## Early Man—The Biblical and Scientific Record

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The Bible (1) indicates that man is a created being (Genesis 1:26-27). This is in contrast to evolutionary theory that states man is the result of a long line of lucky genetic recombinations and mutations see figure 1 (2). These two concepts are mutually exclusive. One claims direct creation by a Higher Being the other long eons of time and the working of impersonal natural laws. Since they are so diametrically opposed in their basic foundational concepts they cannot agree. Therefore either man was created or man evolved, there is no "middle ground."

In other words, it's natural selection or a Creator. There is no middle ground. This is why prominent Darwinists like G. G. Simpson and Stephen Jay Gould, who are not secretive about their hostility to religion, cling so vehemently to natural selection. To do otherwise would be to admit the probability that there is design in nature—and hence a Designer. (3)

# Early Man According to the Bible

Evolutionary concepts have man evolving from the lower life forms. As humanity progressed in time, skills and culture were learned. The scriptures, on the other hand, indicate that man has always had a reasonable amount of technical expertise. There are many examples in the book of Genesis that signify that man had culture and intelligence from the beginning.

Immediately after Adam and Eve were created God began to instruct them. God was very concerned for His newly created children. One of the first things that God does for

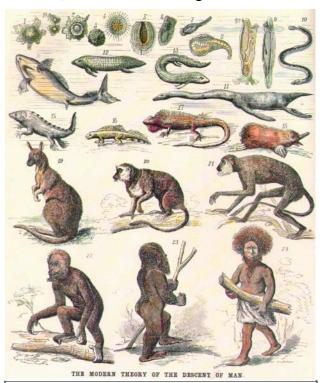


Figure 1. Ernst Haeckel in 1876 traced the descent of man. Notice that the concept of early man was formulated before any evidence existed and that man is at the end of a long evolutionary line of animals.

Adam is create for him a life companion, a wife. This reveals that marriage, one of the great indicators of culture, has existed since the creation of the first humans. Other scriptures indicate that God had long and frequent conversations with the first humans. Among some of the things discussed were: principles of agriculture and gardening (Gen. 2:15), what fruit could and could not be eaten (Gen 2:17), the naming of the animals (Gen. 2:19-20), and various other principles. When Adam and Eve sinned they hid from God and He came looking for them in the cool of the evening. This indicates that they often would talk and converse at various times with their Creator. Even after their sin, God clothed them and instructed them on the consequences of what they had done (Gen. 3:13-24).

God in His conversation with the first humans no doubt imparted to them much cultural and technical knowledge. Notice the following examples of what early humans were capable of doing. Able was a keeper of flocks (Gen. 4:2-4). His brother Cain was a farmer. Both of these occupations require large amounts of technical skill. When Cain was later banished for the killing of his brother he went to live in the land of Nod and built a city (Gen. 4:16-17). Even if this were a small village or city it would still require a large amount of technical skill. A few generations removed from Adam technology was widespread. Jabal was a rancher and lived in tents (Gen. 4:20). Tent making requires intellectual abilities. His brother Jubal was a musician, who played the harp and flute (Gen. 4:21). Tubal-Cain their half-brother was born (Gen. 4:22) and he was a worker in brass and iron. Working brass and iron requires an understanding of fire, hearth making, mining, and a consideration of the properties of metal. Noah the great Biblical patriarch built a large ocean going Ark (Gen. 6:13-16). Without a doubt this required expertise in woodworking, zoology, and structural engineering. The organizational skill required to build and maintain the Ark would have been immense. Men immediately after creation were imbued with a large amount of technical skill, culture, and intelligence.

Unfortunately evolutionary anthropologists are at odds with the technology of early man. If evolution is correct then early man is only a few evolutionary steps above the animals, and the levels of technology previously mentioned would have been impossible. According to the Biblical record after early men dispersed from Eden they took their technology with them.

In reality early man, even those that had degenerated morally had high levels of technology. Also consider that a few generations after the dispersal from the banished Garden of Eden man would have still had the technical abilities but would have lacked manufactured products. This would be comparable to a 20<sup>th</sup> century man being stranded on a large island. He may have the ability to make products but he would lack the resources. In such a case he may find himself living in a cave and producing stone implements. The fact that humans live a primitive lifestyle (4) does not mean humans are not intelligent or cultured. Even though early man was in some cases primitive the fossil record reveals he nevertheless was very knowledgeable, resourceful, and was not lacking modern ranges of intelligence. This understanding had been overshadowed by false evolutionary concepts.

#### **Evolutionary Concepts**

When discussing the concept of early man (5) such ideas as stooped shouldered, slouched, bent kneed, animalistic, hairy, dumb, filthy, and other similar adjectives will often come to mind. The reason for this involves the theory of evolution (6). According to evolution humans have basically evolved through natural selection and descent with modification from lower life forms. Man is simply the end result of evolution from simple life forms and humans in essence are animals.

Since early man has descended from animals, he is often portrayed as lacking average human intelligence and modern culture. If the various hominids that predated modern humans can be shown to have the same general appearance, abilities, intelligence, and emotional range as modern humans have, this would be a devastating blow to the evolutionary worldview.

# The Traditional Concept of Early Man

The idea that early humans were extremely apish and only as they further evolved did this apishness disappear is a key concept in evolutionary dogma, which appears constantly in evolutionist's writings. This idea is prevalent in any of the early man discussions.

Once the idea of man's evolutionary development is accepted, his origins can theoretically be traced back to the beginning of life itself—a matter of some two billion years. For practical purposes, however, the point at which to study the beginnings of man is when he began to have the first faint traces of "mannishness." How far into the past to dig for such traces—what, even, to keep an eye out for—is something of a problem. It was first stated by T. H. Huxley more that a century ago in a series of questions: 'Where, then, must we look for primeval Man? Was the oldest *Homo sapiens* pliocene or miocene, or yet more ancient? In still older strata do the fossilized bones of an Ape more anthropoid, or a Man more pithecoid than any yet known await the researches of some unborn paleontologist?'...To tell the story properly, we must look behind apes to monkeys and, behind them, to the earlier animals from which monkeys sprang, because traits that would later begin to emerged as strictly human are believed to have had their origins in the shape and behavior of these shadowy creatures."(7)

In the search for early man, theory was molded first and then the facts were found to fit the theory. In other words, before any major fossils of early man were found the theory that early man must exist had already been formulated. Examples include Darwin's evolutionary masterpiece *The Descent of Man* which was written before any subhuman fossil, which could support his theory, were found (8). In the following case notice how species and genus of imaginary human ancestors are formulated even before a single bone is found. Ernst Haeckel was notorious for faking the drawings of various embryonic stages, which have been used, in various biological textbooks. These faked drawings supported the concept that ontogeny recapitulates phylogeny. This idea supposedly showed how the evolutionary history of an organism is relived in its various embryonic stages. The bias and prejudice in theory first-facts later is continually overlooked by the evolutionary scientific community.

