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Europe during the Last Glaciation: Differences in perception North and South of the Alps

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SUMMARY - *Europe during the Last Glaciation: Differences in perception North and South of the Alps* - The fact that science, too, is subject to trends and the spirit of the times is widely accepted. Naturally, this is especially true for a scientific discipline such as Prehistory which aims at producing insights into the human past. In our paper, we stress that, besides this, there are also clear-cut geographic differences in the perception of the Palaeolithic in general and of the Last Glaciation in particular. From the different regional views and traditions within Palaeolithic research, the Mediterranean view and the central European view will be highlighted and contrasted in the paper. Especially by addressing graphical reconstructions of the environment and the outer appearance of our ancestors as well as the method of mapping "important" hominin fossil remains and sites, we want to draw the attention to these different modes of perception. Doing so we want to contribute to a – in our opinion – more objective analysis of the European Palaeolithic in general and the Neandertals in particular.

RIASSUNTO - *L'Europa durante l'Ultima Glaciazione: differenze nella percezione a nord e a sud delle Alpi* - Il fatto che anche la scienza sia soggetta alle idee e allo spirito del momento storico in cui si sviluppa, è un fatto certo. Naturalmente questo è tanto più vero per una disciplina quale la Preistoria, che ha come obiettivo di mettere in luce il passato. Nel nostro articolo vogliamo mettere in risalto come, oltre a questi aspetti, esista anche una chiara differenza di percezione del Paleolitico in generale e dell'Ultima glaciazione in particolare, dovuto ad un fattore geografico. Tra le differenti scuole, legate a regioni e tradizioni diverse, abbiamo scelto di trattare in questo articolo il punto di vista della ricerca scientifica dell'Europa mediterranea, per confrontarlo con quello della ricerca scientifica dell'Europa Centrale. In particolare, aspetti legati alla ricostruzione ambientale, alla ricostruzione delle sembianze dei nostri antenati, così come alla realizzazione di una mappa con i siti con i resti fossili umani "più importanti" mostrano che la percezione è spesso diversa a seconda che il ricercatore si trovi al nord o al sud delle Alpi. Partendo da questo aspetto vogliamo contribuire ad un'analisi secondo noi più obiettiva del Paleolitico europeo in generale e del fenomeno "uomo di Neandertal" in particolare.

Key words: central Europe, southern Europe, climate, Neandertal reconstructions, Neandertal distribution

Parole chiave: Europa centrale, Europa del sud, clima, ricostruzione dei Neandertaliani, distribuzione dei Neandertaliani

1. INTRODUCTION

This paper is not intended to be a classical paper about history of research only focusing on the past. Of course, we will regard the past, too, but our focus will be on contemporary research. We, an Italian prehistorian working in Germany and a German prehistorian, aim at hopefully opening a discussion about the subjective views about Europe during the Last Glaciation and the differences in perception north and south of the Alps. Thinking "north of the Alps" we consider central Europe and in particular Germany where we have been working for many years. Thinking "south of the Alps" we consider southern Europe and in particular Italy.

Of course this paper can not touch all aspects of the subjects mentioned, and of course we are ourselves children of our time, influenced by our regional backgrounds

and our individual experiences. Therefore we decided to concentrate on only three aspects which, in our opinion, are absolutely evident. These aspects will be addressed asking three questions:

1. How cold was the Ice age in our mind?
2. What is our visual idea of the Neandertals?
3. How is the mutual perception of scientific discoveries north and south of the Alps?

Before we start, it is important to emphasize that in most cases the same ways of looking at things exist both in central and southern Europe. In both regions colleagues put strong emphasis on Palaeolithic research in France; this is especially true when dealing with research in earlier decades. The colleagues of the classical French school, in turn, regard themselves and their own research. It has been like this, for example, for 140 years in Anthropology (Mantegazza 1877), and it remains, in every respect, almost the

