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NEANDERTHALS: A HISTORY OF INTERPRETATION

Summary. *This paper investigates the history of Neanderthal construction in different domains of social life and media. It establishes three broad tendencies within Neanderthal reconstructions: following the expulsion of Neanderthals from 'humanity' in the nineteenth century and first half of the twentieth century, the 1950s are characterized by a shift in this perception. From then, Neanderthals appear as essentially human creatures trapped in archaic bodies. Following this initial ideological oscillation the recent decades represent a parallel existence of both paradigms as well as a widening of conceptualizations. This paper argues that these ideological constructs remain operative, continuing to inform and form our perceptions of what Neanderthals are/are not.*

THE FIRST NEANDERTHAL SKELETON. FUHLROTT'S CONTRIBUTION

Discovered in 1856 in the Feldhofer Cave of the Neander Valley, Germany, the type-skeleton of *Homo (sapiens) neanderthalensis*,[1] Neanderthal 1, consisting of 16 bone fragments[2] fell into the hands of Johann Carl Fuhlrott (1803–77), a local schoolteacher. He instantly ascertained that the bones were of a human who had lived during the last Ice Age; the find, therefore, represented unique fossils from the human past. On the 9th of September 1856, the local newspaper *Barmer Bürgerblatt* reported the discoveries, assuming the remains stemmed from an individual from a 'horde', or from an ancient people.

Previous Neanderthal fossils (Engis, Belgium 1830; Forbes' Quarry, Gibraltar 1848) had not been recognized as ancient humans even by the time that discussion about the discovery from the Neander Valley began. This was due to the prominent biblical view of the Western world until the mid-eighteenth century; excluding the possibility of transformation of species. However, following the publication of Charles Darwin's *On The Origin Of Species By Means Of Natural Selection* in 1859, prevailing views were radically challenged.[3] Darwin's and Wallace's introduction of an evolutionary theory by means of natural selection created

1 Ever since King (1864) assigned the fossil finds to *Homo neanderthalensis*, as he felt them to be 'generically distinct from Man' (King 1864, 96), there have been disputes whether or not to include them within the human lineage (*Homo sapiens neanderthalensis*) or not (see Duarte *et al*. 1999 for a recent contribution to this debate).

2 Skull cap, right shoulder blade fragment, rib bones, two femora, three right arm bones, two left arm bones, the ileum.

3 But cf. Comte de Buffon's, Lyell's (1831), Cuvier's (1801), Lamarck's (1809) and Boucher de Perthes's publications prior to Darwin.

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controversy. Over the next decade the basic idea of transmutation (evolution) became widely accepted, although natural selection itself remained controversial.[4] Many scientists, and non-professionals, thought natural selection too harsh a mechanism to be reconciled with their religious and philosophical beliefs. Darwin himself had been interested in the human implications of evolutionism since the 1830s, although he omitted this from *The Origins of Species* in order to minimize controversy (Desmond and Moore 1991).[5] It was, however, implicit in the evolutionary paradigm itself.

The Neanderthal find was made only three years before Darwin published *The Origins of Species* and thus the discovery of the Neander Valley was seen to verify his theories.[6] An ardent debate evolved, centred around Fuhlrott and Hermann Schaaffhausen, who both proposed that the bones were those of an archaic human form. This was in direct opposition to one of Germany's leading scientists of the era, Rudolf Virchow, a distinguished pathologist who rigorously rejected the hypothesis. In his view, the bones were those of a recently deceased pathological human. Virchow's viewpoint had a great impact on the following decades of research, not least because of his prominence in Germany. His persistent dismissal of all discovered hominid fossils is thought to have impeded progress for the rest of the century (see Stringer and Gamble 1993; Trinkaus and Shipman 1993).

Virchow serves as an example of precisely how prevailing views have conditioned our responses to Neanderthals. His standpoint itself has frequently been misrepresented. Vasold (1990, 305), for example, maintains that Virchow in fact viewed Darwin's ideas as possible hypotheses and even believed that species change over time. In 1871 he commented: '... from the constancy of a species to the development of a species there is no greater step than the one just mentioned; one does not view things as given but rather as becoming' (ibid. 305, my translation). Roebroeks (1995), however, believes that Virchow has often been misrepresented, as in recent studies by Stringer and Gamble (1993) and Trinkaus and Shipman (1993). He states (1995, 174): Virchow's 'reluctance to accept finds like the one from the Neanderthal [...] has been related to his dislike of the practice of creating new prehistoric species' on the basis of a single find. However, although this represents Virchow in a more positive light — that he was not simply a reactionary — it is still the case that his evaluation had a greater impact that Fuhlrott's and Schaaffhausen's opinions. Yet, we cannot condemn Virchow alone for this situation; even though his opinion may have had a great impact, it only did so because it collided with other people's convictions.

Thus ideas and theories are never produced in a vacuum, but within certain given socio-historical situations. They are built upon earlier themes — often preserving hopeful ideologies — and are reused in the context of new scientific research. Roebroeks (1993) identifies a 'clear continuity of research topics and interpretational schemes' throughout the last one and a half centuries; focusing the task of the palaeo-anthropologist, which 'is in fact to a

4 It was more accepted in England owing to Wallace, Darwin and Huxley; in Germany, acceptance of evolutionary thought was suppressed by Virchow.

5 In *The Descent of Man* (1871) and *Selection in Relation to Sex* (1871) Darwin made his first serious attempt to explain the origin of the human race in evolutionary terms, and to explore the implications of this approach for human affairs. Darwin relied on Huxley for the evidence that the human species was closely related to the great apes.

6 Again, the situation must have differed in England, where Darwin's theories were already known and the skeleton was perceived to verify his claims. In Germany no such theories were known when the discovery was made.

large extent concerned with the identity of our society' (Roebroeks 1995, 177). Following Cartmill's (1990) assessment, one could say that palaeoanthropologists are, in fact, 'policing the boundary' between humans and non-humans, using certain characteristics to separate them (language, tool-use, brain-size); if these fail, they are redefined, keeping human attributes exclusive and different from animals.

The opinion of a single person can be very influential if the historical context and popular opinion favour and reproduce his/her ideas. Indeed, the story of Neanderthal perception is a remarkable example of such a process, creating the need to untangle situations in which knowledge is produced; the importance of historical circumstances, popular ideas, and scientific research must be considered, in order to examine the original assessments of the Neanderthal 1 find carefully and situate those initial opinions historically. Only by taking this route may we be able to obtain an impression of how difficult it was, and is, to distinguish emotional reactions and historical influences from those which are based on 'scientific deduction'. Turning to the roots of the 'Neanderthal-question', I shall continue with an analysis of Fuhlrott's comments.

KEY FIGURES: FUHLROTT AND SCHAAFFHAUSEN

Fuhlrott's *Beitrag zur Frage über die Existenz fossiler Menschen* (Contribution to the Question of the Existence of Fossil Humans)[7] was published in 1859. His attempt to reconstruct the original situation of the find was important in order to verify his proposals; none of the other examiners ever deemed stratigraphical reconstruction relevant. Schaaffhausen had already confirmed that the pieces could belong to a single skeleton, so that it may be assumed that originally a complete skeleton was buried in the clay, whose smaller pieces were discarded and subsequently lost.[8]

Not long after he had originally acquired the skeleton Fuhlrott was requested to pass it on to the University of Bonn, where it was scientifically investigated by Schaaffhausen (Fuhlrott 1859, 138–9). Schaaffhausen published an anatomical analysis in 1857; features particularly noticeable and pointing towards their antiquity are mentioned. Today we attribute some of these features invariably to *Homo (sapiens) neanderthalensis* fossils. This could not be the case when Fuhlrott and Schaaffhausen examined the skeleton. As their conclusions were not the result of any taxonomic information about prehistoric humans they already possessed, they also did not know what to expect. The interpretation of their observations was, however, a different matter; even Fuhlrott and Schaaffhausen interpreted the fossil in entirely different ways.

