

mals of various ages (prime-age or adults, evidence of intentional prey selection) and traditions of systematic processing of larger quantities of game have been proved, at least from 125 Ky to 55 Ky.<sup>22</sup> Faunal remains of a human activity could be an accumulation during repeated visits to the spot, a few animals being taken each time. Scavenging is also practiced, according to the resources. These studies, as the lithic ones, often provide evidence of short occupations, or at least of movement of mobile human groups according to the environment, thereby transmitting knowledge over generations.<sup>23</sup> Different hypotheses have been proposed to discuss the kind of the spatial occupation and the seasonality with home bases and specific extraction sites.<sup>24</sup> However, the accumulation in most sites cannot allow us to conclude on the duration of the settlements. Ethnographic studies suggest that humans move according to seasons and each site has specific characteristics, such as the topography, the function, and the diversity of activities. The artefact distribution is linked to a large number of factors which are not always visible on an archaeological site.<sup>25</sup> Otherwise, in the same environmental context, various behaviour can exist.

Use-wear analysis and the reduction sequence studies from raw material collecting to flaking and tools discarding; "chaîne opératoire" indicate that different kinds of stone tools or cutting edges can be used for the same work.<sup>26</sup> On the contrary, the same flakes can be produced by different debitage methods. These observations suggest that the Neanderthal abilities were both numerous and varied, through technological traditions, especially for the stone work. Most of the information on the technological behaviour is actually provided from this stone work. However, some discoveries, dated to OIS 5 or earlier, indicate that bones could be used sometimes, due to the lack of large stone blocks or tradition. Sites as Castel di Guido, Fontana Ranuccio, La Polledrara di Cecanibbio, Rebibia-Casal de' Pazzi have yielded bone hand-axes, bone scrapers, or "compressors" (Bilzingsleben).<sup>27</sup> Wood is also a raw material, as the discoveries of Schöningen, Lehringen in Germany, Clacton in Great-Britain or Abric Romaní in Spain attest.<sup>28</sup> The spearpoints in Schöningen associated with horses, the wooden tools in Abric Romaní, or the wooden handles in Bilzingsleben, suggest a technological world much larger than we could assume by only stone studies.<sup>29</sup> The microwear analysis confirms that wood has been worked in a high proportion, even in the oldest settlements. Various kinds of tools, in size and shape, have

<sup>22</sup> SPETH-TCHERNOV 1998.

<sup>23</sup> MONCEL 1998.; ROEBROEKS-TUFFREAU 1999.

<sup>24</sup> BINFORD 1987.

<sup>25</sup> BINFORD 1978

<sup>26</sup> BEYRIES 1988.; LEMORINI 2000.

<sup>27</sup> MANIA et al. 1980.; MANIA 1995.; RADMILLI-BOSCHIAN 1996.; MANIA 1998.; GAUDZINSKI 1999.; ANZIDEI et al. 1999.; ANZIDEI 2001. But ivory is not used (VILLA-d'ERRICO 2001).

<sup>28</sup> OAKLEY et al. 1977.; CARBONELL-CASTRO-CUREL 1992.; THIEME 1997., 1998.; MANIA 1998.

<sup>29</sup> KOLLER et al. 2001.