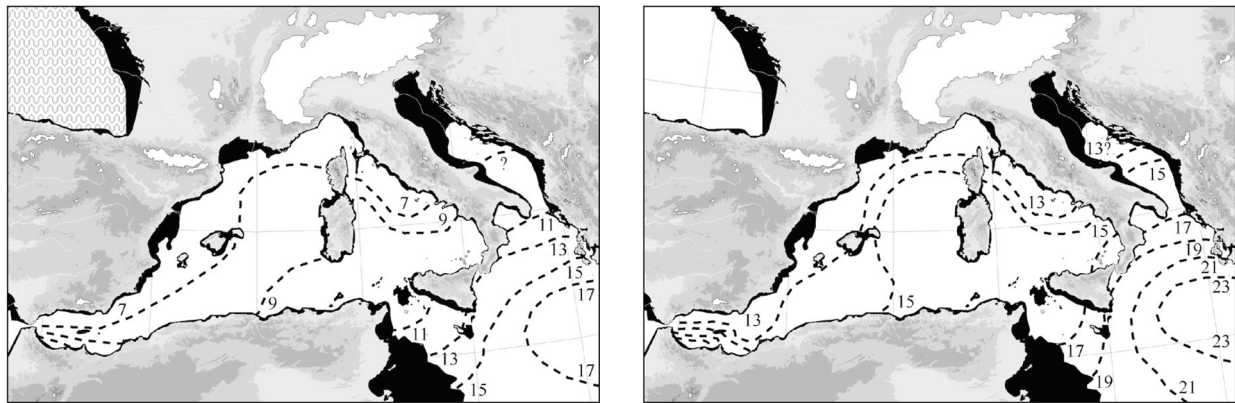


Fig. 1 - Water temperatures of the Mediterranean Sea during the Late Glacial Maximum around 18,000 BP in winter (left) and summer (right) as inferred from planktonic foraminifers in sediments (after Thiede 1978).

Fig. 1 - Temperature dell'acqua del Mar Mediterraneo durante l'Ultimo Massimo Glaciale circa 18.000 anni BP in inverno (a sinistra) e in estate (a destra) come dedotto dai foraminiferi planctonici rinvenuti nei sedimenti (da Thiede 1978).

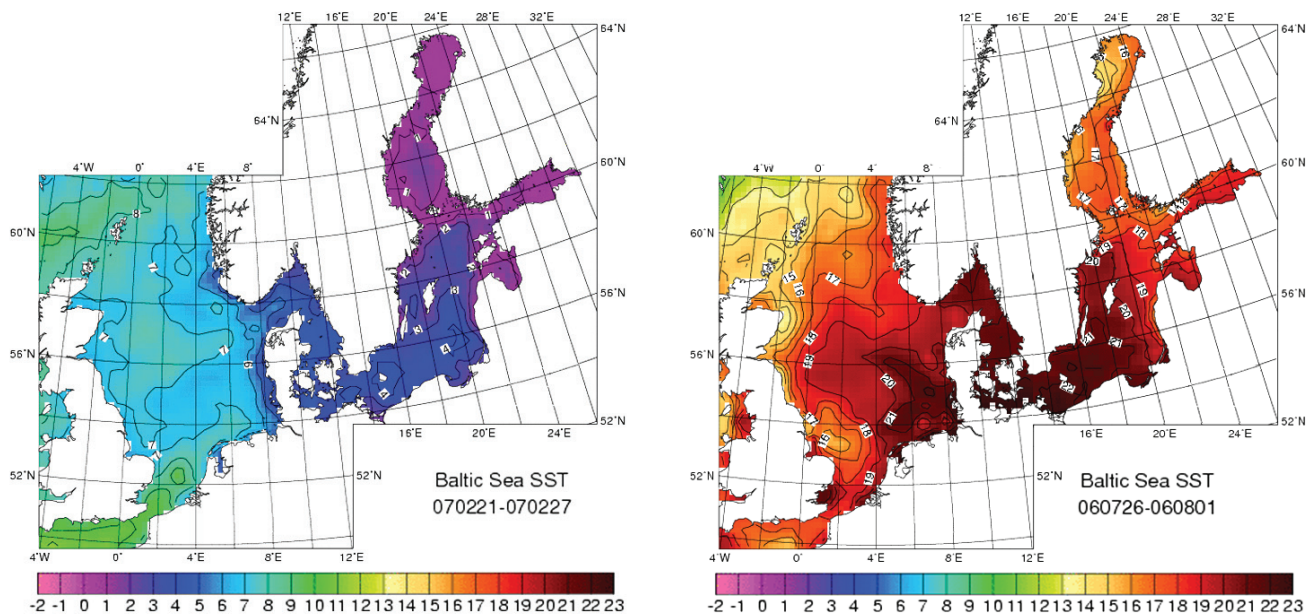


Fig. 2 - Winter and summer temperatures in the North Sea and the Baltic Sea (after Bundesamt für Seeschifffahrt und Hydrographie Hamburg/Rostock).