Fuhlrott was aware of the scientific impact his opinion could have, and for this reason aimed to verify his claim meticulously, comparing it to circumstances in which animal fossils were found (cf. ibid. 146–53). In his eyes, the insights gained from his comparison of the bones with 'animal bones from an earlier epoch' and the specific situation of the Neanderthal find, were imperative. His conclusion, however, is still cautious:

> The facts that I carefully observed may speak for themselves. The insight gained from these studies, almost all in new areas, is so huge that I am fully satisfied not to propagate any of

7 My translation.

8 Indeed, in the summer of 1998 a number of bones were found in the spoil-heap from the Feldhofer Cave. One piece was successfully refitted into the femur of the Neanderthal 1 skeleton.

> my convictions and to leave the decisive judgement about the existence of fossil humans to the future (ibid. 153, my translation).

Fuhlrott's standpoint reflects the explosive nature of the issue, and simultaneously his lack of scientific authority.

Schaaffhausen was already interested in the evolution of animals (and therefore humans) before his contact with the Neanderthal 1 skeleton in 1857. His opinions of race and socio-evolutionary development, not surprisingly, conditioned his interpretation. He believed that there were differences between human 'tribes', and that a phase of biological evolution had to be followed by an educational period, during which the animal form was gradually 'ennobled' to achieve the human (Schaaffhausen 1888, 3). Schaaffhausen was also convinced that the actual form of a skull was linked to intelligence; the prehistoric skull was, in his eyes, like those of the anthropoid apes and some wild people, such as Negroes, Eskimos and Australian Aborigines whom he deemed less advanced — a rather common assumption at the time.

Schaaffhausen measured the cranial-capacity of the Neanderthal (1332 cc's) and noted that it was not that 'disadvantaged as even Negroes only had a cranial-capacity of 1100 to 1200 cc' (ibid. 6, my translation). He concluded that we have to assume any archaic human to be more primitive than the most primitive living human on earth (ibid. 26). Schaaffhausen's standpoint neatly fits into the tradition of Gabrielle de Mortillet, John Lubbock, Henry Morgan, Edward Tylor (among others) who held a view of human linear progress from 'savagery', through 'barbarism', to 'civilization'; a scheme into which Neanderthals and other prehistoric humans were simply fitted, 'and used to reinforce the ''evolutionary'' view of human history and progress' (Trinkaus and Shipman 1993, 109). This has obvious implications for conceptions of Neanderthals: if those 'primitive (exotic) people' still existing on earth required conversion and enlightenment to a more civilized state, Neanderthals, cave-dwelling beasts, were certainly beyond revelation and civilization. Neanderthals had to be perceived as unlike any human.

Schaaffhausen's theories about the physiological differences between Negroes, Idiots and Neanderthals and the 'higher races' nourished these assumptions. Extensive comparisons with other skulls and specifically 'Idiot-skulls' were quite accepted at the time (cf. the work of Charles Lyell, Carl Vogt, Thomas Huxley, George Busk). However, Schaaffhausen never disbelieved that the Neanderthal 1 remains could be of a fossil nature. He maintained that men had appeared on earth between the Miocene and the Quaternary epochs. The Neanderthal fossil belonged to the Ice Age, hence his more primitive nature. Schaaffhausen thus came tantalizingly close to an evolutionary perspective of hominid fossils. But the time was not yet ready for the suggestion that the Neanderthals were anything but an inferior or 'savage' version of our own species.

DIVERGENT VIEWS: VIRCHOW

Virchow obtained the Neanderthal remains to make a fourth investigation following Fuhlrott, Schaaffhausen and Mayer (1864). Virchow's work as a pathologist made him particularly prone to identifying the unusual features of the Neanderthal as pathologies relating to disease. However, he was also a meticulous, cautious scientist; and was, as mentioned already, sceptical of, but not opposed to, Darwin's theories. Hence, he cannot be represented as

merely irrational. Tattersall (1995, 77–8) observes: 'Virchow's speciality was pathology, and pathology provided the explanation he preferred for the unusual appearance of the Neanderthaler.' Thus he identified that the cranium exhibited the features of a senile (Malum senile), leading to the 'deformation' and deepening of the frontal bone (1872, 157), generally emphasizing disease and malformation in order to account for the peculiar nature of the skeletal material. Attending to the pathological modifications of the skull (wounds, infection, caries), these features were far more important to Virchow than to someone who perceived the skull as a fossil hominid. His inferences about the pathological nature of the skull rendered superfluous any assumption that the skull should be archaic at all.

Turning to the question of 'race', crucial to an understanding of his standpoint, Virchow maintained that it was dubious to construct any notions of race around an individual demonstrably diseased throughout its whole lifetime. This conclusion appears clear enough and Virchow's reluctance to 'judge the nature of a race on the basis of one skull exhibiting fundamental disturbances of diseased nature alone' (ibid. 163, my translation) is methodologically sound. Virchow also did not believe, unlike Schaaffhausen, that any race on earth was intrinsically less valuable than another (Vasold 1990, 313); the supposed or real cultural stage could not possibly be related to race membership. He even warned that such a position would inevitably lead to the elimination of supposedly lower races, as was happening in North America. He wrote in an essay in 1872: 'surely no one will be allowed to maintain that among the living races was one which would not need to be viewed as fully human' (ibid. 312–13, my translation). Thus his standpoint regarding race potentially led Virchow to his dismissal of Darwinism and human evolution, whose main proponent in Germany was Haeckel, one of the founding fathers of eugenics.

Whilst acknowledging that Virchow's word impaired the scientific study of human origins in Germany for at least 25 years, it is too simple to depict him as a conservative 'die-hard'. Authors such as Shipman and Trinkaus, and also Stringer and Gamble, too readily dismiss Virchow's own political standpoint, as well as his position in German science. I suggest, instead, that it was for ideological reasons that Virchow rejected the Darwinist doctrine and in so doing was therefore indisposed to accepting the Neanderthals as an evolutionary paradigm. Possibly he 'caught sight of some smoke / that was already from tomorrow' (Celan 1938 as quoted in Festiner 1995, 11, in remembrance of the 'Reichskristallnacht'; the beginning of the end of European Jewish life).

FIN DE SIÈCLE: BOULE'S CONTRIBUTION

Both the form and matter of the debates following the discovery of the Neanderthal 1 skeleton are embedded in a complex web of moral, historical and political circumstances. It is the story of influential men whose positions allowed them a remarkable influence over science and public opinion. The initial rejection of Schaaffhausen's and, moreover, Fuhlrott's interpretation of the find, Trinkaus and Shipman (1993, 54) argue, 'was perhaps inevitable [. . .]; German science was rigidly hierarchical and strongly centralised.' Virchow's opinion was more influential; therefore it was accepted that the Neanderthal 1 bones were pathological.