But in 1868 the zoologist Ernst Haeckel boldly constructed a scheme of the descent of man from an ape ancestor through an intermediate and as yet undiscovered form to which he gave a classificatory name, for all the world as though he had its bones in front of him and sufficient others to compare them with so as to create a new genus and species. The name he gave to this <u>hypothetical</u> missing link between apes and men was *Pithecanthropus alalus*, meaning Ape-man without speech. According to the rigorous scientific rules of modern biology, he had no business creating a name for a genus not yet identified in the fossil record, nor for a species of that genus either, but his name is interesting historically. It posited a creature in which pongid (ape) traits were mingled with incipient hominid (human ones), and such creatures have been subsequently found, though their form in detail might have surprised Haeckel...(9)

The bias of the evolutionists affects the interpretation of the fossil record. Seeing bias in others is easy—seeing bias in ourselves is nigh impossible. Only when an outside observer points it out is it evident and then this new vantage point is often ignored. Evolutionists often freely point out the bias in their critics while blindly saying that they themselves do not suffer from such narrow-mindedness.

It is an unfortunate truth that fossils do not emerge from the ground with labels already attached to them. And it is bad enough that much of the labeling was done in the name of egoism and a naive lack of appreciation of variation between individuals; each nuance in shape was taken to indicate a difference in type rather than natural variation within a population. This problem has in some part been eased in the half-century since Hooton made his pithy remarks. But it remains inescapably true that applying the correct

label is astonishingly difficult, not least because such labels are in a sense arbitrary abstractions; and especially so when the material on which the analysis is being done is fragmentary and eroded. 'It is an incredibly difficult problem,' says Lord Zuckerman. 'It is one so difficult that I think it would be legitimate to despair that one could ever turn it into a science.'

In fact, 'virtually all our theories about human origins were relatively unconstrained by fossil data,' observes David Pilbeam. 'The theories are ... fossil-free or in some cases even fossil-proof.' This shocking statement simply means that there is and always has been far more fleshing out of the course and cause of human evolution than can fully be justified by the scrappy skeleton provided by the fossils. As a result, he continues, 'our theories have often said far more about the theorists than they have about what actually happened.'

All of which suggests that it is easier to recognize bias in others than to admit it in oneself. It also probably means that some questions in paleoanthropology may well be impossible to answer with any degree of certainty—and human beings dislike uncertainty, especially when it concerns themselves. Combine these two truths and you get an inevitable result, as noted by Johanson: 'Anthropologists who deal with human fossils tend to get very emotionally involved with their bones.' (10)

The biggest problem in evolutionary science is not the fossils but the interpretation imposed on the fossils. Sedimentary rock can be used to support long ages of evolutionary time. This vast amount of evolutionary time is then used to support the scenario that evolution has occurred over long periods of time. Another interpretation of sedimentary strata is that the strata were laid down quickly in a catastrophic mode, possibly a worldwide catastrophe. The sedimentary strata must be interpreted. The problem confronting the creationist or the evolutionist is not the strata or the fossils; it is the correct interpretation, the context in which the strata or the fossil was created. This bias and misinterpretation has yielded the various scenarios as they concern hominid fossils. These fossils are forced to fit into an evolutionary paradigm when they could just as well fit a Biblical model.

# The Changing Image of Neanderthal Man

At the beginning of the nineteenth century Darwin's theories of evolutions were slowly being inculcated into mainstream academia. It was know that, not if but when, pre-human fossils were found that they would be of a transitional type. They would have the characteristics of apes, our closest living evolutionary relatives, and humans. They would appear as human-like apes or apelike humans, depending on your interpretative skills (11). Neanderthal fossils, which were discovered in the 1800s, seem to be the perfect answer. They were interpreted as being apish and brutish enough to nicely fill the gap between cultured modern day humans and our apelike predecessors. The classic Neanderthals were assigned the dates of about 40-100,00 years before the present (12).

A typical example of the preconceived notions in interpretation was Marcellin Boule's reconstruction of the La Chapelle-aux-Saints Neanderthal skeleton that was later shown to be very biased. This evaluation was done at the turn of the last century when Darwin's theory had come into acceptance by most of academia. It was anticipated that fossil men would be more primitive and therefore they were interpreted as such. In the book *Guide to Fossil Man* by M. H. Day (13), an evaluation of Boule's appraisal, quoted below, is given on page 34. Day was overly diplomatic in his assessment of how much bias Boule displayed. In Day's comments notice how preconceived notions was the deciding factor in how Neanderthals looked and not evidence of a

purely anatomical or scientific nature. Although the skeleton should have been fleshed out to reveal a modern, upright, muscular, human it was drawn as evolutionary philosophy and not the fossils dictated. The view that Neanderthals were subhuman skeletally was widely held one hundred years ago.

In view of the features of the post-cranial skeleton, Boule suggested that the stance of La Chapelle man (Neandertal man) was stooping with flexed hips and knees and jutting head carriage, and his undoubtedly bipedal gait imperfect and slouching. Examination of the skeleton has shown that there is evidence of gross deforming osteoarthritis present in the specimen and that Boule's reconstruction is faulty in a number of respects. The reasoning behind Boule's conclusion concerning the stance and gait of the La Chapelle Man, as well as his conclusion that the Neandertalers represent an extinct side branch, has been explained by Hammond (1982). He advances the view that these conclusions owe more to preconceived notions than to a dispassionate anatomical appraisal. Comparison with other Neandertal remains and a wider range of modern skeletal material has shown that many of the features recognized as being characteristically Neandertal fall within the range of modern human skeletal variation. Whilst Cave and Strauss (1957) do not deny the distinctive morphological characters of Neandertal man, they suggest that he stood and walked as does modern man.

A full re-evaluation of the La Chapelle skeleton has suggested that, whilst this individual did indeed suffer from degenerative joint disease, <u>Boule's faulty postural reconstruction</u> was not affected by the presence of this condition.

Other research has revealed that Neanderthals were well-muscled massive humans. They would probably be able to out compete any modern man in any type of athletic event. Interestingly, the Bible comments about these individuals (14), when it states that, "Those were the mighty men who were of old, men of renown." (Genesis 6:4). The following are few comments about Neanderthal morphology (15).