Fig. 2 - Temperature estive e invernali nel Mare del Nord e nel Mar Baltico (da Ufficio federale per la Navigazione marittima e l'Idrografia Hamburg/Rostock).

same today. If one has a closer look at the bibliographies of purportedly very important publications on European Palaeolithic topics written by French colleagues, one will in most cases realize that the references given clearly represent selections that say much more about the “foreign language abilities” of the authors than about the objective relevance for the topics in question.

On the other side we have to state that Italy hardly ever was “interesting” for the central European Palaeolithic research. The colleagues gave much more attention to other regions such as France or Spain (just to think of Hugo Obermaier). In the central European archaeological research tradition Italy was and in many respects still is (see Serangeli & Bolus 2008) regarded as a field for classical archaeologists and not for respectable prehistoric archaeologists. The restricted view of Luigi Pigorini, who for decades strictly

refused to accept the existence of an Italian Upper Palaeolithic, may have contributed to this attitude. It was not earlier than in 1913 that this situation came to an end with a lecture by Aldobrandino Mochi entitled *La fine del dibattito sull'esistenza in Italia del paleolitico superiore* (The end of the discussion about the existence of the Upper Palaeolithic in Italy) (Brizzi 1977: 43). But in the meantime, this has been nearly one hundred years ago, and hence it is time to better pay attention to each other.

2. HOW COLD WAS THE ICE AGE?

Now we would like to start with the first question raised: How cold was the Ice age in our mind?

When talking about mean values, either of tempera-



Fig. 3 - Neandertal (left) and anatomically modern human (right). Reconstructions by Arie and Alfons Kennis, shown in the temporal exhibition *La scimmia nuda* in the Museo Tridentino di Scienze Naturali, Trento, April 7, 2007 - January 6, 2008.

Fig. 3 - Uomo di Neandertal (a sinistra) e uomo anatomicamente moderno (a destra). Ricostruzioni di Arie and Alfons Kennis esposte in occasione della mostra *La scimmia nuda* presso il Museo Tridentino di Scienze Naturali, Trento, 7 aprile 2007 - 6 gennaio 2008.

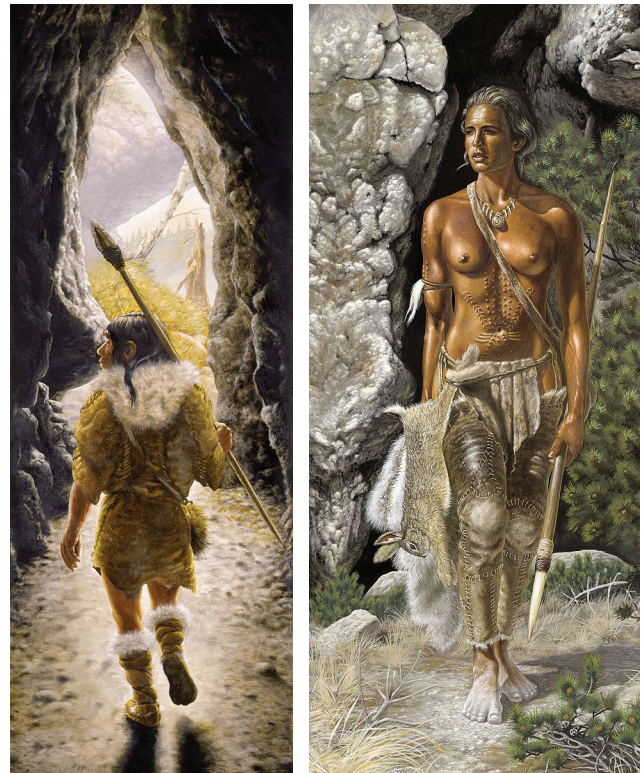


Fig. 4 - A Neandertal (left) and a very feminine example of an anatomically modern human (right). Paintings by Karol Schauer in the permanent exhibition of the Landesmuseum für Vorgeschichte in Halle (Copyright Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt).