Schaaffhausen's racist comparisons, however, certainly prompted people to entertain a comfortable distance between themselves and the Neanderthals. If the debate was at all focused on the antiquity of the finds, then it was evident that these ape-men were certainly more primitive than any human. In addition to these conceptions, the 'science' of phrenology was in

vogue, and although rarely explicit in the discussion of the Neanderthal, this implicit belief in the link between the skull's form and person's character was clearly evident in the controversy that ensued (the overemphasis on the cranium and neglect of the other bones in many discussions of the skeletal material clearly reflect this). The first link to 'cannibalism' was made as early as the 1860s when the La Naulette mandible was found. According to Arens (1979) 'there is no more universally common way of distancing oneself from other people than to call them cannibals.' Suggestions to this effect have since been continually made (Gorjanovic-Kramberger 1906, Blanc 1940, White 1992). Following the discovery of La Naulette — soon linked to the Neanderthal remains — there was no clearer way to illustrate how different they were from human beings. They were not only ape-like, they *ate* their own kind.

During the first decade of the twentieth century many Neanderthal remains were discovered. To the Krapina finds made around the turn of the century, Le Moustier was added in 1906, the Mauer mandible from Heidelberg in 1907 (thought to be pre-Neanderthal), Le Chapelle-aux-Saints in 1908, La Ferrassie in 1909 and, eventually, the La Quina remains in 1910. The monograph on the La Chapelle skeleton written by Marcelin Boule (1911–13) was an immediate classic. Owing to the assiduity of its approach, the monograph established palaeontology as a scientific discipline. His conclusions were to influence the image of Neanderthals more than any previous deductions; they were scientific, detailed, rigorous and methodologically unimpeachable, but also building upon earlier work. Boule described each part of the skeleton systematically and compared it to other Neanderthal material, apes and humans. However, despite his evident rigour in the monograph, Boule drew some astonishingly misleading conclusions; his assessment depicted Neanderthals as terribly primitive and apish, by no means the possible ancestor of the Cro-Magnons who followed them so quickly in time. A scientifically grounded picture of Neanderthals was constructed which could only be remotely related to modern humans.

In his examination of the La Chapelle fossil, Boule emphasized the physical similarities between Neanderthals and apes, and distanced the fossil humans from living people. The Neanderthal vertebral column was reconstructed as much more curved than that of humans, giving rise to a stooping posture and slouching gait. The head was thrust forward — emphasizing the elongated shape, protruding face, and large brow-ridges — the knees bent, and the toes diverging. A drawing published with Boule's approval, became the prototype of the Neanderthal in everyone's mind: brute, savage and club swinging (see Stringer and Gamble 1993). This image was exploited and reproduced over the ensuing decades and is mirrored in the works of H.G. Wells and J.H. Rosny-Aine. The first 60 to 70 years of the 'quest for our origins' was paralleled by the generation of this portrait and constitutes the very foundation of palaeoanthropology as a subject.

IMAGES OF NEANDERTHALS

An obvious starting point for a consideration of depictions of Neanderthals is Schaaffhausen's himself (1888) (Fig. 1). His goal was to reconstruct the features of the Neanderthal's face 'as accurately as possible'. Owing to the fact that the Neanderthal 1 specimen lacked the facial area of the cranium, Schaaffhausen's image was deficient of any anatomical foundation. Around the same time, Friedenthal also created a reconstruction of a troglodyte — a cave dwelling Neanderthal (Schott 1978). This reconstruction is not based on the skeletal material; the forehead is much too flat, the nose exceedingly short and the jaw in

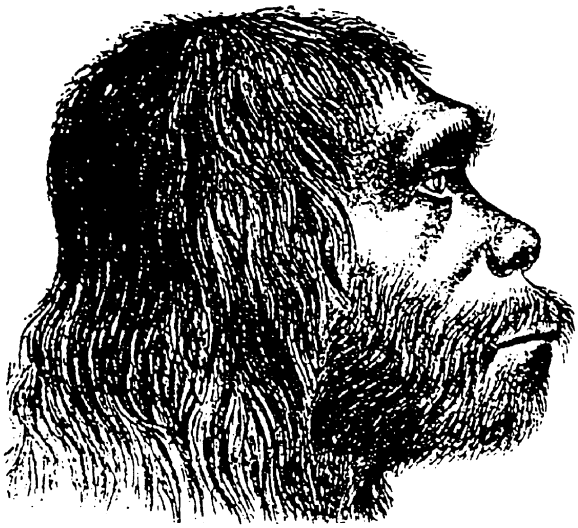

Figure 1
Drawing H. Schaaffhausen 1888, *Der Neanderthaler Fund*.

general extremely protruding. The strangest aspect of the depiction is, however, the conspicuously large distance between the eyes. In contrast, Lohest's drawings of the Spy Neanderthal (see Trinkaus and Shipman 1993) show a male with a 'friendly' expression. The depiction shows him as heavily built, stout, with thick brow-ridges and strongly bent knees; clearly one of the earliest representations of the apish gait that Boule later promulgated. This reconstruction continues to show the physical manifestations of the amoral, bestial habits that led to the accusations of cannibalism among Neanderthals. Schaaffhausen's comparisons with 'primitives' and 'idiots' are resurrected in Boule's reconstruction almost 50 years later, and clearly influenced Friedenthal's conceptions, which are patently reminiscent of Schaaffhausen's. Their conceptions are reflected in the stubborn expression of their creations and visually translate their standpoints.

Yet the drawings are also redolent of the depictions of the *wild men* whose furry coat the Neanderthals are also assumed to possess (Moser 1998, Jahoda 1999). Although there is no direct evidence for such thick furs, Neanderthals are frequently visually depicted growing them. This may partially derive from the notion that a fur was necessary during glacial periods and that Neanderthals were not able to produce any other means of protection against the cold. However, the time-span in which the Neanderthals occupied Europe and the Near East was not constantly cold, and during the Interglacials temperatures were similar to modern conditions. These drawings, apart from their other peculiarities, thus make implicit statements about the evolutionary state of Neanderthals, whose cultural potency would not suffice to create protection against the climate. Right from the beginning of Neanderthal depiction, Schaaffhausen and Friedenthal determined that Neanderthals resembled 'Ape People'. The variety within visual interpretation itself, however, can only amount to an insufficiency of scientific evidence — and sufficient imagination as a basis for these pictorial representations — as will become more apparent in expanding consideration of depictions.

The primitivity that was associated with human ancestors is influenced by the shock the Western world experienced when the crown of creation — according to biblical chronology — was suddenly equated with an animal, shaped by the same evolutionary forces. Images, like the above, reveal the profound transformation that took place concerning the formation of species at this time. Yet they also tell us about resistance to the new scientific findings concerning prehistory. While it was acceptable that ancient beasts lived in an incredible, deep past, the related theory that humans were also ancient was not. Consequently, the palaeontological and geological reconstructions featuring humans had both a scientific and religious content, revealing how scientists were reluctant to disregard the established way of representing human creation. Following the dismantling of the biblical chronology, artists depicted fossil species alongside our human ancestors who were represented according to Genesis. When fossilized human skeletal material was discovered alongside extinct animals many emblematic and iconographic elements from the previous traditions of presentation survived. Emanating from the classical, early Christian, medieval, renaissance, and antiquarian periods, the same visual vocabulary continued to be used in the various forms of artistic tradition (see Moser 1998).