It is now clear that the Neanderthals had the same postural abilities, manual dexterity and range and character of movement that modern men do. They nonetheless differed from modern men in having massive limb bones... the skeletal robustness evidently reflects the Neanderthals' great muscular power. Everything indicates that for their height both Neanderthal man and Neanderthal women were bulkily built and heavily muscled...Many skeletal parts testify to this conclusion. The finger bones show similar attachments for the tendons of the powerful muscles that flexed the fingers. They also show an enlargement of the tuberosities that supported the pads at the fingertips. Both features indicate a much

stronger grip than that of modern men...This kind of refined control, coupled with great power, also appears in a curious feature of the scapula, or shoulder blade. In Neanderthals a deeper groove characteristically appears on the back surface. This feature seems to reflect the strong development in Neanderthals of the teres minor muscle that runs from the scapula to the upper end of the humerus, or upper-arm bone.

Many anthropologists consider the Neanderthals to have been physically less developed than modern humans. On the contrary, there is much evidence that Neanderthals were physically superior humans. The following quote shows that not only were Neanderthal hands able to do everything that modern human hands can do, they were stronger and in some ways more agile than modern humans (figure 2).



Figure 2. The La Ferassie Neanderthal thumb and forefinger bones shown in a laser scanned rendition, as they would appear in an open and closed position.

Despite their ability to make and use stone tools, Neanderthals were presumed to have had limited manual dexterity on the basis of the anatomy of their thumb and forefinger—a contention that has been called into question. Here we investigate the likely extent of Neanderthal thumb function by using a three dimensional dynamic simulation that is based on the anatomical details and articular morphology of the thumb and index finger. We find that these digits could make tip-to-tip contact, and conclude that manual dexterity in Neanderthals was probably not significantly different from that of modern humans...In fact, given the open configuration of the Neanderthal trapezial—metacarpal-1 joint, all Neanderthal thumbs were probably more mobile than that of modern humans. (16)

Neanderthals were well-developed humans. They had many other human anatomical traits including the ability to speak. The hypoglossal canal is the opening in the skulls through which the nerves of the tongue pass. This nerve opening is well developed in the human line. Primates, which do not have the ability to speak, do not have a well developed hypoglossal canal. A recent study shows that the Neanderthals hypoglossal canal resemble modern day humans (17).

Neanderthals fossils also reveal that the hyoid bone was present in the Neanderthals (18). This bone, which is necessary for human speech, is part of the larynx. This indicates that the Neanderthal voice box was very similar to the modern human voice box. Thus Neanderthals had the physical equipment necessary for speech.

## **Artistic Rendering of the Neanderthals**

When the first Neanderthal fossils were discovered they were portrayed with sub-human simian characteristics, see figure 3. This trend continued into the late 1960's, see figure 4. It was only later that it was discovered that Neanderthal men were completely human and although on the average shorter than modern human they basically had the same general appearance as modern day humans, examples are shown in figures 5 and 6. All of these reconstructions were based on the latest scientific and technical information. They were all created under the guidance of evolutionary anthropologist as scientific renditions (19, 20, 21, 22). Incredibly many of them were based on the same fossil!









Figure 3 (l-r) showing how Marcellin Boule drew Neanderthal man in 1909. Figure 4 a reproduction from a Time Life book entitled Early Man 1965. Figure 5 is the work of scientific illustrator Jay Matternes, from the October issue of *Science 81*. Figure 6 is a 1996 rendition of how Neanderthal man would look dressed in a suit.

#### **Neanderthal Culture**

Culture is defined as: the act of developing the intellectual and moral faculties, a particular stage of advancement in civilization (23). Did the Neanderthals have intellect? Did they possess a moral state? Did they have an advanced civilization? If these questions were asked in relation to the Native Americans, or the Australian Aborigines, or many other indigenous people that have existed up until and into modern times the answer would be a resounding yes! These peoples had culture, they possessed language, and they had a moral system. There is much evidence in the fossil record that Neanderthal people also had the same characteristics that are used to identify many classes of present day people. Much of this information, which shows that the Neanderthals were "cultured", has not been adequately emphasized.

Neanderthals systematically buried their dead (24). This would indicate they had feelings about the afterlife—a moral quality. Many of the fossils of Neanderthals come from burials (25). Neanderthals that were buried out in the open would suffer at the whim of scavengers and the elements. If it were not for excavations of buried Neanderthals our knowledge of them would be sorely limited.

Perhaps the most important of Neanderthals man's cultural accomplishments was his registering of the first stirring of a social and religious sense. He buried his dead, which suggests an awareness of the transitoriness of life, concern over the future, and also a willingness to care for the aged. A number of Neanderthal burial sites have been discovered, both in western and eastern Europe, and they reveal a great deal. At Le Moustier in southern France (from which place the Mousterian tool industry gets its name) the grave of an 18-year-old youth was discovered in 1908. He had been carefully and reverently buried on his side, his legs bent, his head cushioned on a pile of flaked flints and resting on his right arm as it might in sleep. Buried with the body were several stone implements and a number of animal bones. Other Neanderthal burials excavated since then show a similar careful laying out of the body and a thoughtful addition of tools and bones. In a cave at La Ferassie, also in southern France, a family of two adults and four children was discovered lying buried in the floor. All six had been placed with their bodies lined up in an east-west position. Evidence of this sort clearly indicates that Neanderthal man believed in some kind of a life after death and that it was probably not unlike the life he lived on earth, since he seemed to be trying to help his corpses along on their journeys with tools and food. Death itself appears to have been regarded as a kind of sleep, since corpses were carefully arranged in sleeplike positions. (26)

Also many of the burials are accompanied by the use of red ocher. Many anthropologists indicate that the red ocher had symbolic meaning. A proper understanding of the Biblical record throws light on this mystery (27).

They were stained reddish with ochre. Red ochre is one of the things Upper Paleolithic moderns painted caves with, but they also buried their dead with it; the color seems to have had symbolic significance. That debate concerns how smart Neanderthals were, and it is centered on the cave digs at Arcy. When French archeologists excavated there in the 1950s, they found dozens of animal-tooth pendants, bone tools, and 40 pounds of red ochre spread over the floor. (28)

A more detailed example of the ritual associated with Neanderthal burials is found at the French site in la Ferrassie. This is an example of a large-scale Neanderthal burial plot or cemetery. It may have contained a family plot (29).

