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Grahame Clark

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# WORLD PREHISTORY

*IN NEW PERSPECTIVE*

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*AN ILLUSTRATED THIRD EDITION*

GRAHAME CLARK

LATE EMERITUS DISNEY PROFESSOR OF ARCHAEOLOGY,  
UNIVERSITY OF CAMBRIDGE



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TO THE DIVERSITY OF MEN

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## PREFACE TO THIRD EDITION

When the second edition of this work appeared in 1969 it was offered as ‘virtually a new book’. This is even truer of the present one. It is substantially longer and is much more fully illustrated. It has benefited from another decade of research. And it has been written in a world in which some of the trends noted in the last edition have become more pronounced. It is now even more appropriate that we should view the archaeology, that is the material embodiment of the culture of each territory, as something worthy of study on its own merits. The notion of a single and implicitly western stereotype no longer survives in any conscious sense. Interest is focused on the adaptive capacity and inventiveness of men and every pattern of culture is assumed to have its own validity. Diffusion and migration can hardly be ignored, but can no longer be accepted as blanket explanations of change. Where they can be proved to have operated they are seen not as replacing so much as enriching the endowments of societies whose main characteristic has been their capacity to survive.

If even greater efforts have been made to avoid viewing prehistory from a Europocentric point of view or from the vantage point of the present, it would be absurd to allocate space on a neutral time-space grid. The rate of change has speeded up progressively with the multiplication of variables brought about by the expansion of human settlement and the growth in social and cultural complexity and diversity. More has happened during the last two hundred than during the previous fifty thousand years and more in the last fifty thousand than during the preceding two million years. Nothing can compare in importance with the process by which the earliest men emerged from the world of non-human primates. From a biological

xvi point of view the rest of the book might be put into an appendix. From a historical standpoint on the other hand it is not unreasonable to compress this vital stage into an opening chapter and to allocate ten to the fifty thousand years during which men have inherited the earth adapting to a plenitude of environments beyond those to which their predecessors were confined, multiplied enormously in numbers, created an intricate series of socio-cultural mechanisms and developed abstract thought to the point at which they can increasingly understand and control their physical environment and at the same time gain an awareness of their entire history.

Other problems are posed by how much space to allot to different territories. At a technical level there is the fact that archaeological research has been unevenly applied. In a work about prehistory this may present fewer problems than it would do in a descriptive handbook of archaeology, but it does mean a compression in the better studied areas that will irritate specialists, whereas in others of great potential importance the meagre facts presently to hand are frequently ambiguous and serve more to define areas of research than provide material for the exposition of prehistory. More fundamentally the problem remains of emphasis. The treatment of prehistory in which the world was equated largely with western Europe, its present and former colonies and its current zones of interest, although it persisted until remarkably recently in the works of some European authors, is now universally regarded as an anachronism. Again it is no longer the case that we regard the only prehistory worth writing as that of the great literate civilizations of mankind. This does not mean that we have to treat the prehistory of every region as of equal interest. Prehistory, like history itself, is about what happened and very little happened in communities cocooned in the state designated by Soviet prehistorians, ironically one might think, 'primitive communism'. As to the relative amount of space due to the various great traditions of mankind no two prehistorians are likely to agree. If Europe receives two out of eleven chapters in this book (it would probably have been given ten only thirty or forty years ago), the question may still be asked, why two instead of one? This is not the place to offer an apology for western civilization. Let it only be said that Europe created the one world that called for a world prehistory as well as developing the very concept and working methods of prehistory. The formulation of theoretical laws governing the universe and of the concept of history are fields to which other civilizations and even so-called primitive peoples have made

their contributions; they are nevertheless ones in which the European tradition from the time of the classical Greeks has been massive. Again it was European technology, European capitalism and, let it be admitted, European imperialism, which in their day created and opened up the world economy and created the net-work of communications that willy-nilly has knit together the peoples of the world. To say so much is not to lessen the contributions made by other civilizations or the peoples who have only lately emerged from traditional societies to share in the economy, the experience and the imagination of the world at large.

When should a book about world prehistory begin and where should it end? To a thorough-going evolutionist there can be no logical point of departure. There is however an empirical one, the appearance in the archaeological record of implements and tools made to standard patterns, the beginning of a continuous development which not merely leads to modern technology but more significantly symbolizes the world of Man in which cultural increasingly outweighed genetic inheritance as a controlling factor. In this book the cultural apparatus is consistently viewed in the context of ecology, but the ecosystems inhabited by men are viewed as unique, the product to an increasing degree of socio-cultural, that is in essence of historical, factors. Those primarily interested in the biological antecedents of man are referred to works on the palaeontology of the Primates. Again, research on Primate behaviour, increasingly fruitful since it has been carried on in the wild as well as in the confines of zoos or laboratories, has recently been the subject of an exceptionally well-written literature.

48–50, 56

35–40, 42–3

Where to end a work on prehistory is equally a matter of convention. The term prehistoric, while it serves a useful purpose in designating a period for which written records are available only for the concluding phase, is in some respects unfortunate. The roll of history is nothing if not continuous. It is only that different parts of it have to be read by different means. Prehistory is not merely an antecedant of history. In a broader sense it forms a part, indeed much the larger part of the story of man's past. From a temporal, though not from an existential point of view, almost the whole of human history is prehistoric in the technical sense that it has to be reconstructed without the aid of written records. Only some five thousand out of two million years are documented in this way and then only for a minute area. Conversely vast territories remained 'prehistoric' until 'discovered' by western man in recent centuries. Indeed the

xviii remoter parts of territories like Australia, New Guinea or Brazil remained outside the range of recorded history until our own generation.