Despite the preservation of pictorial design associated with primitivity, there were gradual changes revealing the slow acceptance of human antiquity as science unveiled more evidence. The drawings of Schaaffhausen, Friedental, and Lohest followed the establishment of human antiquity. Establishing the great age of humanity, however, meant that previous conceptions were no longer appropriate; if humanity had a common natural history with apes, then our ancestors had to be simian-like too. A new iconographic repertoire entered the realm of the depiction of human creation; comparative anatomy's and primatology's time had come. This new repertoire of depiction was important because it facilitated the acceptance of the new ideas in the long term making the 'unbelievable' 'believable' (Moser 1998, 109).

The purely artistic visual repertoire is estranged from the search for the ape-like 'missing link', through which science, and the non-scientist, proceeded. As already noted, the idea that a pre-human state existed gave rise to a major source of new visual elements relating to primatology, featuring the anatomical semi-erect posture, sloping forehead, hairiness, nakedness, protruding jaws and lips. The exploration and usurpation of the world's continents also delivered ethnographic pictures and drawings of 'primitive' people. Deriving from archaeology, the customs and manner of ethnographic peoples became the model through which ancient human life was understood, and through which pictures of their lifestyles were transferred into the Ice Age. Parallels were drawn between prehistoric humans and indigenous peoples who were thought to be at the bottom of some kind of 'evolutionary ladder'. Thus the images of ancient humans were produced in the context of European colonization. This influence can, for example, be traced in Zdenek Burian's pictures; all of his prehistoric people are depicted with dark skin colour (see Stoczkowski 1997).

The first to take up the theory that humans descended from apes was Boitard whose creatures were stout, squat and thickly muscular. Here, the hairy, black animal stands in a cave entrance swinging a weapon, featuring protruding lips and simian feet. The implication clearly is that the 'missing link' was a horrible and brutal species; an impression strengthened by the female individual who is crouching in the cave entrance, staring outside with fearfully opened eyes. Boitard, using not only ape and ethnographic iconography, also draws on the age-old imagery of the 'wild man' in order to convey the eye-catching shock effect of his booklet. The image preceded fossil finds which supported Boitard's visual hypothesis respecting the physical

appearance of his intermediate between humans and apes. The visual idea was thus created before scientific evidence for the physical shape of the creature existed. Its strangeness had time to infiltrate the imagination of people whose fantasy was nourished by such visions.

The endeavour of creating an 'authentic' idea of the physical appearance of simian-like forebears was finally met when fossil evidence of missing links were discovered. As is now evident, the first *recognized* fossil was the Neanderthal 1 skeleton. In addition to Schaaffhausen's drawings, popular visions appeared. The article in *Harper's Weekly* illustrates how savage this newly discovered predecessor was thought to be:

> A more ferocious-looking, gorilla-like human being can hardly be imagined. The savage stands, almost in the attitude of an ape, before his den, where his female companion is seen slumbering, enveloped by shaggy furs. Always ready to attack or defend, he holds in his hand a hatchet of primitive character, [. . .] (*Harper's Weekly* 1873, 618).

By the end of the nineteenth century research results were often translated into visual representations. Once the major theoretical breakthroughs concerning human antiquity were more or less accepted by illustrators, a standardization of images occurred. Thus Moser (1998, 141–5) identifies scenes typically containing hunting, tool-making, eating, rituals, fire, battle with wild animals, and art. The subjects chosen were visually appealing for their dramatic content, rather than attempting to illustrate the evolution of humankind as faithfully as possible. With the advent of the twentieth century, the spread of the visual arts, media, and museum display engendered a massive increase in the iconography of human antiquity. This reflects the rapid growth of physical anthropology and Palaeolithic archaeology throughout the first decades of this century, as well as the growth of publication. Since the 1940s M. Wilson, Z. Burian, J. Matternes and J. Gurche have made huge contributions to the representation of human evolution, the style of which being largely similar to that of Knipe and others.

BOULE AND KEITH

The nineteenth century created the matrix for Boule's, and Keith's, depictions. These are the earliest 'scientific' images of Neanderthals, in the sense that they are based on the detailed analysis of skeletal morphology. They represent the theories of two reputed scientists whose views on hominid phylogeny are still essential today. Boule's Neanderthal is the well-known creature glowering behind a corner with a club in one hand and a boulder in the other, waiting to attack. The image is not intended to be a hypothetical rendition of the La Chapelle individual. Rather, it is described as being 'accurate'. The power of this visual text lies in the comprehensive statement it makes, containing the theory developed by Boule in association with his analysis of the skeletal remains. Hammond claims, 'without the stooping carriage the morphological differences between the Neanderthals and modern [hu]man[s] would not have been sufficient to so definitely expel the Neanderthals from a place in the evolutionary origin of [hu]man[s]' (1982, 9). The pictorial reconstruction of 1909 can therefore be seen as a manifestation of Boule's theoretical view, and as reinforcing thinking in this direction. While the image is informed by the theory, it is at the same time anticipatory of Boule's definitive statement about Neanderthals; it makes his argument explicit in visual terms.

In 1911, a revised vision of the Neanderthal from La Chapelle was published by Arthur Keith (1911a, 778). Keith maintained that Neanderthals were 'not in the Gorilla stage'; thus he presents a more human-like Neanderthal, a man sitting next to a fire and producing tools in a

'homely' atmosphere. Keith denounces the anatomical details of the Kupka image, arguing, that in the Neanderthal from La Chapelle 'there are no features in the bones of the lower limbs to suggest a posture or manner of walking materially different from those of modern an' (ibid. 778). Keith's image represents a theory, namely that Neanderthals were a phase in the evolution of anatomically modern humans and not a side lineage (see Keith 1911b). Accordingly, Neanderthals were the precursors of modern humans, and the modern features of the Neanderthal skull were emphasized by Keith. The strength of visual 'hypotheses' is evident: although the necklace in Keith's picture had no scientific foundation, it accentuates the difference between the cultural and non-cultural. The creation of jewellery and the desire to decorate is intrinsically human; it is indicative of self-awareness and therefore testifies to a 'social persona'.[9]

Keith's image did not prevail, and the fact that it failed to supersede Boule's vision as the more legitimate view of the Neanderthals can be attributed to the fact that Keith himself abandoned his own thesis (see Keith 1915, 350–1). Thus, ultimately reconstructions do more than crystallize the views of anthropologists on human evolution; they actually play an active and integral rôle in the formation of phylogenic debate. Moreover, Keith's image reveals something about the context in which the Piltdown remains were accepted, in the sense that it can be seen as prefiguring his response to Piltdown (Keith 1913a; 1913b).[10] In the view of the formative power of visual images and reconstructions it is unfortunate that early attempts of facial reconstructions were deemed unsuccessful (see Prag and Neave 1997 for a discussion). During the first decades of the twentieth century, Boule's image clearly prevailed, as other 'reconstructions' clearly demonstrate (Fig. 2).

