), *Annales de la Fondation Fyssen*, 24, 160-177.
- Voruz J.-L., 1991 *Le Néolithique Suisse, Bilan documentaire*, Genève, Document du Département d'Anthropologie et d'Écologie de l'Université de Genève, 16, 172 p.

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