

Palaeolithic and Mesolithic kill-butchering sites: the hard evidence

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1. Introduction

The places where animals have been killed or at least butchered by our ancestors represent obviously the best expression of the relation between man and his prey. Isaac (Isaac, 1976; Isaac & Crader, 1981), referring to African deposits of Lower Palaeolithic age, defines a simple kind of such sites as containing the skeleton of a single, large animal, associated with lithic artefacts (his type B sites): they represent a unique episode. However, such accumulations seem to be very rare: in fact near the carcass of the huge beast almost always other generally much more fragmentary remains of other animals are found. These can represent “background” material without direct relation with hominid activity, but we cannot be sure of this. Evidently, Isaac’s definition does not cover the effective variability of all Palaeolithic and Mesolithic kill and/or butchering sites. Therefore, I have tried, in my *tesi di laurea*, to develop a typology of the possible kinds of bone concentrations reflecting man’s animal procurement behaviour. For this aim, I drew information from various authors discussing the topic (Binford, 1984; Clark & Haynes, 1970; Crader, 1983; Meignen & Texier, 1986) and read a selected number of papers dealing directly, or indirectly through discussions or summaries, with some 30 sites, my reading assignment depending to some extent on the accessibility of the papers included. I am aware that my sampling of sites is limited and perhaps biased and that the evidence as presented by the various authors is often equivocal, but I hope that my attempt will stimulate the development of a site typology which could be a useful tool for classification and research.

2. Suggested site typology

a. *Butchering sites*: places with animal natural deaths, later utilised by man, such as sites

FLK N Lev. 6 (fig. 1) and FLK N *Deinotherium* at Olduvai (Crader, 1983; Leakey, 1971), and site HAS (fig. 2) at Koobi Fora (Crader, 1983).

- b. *Killing and butchering sites 1*: a single animal carcass representing a unique hunting episode. This kind of accumulation is similar to Isaac’s type B sites. An American example is Pleasant Lake (Fisher, 1984; fig. 3).
- c. *Killing and butchering sites 2*: extensive disarticulation and dispersion of the bones of a few big animals at the most associated with a comparatively small number of stone artefacts. Examples are Windhoek (Clark & Haynes, 1970) and perhaps Mwanganda (Clark & Haynes, 1970).
- d. *Hunting losses*: animals killed but not utilised by man; High Furlong (Hallam *et al.*, 1973) would be an example.
- e. *Hunting stations*: dense distributions of osseous remains reflecting the reutilization of the locality for a long period, often on a seasonal base. Examples of such palimpsests of archaeological remains could be Mauran (Farizy & David, in press; Girard-Farizy & Leclerc, 1981), Stellmoor (Rust, 1937) and La Cotte de Saint-Brelade, lev. 3 and 6 (Scott, 1980; fig. 4). A subtype of hunting stations could be represented by American mass kills, as for example the Casper Site (Frison, 1974). In these sites, not examined here, animals are normally killed with game drive techniques.
- f. *Hunting stops*: they can be relatively simple or quite complex: sometimes the hunters seek shelter behind a high rock and light a small fire as suggested by Binford (Binford, 1981). An example could be Phase IVA of the Grotte de l’Hortus (de Lumley, 1971).
- g. *Sighting sites*: they would be characterised by modest bone accumulations in locations with a panoramic position and allowing to detect game and its movements easily. Examples are the Mesolithic sites described by Bagolini and Dalmeri (Bagolini & Dalmeri,