LITERARY REFLECTIONS: WELLS AND ROSNY

Fictional accounts such as Rosny's *Quest for Fire* (1911) and Wells's *The Grisly Folk* (1927) utilize similar conceptualizations. Thus Wells writes:

> [The] [m]ost fascinating riddle [...] is the riddle of the Mousterian men, because they were perhaps still living in the world when the true men came [...] These Mousterians are also called Neanderthals [...] And as we realise the want of any close relationship between this ugly, strong, ungainly, manlike animal and mankind, the less likely it becomes that he had a naked skin and hair like ours and the more probable that he was different, and perhaps bristly or hairy in some queer inhuman fashion [...] (1927, 608–9).

Wells accuses the Neanderthals of stealing the children of the 'men' when the children ventured too far from the others (616), and he sets out to describe a scenario of warfare between the two unequal creatures: the 'grisly beasts' (617) 'were to be dealt with as the bears were dealt with' (618). But whereas 'men' lived in social groups with wise 'Old Man', the Neanderthals were 'stupid' and 'went alone or in twos and threes' (618). They were also speechless and clumsy, not quick enough to hunt 'men'. Finally, the war between the 'two races

9 But one should also note the different technological levels of both creatures: while the ape-like Neanderthal of Boule appears wild and beast-like, standing at the mercy of the environment, the human-like Neanderthal of Keith's image appears to be in control of his surroundings.

10 The Piltdown case itself is yet another example of the dangerous power of theory over fact. Thus able palaeontologists were deluded by a fabrication that neatly matched their own perceptions.

Figure 2
Sculpture. Neander Valley (Germany) *c*. 1930. Photograph taken by the author

that were intolerable to each other' was decided: 'the last poor grisly was brought to bay and faced the spears of his pursuers in anger and despair' (620). Yet again, upright, far-sighted men took their destined place as 'natural masters' of the wild beasts.

It is difficult to determine exactly why this negative vision predominated; there are certainly many different motives. The antiquity of the image of the *wild man* and strange beasts, was unquestionably powerful and helped to maintain a feeling of alienation. However, the endurance of the imagery is also intrinsic to the creation of knowledge within different contexts. For example, while scientists reviewed their standpoints when new information about human evolution was obtained, other sources that contributed to the production of knowledge

about Neanderthals were not affected by these modifications. A case in point is Burian starting to paint prehistoric scenes in the 1920s; he did not change his approach until his death in 1981. Another example is Rosny's novel 'Quest for Fire' (1911) which has sold more than 3 million copies and was brought to a vast new audience once it was made into a 'spectacular science fantasy movie blockbuster'.[11,12]

The dilemma with Burian's painting of prehistory is that it is rooted in the field of science; feeding consciously off an established body of knowledge, while adding imaginative material when the facts prove insufficient. Stoczkowzki (1997, 250) rightly points out that imagination can be of different qualities, it can be artistic and free, or deductive, but it is always conditioned by expectations and previous knowledge. Tracing the sources of the visual vocabulary historically enables us to understand the conditioning to which our imagination is subject. I have drawn attention to some common stereotypes (caves, hairiness, primitivity, clubs); such elements are also presented by Burian. In addition to aforementioned reasons, one supposes that the popularity of this fixed set of images became a kind of pretext for better defining qualities of civilized people by contrasting them with their opposite. The rôle and the form of image were projected on to prehistoric people. Just as the deep chaste forest inhabited by the *wild man* was the negative pole for medieval or ancient civilization, so the first ages of humanity were often considered as the negative pole for contemporary civilization. Indeed, the view that Neanderthals were cannibals has recently attracted scholars (see White [1992] for a discussion).

The notion of invasion, as evident in Wells's story, was not limited to palaeoanthropology, but had become a common trait of evolutionary palaeontology. The employment of ideas of invasion merely accentuates the element of what might be called 'social Darwinism'. The fact that these conceptions surface in popular fiction, as well as in science, indicates that they communicate messages that had some extensive attraction to at least certain sections of Western society; images congruent with an imperialist view of race relations are highlighted and reverberate in this argument. These ideas were perpetuated, but not invented, by palaeoanthropology (see Sollas 1911, Keith 1915).

The images of invasion and extermination used to indicate the situation of the Java *Pithecanthropus* and the European Neanderthals were appended by another conception, that of the relic of the past surviving into later periods in some separated territory. This idea is utilized in A.C. Doyle's (1912) novel; here again, popular imagery interacted with scientific theory in a manner which formed popular perceptions of evolution and human origins. Although the idea is not new, its continuous prominence testifies that — as with Wells' story — the metaphors of migration and extinction/survival were of distinctive appeal in an age of imperialism; the triumphant whites were displacing 'inferior' races around the globe as once Cro-Magnon men had done. The symmetry between popular stories and contemporary biology shows how science and science fiction can interact to cast cultural values (Roebroeks 1995). It also affirms that traditional models of history can be reconstructed both in science and popular writing if they fit into the ideology of the era.

11 Cover of the 1967 edition.

12 There also existed a wide array of literature utilizing evolutionary theories in various ways (W. Busch 1943, F. Kafka 1970).

CHANGING PERSPECTIVES — THE 'RENAISSANCE' OF NEANDERTHALS

The relative lack of new discoveries of Neanderthal remains directed the focus of attention eventually to other fields and areas.[13] New discoveries such as the Steinheim cranium (1933) and Swanscombe fragments (1935–6) had little impact on the schemes of human evolution. Neanderthal Man remained a dimly lit, ill-focused configuration upon which new material was grafted; the more 'advanced' Piltdown was firmly defended as the true ancestor of modern humans. The Second World War also obstructed publications in the field thus delaying a fuller picture of Neanderthals (Garrod 1939, Rust 1950). It was thought, however, that Neanderthals buried their dead. The publication of the numerous skeletons of Mount Carmel, also interpreted as a 'cemetery', paved the way for Blanc's humanization of Neanderthals, which transformed them from the profane to the sacred. Thus, when Alberto Blanc announced the discovery of the Guattari cranium, his interpretation was to have a deep impact on human evolutionary studies. Blanc was to construct the cranium's placement and breakage into a theory of Neanderthal ritual behaviour. Trinkaus and Shipman point that that the 'claims [. . .] simply reflected the mood that was in the air, rather than shaped the change, for the evidence itself was not strong' (1993, 254). Suddenly Neanderthals appeared very familiar to everyone: 'It was not so much a resurrection [. . .] as a renaissance–literally, Neanderthal's rebirth as humans' (ibid. 255).

Charleton Coon's illustration became the new and potent symbol of the Neanderthal's humanity. Along with *Pithcanthropus* and *Sinanthropus* came the establishment of Dart's (and R. Broom's) australopithecine fossils. As those even more distanced ancestors surfaced, chimp-like and alien, Neanderthals did not appear so strange anymore. By 1945 there was great faith in the ability of scientists to solve problems. Human nature, deeply jumbled and challenged owing to the war, and human evolution were but two such problems. The mechanisms of inheritance were welded to notions of natural selection and genetic change. This fusion of old and new information, of process and mechanism, became known as the 'evolutionary synthesis' and had an extensive effect on all biological sciences. This spirit led physical anthropology to become one of the most rigorously quantitative of the biological sciences (for example, Martin's [1914] *Lehrbuch der Anthropologie* — Handbook of Anthropology, and Hrdlicka's *Practical Anthropometry* [1939]).