Here we have a veritable cemetery of the Neanderthal folk...These may not be the oldest certain graves in the world but la Ferrassie likely constitutes the oldest cemetery, with the remains of at least seven

Neanderthal individuals (only two of them are adults) and the powerful implication that more children were once buried there. The age and sex distribution of the human remains is strongly suggestive of a family plot...Suggestive, too, is the orientation of five of the graves (with two more less obviously so) on an east—west axis—a state of affairs seen at other Neanderthal burial sites like Spy in Belgium and Kebara in Israel. The daily round of the Sun, suggests itself as a possible factor in motivating such burial orientations...At the westernmost end were the two adult burials, lying head to head...To the east of the adults two smaller children's graves were discovered with the same east—west orientation, and further to the east of them nine low round mounds in rows of three (staggered like cinema seats) running north—south came to light.

## **Neanderthal Technology**

Neanderthals were also technically advanced. Their abilities included building of outdoor shelters (30), fire hearths, and the use of various personal ornaments. One example of their technical expertise involves the making of high quality pitch glue. This glue, which was produced by the use of birch bark, was used to haft flint implement onto wooden handles. In a recent article (31) entitled "High-tech in the Middle Paleolithic," the authors indicate that a reassessment of the Neanderthals capabilities is in order.

Today, comparable pitches can easily be produced with modern technical methods, i,e, using airtight laboratory flasks and temperature control facilities. However, any attempt at simulating the conditions of the Neandertal period and at producing these birch pitches without any of these modern facilities will soon be met with many difficulties. This implies that the Neandertals did not come across these pitches by accident but must have produced them with intent. Conscious action is, however, always a clear sign of considerable technical capabilities...The pitch finds from Konigsaue therefore demonstrate that the Neanderthals must have possessed a high degree of technical and manual abilities, comparable to those of modern *Homo sapiens*.

Other Neanderthal abilities included the manufacture of personal ornaments. At first it was believed that the incoming *Homo sapiens* had acculturated the Neanderthals, in other words the Neanderthals had traded or had been given the artifacts by modern humans. Thinking that ornament fabrication was beyond the intellect of Neanderthals it is now common knowledge that these early humans were very experienced at making ornaments. These ornaments would be manufactured out of bones, antlers and various other materials. The authors of the following article (32) stress that the Neanderthals are still suffering discrimination at the hands of most of the anthropologists. This discrimination concerns a misunderstanding of their cultural abilities.

There can be no doubt that technological knowledge concerning bone, tooth, and ivory artifact manufacture was consciously transmitted within the group (p. 11).

Seven other Chatelperronian sites, apart from the Grotte du Renne, have yielded personal ornaments consisting of perforated and sawed teeth and perforated shells of different species (p. 13)

That such laws were in operation in the world of the Neanderthals constitutes further confirmation that they were fully cultured human beings and that there is no reason to assume that they were incapable of "modern behaviour." (p. 22)

...we are dealing with hominids that are anatomically and culturally modern (p. 23).

Furthermore, given the well documented use of ochre and the presence of burials, as well as the rich evidence for ornaments summarized by d'Erric et al., it is likely that we continue to underestimate the technological and symbolic sophistication of Neanderthals (p. 24).

There are many Neanderthal capabilities that indicate that they were completely human. In the Ukraine are many excavated sites that yield evidence that Neanderthal man built shelters. Although Neanderthal man often lived in caves he also built structures inside of some of the caves. These structures were made of poles and skins and were divided into rooms. Many of them had a central hearth. Other outdoor shelters were built out of mammoth bones, poles, and animal hides (33). The edges were weighted down with large rocks. Neanderthal man made a variety of tools for various uses. These included choppers and hammers for breaking open bones, flint knives for cutting animal flesh and tendons, scrappers for working hides, and flint points for spears. The ability to look at a piece of rock and produce a working tool requires the utmost in cognitive skills (34).

Neanderthals also appreciated music. At the Divje Babe cave in the Slovenian Alps, Ivan Turk of the Slovenian Academy of Sciences, unearthed a bone flute fashioned from the femur of a cave bear in 1996, see figure 6. This flute with four properly spaced holes would allow the flute to play both half tones and full tones (35). At the annual 2000 American Association for the Advancement of Science (AAAS) meeting Jelle Atema, a marine biologist and an accomplished flautist, played a replica of this flute and mesmerized the packed meeting hall (36).

Neanderthals also had a tight knit culture and were socially organized. This is evident by the care that the Neanderthal community extended to those in need. The La Chapellex-aux-Saints man lived to an old age. He suffered from crippling arthritis that would have prevented walking or at the least made it extremely painful. Since he had only two teeth his diet would have been severely limited. Only with the help and support of others could he have lived to an advanced age. This same type of community support was evident at Shanidar Cave. The individual

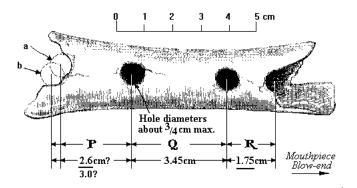


Figure 6. A Neanderthal flute made from the femur of an extinct cave bear. This is the oldest musical artifact ever found.

that was later excavated had been carefully buried in a very ritualistic way. He had numerous skeletal injuries including degenerative bone disease, loss of sight in one eye, and the withering of one of his arms. In order for him to survive would have required a major group effort. All of this indicates that the Neanderthals had a social structure.

### Age and Morphology of *Homo erectus*

Homo erectus was the first upright walking human according to evolution. They occupied the time period from about 400 thousand years ago to about 2 million years ago (37) although there is much evidence that *Homo erectus* was alive and well as recently as a few thousand years ago (38). For the evolutionists *Homo erectus* spans the time period from the australopithecines to modern man. *Homo erectus* is essential as an intermediary group from the prehistoric apes to

fully modern man. As we shall see *Homo erectus* had all the trademarks of fully modern humans.

Morphologically *Homo erectus* was very similar to Neanderthal man and modern man. *Homo erectus* skulls are similar to Neanderthal skulls in that they have many of the same cranial characteristics. This includes but is not limited to the following characteristics: 1) skull low, broad and elongated, 2) Cranial capacity 700-1200 cc, 3) Large eyebrow ridges, 4) Occipital bun, bump or torus, 5) Heavy facial bone structure, 6) Receding chin, 7) Teeth proportionally large, 8) Post-cranial (below the neck) bones heavy and robust. The skeleton and the skull, although more robust, were similar to modern man, see figure 7 (39).

His bones were heavier and thicker than a modern man's, and bigger bones required thicker muscles to move them. These skeletal differences, however, were not particularly noticeable. "Below the neck," one expert has noted, "the differences between *Homo erectus* and today's man could only be detected by an experienced anatomist." (40)

Often very modern looking skeletal material is found in association with erectus fossils. When the famous KNM-ER 1470 skull was found by Richard Leakey in East Rudolf, Africa in 1972 three femurs were found with the skull (41). They were given the following designations KNM-ER 1472, 1475, and 1481. The complete left femur designated 1481 is indistinguishable from modern human femurs. All three femurs have characteristics of modern humans and have all been given the classification of Homo by Michael Day a renowned anthropologist (42).

