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G. Clark: World Prehistory, Cambridge Un. Press 1969
p.xvi

The second point I would make is that, until the effect of variations in the intensity of the earth's magnetic field has been determined sufficiently accurately to allow of definitive correction of radiocarbon dates, it is best to regard these as relative rather than as absolute in years. Where radiocarbon dates are quoted they are quoted as radiocarbon and not as exact dates in solar years.

G. Clark: World Prehistory, Cambridge Un. Press
1969, p.6

Of the two sub-orders, into which the Primates are conventionally divided, we may confine ourselves to the appropriately named Anthropoidea, leaving on one side for inspection in the zoo our exceedingly remote relatives the miniature and engaging Prosimii. Similarly, we are entitled to pass by the cages containing the super-families of monkeys (Ceboidea and Cercopithecoidea) and concentrate on that labelled Hominoidea, comprehending apes (Pongidae) and hominids (Hominidae).

G. Clark: World Prehistory, Cambridge Univ. Press
1969, p.7

From an evolutionary point of view one of the most significant steps in the emergence of the hominids seems to have been the assumption of an erect posture. It was this which released the hands from locomotion, making them available for tool-making and the securing and preparation of food, and in due time allowing the head to be balanced on top of the spinal column rather than suspended by heavy muscular attachments from its upper extremity. No doubt also the growing facility of the forelimbs relieved the teeth of many functions and helped to bring about characteristic changes in dentition. At the same time the reduction in the size and role of the teeth and of the musculature needed to support the head affected the architecture of the skull, among other things reducing the need for strong brow-ridges. Although it was by means of his brain that man was to rise to biological dominance, it seems that our



remote hominid ancestors had begun to stand upright before their brains had notably exceeded in volume those of the great apes. A likely explanation of the divergence of the hominids is that they adopted an upright posture to meet the conditions met with in open country, whereas the great apes remained more closely linked with forests in which they specialized to a brachiating way of moving, that is one in which they relied to a considerable extent on the use of their arms.

G. Clark: World Prehistory, Cambridge Univ. Press
1969, p.7/8

The Australopithecines, one of the two genera into which the hominids are now generally divided, owe a major part of their interest precisely to the fact that although their brains hardly exceeded in absolute capacity those of the great apes they nevertheless held themselves upright and walked on two legs. The great majority of the fossils belonging to this genus have been found in East or South Africa and a number of these come from deposits of Lower Pleistocene age. At the present time only one has come from south-east Asia, the so-called Palaeojavanensis (cf. Meganthropus) from the Djetis beds at Sangiran in Java, and it may be significant that these deposits are now generally dated to an early phase of the Middle Pleistocene. On the face of it this argues for the predominating importance of Africa as the scene of early hominid evolution,



but it has to be remembered that, especially during recent years, far more research has been devoted to certain parts of this continent than to south-east Asia and in particular to Indonesia.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.8/9

Another hominid discovery that deserves mention at this point is comprised by fragments obtained from bed I in the Olduvai sequence belonging to a form having smaller teeth and a larger brain than any Australopithecine yet known to us. Some palaeontologists prefer nevertheless to classify the fossils as belonging to an extreme form of the species, A. africanus. Others have argued for recognizing it as belonging to a new species and one to be classified as a man under the designation Homo habilis, a being not only larger-brained than an Australopithecine, but provided with hands capable of exerting a power grip of the kind needed for shaping effective pebble tools. The mere fact of this divergence of view only serves to emphasize the close relationship existing between the two genera, Australopithecus and Homo.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.10

In recent years it has been widely agreed that forms of hominid other than the Australopithecines should be classified under the single genus Homo. This means that the numerous fossils from localities in Africa, Europe, North China and Indonesia formerly grouped within the genus 'Pithecanthropus' or even accorded separate generic status have now been transferred to form a new species of man, Homo erectus. Another concept to be discarded is that Neanderthal and other more or less closely related forms showing characteristics that mark them off from the living races of men qualify as a distinct species. The modern view is rather that they form sub-specific varieties of Homo sapiens, such as Homo sapiens neanderthalensis or soloensis, and that modern man Homo sapiens sapiens is merely the sub-species that happens to have been living during the last thirty thousand years or so.