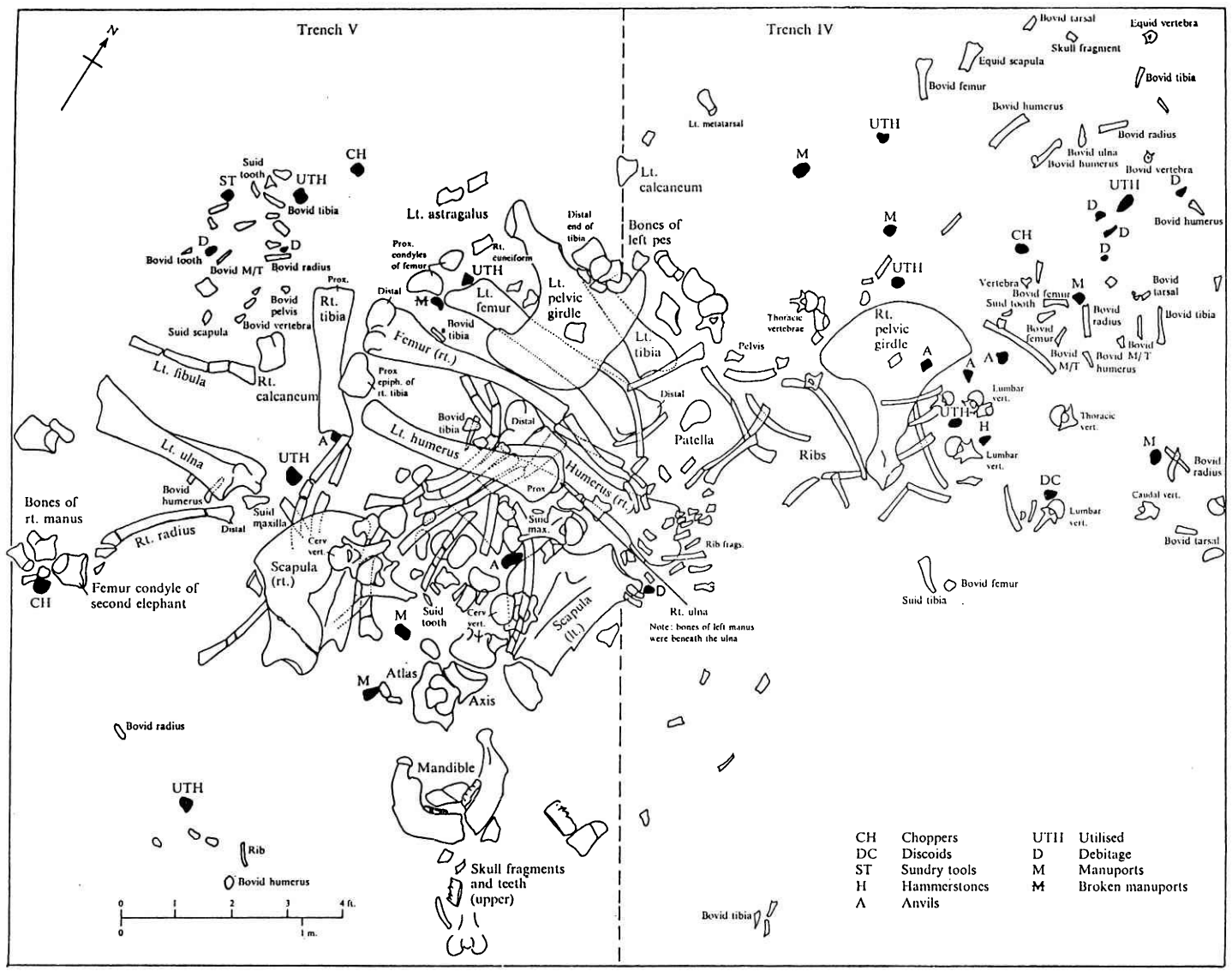
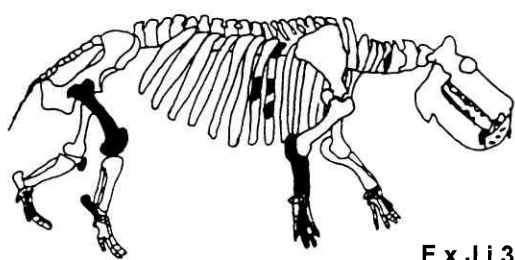
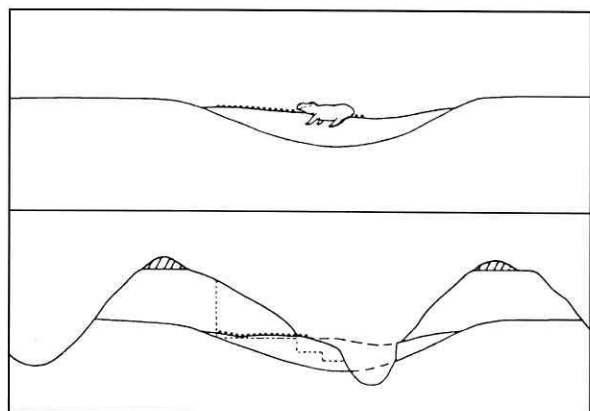


Fig. 1.



