
Chaînes opératoires in Schöningen: an example for the Middle Pleistocene?

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Résumé

The *chaînes opératoires* of the findings from Schöningen (Lower Saxony, Germany) offer a unique opportunity to study how hominins manufactured and used wooden, bone and stone tools. This detailed analysis is not based on isolated or scarce artifacts, as it occurs unfortunately in many Paleolithic sites, but rather on the basis of a large and varied dataset of tools. Moreover, in Schöningen, also the remains of the production process have been identified. All this not only reveals the procedure to create tools, but also the knowledge, the experience, the intention, the choices and the expertise of the manufacturers. The clear patterns in tool production and raw material selection indicate standardized *chaînes opératoires* revealing the traditions and culture within the group living nearby the Schöningen lake, which could have determined the production of these artifacts. They show on the one hand the ability of a significant planning depth and on the other hand the intelligent opportunistic use of local materials. In Schöningen, the presence of a kit of weapons (spears, lances and throwing sticks) as well as the numerous animal bones with cut and impact marks indicate that the hominins in Schöningen were able to hunt, to defend themselves as a group and to develop complex activities. Several tools show that the activities were not only hunting or butchering, but also included a wide range of actions, as e.g. digging on the lake shore probably to collect roots. The aim of this presentation is to discuss the results from Schöningen and to compare if similar patterns are present in other sites too.

Mots-Clés: Schöningen, chaîne opératoire, bone tools, spears, lithics artifacts, culture

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