G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.10

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Present and former designation of the main groups of fossil hominids

Modern designation	Former designation
Pleistocene	Homo sapiens sapiens <u>Homo sapiens</u>
Upper	<u>Homo sapiens</u> <u>neanderthalensis</u> <u>rhodesiensis</u> <u>soloensis</u> <u>steinheimensis</u>
Middle	<u>Pithecanthropus africanus</u> or <u>Atlanthropus</u> <u>Pithecanthropus heidelbergensis</u> <u>P. erectus</u> or <u>javanensis</u> <u>P. pekinensis</u> or <u>Sinanthropus</u>

1. Miocene

Modern designation	Former designation
Lower	<u>Australopithecus robustus</u> <u>boisei</u> <u>africanus</u>
	<u>Paranthropus</u> <u>Zinjanthropus</u>
	<u>Homo habilis?</u>

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.11

Since fossils of what was then known as Pithecanthropus erectus were first found in the Trinil beds in Java, the island has yielded further specimens and there can be no doubt that the species was living there during the Middle Pleistocene. The largest assemblage of fossils is undoubtedly that from Middle Pleistocene beds filling the rock-fissures at Choukoutien near Peking, a discovery all the more important because traces of fire, together with stone implements and utilized animal bones came from the same deposits. More recently traces of the same species (needlessly termed Atlanthropus mauritanicus) have come to light in Pleistocene deposits exposed in a sand-pit at Ternifine near Palikao, Algeria. The northern margin of the range is completed by the old find of a mandible from Mauer near Heidelberg, also of Middle Pleistocene age. Morphologically these fossils show as a group a notable increase in the size



of the brain: the mean of three crania from Java gave a capacity of 860 cubic centimetres and that of four from Choukoutien 1075 cubic centimetres, placing the group more or less intermediate between Australopithecus and Homo sapiens. On the other hand they show a number of characteristics that mark them off decisively from Homo sapiens.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.13

Although they show a clear continuity of development from the preceding stage, this whole early sapiens group, including the aberrant Westerners, exhibit an outstanding advance in respect of size of brain; the cranial capacity of the Neanderthalers was well up to that of the average for modern man. There can hardly be any question, if we leave aside the aberrant form, that this group of fossils marks a significant stage in human evolution. A point which will no doubt be further underlined as discovery proceeds is that this evolution was not by any means confined to Europe or contiguous parts of Africa and Asia. The occurrence of analogous forms as far afield as Broken Hill in Rhodesia and Ngandong on the River Solo in Java has already made this plain.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.13

Men of modern type must have emerged from the sapiens stock just described, though hardly from the aberrant Chappelle-aux-Saints form. There is no need to assume that this development took place at any particular locality within the wide range occupied by the Neanderthaloids. What can be said is that the earliest men of Homo sapiens sapiens type appeared in the context of Advanced Balaeolithic culture, which itself occupied a territory extending from western Europe along either side of the Mediterranean to the Iranian plateau. In general the Cromagnon type, to use the name of a well-known find from an Advanced Balaeolithic context in the Dordogne, was characterized by a relatively slight build, and a fully upright posture; the skull lacked signs of strong muscular attachments; the forehead was steep and well-rounded; brow-ridges were only developed to a moderate degree and were never continuous; the teeth were relatively



small; and the chin prominent. According to the overwhelming consensus of professional opinion the existing races of men belong to this same species that first emerged probably around forty thousand years ago.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.15

A last point to make is that it was only during the final stages of the Pleistocene that man spread over the greater part of the earth.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.16/17

The major divisions of the Pleistocene have been distinguished on a basis of palaeontology. Deposits dating from the Lower Pleistocene are consistently marked by a faunal assemblage of the kind first recognized at Villefranche-sur-Mer, including such well-defined forms as Dinotherium, Stylohipparion, Sivatherium and Elephas (Archidiskodon) meridionalis. By the Middle Pleistocene these archaic forms had disappeared and new ones had arrived including a new genus of elephant, Elephas (Palaeoloxodon) antiquus. The emergence of a developed form of Elephas (Mammuthus) primigenius was one of the distinguishing marks of the Upper Pleistocene. On the other hand the Recent or Holocene epoch, during which the environment as a whole assumed its present character, witnessed the disappearance of this as of other species now extinct. If we accept the findings of potassium/argon analysis, the transition from the Lower to the