Fig. 4 - Uomo di Neandertal (a sinistra) e un esempio molto femminile di un uomo anatomicamente moderno. Disegni di Karol Schauer presso la mostra permanente del Landesmuseum für Vorgeschichte di Halle (Copyright Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt).

tures or precipitations, it is difficult to realize, how cold or less cold it really was. One of the best and densest descriptions of Ice age climate in central Europe was given by Gerhard Bosinski and should be repeated here: “Although west wind was predominant then and now, the wind did not bring along clouds and precipitation since the ocean was cold and hardly evaporated. The blue sky made an unhindered insolation possible. July and August were partially warmer than today. But in the same way, the cold was not kept away by any cloud cover. That is why there were marked differences in temperature between night and day and, naturally, especially between summers and bitterly cold winters” (translated after Bosinski 1989: 5). For central Europe, the environment can be reconstructed in terms of open grassland. Bosinski states: “The extensive lack of trees and wood was not caused by the cold but by aridness. Trees were only growing in river valleys” (translated after Bosinski 1989: 4). Some aspects of this description may be applicable to parts of southern Europe as well, especially when higher locations are concerned, but while central Europe was captured between northern European and Alpine ice-shields in some sort of ice-pliers, climate in southern Europe was markedly different.

During the whole Ice age, in southern Europe there were not only trees and woods in general, but also species

which are particularly sensitive against low temperatures such as olive trees (Carrion *et al.* 1999). As for the fauna, too, many representatives of a temperate or even warm climate survived in southern Europe, while species associated with extremely cold climatic conditions only appear sporadically or even only punctually (Sala 2004; Serangeli 2006).

Moreover, in southern Europe the climate seems to have not been as dry as in central Europe. It seems that the precipitation-bearing low pressure areas have run straight above southern Europe (Florineth & Schlüchter 2000: 306, fig. 6) which means that hardly any precipitations – if not no precipitations at all – could have reached central Europe as is the case today, coming from the West, passing the northern Atlantic and northern France. The low pressure areas rather appear to have run south of the Iberian Peninsula to reach southern France, the southern rim of the Alpine ice-shield and the Balkans (Florineth & Schlüchter 2000). The presence of woodlands in Hungary which are equivalent to the southern part of the present taiga (Willis *et al.* 2000: 211) can only be explained with sufficient precipitations. Finally, palynological studies also show that the Mediterranean region was less affected by the aridness during the Last Glacial Maximum than western and central Europe (Peyron *et al.* 1998: 192, fig. 5d).

The Mediterranean Sea itself was also never really cold (Thiede 1978; Antonioli & Vai 2004; Capotondi 2004) (Fig. 1). In this context, we want to stress that during the Late Glacial Maximum the Mediterranean had a temperature similar to the temperature of the North Sea of today and higher than the temperature of the Baltic Sea today (Figs 1-2). We think that this somehow unorthodox comparison is more instructive than a hundred words.

3. HOW DO WE VISUALIZE NEANDERTALS?

The second aspect of our paper addresses the question what our visual idea about the Neandertals is like. It is interesting to stress that from a morphological point of view Neandertals are well known. But how is there overall appearance being reconstructed? Reconstructions showing Neandertals as extremely wild creatures, hardly able to survive and hopelessly inferior to us are widely known from the 19th century and the beginning of the 20th century, and even later (Bolus & Schmitz 2006; Giacobini & Maureille 2007). They shall not be discussed any further here. Nevertheless, the legacy of those reconstructions, although rejected by all serious colleagues, still slumbers in our heads. How is primitiveness being depicted? How can human evolution be made comprehensible to a broader