(from Bunn, 1982)

Fig. 2.

1987) at Colbricon near San Martino di Castrozza, Trentino, Northern Italy, at 2 000 m of altitude. They all are located along a rocky crest, far from water, near which base camps are found (fig. 5).

3. Development through time

In the next paragraphs, the evaluated sites are discussed per period.

3.1. Lower Palaeolithic

Scavenging: exploitation of the carcasses of big animals that died for natural causes; they are often found near lakes or swamps, as the elephant and maybe the *Deinotherium* at Olduvai (Leakey, 1971), the hippopotamus of Koobi Fora (Isaac, 1976) and the elephants of Kathu Pan (Klein, 1988), Namib IV (Klein, 1988) and Mwanganda's Village (Clark & Haynes, 1970).

Hunting: scanty traces of hunters' action are encountered. At Olorgesailie, occasional killing of some baboons with a head blow seems to have occurred (Shipman, Bosler & Davis, 1981). At Torralba and Ambrona, people may have killed elephants using wooden spears (fragments of wooden artefacts are present) and big stones (Allain, 1952). At Lehringen (Movius, 1950), hominids killed an *Elephas antiquus* with a wooden spear discovered in the site (see also Weber, this volume).

Planning: very limited or absent. The exploitation of animals would have been occasional and opportunistic with short and limited occupation of sites by small groups, as at Olduvai (Crader, 1983), Koobi Fora (Crader, 1983), etc.

Food transport: Acheulean people are said to have carried away the most useful and meaty parts of animal carcasses at Torralba (Freeman, 1975), Ambrona (Freeman, 1975), Elandsfontein (Klein, 1988), etc. In earlier

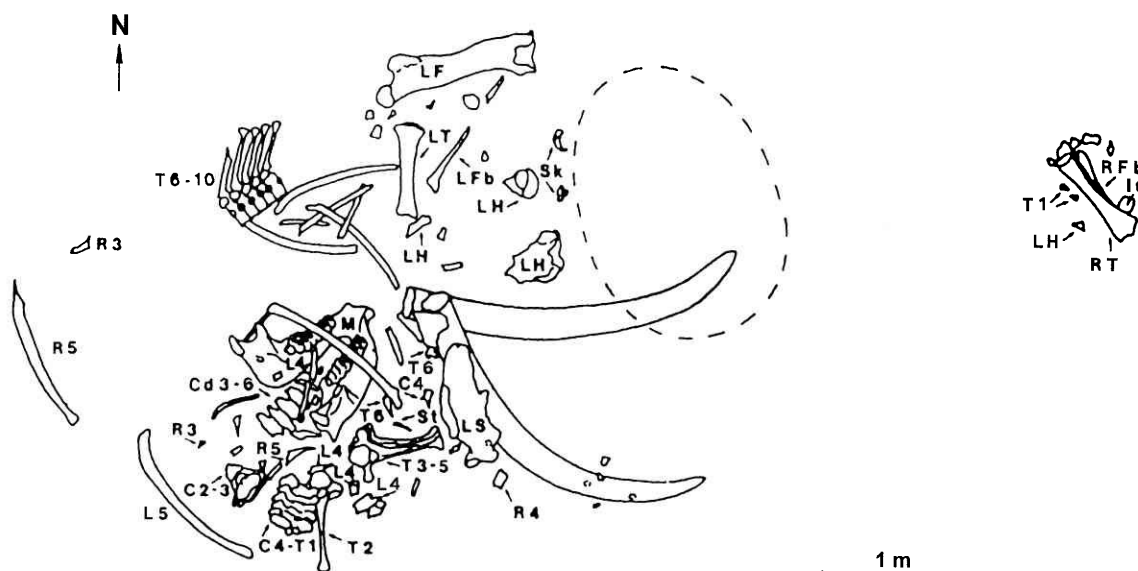


Fig. 3.