# The Oldest Human Habit and Homo erectus



Figure 7. Java man fleshed out. This reconstruction is based on the Sangiran 17 *Homo erectus* skull unearthed in Java. The assigned date is 400-700k years ago. Notice the complete human quality of the face.

Since the early 1900s scientists have wondered about grooves in the teeth of many fossil men. These grooves were worn right above where the gum line meets the teeth in many hominid fossils. Many theories had been put forth to try to explain these but they had remained a mystery until recently. The subsequent article (43) shows that *Homo erectus*, *Homo neanderthalensis*, and *Homo sapiens* all had the habit of flossing and picking their teeth with grass stalks, this left grooves in their teeth. No other living organisms except humans pick their teeth. This reveals the humanity of the early fossil men. Toothpicking with grass is regarded as the oldest documented human habit.

These grooves appear mostly on the root...of some premolars and molars from members of the genus *Homo*, including *H. erectus*, *H. neanderthalensis*, and *H. sapiens*...Interproximal wear grooves have been recognized for almost a century, and different ideas have been put forth to explain them...the use of

toothpicks by hominids is potentially one of the most persistent behaviors visible in the archaeological records...interproximal wear grooves represent the earliest evidence of any hominid habit.

These experimental replications demonstrate that grass-stalks segments used as toothpicks are capable of creating interproximal wear grooves identical to those found in the hominid fossil record. Therefore toothpicking with grass stalks probably represents the most persistent habit documented in human evolution."

#### Homo erectus—Master Tool Makers

Homo erectus were toolmakers, all scientists agree with this fact. Wooden and stone tools dating to the time of erectus have been found in association with animal remains. These tools are extremely complex. They included hammer-stones, anvils, points, side choppers, hand axes, knife flakes, and various other flaked tools, see figure 7 (44). When Homo erectus came on the scene he had already mastered the use of stone as medium for making a vast assemblage of working pieces. Many archeological sites testify that he was using stone knives to butcher and process animals.

Many people are not familiar with how much expertise is required for flint knapping (the making of stone tools is called knapping). Most people consider flint tools to be primitive and the people that make them to be stupid. This is completely wrong. The knapping of flint requires a high degree of skill. In order to research flint knapping many evolutionary archeologists have taken on knapping as a field of study. It often requires many hours of practice per day and many years for these college educated individuals to begin to master what early man was doing on a daily basis. Only after days or months of practice can even the most rudimentary stone tools be made.

Much preparation and forethought goes into the manufacture of even simple stone tools. A complete understanding of the fracture lines of the various different stones must be considered. The angle of striking the stone must be taken into account. If the stone is struck incorrectly then it will shatter rendering it useless. To knap stone tools requires a great deal of intelligence, patience, and perseverance.

Homo erectus also used tools to make tools. Many of the knives and axes used by them could only be made in conjunction with other tools. For example, in order to produce a stone edge that is



Figure 7. A flint Acheulian hand-axe. *Homo erectus* made these and a wide variety of other flint tools.

razor sharp on a flint knife requires the use of a bone, antler, or wooden baton. The small baton is used to drive off chips along the edge of a previously worked stone piece. Depending on the type of edge required a baton of different material would be used, in some cases a small stone would be used as a baton or hammerstone. This would allow the dull edge to be reworked and resharpened by driving off small flakes. The use of a tool to make another tool required forethought and planning.

Consider the thought processes that would have to occur in the knapping of a "simple" stone axe. The large piece that the axe was to be knapped from would have to be selected. The right material would have to be obtained since not all rock is suitable for knapping. Some of the rock would have to be transported from one area to another. Once the proper rock had been selected it would require an understanding of how the rock would react to the various forces applied to it. Would it split and break correctly and would it be of the right size when completed. Once the stone axe had been roughly shaped, which in itself require a high amount of skill, the edge would have to be produced. A tool would be used to produce this edge. Depending on the material the axe was made out of and the type of edge required the proper tool would be selected to sharpen the edge. This tool might be a deer antler, or a wooden baton, or another small striking stone. These would have to be evaluated to produce the proper edge of the proper size on the appropriate material. Once the secondary tool was selected it would be used to drive smaller flakes off the rough edge. This once again would require an understanding of the stone's properties.

Homo erectus often would carry these hand axes and various other stone tools from one location to another. He would often stockpile the right type of rock at various locations for later use. All of this requires intelligence, forethought, planning, and understanding of the concept of time. The making (knapping) of stone tools shows that *Homo erectus* was a fully human and thoughtful individual.

2.5 million years ago, according to the evolutionary timescale, *Homo erectus* was making high quality stone tools. Notice what the following article (45) published in the prestigious journal Nature, says about their abilities.

Abstract—These occurrences are now securely dated between 2.6—2.5 Myr. The stone tools are thus the oldest known artifacts from anywhere in the world. The artifacts show surprisingly sophisticated control of stone fracture mechanics, equivalent to the much younger Oldowan assemblages of Early Pleistocene age. This indicates an unexpectedly long period of technological stasis in the Oldowan.

The excavated and surface artifact assemblage at EG10 and EG 12 primarily comprise simple cores, whole flakes and flaking debris. Unifacially and bifacially flaked cores comprise the "flaked pieces" category. There are numerous examples of several generations of flake scars on the core, indicating that Late Pliocene hominids had mastered the skills of basic stone knapping...The presence of large concentrations of stone artifacts at the early Gona sites shows that by 2.5 Myr some populations of Late Pliocene hominids had already mastered the basics of stone tool manufacture. The working edges of the majority of Gona artifacts are very fresh and sharp. Many of the cores show evidence of pitting and bruising. This suggest that in addition to being sources of sharp edged flakes, the cores were used as multipurpose tool, for example as hammerstones and for other pounding activities.

The sophisticated understanding of conchoidal fracture evidence at Gona implies that the hominids that lived about 2.5 Myr ago were not novices to lithic technology.

Homo erectus individuals also produce high quality javelins or spears. These spears were used for hunting and similar spears have been found with various animal kills. Homo erectus people were prolific hunters. They made spears that were of javelin like quality (46). These spears, although attributed to Homo erectus, show design and construction skill previously thought to only belong to modern humans. Found with the spears were throwing sticks and grooved

wooden shafts which may indicate that some flint tips were hafted on the ends. If this is correct then this would be the oldest composite tool ever excavated.