Middle Pleistocene occurred some four or five hundred thousand years ago. What seems to be generally agreed is that the Lower Pleistocene, about which least is known and in the course of which vital steps must have been taken in the process of hominization, lasted substantially longer, most probably at least three and possibly even four or five times longer than the rest of the epoch. Precisely when the Upper Pleistocene began has not yet been determined, but protoactinium/thorium analysis indicates an age of around 108,000 years for the peak of the glaciation that introduced it. Radiocarbon dates are only available for the last fifty or sixty thousand years and only for the last thirty do they fall within an acceptable range of probability. Nevertheless it seems likely that the last major glaciation (Weichsel/Würm of Europe) began within a few thousand years of 65,000 before the present and that within this glaciation the first major interstadial (Laufen/Gättweig) fell within the period 40/50,000 years ago.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.17

If it is true that the explanation for glacial fluctuations is of a cosmic order, linked with changes in solar radiation, it follows that they should be more or less synchronous wherever they occur. This is still very much in the realm of hypothesis but it is at least encouraging that radiocarbon checks have already demonstrated the contemporaneity of certain episodes in the later stages of the Upper Pleistocene.

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G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.21

The Neothermal era, in the course of which the environment acquired its present character and men first achieved a more secure basis for subsistence by developing a farming economy and from there went on to create distinctive urban civilizations, did not begin until between ten and twelve thousand years ago. In the northern hemisphere, where it was marked by Post-glacial conditions, it is commonly defined by the moment at which the Pleistocene ice-sheets began their final retreat. In the case of the Scandinavian ice-sheet it has been established by counting the varved sediments laid down in melt-water that the retreat from the Fenno-scandian moraine began c. 8300 B.C., a date confirmed by the radiocarbon age of the transition from Late-glacial to Post-glacial vegetation (zones III and IV. of Table, p.23).



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.24/25

On the other hand the two-footed stance had its dangers, and ultimately only those hominids survived who made an intelligent use of tools and weapons. Indeed the ability to acquire culture was evidently of adaptive value in the sense that the strains most capable of doing so were those whose genotypes were propagated most abundantly in the course of natural selection. This may well explain why the increase in the size of the brain that permitted ever greater advances in culture developed so rapidly in the course of Pleistocene times. Even the biological evolution of the most advanced hominids was thus in large measure an outcome of developments in culture.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.25/26

In many ways the most striking of these, and certainly the one most likely to find reflection in the archaeological record, is the ability to make tools. Here the distinction between tool-using and tool-making is one that needs stressing: it may be true that one has grown out of the other, but it is important to emphasize that it is as a fabricator that man stands out from his fellow primates. By the use of a tool is meant the active manipulation by an organism for the furtherance of its aims of some object taken from the external environment: thus, to quote Dr. W.H. Thorpe's example, a Californian sea-otter bringing boulders up from the sea-bottom to crack molluscs is using a tool, whereas a gull dropping a mollusc on a rock to break it is not doing so. Tool-using in the true sense can be traced far back among quite lowly forms of life, but it does not of itself imply intelligence or insight. Even the great apes, though showing some dexterity in

the manipulation of sticks and strings and in the stacking of boxes, reveal grave limitations in their behaviour. For instance, they show little understanding of statics, and in the handling of boxes rely almost entirely on blind improvisation rather than insight. Again - and this is even more significant - their activities are directed exclusively to securing visible objectives, so that even when some preparation is involved, such as sharpening the end of one stick to fit into a socket, the element of foresight and planning is really very slight. By contrast, tool-making and the building of structures, even among the most primitive human societies, are based on a precise knowledge of raw materials and, within the limits of the technology prevailing, of how most effectively to handle them. Moreover, it is characteristic of human beings that they have a much greater appreciation of the factor of time than the other primates: in their oral (and in due course literary) traditions they draw on memories of the past, which serve them as a kind of

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cultural capital; and by taking account of the future they gain the impetus needed to undertake operations which may in themselves be long-drawn out, and to meet contingencies not always precisely foreseeable.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.26

The odd piece of bone or stone modified or improved to suit a passing need need not of itself imply humanity. It is when we can detect the systematic shaping of materials in accordance with some arbitrary design that we feel ourselves confronted by the work of men conditioned by a cultural pattern, a pattern acquired by belonging to a society rather than to a biological species. Even this may not be as simple as it sounds and we do well to reflect that on the evolutionary hypothesis the manufacture of tools must have emerged without any clear break from the utilization of natural forms.