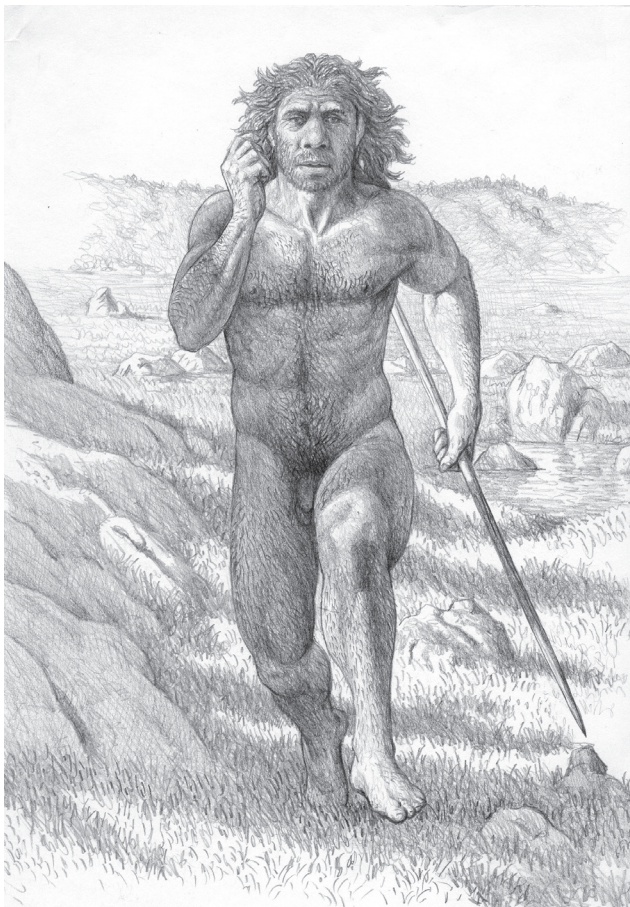


Fig. 5 - Running Neandertal. Graphic reconstruction by Mauricio Antón.

Fig. 5 - Uomo di Neandertal che corre. Ricostruzione grafica di Mauricio Antón.

public in a way that the metaphors hidden in the reconstructions will also be understood? To what extent do we, as scientists, feel responsible for the idea we create of the extinct humans? Which stereotypes are used and why? It seems to be part of the nature of prehistoric research that scientists rarely tackle with reconstructions as if a reconstructed image would be something too speculative and hence completely unscientific. But if, due to people's expectations, they are forced to make a choice for a reconstruction, they often do so a bit thoughtlessly. Unintentionally there are generalizations, omissions, stereotypes which we would like to hint at now. Our discussion will not be about polemic criticism, but presents reflections on the image we create of Neandertals.

First of all it is important to mention that in many publications dealing with Neandertals and/or their period, these hominins are being described as "smaller than ourselves/modern people" (e.g., Tattersall 1999: 14) as if this would be part of the scientific definition of the Neandertals. This is most obvious when looking at illustrations in which the anthropological characteristics of Neandertals and anatomically modern humans are compared (e.g., Tattersall 1999:14, fig. 5). In none of these publications, however, a definition can be found what exactly is meant by "ourselves" or "modern people". This already shows that subliminally, maybe unconsciously, no scientific information proper is given, but rather a description which intends to appeal to our feelings. It is most typical that such expressions and reconstructions appear much more often in publications from central Europe than in those from southern Europe. What is the reason for this? By no means can they be based on anatomically modern humans in general since no general mean value for the body length of all anatomically modern humans exists. If such a mean value would exist and if it would also include the individuals of densely populated countries or regions such as China or eastern Asia, this mean value would certainly be lower than many prehistorians think. Even on a smaller scale, for the whole of Europe no such mean value exists. And if one regards a diachronic scale one has to state that things get even more complicated. It is widely accepted that in large parts of Europe persons aged about twenty today are on average taller than fifty years ago. But it is also well known that during the Middle Ages people in large parts of Europe were on average distinctly smaller than today and smaller than fifty years ago. Considering the first anatomically modern humans to have come to Europe and trying to compare them to the last Neandertals, one has to realize that especially from the time span between about 40,000 and 30,000 BP there are hardly any fossils of anatomically modern humans. That is why a mean value of 178 cm for the height of anatomically modern humans as given in some publications (e.g., Auffermann & Orschiedt 2006: 49) is completely made-up.

In this context it is interesting to emphasize how statistics are being created and how they are accepted and taken over by others. The fact that the Amud 1 Neandertal reached a body length of ca. 180 cm (Suzuki & Takai 1970) is normally not considered in the statistics since Israel is not Europe and such an inappropriate value which does not fit the overall picture may thus be excluded as irrelevant exception (but note that other western Asian Neandertal fossils, though smaller than the Amud 1 specimen, seem to be on average