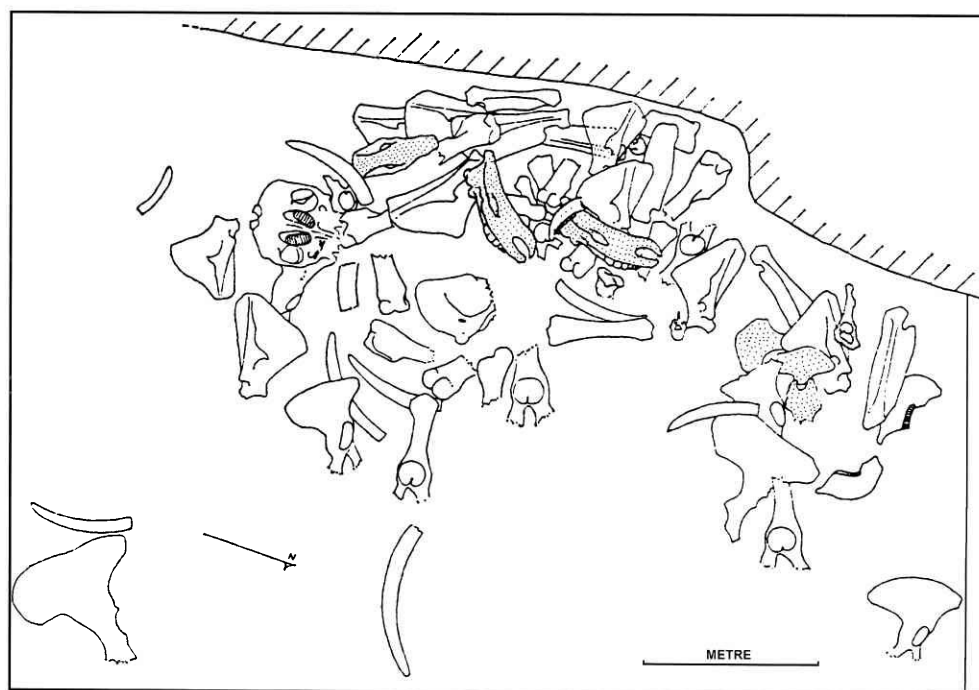


Fig. 4.

times, people apparently consumed the meat on the find spot.

Specialised activities: at the already cited sites of Torralba, Ambrona and at Mwanganda distinct associations between certain bones and tools would occur: they may represent specialised activity areas.

Butchering tools: hand-axes and *hachereaux* are sometimes associated with big animals at Olorgesailie (Shipman, Bosler & Davis, 1981), Elandsfontein (Klein, 1988), Kathu Pan (Klein, 1988), Namib IV (Klein, 1988) etc., suggesting that they were used for butchering.

3.2. Middle Palaeolithic

Hunting: Sites such as Zwolen (Gautier, 1989) and Mauran (Farizy & David, in press; Girard-Farizy & Leclerc, 1981) preserve clear evidence of active hunting.

Planning: killings are less often occasional. Neanderthal man returns periodically (or seasonally) to special places rich in game and with a natural topography propitious to hunting activities. This testifies to an intentional and calculated choice, as at the sites already mentioned.

Specialisation: sometimes man specialises in the capture of a particular animal species: big bovids at Mauran (Farizy & David, in press),

horses at Zwolen (Gautier, 1989), wild goats at the Grotte de l'Hortus (de Lumley, 1971).

Hunting techniques: probably some kind of game driving was practised at Mauran (Farizy & David, in press), Zwolen (Gautier, 1989), La Quina (Jelinek, Debenath & Dibble, 1989) and La Cotte de Saint-Brelade (Scott, 1980).

Seasonal killings: many killings are probably seasonal, animals fall in discrete age groups at Zwolen (Gautier, 1989) and La Quina (Jelinek, Debenath & Dibble, 1989).

Food transport: the lightest and most meaty bones (hind limbs, pelvi, ribs, vertebrae) may be carried away. In kill sites man leaves big and useless parts of animal skeletons (skulls, jaws etc.). Transport of meaty skeletal parts may be exemplified at Mauran (Farizy & David, in press).