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.28

Fossils of Australopithecines are frequently found in deposits from which no stone tools have been claimed and contrariwise when they do occur with these they either accompany traces of more man-like Primates or belong to the Middle Pleistocene when such were plentiful. If the view is taken that the more man-like fossils from bed I at Olduvai ought nevertheless to be included in the genus Australopithecus, this does not greatly alter the picture. It would merely mean that stone tool-making to purposive patterns was achieved at a stage of hominid evolution immediately antecedent to the emergence of the earliest men.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.29

The mere fact that technology was concerned with sustaining and facilitating the process of living ensures that it was subject in the long run to selection in the same way as organisms: by and large techniques which provided a more effective form of livelihood were likely to replace those which were less effective. The trend was for obsolete technology to drop out in favour of innovations acquired by the transmitting generation. Progress was thus built into the system. Yet, as prehistory shows, it proceeded slowly enough even in regions most productive of innovation since it was inevitably opposed by the conservative forces whose essential role was to ensure transmission of the cultural heritage which alone distinguished men from the other animals. It is hardly surprising that these forces were strongest where the social inheritance was most exiguous. That



is why progress was so extremely slow during the earlier phases of prehistory.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.31/2

It might therefore be wrong to read too much into the fact that the final stages in Palaeolithic lithic technology, along with highly significant break-throughs in the sphere of human awareness, were associated with the appearance of modern man (H. sapiens sapiens). The biological and cultural evolution of man both after all unfolded in the same temporal medium. As we have seen there was in general no close linkage between the successive types of men and particular stages of technical achievement. There is no justification for the idea that people who for one reason or another were left temporarily behind at a technical level, as the inhabitants of east Asia apparently were during much of the Middle and Upper Pleistocene, must have continued in an earlier stage of physical evolution. Nothing is more certain than that even the simplest and apparently most primitive cultures of modern times were borne by people whose claim to the status of H. sapiens sapiens

was just as valid as that of the anthropologists who discovered them. The physical characteristics of men including their present racial characteristics are one thing. Their cultural characteristics which can be transmitted quite rapidly through social contacts are quite another.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.32/33

If the systematic manufacture of implements as an aid to manipulating the environment was a characteristic of the earliest men, so also was the form of their economy. To judge from the biological materials recovered from his settlements in different parts of Europe, Africa and Asia Palaeolithic man enjoyed even from the remotest periods a diet far more nearly omnivorous than that of any of the surviving non-human primates. In particular early man was a meat-eater. Whereas the great apes, though not averse to an occasional taste of animal food, are predominantly vegetarian, the earliest men whose food debris is known to us were evidently able to secure a wide range of animal meat. If H. habilis was mainly restricted to comparatively small game, this by no means applies to H. erectus, whose ability as a hunter stands in striking contrast with the poverty of his material aids. There seems no doubt that man found himself and emerged

as a dominant species first and foremost as a hunter. One result of enlarging the range of his diet was in the long run to make it possible for him to explore a much wider range of environment, something in which he was greatly helped as time went on by the development of his material equipment. Another was to initiate the sub-division of labour that was to prove one of the mainsprings of human progress: whereas men pursued game and when necessary fought one another, their mates concentrated on nurturing the family and gathering plants and small items of animal foods such as eggs and insects. It was the economic partnership of the sexes that more than anything else underlay the human family, an institution which grew in importance with every increase in the scope and range of the culture which each generation had to acquire in infancy. The importance of nurture is reflected in the growing importance of the home base. Palaeolithic man remained predatory: he bred no animals and grew no plants but depended on what he could catch or collect from wild nature. It follows that he needed extensive

areas for his support. This meant that he had to live in small widely dispersed groups, comprising at most enough adults to man the hunt. Even so it would generally be necessary for him to move, sometimes over extensive territories, in the course of the year exploiting natural sources of food as these ripened and matured. Yet the most primitive man needed a home-base far more permanent and substantial than the nightly nests of chimpanzees. The longer the young needed for protection and education the more equipment was needed in daily life, the more important cooking became, the more vital it was to secure a base close to game and water and congenial for living where the tasks essential for human living could be performed.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.33/34

It can be assumed, even if the surviving evidence is necessarily slight, that early man must have owed his domination of the animal world to qualities much less tangible than his technology or mode of subsistence. In particular he must have owed much to his ability to understand his environment, accumulate and pass on his experience and ensure the proper functioning of the artificially defined societies in which he lived. One of the principal ways in which he classified his surroundings, pooled and transmitted his experiences and developed traditional modes of behaviour was of course articulate speech.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.34