This article describes javelins/spears that are 400,000 years old. *Homo erectus* would have had to make these since this is before the time of Neanderthal man or archaic *Homo sapiens*. As the article (47) states the intelligence and forethought needed to make these tools is obvious.

Abstract—Here I describe some wooden throwing spears about 400,000 years old that were discovered in 1995 at the Pleistocene site at Schoningen, Germany. They are thought to be the oldest complete hunting weapons so far discovered to have been used by humans. Found in association with stone tools and the butchered remains of more than ten horses, the spears strongly suggest that systematic hunting, involving foresight planning and the use of appropriate technology, was part of the behavioral repertoire of premodern hominids. The use of sophisticated spears as early as the Middle Pleistocene may mean that many current theories of early human behavior and culture must be revised.

In all of these respect they resemble modern javelins, and were made as projectile weapons rather than thrusting spears or lances...Their age can be estimated as probably 400 kyr...The discovery of spears designed for throwing means that theories of the development of hunting capacitates and subsistence strategies of Middle Pleistocene hominid must be revised, as well balanced, sophisticated hunting weapons were common from an early period of the Middle Pleistocene onwards.

# **Marine Navigation**

The Indonesian Islands lie south of the Philippine Islands and north of Australia. These islands consist of a chain of small islands with Java on the west and Timor on the east. In the past Java has been connected to the mainland of Asia. Between Java and Timor lies a small island called Flores. It is about 300 km long and 40 km wide ( $186 \times 25$  miles). This island is completely surrounded by water today and 900,000 years ago it was still surrounded by water. It is estimated that during this earlier period Flores Island was separated from the mainland a distance of 19-75 km (12-47 miles) and required two water crossings to reach. Also, the types of animals now living on Flores indicate that a land bridge to the mainland never existed.

Interestingly evidence of *Homo erectus* tools have been found at several sites in the Soa Basin on Flores Island. Evidence indicates that they arrived about 840,000 years ago and occupied the island until about 700,000 years ago. Prior to these recent findings it was believed that *Homo sapiens*, modern man, colonized the island about 40-60,000 years ago long after the time of *Homo erectus*. *Homo erectus* was not deemed culturally advanced enough to navigate these open stretches of water. This view has changed.

Abstract—Here we report zircon fission-track dates from two fossil sites on the Wallacean island of Flores. Tangi Talo, which has an endemic fauna, dates to  $0.90 \pm 0.07$  Myr BP, whereas Mata Menge, where stone tools are found with elements of continental Southeast Asian fauna, dates to between  $0.88 \pm 0.07$  and  $0.80 \pm 0.07$  Myr BP. Even at times when the sea level was lowest, water crossings were necessary to reach Flores from Southeast Asia. We conclude that *Homo erectus* in this region was capable of repeated water crossings using watercraft.

Furthermore, they indicate that, sometime between 800,000 and 900,000 years ago, *Homo erectus* in this region had acquired the capacity to make water crossings. Previously, in the region of the Wallacean islands this capacity was thought to be the prerogative of modern humans and to have only appeared in the Late Pleistocene, with the earliest widely accepted evidence for watercraft being the colonization of Australia by modern humans from Wallacea between 40,000 and 60,000 years ago. Outside this region, the

technology to undertake even limited water crossings is not clearly evident until much later, at the end of the Pleistocene. Our results challenge this view. Therefore, this evidence, combined with the geographical radiation of *Homo erectus* in the Early Pleistocene and other recent discoveries, suggests that the cognitive capabilities of this species may be due for reappraisal. (48)

In order for *Homo erectus* to have successfully colonized Flores requires that this species was capable of sea travel prior to ~0.84 Ma. Because at least two major sea crossing were necessary to migrate across Wallace's line to Flores. The capacity for sea travel was previously thought to be the prerogative of modern humans and to have first appeared only in the late Pleistocene, the earliest widely accepted evidence for water-craft being the colonization of Australian by modern humans from Wallacea between 40,000—60,000 yr ago. Or findings challenge this view...by indicating conclusively that *Homo erectus* had seafaring capabilities more than 700,000 yr before the currently recognized time of Australian colonization. (49)

These articles indicate that *Homo erectus* was highly intelligent. Intelligent enough to manufacture sea-going vessels and navigate at the minimum a stretch of open water 19 km and at other times 75 km wide. All of these abilities require intellect, planning, and many other obviously human traits. Since only humans build boats then obviously the people that settled and populated these islands, *Homo erectus*, were members of the human family.

## **Permanent Camp Life and Social Structure**

Bilzingsleben is a paleolithic site located near Thuringia, Germany. This area has a long history of providing fossil specimens of various animal and even humans. Dietrich Mania of the University of Jena began present day excavations in 1969. He discovered numerous artifacts and human fossils, which have been classified as *Homo erectus*. About 1600 square meters have been excavated and today Bilzingsleben is a very important European paleolithic site. The date assigned to these artifacts is 370,000 years before the present.

This site was a base camp for a group of *Homo erectus*. The outlines of three large tentlike structures have been uncovered. These structures all had hearths (50) near the doorways and the doorways were pointed south away from the prevailing northern winter winds. The building of hearths implies that the use of fire had been mastered. Also numerous bone tools have been uncovered. These tools include hoes, scrapers, awls, and points. A large amount of stone tools were also excavated. These included choppers, scrappers, chisel shaped tools, wedges, knives, points, and core flake tools. Many of the tools had the edges retouched or sharpened. Mattocks were fashioned from the deer antlers. Some tools were used in the manufacture of other tools (51). Interestingly one elephant bone fragment has a group of 7 and 14 carved parallel lines on its surface. Some people have conjectured that it may have been an early calendar—but this is speculative. Calendar or not, these marks indicate that abstract thinking was taking place.

Previous evacuations at this site reveal that there was a division of labor at the site. Some areas were used for the processing of stone tools, other areas were used for the processing of animals, and still other areas were used for the working of organic matter and wood. One area of the camp consisted of a large paved area. This area had been paved over with bones and rocks. This paved area had a large rock anvil centered between bison horns.

Five to 8 m from the dwelling structures, an artificially paved area with a diameter of 9 m was found. According to the archaeological evidence, special cultural activities may have been carried out there. (52)

What were these cultural activities? National Geographic magazine, in 1997, interviewed Dietrich Mania for their article "The Dawn of Humans—The first Europeans." In this article Mania is more specific.