Butchering activities: at Mauran, Farizy and David (Farizy & David, in press) notice many phases in the butchering process: dismemberment, removal of muscular masses and bone breakage for marrow extraction.

3.3. Upper Palaeolithic and Mesolithic

Hunting: the archaeological record leaves us some direct evidence of man's hunting activities. At Meiendorf (Rust, 1937) and Stellmoor (Rust, 1937), some bones of reindeer

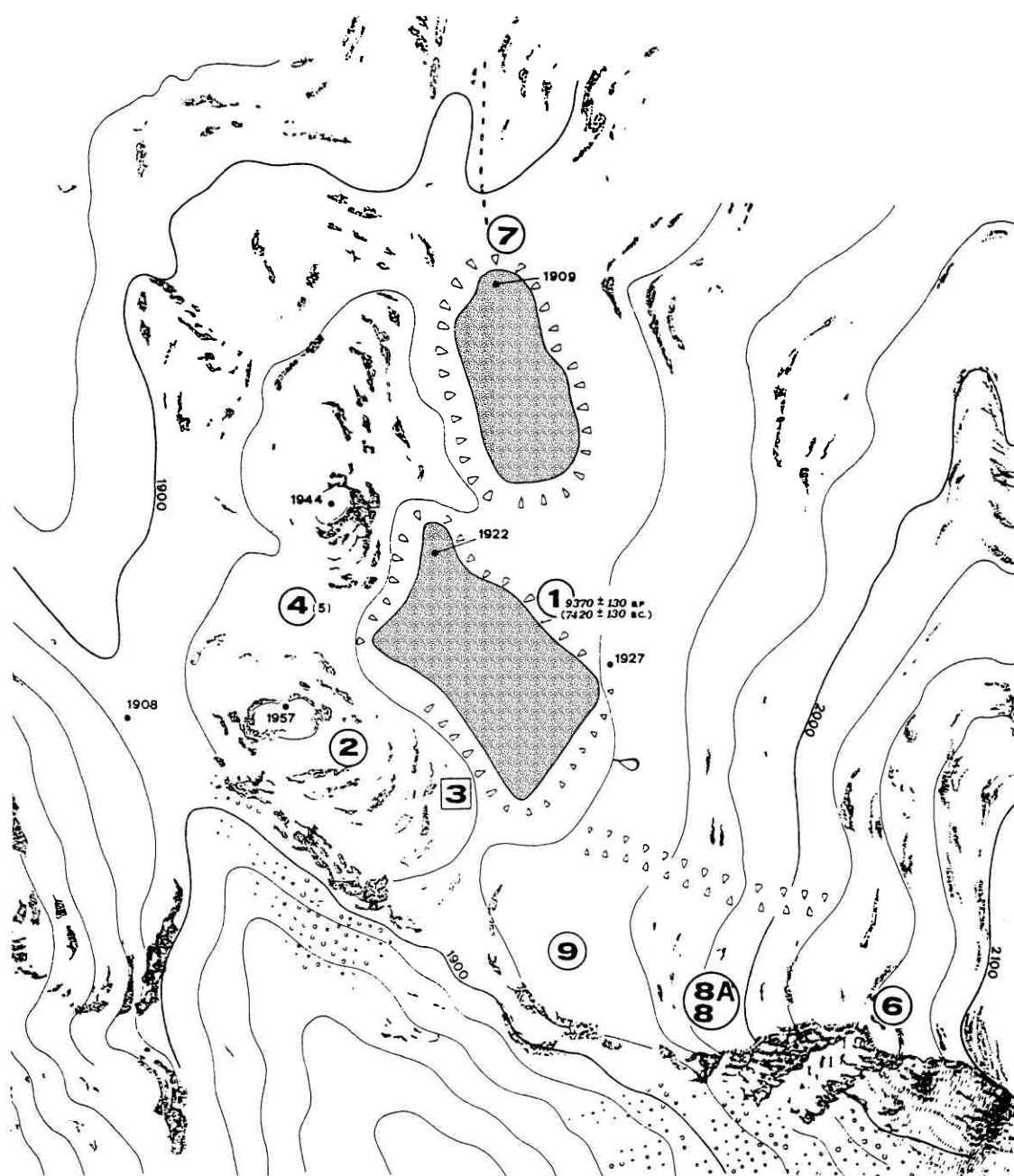


Fig. 5.