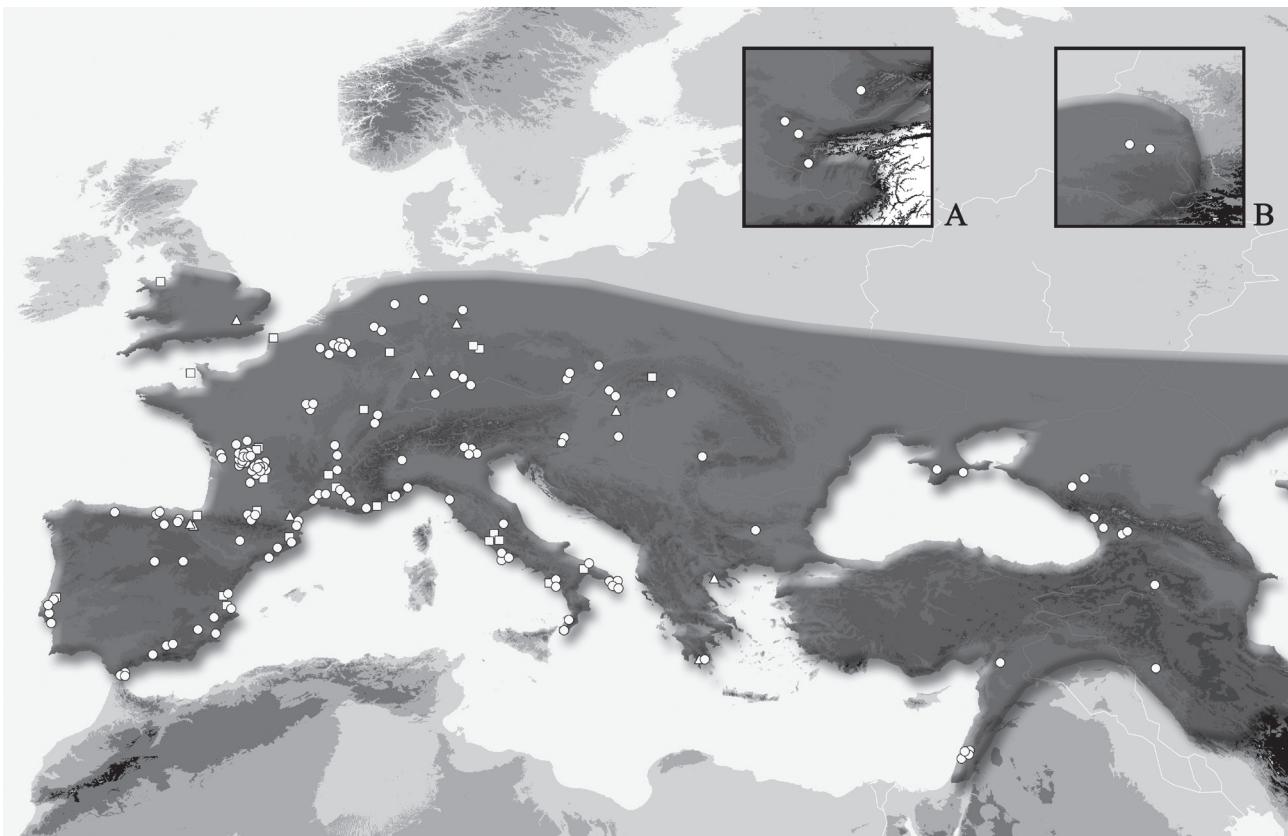


Fig. 6 - Distribution of sites with Pre-Neandertal (triangles), Early Neandertal (squares) and Classic Neandertal (circle) fossils. A. sites in Uzbekistan, B. sites in the Altai region.

Fig. 6 - Distribuzione di siti con fossili di uomini Pre-Neandertal (triangoli), Neandertal Antico (quadrati) e Neandertal Classico (cerchi). A. siti in Uzbekistan, B. siti nella regione dell'Altai.

larger than the European Neandertals). It must be admitted that a Neandertal with a body length of 180 cm and with a brain volume of 1740 cm³ (the largest brain of all known hominins up to now) somehow unsettles us: *Homo sapiens sapiens*, the self-appointed "crown of creation".

Another aspect which is frequently used as a primitive stereotype is nudity. *Homo erectus* and Neandertals are extraordinarily often depicted nude as if they were more primitive (which means: nearer to animals) than ourselves and hence naturally needed less protection by clothes. At best they are wearing a badly cut hide around their hips (e.g., Stringer & Andrews 2005: 155) or a coarse hide wrapped around both shoulders (reconstruction in the Neanderthal Museum in Mettmann), or even a hide covering only one shoulder and leaving the other one bare (see painting by Benoit Clarys in Jöris 2005).