It is true that chimpanzees have a wider 'register of emotional expression' than most humans and that they are able to communicate to one another not only their emotional states but also definite desires and urges; yet, as Köhler has emphasized, 'their gamut of phonetics is entirely "subjective", and can only express emotions, never designate or describe objects'. In this connection it is interesting that in their famous enterprise of bringing up the chimpanzee Viki from the age of three days to three years, Dr. and Mrs. Hayes found it possible to train her to certain commands, but failed after eighteen months of intensive tuition to get her 'to identify her nose, eyes, hands and feet'. Until hominids had developed words as symbols, the possibility of transmitting, and so accumulating, culture hardly existed. Again, as Thorpe has remarked, man's prelinguistic counting ability is only of about the same order as that of

Excerpt of Clark, G., 1969: World Prehistory, (Cambridge Uni. Press) 1969, P. XVI.
Deutsch: Frühgeschichte der Menschheit, Fotokopie

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.35

Palpable evidence of increasing self-awareness first appears from a comparatively late stage of prehistory. It is not until the Upper Pleistocene that we get the first evidence for systematic burial of the dead by Middle Palaeolithic man. And it is only towards the end, at a time of rapid technical innovation, that we first encounter evidence for self-adornment and the practice of art, in each case in the context of H. sapiens sapiens.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p. 39

If it be accepted that Peking man was himself the hunter - and this view is now unquestioned by leading authorities - then the condition of his bones argues strongly that he was a cannibal as well as an avid consumer of animal flesh: his long bones are normally split exactly as were those of wild animals to facilitate the extraction of marrow, and the aperture at the base of the skull has habitually been enlarged in just the same way as among the Melanesians of recent times who favoured human brain as a delicacy.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.44.

Middle Palaeolithic man was capable of producing a limited range of tools with an astonishing economy of effort, and the perfection of form and degree of standardization that they achieved, often over great areas and despite wide variations in the qualities of the raw materials used, bear witness to firmness of intention and a definite sense of style; but as far as we know he practised no art - no sign of carving or engraving for example has been found among all the wealth of bone and antler from Mousterian and kindred sites; nor is there evidence of even so much as a single bored tooth to suggest that he fabricated ornaments to adorn his person.



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.45

The other marked advance shown by Neanderthal man was in his treatment of the dead. Certain discoveries from the closing phase of the last Interglacial seem indeed to indicate the continuance of cannibalism, notably the Neanderthal skull from Monte Circeo, Italy, with the base broken open for the extraction of the brain, and the mass find at Krapina in Yugoslavia, where remains of upwards of a dozen individuals, male and female, young and old, were discovered mixed up in the cultural deposit with wild animal bones and treated in the same way, having been broken up for the extraction of marrow, partly burnt in the fire and so on.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.45/6

On the other hand the Mousterian deposit at La Chapelle-aux-Saints was found to overlie a grave, cut into the rock floor and containing the crouched skeleton of a Neanderthal man; similar burials have been found at La Ferrassie, likewise in the Dordogne, and also at Kiik-Koba in the Crimea. Even more significant evidence was uncovered at the Mugharet es-Skhul, Mount Carmel, in the form of a veritable cemetery of ten graves with remains ranging from a girl of three and a boy of four to a man over fifty years of age. As at La Chapelle-aux-Saints the graves were only just big enough to accommodate bodies with the arms and legs flexed. No red ochre or personal ornaments were found, but the jaw-bones of a large wild boar were seen to be clasped in the arms of the old man.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.48

A new phase of prehistory opened with the appearance between thirty-five and forty thousand years ago of hunting peoples equipped with a more complex technology and showing signs of a more developed intellectual culture. The description of these as Advanced Palaeolithic seems justified not only on account of their own achievements, but because they gave birth to the Mesolithic cultures whose bearers developed stock-raising and agriculture and so provided the economic base on which Old World civilizations in due course developed. With the benefit of hindsight it is not difficult to see that the Advanced Palaeolithic peoples of Europe, western Asia and Mediterranean Africa stood on the main line of progress and marked a palpable advance over the cultural stages described in our last chapter.



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.49

Advanced Palaeolithic cultures were distinguished from what went before by their more dynamic character. They changed comparatively rapidly and more especially in their later phase showed a rich regional diversification.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.50

The preparation of such things as beads, pendants and arm-rings is an important innovation because it indicates a notable advance in personal self-awareness. No less striking in this respect was the appearance for the first time in the archaeological record of musical instruments and manifestations of graphic or sculptural art in the execution of some of which burins may also have been used.