But Mania's most intriguing find lies under a protective shed. As he opens the door, sunlight illuminates a cluster of smooth stones and pieces of bone that he believes were arranged by humans to pave a 27-footwide circle. "They intentionally paved this area for cultural activities," say Mania. "We found here a large anvil of quartzite set between the horns of a huge bison. Near it were fractured human skulls."...Bilzingsleben preserves evidence of structures and a paved space for group rituals that may have included crushing and scattering human remains. (53)

At this *Homo erectus* semi-permanent campsite more than 370,000 years ago there was a definite division of labor where tools were made of various materials. Tents, shelters, and hearths were incorporated into the designs. One large area was paved with stones and some sort of rituals, or as Mania says "cultural activities," took place that involved the dismemberment and scattering of human remains. Although some of these activities were gruesome, nevertheless they all point out that the inhabitants were of the human line.

#### The Use of Fire

Homo erectus is credited with the controlled use of fire. The use fire implies many cognitive skills. In order for a fire to be properly utilized requires preparation and foresight. For a fire to be built and maintained requires that the right amount of tinder and the appropriate sizes of wood be arranged beforehand. Also the fire must be started and this often requires the utmost of technical skills. It is easy in modern society to overlook the amount of intelligence and planning required to build, start, and maintain a fire (54). The phrase "build a fire" is a proper term since controlled fire does not just appear but must be manufactured and building fires is a learned skill.

Evidence from the Swarthkrans caves in Africa testifies to the skill of the *Homo erectus* peoples. In this cave were found the burned and charred remains of ancient meals. 270 charred bones from various animals including antelope, zebra, and warthog were recovered. The time assigned to these artifacts is 1-1.5 million years ago. Evidence from this site includes not only fire but also stone tools. Many of the bones have butchery marks. This indicates that fire was regularly used to prepare animals that had been butchered with the use of flint tools. The fire makers remain unknown but only two types of hominids are found associated with these artifacts, *Homo erectus* and *Australopithecus robustus*. *Homo erectus* was the maker of the fires since *Australopithecus robustus* bones were found among the charred remains of the meals (55).

Excavations of Member 3 yielded a total of 59,488 fossil fragments including 270 pieces judged to be burnt. Identifiable burn fragments are mainly derived from antelopes up to the size of wildebeest, however individual burnt specimens of zebra, warthog, baboon and *A. robustus* were also recovered. Of the 270 pieces it was inferred from colour and structural changes that 46 were lightly heated to below 300°C, 52 to 300-400°C, 45 to 400-500°C and 127 to temperatures above this. These temperatures are consistent with those occurring in experimental campfires made from white stinkwood (*Celtis africana*) branches, the most common tree in the vicinity of Swarthkrans...The presence of cut-marked bones in Member 3 indicate that butchery was practiced as well. (56)

# Fossil Evidence—Proves the Humanity of Early Man

The fossil record we have examined proves that these early men, Neanderthals and *Homo erectus* were true men in every sense of the word. Scientists have misinterpreted them in order to advance the evolutionary agenda. These early men controlled fire. They were master toolmakers, often using tools to make other tools. They built shelters. They hunted, killed, processed, and cooked various animals. They were ritualistic and sometimes barbaric. They were able to plan ahead and had great cognitive skills. They were able to make craft and navigate large stretches of water. They built semi-permanent camps, which included shelters that were heated by hearths. They were able to manufacture and use musical instruments.

All of these traits have been documented by the evolutionary literature. All of these behaviors are human. No animal has ever been observed doing any of these things. Archaic *Homo sapiens*, Neanderthal man, and *Homo erectus* were all variations of the human line and were all descendants of the Adamic line. Early man is fully human as the fossil record indicates. The properly interpreted fossil record meshes nicely with the Biblical record and they are in complete harmony. All of this is in total agreement with what the book of Genesis says, "And Adam called his wife's name Eve, because she was the mother of all living" (Genesis 3:20).

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- 1. All scriptural notations are from: The Bible. The New King James Version. Thomas Nelson Publishers. Nashville, TN. 1994.
- 2. Howell FC. *Early Man*. Time Life Books. New York.1965 (figure 1, page 20). Figure 1 by Ernst Haeckel
- 3. Johnston GS. The Genesis Controversy. Crisis Magazine. pp. 12-18. May 1989.
- 4. Primitive lifestyle is a relative term. We may have considered the plains Indians of a few hundred years ago primitive. In reality they had a religious system, they had an educational system, they had a judicial system, they had division of labor, and many other attributes of modern man. A Native American one-generation removed from their former lifestyle could easily become a college graduate and be considered "modern." If you were transported back in time and settled among these Native Americans you might well find yourself living as they lived. Since that type of life style would be dictated by your present conditions.
- 5. Early man, for the purposes of this paper, is defined as any hominid in the supposed human ancestral line that predates modern humans or Cro-Magnon man. This would generally include archaic *Homo sapiens*, Neanderthal man, and *Homo erectus*. The Australopithecines and the various other apelike hominids that evolutionary anthropologist place in the ancestry of modern humans are simply extinct apes. The common evolutionary classifications and dates are used in this paper. The author does not agree with these dates. Also since some of the classifications are based on very flimsy evidence some of the taxonomic ranks that have been assigned to various fossil men will be incorrect while other may be correct. In other words, just because an evolutionist says that a certain creature was a *Homo erectus* does not mean it is justified. These classifications are used to show that even when the evolutionary classifications and dates are used evolution does not occur.
- 6. The theory of evolution is in reality a philosophy. A theory can be proven false. Since evolution cannot be falsified it should be properly labeled a philosophy. Webster's Seventh Collegiate Dictionary defines philosophy as: "the beliefs, concepts and attitudes of an individual or group." The reason evolution cannot be falsified is because if evolution were ever shown to be false the only logical alternative would be creation or Intelligent design. This is totally unacceptable to the evolutionist. Therefore the label of philosophy is a correct designation.
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- 9. Jordan, Paul. Neanderthal: Neanderthal Man and the Story of Human Origins. Sutton Publishing Limited. Gloucestershire. p 19. 2000.
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- 11. This attitude made it possible for people to believe that an orangutan jaw and a human skullcap belonged together and were in fact a link between the primates and humans. Thus Piltdown man, the supposed missing link which in reality was a forgery, was accepted a genuine. Many accepted it because that was what they were looking for. Charles Dawson discovered the bones that make up Piltdown man in June of 1912. It fooled many in the scientific community for more than 40 year, until 1953 when it was discovered to be a fraud.
- 12 The exact evolutionary dates for Neanderthal man are not certain. The reason is that the characteristics that exactly define the Neanderthals are ambiguous. There is often morphological overlap between the various fossil men with a blending of features. Also *Homo sapiens*, Neanderthal man, and *Homo erectus* often exist in the same time and same location. Depending on the archeologist's definition of Neanderthal man, he may be dated as old a several hundred thousand years ago to recently modern times.