and birds still conserve weapon marks and a few pieces of silex have remained thrust in mammalian bones; man kills reindeer with harpoons and sticks (fractured skulls), birds with bows and maybe slings. Three fractured skulls of red deer in Abri Pataud (Bouchud, 1975), and one bovid skull with a circular orifice in Saint Marcel (Allain, 1952) suggest the practice of the so called "*coup de merlin*": man has delivered a blow similar to the one used today to butcher cattle. Probably the animal already immobilized (wounded or entrapped) was hit on the frontal with a

big stone. At Kokorevo I (Siberia), a large scapula of bison is pierced by the upper end of a point made of bone (Boriskowski, 1965). At High Furlong (Mesolithic), an elk was discovered with the marks of 17 wounds made by barbed points, of which two were found in the site, and by other arms. The animal had apparently been attacked at two distinct occasions: during the first one, hunters aimed at the legs to lame the animal (fig. 6), later hunters hit the thoracic region and the lungs to kill it. However the elk died in a little lake, perhaps imprisoned in

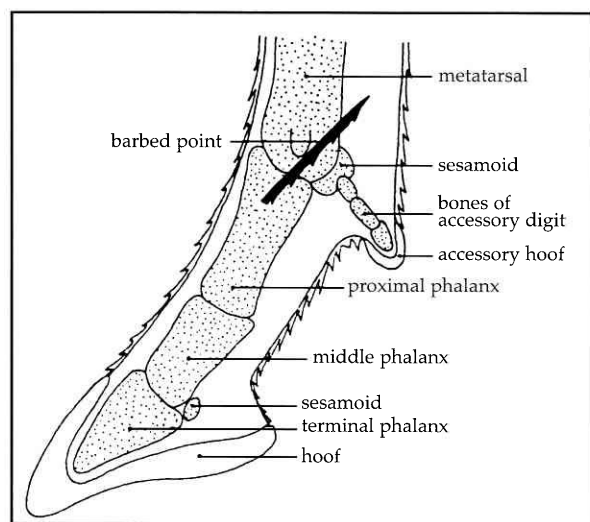


Fig. 6.

the ice, and man had no access to the meat. The animal represents in fact a hunting loss (Hallam *et al.*, 1973).

Planning: very good. Many sites belong to type e, were occupied periodically or seasonally and specialised in the capture of a particular game (e.g., horse, reindeer, ibex). Game drive towards cliffs have been claimed and Solutré (Combiér & Thévenot, 1976) has long figured as an example, but the evidence is far from conclusive.

Scavenging: no doubt *H. sapiens* still killed or exploited animals in the occasional and opportunistic way of Lower Palaeolithic times. According to Lindner (Lindner, 1941), hunters at Predmost utilised the carcasses of hundreds of mammoths that probably succumbed as a result of natural catastrophes, as food.

Food transport: selective transport of the most useful animal parts is claimed for many sites.

Specialised activities: sometimes the material is dislocated in distinct clusters that could reflect specialised activity areas as for example at Solutré (Combiér & Thévenot, 1976).

Site topography: some hunting sites were located in valleys enclosed by steep slopes as at Rascano (González-Echegaray, 1979), Stellmoor (Rust, 1937), Meiendorf (Rust, 1937), or at the foot of rocky cliffs at Solutré (Combiér & Thévenot, 1976).

4. Conclusions

Most of the Lower Palaeolithic sites analysed here belong to category a (butchering sites);

other kind of concentrations are rare and difficult to ascertain. A number of hunting stations (category e) and a hunting stop (category f) form my sample for the age of Neanderthal man and related people. The Upper Palaeolithic is characterised by many hunting stations, while in Mesolithic times a hunting loss (category d) was found as well as several sighting sites (category g). The foregoing distribution seems to reflect in a vague way an evolution from scavenging and haphazard opportunistic hunting to well organised, selective hunting activities. However, this reflection results no doubt in part from a priori assumptions concerning the evolution of hominid meat procurement often colouring the interpretations offered for the osseous "hard" data; these are frequently equivocal.

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