The second half of the century was one of major change regarding the conceptualization of Neanderthals. Hooton (1949) reviewed the Neanderthal fossil record and realized that there were real and significant differences within the Neanderthal hypodigm, falling into two obvious variants. The type of skeleton everyone thought of as Neanderthal — large-browed, long-headed, squat and heavy-limbed — appeared to be purely a phenomenon of western Europe and of the early part of the last glacial (Würm) period, and were all associated with cold-adapted, sub-arctic, glacial-age animals. These were Hooton's 'classic' Neanderthals. The Neanderthal specimens that were earlier — supposedly dating to the warmer interglacial (Riss-Würm) period that preceded the last glaciation — were more widespread geographically and more generalized anatomically (Krapina, Tabun, Saccopastore, Teshik Tash). None of these fossils showed such extreme development of the 'typical' Neanderthal anatomy. While noting they were more similar to modern humans, Howell (1957) saw these specimens as

13 R. Dart's discoveries in southern Africa extending human fossil history; J. Weidenreich's work in Zhoukoudian, C. Coon in America.

'incipiently classic Neanderthal', concluding that the European fossil record shows increasing 'neanderthalization' through time.

Howell's synthetic vision neatly accounted for the appearance of modern humans in western Europe. The warm break in the middle of the Würm glaciation removed the potent geographical barrier that once isolated western Europe; the progressive humans were thus enabled migration out of the east and south into classic Neanderthal territory. Concerning the meeting between the two types of humans, Howell (1957, 404) remarked: 'Whether the ''classic Neanderthals'' were already extinct by the time of this new peopling, or whether they were extinguished by, or hybridised with these invaders, remains a moot point at present.'[14] This was clearly a revised vision of Boule's and Wells's scenario, and a whole new type of explanation temporarily solving the 'Neanderthal problem'. This new attitude is reflected in Golding's novel *The Inheritors* (1955). His Neanderthals, no longer simply brutish and primitive, are childlike and gentle; a novel idea within Neanderthal perceptions.

Golding's novel appears to be the first 'psychological' prehistoric fiction, for the focus is no longer on 'adventures' as was the case with Rosny, Burroughs (1927, 1937), and Doyle (1912). Golding's theme is the confrontation of Neanderthals with *Homo sapiens*, and is possibly the first venture to divulge a different kind of thinking from that of modern man. Golding equips the Neanderthals with strange visions of events, linked with associations in the minds of the adults and connected to childhood experiences. The men practise telepathy, and the women conduct the Oa-cult, based on a continuous matrilineal myth:

> There was the great Oa. She brought forth the earth from her belly. She gave suck. The earth brought forth woman and the woman brought forth the first man out of her belly[15] (Golding 1969, 34).[16]

At the close of the novel a Neanderthal child — the last Neanderthal — is integrated into the band of modern humans whose aversions against the 'devilish brat', however, do not cease. Golding's conclusion regarding the child's integration remains open; ultimately the reader does not know if both species can live peacefully together.

Golding's publication is evidently a comment on Wells's earlier story. Thus Golding quotes a passage from Wells's *Outline of History* at the beginning of his book where Wells presents a monster-like description of Neanderthals.[17] Golding takes a different stance by presenting the Neanderthals as innocent and childlike (ibid. 11–13); this impression is enforced by their monosyllabic names (Lok, Fa, Nil, Ha, Mal) and the simplicity of their language, that are opposed to the names of 'humans' (Tuami, Marlan, Vakiti, Vivani) and their superior communication. Indeed, Golding's narrative style is restricted to essentials; it is almost puerile.

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14 First more conclusive evidence regarding the possibility of interbreeding between both hominid types currently stems from Portugal (Lagar Velho 1), cf. Duarte, Mauricio, Pettitt, Souto, Trinkaus, Van Der Plicht, Zilhao 1999.

15 An important divergence from the biblical origin in which Eve is made from Adam's rib, Adam hence being created first.

16 First Edition in 1955.

17 '… We know very little of the appearance of the Neanderthal man, but this … seems to suggest an extreme hairiness, and ugliness, or a repulsive strangeness in his appearance over and above his low forehead, his beetle brows, his ape neck, and his inferior status […] The dim racial remembrance of such gorilla-like monsters, with cunning brains, shambling gait, hairy bodies, strong teeth, and possibly cannibalistic tendentious, may be the germ of the ogre in folklore …'.

As a consequence of this narrative style the reader's vision is directed toward the 'peoples'' perceptions of the world:

> They ate again in silence as the hyenas whined and yelped. Lok's ears told him they were hungry and his nose assured that they were alone. [...] He had a sudden picture of Lok thrusting a stick into a crack for honey. A feeling rushed into him like a wave of the sea [...] (ibid. 119).

What emerges is a dichotomous tradition of ideas which can be traced in the images, sculptures, fictional accounts, and the scientific claims in which these ideas are represented. Over substantial periods of time one can follow oscillations regarding the attitude towards Neanderthals, without actually noting any advance regarding those theories lurking behind the images and fictional accounts. Evident development in palaeoanthropological material does not have a necessary impact on the public perceptions of Neanderthals. Indeed, the dichotomy of *Same* and *Other* still lingers on almost unmodified today. Golding himself cannot avoid the idea of antagonistic confrontation and extermination of the Neanderthals by the modern humans (Golding 1969, 113–14).

Parallel to this 'spiritual' reconfiguration of the perception of Neanderthals in scientific, and popular discourse, anatomical consideration led to new insights regarding their 'barbarous' physique. Following Arambourg's publication on the vertebrae of La Chapelle[18] — in disagreement with Boule — Patte (1955) published his book *Les Neandertaliens* in which he compared Neanderthal and modern human skeletons. Patte considered Boule's simian reconstruction of La Chapelle to be seriously flawed; the new measurements placed the Neanderthals within or near the range of modern humans. Further evidence came from Straus and Cave who detected severe 'osteoarthritic deformans affecting the vertebral column' (Straus and Cave 1957, 350–2). Concluding that 'there is thus no valid reason for the assumption that the posture of Neanderthal man [...] differed significantly from that of present-day men' (ibid. 358) Straus and Cave remark: 'provided that he were bathed, shaved, and dressed in modern clothing — it is doubtful whether he would attract any more attention than some of his other denizens' (ibid. 359). As he had not noticed the arthritic condition of La Chapelle, Straus and Cave were able to discredit Boule on the subject of Neanderthal physique.

Coon also contributed to the emerging new perception of Neanderthals as adapting to climatic conditions. It was an inspiring recognition, for no one had tried to integrate the concepts of adaptation and selection with thorough treatment of the fossil record before. Accordingly, Neanderthals exhibit characteristics suggestive of a cold, glacial climate. His ideas are still used to understand Neanderthal anatomy as a function of environmental adaptation.

Another view of Neanderthals, diverging from Boule, originates from Brace who published a paper in 1964, remarking on Boule's interpretation of La Chapelle that

> the evidence has undergone a complete change while the argument has remained substantially the same [...] The aim was to prove that these non-modern hominids could not be the forerunners of truly modern men (ibid. 11).

18 See Trinkaus and Shipman 1993, 300.

Much of Brace's criticisms were unmistakably correct. He clearly saw, for example, the fracture between changes in evidence and theory. Thus Vallois, Boule's successor, was not inclined to revise his predecessors' interpretations, despite substantive alterations in the archaeological record. In accordance with his own opposition, Brace understated the actual anatomical differences between Neanderthals and modern humans. Yet again anthropological theory had become a more or less personal issue between contrasting traditions of fundamentally differently trained scholars whose theories 'fossilize' in antagonism and vehemence (cf. Bordes 1966, Howell 1964, Vallois 1966); not Neanderthals but Brace had become the problem.