For an analysis of this problem and other related issues see: Stringer C. Gamble C. *In Search of the Neanderthals*. Thames and Hudson Ltd. New York, NY. P. 96-122. 1993.

- 13. Day, M. Guide to Fossil Man 4th ed. University of Chicago Press. Chicago, IL. 1993.
- 14. These powerful early men who included archaic *Homo sapiens*, Neanderthal man, and *Homo erectus* are alluded to in the scriptures. They also tie in with the Greek and Roman heroes of mythological renown. Consider that the mythological heroes had certain characteristics that will help in their identification. They were physically powerful, were the product of a god-human sexual union, called "sons of god", had human emotions, and were not immortal. This is very similar to the fallen line of Cain that produced a line of ruling despots.

Genesis 6:1-6 Now it came to pass, when men began to multiply on the face of the earth, and daughters were born to them, that the sons of God saw the daughters of men, that they were beautiful; and they took wives for themselves of all whom they chose. And the LORD said, "My Spirit shall not strive with man forever, for he is indeed flesh; yet his days shall be one hundred and twenty years." There were giants on the earth in those days, and also afterward, when the sons of God came in to the daughters of men and they bore children to them. Those were the mighty men who were of old, men of renown. Then the LORD saw that the wickedness of man was great in the earth, and that every intent of the thoughts of his heart was only evil continually. And the LORD was sorry that He had made man on the earth, and He was grieved in His heart.

A Biblical example of one of these deified human "son of god" heroes was Tubal-Cain.

Genesis 4:22-23 And as for Zillah, she also bore Tubal-Cain, and instructor of very craftsman in bronze and iron. And the sister of Tubal-Cain was Naamah. Then Lamech said to his wives: "Adah and Zillah, hear my voice; Wives of Lamech, listen to my speech! For I have killed a man for wounding me, Even a young man for hurting me..."

Tubal-Cain is the corruption of the mythological hero Vul-Cain or Vulcan. Traditions state that Vulcan was the god of the underworld and the he supplied men with metal and bronze weapons and tools. He is reputed to have been lame, the result of a fight with his father Jupiter and subsequently was cast out of heaven. This was the result of having sided with his mother against

his father. Notice how this fits in with the statement in Genesis 4:23. Lamech (Jupiter) injures Tubal-Cain (Vulcan) a young man, his son, in a family dispute.

For an excellent overview of the Tubal-Cain and Vulcan connection see: Custance, Arthur C. *Doorway Papers. Volume 2-Genesis and Early Man.* Doorway Publications. p.4-6. 1989. Or online at http://custance.org.

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- 22. Gore R. Neanderthals. National Geographic. 189:1:2-35. January 1996 (figure 6 photo by Kenneth Garrett).
- 23. Webster's Seventh New Collegiate Dictionary. Merriam Co. Publishers. Springfield MS. 1971.
- 24. Many of the early man burials show a belief in a post death continuation of life. In theological terms early man including Neanderthals were burying their dead as if they believed in a resurrection. Being descendants of Adam they would have understood about the resurrection. Also, the burials were accompanied by the use of red ocher, which is a blood red iron pigment (see research note 27).
- 25. Akazawa T. *et al.*, Neanderthal infant burial. Nature. 377:585-86. 1995. This article describes the burial of a Neanderthal infant. The infant was found with its legs flexed, to allow for a smaller burial hole. Flexing of legs is common with modern human burials. Directly above the infants heart was found a triangular flint piece and covering its head was a rectangular limestone slab. This indicates that it was an intentional Neanderthal burial.
- 26. Howell FC. Early Man. Time Life Books. New York. p. 130. 1965.

27. Many of the Neanderthals were buried with red ocher. This has been a mystery to modern day archeologists. But the explanation lies in an understanding of the Biblical record. Red ocher is an iron oxide pigment and is used as a coloring. It would impart the bloodlike color to the corpse and would hearken back to the blood-life connection. In the scriptures God told Noah that the eating of blood was prohibited because it contained life. This was later restated in the book of Leviticus.

Genesis 9:4 But you shall not eat flesh with its life, that is, its blood. Surely for your lifeblood I will demand a reckoning.

Leviticus 17:11-14 'For the life of the flesh is in the blood, and I have given it to you upon the altar to make atonement for your souls; for it is the blood that makes atonement for the soul.' "Therefore I said to the children of Israel, 'No one among you shall eat blood, nor shall any stranger who dwell among you eat blood' "Whatever man of the children of Israel, or of the strangers that dwells among you, who hunts and catches any animal or bird that may be eaten, he shall pour out its blood and cover it with dust; "for it is the life of all flesh. Its blood sustains its life. Therefore I said to the children of Israel, 'you shall not eat the blood of any flesh, for the life of all flesh is its blood. Whoever eats it shall be cut off.'

Blood was life. This had been revealed to Adam at the beginning and was later restated by Noah, and then Moses the human author of Leviticus. Neanderthal man and other archaic humans understood this and were trying to obtain the "blush of life," by the application of red ocher. This is the reason it figured so prominently in the early man burials.

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Swisher et al., have found *Homo erectus* in Java dated to between 27-57 thousand years ago. Throne has found erectus material dated to as recent as 10 thousand years ago.

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50. Hearths have been found in many other locations. Hearths obviously imply that the use of fire has been mastered. See the following:

Thieme H. 1997. Where an ancient erectus hearth is described, dated at 370,000 years.

- 51. Man is the only animal that uses tools to make other tools. This one concept signifies that the *Homo erectus* people at this site were humans in the full sense of the term.
- 52. Mania D. Mania U. Latest Finds of Skull Remains of *Homo erectus* from Bilzingsleben (Thuringia). Naturwissenschaften, 81:123-27. 1994.
- 53. Gore R. The First Europeans. National Geographic. July 1997.
- 54. The author remembers with some humor an incident that occurred at a church youth camp. This camp was being held in the Pacific Northwest in the Grand Teton National Park. Several of the campers were trying to start a fire with much difficulty. They spent about 30 minutes trying to get a stack of logs to ignite with no success. Even with the use of matches this proved to be too much of a problem. Being an experienced outdoorsman and having lit hundreds of fires I proceeded to help them to get the fire started. In a few minutes a warm roaring fire was going. Skill and expertise are required to control and maintain fire. The fact that *Homo erectus* could use fire speaks volumes for their intellectual abilities.
- 55. There is much evidence that the Australopithecines were simply extinct apes. As is now the custom in some part of Africa apes and monkeys are often eaten by modern humans. At the Swarthkrans cave this was also the norm, many an Australopithecine (extinct ape) was butchered cooked over a fire and eaten by *Homo erectus* humans.
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