As a logical consequence, this assumption of a higher degree of primitiveness of earlier hominin forms often runs parallel with another questionable stereotype: the hairstyle of Neandertals or other earlier hominins. If possible, the concept of fierce and wild creatures is consciously (or perhaps unconsciously) underlined by the hairstyle of reconstructions of earlier hominins. Their hair is often if not in most cases not very well looked after or even bizarre. In case there is a comparison with an anatomically modern individual, the latter in most cases has his hair beautifully done, he is prettier, shaved (if it is a man), better dressed, cleaner, younger, more

agile, stronger, larger, in one word: superior.

We think that to underline this some illustrations are most convincing (Figs 3-4). Both examples represent most recently made reconstructions and they display the difficulty of (consciously or unconsciously) conveying a message to the public. On the one side there is the undressed, smaller, older male Neandertal, supporting himself on his spear (Fig. 3 left); on the other side there is – shown in the same temporal exhibition – the dressed, taller, younger and stronger anatomically modern man standing completely upright (Fig. 3 right). Tattoos, bracelets, the piece of decorated leather and the decorative bone-stick pierced through his nose add to the cultural superiority of the modern man. Personal ornaments, tattoos, and a bracelet also decorate the young, self-confident, pretty, somehow heroic anatomically modern female (Fig. 4 right) from the permanent exhibition in the Landesmuseum für Vorgeschichte in Halle which hardly leaves us indifferent. The Neandertal seen from behind in the same exhibition who disappears in the shadows of the past (Fig. 4), though interestingly much more completely dressed than the anatomically modern beauty queen, nevertheless is distinctly smaller and completely inconspicuous.

Though we are fully aware that this statement is not based on a statistically founded nationwide comparison, we would like to stress that some reconstructions from southern Europe in our view convey a completely opposite message than, for instance, the reconstruction shown in the museum

in Trento (Fig. 3) which have been made by Arie and Alfons Kennis from the Netherlands. One male Neandertal as shown in a graphic reconstruction by Mauricio Antón (Fig. 5) from Spain does not represent a hominin form doomed to die. Here the Neandertal is shown as a strong, athletic, agile, young and pretty person. He runs self-confidently in our direction – and he has very good reason to do so: he represents the very hominin form that prevailed in Europe for more than 200,000 years – a life-span for anatomically modern humans yet to reach.

4. DIFFERENT MUTUAL PERCEPTION NORTH AND SOUTH OF THE ALPS

The last question that we would like to address in this paper is: How is the mutual perception of scientific discoveries north and south of the Alps?

It is a fact that contacts and scientific exchange between colleagues in Palaeolithic research north and south of the Alps are not numerous and not very intense; we have already touched this problem at the beginning of this paper. It is our hope, however, that this situation can and will change, not only because it is important to know about the discoveries on the other side of the Alps, but because it is scientifically unacceptable to say, for instance, “I will not consider Italy” or “I will not consider Germany” respectively (and we heard such statements repeatedly).

Again, we think that a good example is more instructive and convincing than theoretical discussions. To explain our view, we refer to the overall distribution of Neandertal remains. Many colleagues regard the Neandertals as a cold-adapted hominin form. Moreover, maps in several publications from central Europe and in the Anglo-American literature show France and central Europe as supposed distribution centres of Neandertal remains (e.g., Stringer & Gamble 1993; Henke & Rothe 1994, 1999; Klein 1999; Tattersall 1999; Schmitz & Thissen 2000; van Andel & Davies 2003; Klein 2003; Jöris 2005; Auffermann & Orschiedt 2006). We are convinced that this is for the largest part due to the (unconscious?) selection of some authors or their ignorance of the finds from southern Europe. If one maps all known Neandertal remains (Serangeli & Bolus 2008) (Fig. 6), especially when regarding the discoveries from the last decade (see, for instance, Manzi 2004; Garralda 2006), it is southern Europe that gains a much higher importance when discussing the dispersal of Neandertals than it had until recently. Hence southern Europe, especially Spain and Italy, have to be added to the core-area of the Neandertals, which originally seem to have been a hominin form adapted to temperate (rather than cold) climates and environments, while central Europe clearly is of secondary importance as far as the origins of Neandertals as well as their distribution and their dispersal are concerned.

5. CONCLUSION

With our paper, presented in Trento in Italy on the occasion of the annual meeting 2007 of the most important and oldest German society for Quaternary Archaeology (Hugo Obermaier-Gesellschaft), we wanted to arouse the interest of both the Italian-speaking and the German-speaking communities, thus pointing at the necessity of an improved, inten-

sified and, if possible, regular scientific exchange between colleagues north and south of the Alps.

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