G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.58

A point to be emphasised about the Gravettians, both of eastern and western Europe, is their achievement in the field of art. Allusion has already been made to the so-called Venus figurines which extend from south Russia to central Europe and thence to south Germany, north Italy and France (map 2). These figurines, only a few inches long, were carved from ivory or stone or occasionally were made of baked clay. The heads as a rule are represented by mere knobs: hair is rarely and features still more rarely indicated (Frontispiece). The figure is shown with full breasts and buttocks and is commonly pregnant; apart from a girdle at the back of one of those from Kostienki and a fringe at the rear of that from Lespugue, the figurines are unclothed. The arms are generally puny and may be folded across the breast, and the legs taper from well-filled thighs, the feet,



where these have not been broken off, being suggested rather than shown in detail. In two cases at least the figurines were coloured with red paint. The selective emphasis with which these figurines have been shaped suggests that they were connected in some way with a cult or at least with a body of ideas centring on fertility, and the fact that all those with a definite provenance came from settlements, whether from caves or artificial dwellings, argues for their domestic rather than public or ceremonial significance. In addition to the Venus figurines, the Gravettians carved and modelled figures of various animals in a more or less naturalistic style. Thus at Kostienki I, one of the most famous of the south Russian stations, figures of mammoth were cut rather crudely from the same chalk material as two of the Venus figures, together with the heads of many kinds of animal including lion, bear, and wolf, some with partly human features. The Gravettians of Czechoslovakia were similarly fond of carving animals, and in addition modelled a considerable variety - mammoth, rhinoceros, cave bear, reindeer, bison, horse, lion or tiger, wolf and lynx - from clay which they hardened on the fire like pottery.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.59

Cave art can indeed no longer be regarded as a monopoly of the Franco-Cantabric province where it was first recognized.

G. Clark: World Prehistory, Cambridge Univ. Press, 1969, p.60

On the other hand there can equally be no doubt that the richest efflorescence of this art, whether applied to the roofs and walls of caves and rock-shelters or to movable objects, occurred in the Franco-Cantabric region.



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.61/2

Many explanations have been offered to account for the cave art; it has been explained as a way of decorating the home; as an adjunct of hunting magic; as symbolic of the complementarity of the sexes, in itself heightened in significance by the development of an advanced hunting economy; and, latterly, as a system of notation by which early man ensured that his economic activities and social round kept in step with the seasonal variations in his environment. To determine the relative importance of these would require far more extended discussion than we can enter into here. Instead, it is perhaps worth emphasizing a few of the salient implications of the art itself. As we have already suggested it has all the appearance of being the product of hunters living under exceptionally favourable environmental conditions, men who were moreover exploiting this environment with exceptional success. No one can examine the manifestations of

this art without being aware of the outstanding powers of observation which it implies, powers which must powerfully have assisted success in the hunt. Again, art has important implications for the mentality of its creator. Advanced Palaeolithic man evidently had the imagination needed to depict in an increasingly life-like manner the animals on which he depended and with which he identified himself in an extraordinarily intense manner. Representational and symbolic art, like the concern with personal decoration with which it was associated, was the outcome of a marked intensification of awareness, both of self-awareness and of awareness of the environment in relation to the self and social group. It is perhaps not so surprising that agriculture and complex literate societies should have emerged for the first time within the territory of and among the immediate descendants of peoples possessed of Advanced Palaeolithic culture.



G. Clark: World Prehistory, Cambridge Univ. Press,
1969, p.61

The climax of the cave art was reached during the last four or five thousand years of the Pleistocene during the middle and late phases of the Magdalenian. Engravings and also relief sculptures, well seen at Cap Blanc, show a greater degree of naturalism in the representation of animals. Outstanding advances were made in painting, which at Font de Gaume, Altamira and other contemporary sites shows a more developed sense of modelling. The final phase of the Magdalenian displayed at sites like Limeuil, Le Portel and Isturitz an even more notable degree of naturalism in the representation in line and paint of individual animals. It was during this last stage, also, that the carving and engraving of small movable objects reached its climax. The impression given by the products of Late Magdalenian culture is of a population living primarily by hunting reindeer under highly favourable ecological conditions. This impression

is reinforced by the sudden disappearance of the art at the very time when Late-glacial gave way to Neothermal climate at the close of the Pleistocene about two-thirds of the way through the ninth millennium B.C.