Yet some of Brace's points became influential. His was the first clear statement that the major changes in human behaviour in the Middle Pleistocene were ultimately responsible for changes in the anatomy of Neanderthals, who were driven by natural selection and genetic drift in the direction of modern humans. He began articulating a view of culture as a major part of the human evolutionary and adaptive mechanism that has been widely incorporated into anthropological thinking (Stringer and Gamble 1993, Mellars 1996). In his subsequent studies of the dentition and facial structure of different populations Brace has emphasized the evolutionary trends and changes that he could document and the necessary and powerful interaction of anatomy and culture. Whether or not consciously derived from Brace, the evidence of Neanderthal culture and behaviour was about to become a potent force in anthropological thinking. Now that the field's understanding of Neanderthal anatomy had changed, the stage was set for a new appreciation of the less tangible role of Neanderthals.

MORE NEW VIEWS: SHANIDAR, THE FIRST FLOWER PEOPLE

Excavated between 1953 and 1960 Shanidar Cave was to prove one of the richest catches of Neanderthal remains: nine adult Neanderthal individuals and one child were uncovered (Solecki 1971). Four of these were killed through rockfalls, while the other five were apparently intentionally buried. Solecki had taken soil samples for analysis from the site. The sample taken from the immediate vicinity of the burial of Shanidar 4 yielded wildflower pollen in considerable quantities; much more than could reasonably be believed to have blown in on the wind, or carried in otherwise. Solecki implies that the Neanderthal had not only buried the individual, an elderly male, but also buried him with offerings of flowers. In 1971 Solecki published his book *Shanidar, The First Flower People* implying that Neanderthals were rather human, *indicating that [. . .] [they] [. . .] had 'soul'* (Solecki 1975, 880).[19]

Another compelling piece of evidence, apparently testifying to the 'humanity' of Neanderthals, was Shanidar 1, a male aged between 35–50 at death. This was a mature age for any prehistoric human, yet Shanidar 1 had been devastatingly injured: his right arm was so badly damaged that it was rendered useless and his feet were nearly immobile. Solecki argued that someone so badly injured could not possibly survive without sustenance. His survival for years after his trauma was a further testament to Neanderthal compassion and humanity. In accordance with Brace's and Solecki's postulations, the focus of Neanderthal studies shifted from the behavioural pre-Sapiens to the anatomical pre-Sapiens. This view suggested that, although modern humans were descended from anatomically primitive ancestors, we could

19 A recent paper argues that the pollen accumulation is the result of *Meriones persicus's* activities, a very common rodent in the Shanidar region (Sommer 1999).

comfort ourselves with the knowledge that they were just as human *behaviourally* as we consider ourselves to be.

Such new perspectives, of course, did not bring discussion about Neanderthals to an end. By the 1970s a notion was firmly established that Neanderthals were just like us. The vision was one of behaviourally modern humans trapped in archaic bodies, waiting for biological evolution to catch up. A corollary of this premise was that biological evolution had produced only changes in physical appearance, not in behaviour, between Neanderthals and modern humans. Bordes's analysis of the Mousterian industrial complexes (see Mellars 1996) as well as Wolpoff's and Brose's work (Brose and Wolpoff 1971), which contended that different tool types were not soundly linked to different types of hominids, added to the understanding of the Neanderthals in a manner firmly embedded in an evolutionary trajectory. Research became essentially focused on the behavioural capabilities of Neanderthals. While capabilities are, at best, hard to estimate, what was actually and habitually done remains more enigmatic. As a result of these new perspectives, the Neanderthal debate could be cast in new terms. The conceptualization, although remaining quite diverse, had become one of the Neanderthal as *Same*.

RECENT ILLUSTRATIONS: SOME EXAMPLES FROM THE 1980s AND 1990s

I have observed a dichotomy in scientific theories about Neanderthals and their depiction, falling into the distinct categories *Other* or *Same*. This is not the case in literature where a wider array exists, ranging from Darnton's friendly and innocent Neanderthals (Darnton 1996),[20] to Elisabeth Thomas's novel *The Animal Wife* (1990), where a Neanderthal is illustrated as essentially animalistic, but without the immediate implication of bestiality. Since Golding's publication one can observe the onset of *prehistoric fiction* almost as a literary genre, accompanied by a widening conceptualization of Neanderthal and Cro-Magnon interaction. Palaeoanthropological revelation in some cases continued to inform the fictional account, as in Kurten's *The Dance of the Tiger* (1982), which employs the theory of an African origin of *Homo sapiens*. The Neanderthals are white-skinned while the modern humans are black-skinned, penetrating Europe from the 'sun-burned steppes'; an intriguing reversion of other colonial scenarios where the intruders are white.

In Auel's famous *Clan of the Cave Bear* (1980) the main protagonist, possibly following the rise of feminist awareness, is a woman. The ideas expressed in Auel's novel are made explicit in the form of a Hollywood motion picture (*Ayla*) based on Auel's book. Ayla, the fair, blonde-haired Homo sapiens, was adopted by a Neanderthal woman whose body is covered thickly in brown hair. Ayla's appearance, conforming to a Western ideal, and intellect, are opposed to the furry appearance, as well as the primitivity and simplicity of the Neanderthal's intellect. In the story the authority resides in the hand of the stronger males whilst women are controlled by men and are not supposed to oppose them (such structures might be perceived as specifically 'primitive' and 'natural' by the reader). The Neanderthals' sexual behaviour (ibid. 1980, 601–3) constitutes a surprising parallel to 'A Quest for Fire' and another film (*Neanderthal Man*) from 1952, the poster for which (see Triukhaus and Shipman 1993, 406) demonstrates the fear of the rampant sexuality that was equated with physical primitiveness; the reverse of Western ideas is applied to confine Neanderthals to the domain of the *Other*.

20 Darnton's 'adviser' was Chris Stringer thus giving the novel scholarly association.

Auel's novels' far-reaching impact is testified by their position as subsequent New York Times No. 1 Bestsellers, as well as the production of three sequels to Clan of the Cave Bear. The Plains of Passage (1990) promises to be 'vividly authentic and entertaining [. . .] Auel returns us to the earliest days of humankind [. . .]'.[21] Thus, instead of warning the reader about the inevitably *fictitious* nature of the stories' content, the praise proceeding the actual narrative further affirms notions of authenticity: '*AUEL BRINGS ALIVE A WORLD THAT HAS BEEN IRRETREVABLY LOST TO US*' (Chicago Sun-Times). Thus a whole generation of readers in Europe and the United States of America reached by the novel were convinced that Auel's world represented a *real* prehistoric situation. It need not be reiterated here that such an undertaking is impossible and thus merely speculative. Auel utilizes gender stereotypes and ideas about the past which themselves are nothing more than products of a specific tradition of Western thought.

A CASE STUDY: THE NEANDERTHAL MUSEUM

Another example of recent Neanderthal reconstruction is the newly established Neanderthal Museum in Mettman, Germany. Returning to the place of the Neanderthal 1 discovery to 'maintain and popularise the cultural heritage of the Neanderthal valley and all it signifies',[22] the museum has attracted considerable public attention. Owing to its popularity, the museum's exhibits will have imprinted their (visual) message upon a great quantity of people and continue to do so. The authority of the messages is increased through the location of the museum and owing to its official character; the exhibition presents a vision of Neanderthals which the visitor must readily accept as the *real* and objective version of human evolutionary history.

The conception and layout of the museum has been carefully planned. A team of archaeologists has worked on the material and hence these can be seen as 'scientific' reconstructions. However, the presentation of Neanderthals themselves (Fig. 3) appears in a very distinct light. The aspects emphasized are clearly those which prompt them to appear more 'human'. Lucid examples are a woman lamenting the death of her partner and the dialogue between an old woman and a child. Both highlight emotional qualities, such as sorrow, responsibility, and concern. In addition, the physiognomy of both displays is significantly detailed and the faces are poignantly articulated; this articulation has to be purely subjective, as skulls do not have any 'real' expressions beyond their symbolic associations. However, Figure 3's facial expression reveals what might appear as an expression of suffering and misery in the eyes of a Western observer; the facial expressions given to the displays do not universally signify identical emotive states in other societies. In accordance, visitors from other cultural backgrounds might perceive the reconstructions in different ways. This point illustrates the inevitable subjectivity of the reconstructions, ensuing from the observations of Western archaeologists intending to reproduce an impression of Neanderthals as *Same*.

The specific form of the presentations serves to underpin this interpretation of Neanderthals: the visitor encounters 'domestic' scenes.[23] Details, such as the tattoos, fabrication of clothes, and the religious idea of an afterlife, underline a perspective of Neanderthals in an

21 Cover of the 1991 edition.
22 As advertised in a museum's prospectus from 1998.
23 'Domestic' in the sense that Neanderthals are not shown either as hunting or as displaying aggressive behaviour otherwise.

Figure 3
Dermoplastic of a Neanderthal woman lamenting the death of her partner. Note the blonde hair of the exhibit, a feature normally only attributed to *Homo sapiens sapiens*. Reconstruction based on the Forbes' Quarry skull (Gibraltar). Photograph taken by the author and kindly reproduced with permission of the Neanderthal Museum, Mettman (Germany).

agreeable light: contrasting Figure 3 with Figure 2 reveals the manifestation of the perceptional change in the garments of both reconstructions. Thus the loincloth of the latter reconstruction, whose clothing is reminiscent of Tarzan (Burroughs 1929), is quite different to the attire of the former: whereas the loincloth underlines the primitivity and backwardness of the early reconstruction, the trousers of Figure 3 appear more sophisticated. It can be assumed that the fabrication of the leather trousers, evidence for which does not exist, takes much longer and requires a more advanced set of tools than the manufacture of a loincloth.

CONCLUSION: NEANDERTHALS, *SAME* OR *OTHER*?

After 140 years of controversy about Neanderthals we have acquired miscellaneous perceptions, the conflicting theories of which are exemplified by Auel's novel and the Neanderthal Museum. Both of these are 'hypotheses on canvas' insofar as they present concrete ideas about the nature of Neanderthals. In the light of constantly progressing 'knowledge' about Neanderthals, an evaluation of the 'accuracy' of both perspectives, which exemplify the dichotomy between *Same* and *Other* perfectly, is possible. However, in the tenor of this paper, the credibility of these new evaluations clearly depends on the individual's standpoint and sympathies, and it remains impossible to claim, as Trinkaus and Shipman do (1996, 411–19 — 'The Current View'), any authenticity for one vision.

It has already been stated that an assessment of the reconstructions cannot be accurate in a scientific sense: emotional sentiments and visual hypotheses will always inform the standpoints of the person deciding about the character of the reconstruction. This relativism is, however, only partly practicable; it must be supplemented by problem-sensitive positivism, since otherwise all efforts to know the past would be futile. Yet there was a real past which archaeologists and palaeoanthropologists are constantly approaching. Their efforts have led to an accumulation of 'factual' knowledge of phylogeny and Neanderthals alike. This information must provide the framework for a most feasible interpretation of Neanderthal remains, and interpretations of their symbolic faculties and behaviour. Ultimately the issue cannot be resolved, since, by definition, the past must remain speculative, resting on preference rather than empirical validation.

Recent research in palaeoanthropology (Krings *et al*. 1991, Hublin *et al*. 1996) has supported a view of Neanderthals as 'same but other'. Pointing towards real and significant differences between Neanderthals and modern humans, one might consider Neanderthals not so much as 'our ancestors' (as the DNA sequence and the structure of the inner ear suggests) but as European contemporaries of the modern humans who penetrated into Europe to encounter the Neanderthals. Their life was perfectly adapted towards the conditions in Europe, while the intruders were shaped by different forces possibly producing the increased symbolic articulation evident from the Upper Palaeolithic onwards (e.g. Mellars 1996, 357–91). Mellars (1996) provides a review of Neanderthal technology, subsistence strategies, patterns of mobility and spatial, social and demographic organization. From these it is evident that they are the product of purposeful and intelligent behaviour on part of the Neanderthal groups, reflecting the mental and cognitive capacities of the individuals concerned.

This view of Neanderthals is incongruent with the perception Auel popularizes; the associated savageness appears primarily concerned with contemporary interests and identities. Similarly, one might say that the sympathy and humanity invoked by the grieving woman in the museum renders Neanderthals more human than they might actually have been. Invoking

humanity and means of identification, the mirror-image of Ayla's contemporaries, might eventually not serve the 'interest' of Neanderthal studies. A simple antithesis, ostracism still remains essential to the conceptualization within the category of *Same* not escaping the dialogue between alternative human moral and social identities (e.g. the Neanderthal Museum). Depicting Neanderthals as what they are, as quintessentially different, might solve the recurring dilemma of the 'Neanderthal enigma'; allowing an understanding of Neanderthals, less immediately of concern for 'what it means to be human'.

Popular images and archaeological reconstructions can be understood as hypotheses, as Stoczkowski and Moser have suggested. Being self-evident and more easily comprehensible they provide archaeologists with powerful means of visualizing a past which, without the aid of visualizations, remains diffuse and dimly lit. However, this being the case, we must appeal for an informed handling of this visual information; forming and informing unconsciously, archaeologists have to be and make conscious of their creations, wherever they are reproduced (i.e. in films, museums, popular, children's or scientific books).

Failing to take the influence and bias of such creations into account, images of Neanderthals cannot simply be 'corrected' by rendering them more 'human', as this means never escaping the already existing dichotomy of *Us* and *Them*, *Same* and *Other*. By neglecting the necessity to inform about the impossibility of authenticity, this dichotomy, into which the whole package of *savage Others* can be implanted, is reproduced. For Jahoda (1999, 243ff.) these (negative) images, inseparable from their opposites, are symptoms and support of racism. He points out that the 'usual cure-all, namely education' (ibid. 247) will not solve the problem. The non-rational character of the images, presumably serving emotional and ego-protective needs, are often confined to a level of popular culture which exists as a parallel and unbridled strand to scientific conceptualizations. Thus it emerges as increasingly important that the scientific message, especially as transmitted in school and children's books, should be unequivocal, as it is at this stage that children learn to classify and relate information, and are hence important in the formation of the children's world view (see Burtt 1987 for a discussion). This paper is a contribution to the 'history of archaeological knowledge' in order to enable a conscious treatment of visual resources in archaeology and anthropology.

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