18, 21–3, 30 As a work of synthesis this book is not directly concerned with the analytical techniques employed in research or with tracing the diverse lines of approach to the raw data of prehistory. Yet it is essential to appreciate that the value of any attempt to describe, let alone account for what happened in prehistory must depend for its success on the quality of the data themselves and of the insights brought to bear upon them. At the present time these vary very greatly from one territory to another. In extensive tracts only now being opened up to archaeology the preliminary task of establishing a bare chronological sequence often remains incomplete. Even in the territories most intensively worked archaeology still needs to be pursued at several levels, not to mention from several directions, at the same time. In a field as dark as prehistory there is a need to project beams from as many directions and by as many means as possible.

19 Since archaeology has emerged from its museological phase when its main concern was with the temporal and cultural classification of objects, many new fields of study have been opened up. One of the broadest of these is bioarchaeology, the study of archaeological and associated biological data as sources of information about the way men have adapted to and survived in diverse and changing ecosystems. Among the many facets of bioarchaeology to receive special study have been prehistoric demography, economy and technology, not to mention the palaeontological aspects made important by the depth of time spanned by the data. Another field coming into

20, 26–7, 33–4

32 increasing prominence is social archaeology which stems from a realization that men have survived not as individuals or in random crowds, but as members of organized communities constituted by sharing common traditions. Social archaeology illuminates not merely the synchronic patterns which define communities and classes but also the processes of diachronic change which account for the unfolding sequence of prehistory and no less for the emergence of the literate societies for whom alone the concept of prehistory is relevant or meaningful. Social archaeology, like bioarchaeology, with which it needs to be pursued in the closest conjunction, presents many facets, among them art historical, intellectual, political and religious. It is by deploying techniques and concepts directed from many angles, rather than by espousing a single line of enquiry or adopting a particular standpoint, that a better understanding of



prehistory as of history itself is most likely to be reached. Whatever the field of research greater precision is sought in the handling of data. In the case of archaeology this has been achieved both by bringing to bear the techniques of natural science and by extending mathematical control through measurement and statistics.

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Although a work of this kind is not concerned with the minutiae of chronology, the enterprise of world prehistory is founded on the availability of a system of worldwide validity. For measuring the earliest phases of human evolution a dating method with a wide chronological range of application is needed. For this the potassium–argon (K–Ar) method has proved of some value in territories with the necessary volcanic rocks. The rate of change was so slow for most of human prehistory that even a scale calibrated in decimal points of millions of years has proved useful (see Table 17). For the period since modern man (*Homo sapiens sapiens*) speeded up the rate of change so dramatically a more precise chronological grid is necessary.

1–15

Prehistorians are fortunate that W. F. Libby's radiocarbon method spans more or less precisely the period that witnessed a dramatic expansion both in the area of human settlement and in the dynamism and diversity of human culture.

2: 7–10, 47–55

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The prime value of radiocarbon dating continues to lie in its ability to synchronize sequences established in widely separated territories. This is in no way lessened by the fact that radiocarbon dates underwent wide divergencies from solar ones. This has been made apparent by taking the radiocarbon ages of individual annual growth rings from timbers of bristle-cone pine (*Pinus aristata*) that grew in California over a total span of over seven millennia. Previous to the first millennium A.D., for which radiocarbon dates are rather older than the solar chronology registered by tree growth rings, the divergence goes the other way and radiocarbon dates become progressively younger until during the middle of the fifth millennium the discrepancy is as much as seven centuries. In certain contexts, more particularly in interpreting the relations between early literate and surrounding prehistoric societies, discrepancies even of a few centuries can be crucial. The recalibration of radiocarbon in terms of solar dates is, therefore, much to be desired, but not premature recalibration from smoothed curves. The Californian results badly need checking from different environments and independent sequences are already in prospect in both Germany and Britain. The shorter and often sharp fluctuations which distort the curve of determinations made from the bristlecone pine samples by the lab-

xx laboratories of the universities of Arizona, California and Pennsylvania call urgently for research and elucidation. In the present as in the last edition C 14 dates will be cited in terms of Libby's original half-life of 5,568 years, unless otherwise indicated. The practice followed by some authors of quoting dates calculated from the half-life of 5,730 years has only led to the confusion anticipated at the Cambridge radiocarbon conference when the decision was taken to continue with the practice followed by *Radiocarbon* of using the original half-life. Since radiocarbon dates are now recognized as being only relative and since also there is no reason to suppose that the 5,730 half-life is definitive, the case for maintaining a conservative stance is all the stronger. Dates based on the original half-life can readily be converted into ones calculated from the new half-life by the simple process of multiplying by 1.03.

Another promising method depends on quite a different circumstance, the fact that the degree of thermoluminescence given out by a sample of pottery or stone under heat is proportional to the amount of radiation accumulated since the sample was last fired. The thermoluminescent method is still in the experimental stage and has yet to be applied on anything like as wide a scale as radiocarbon dating. On the other hand it is encouraging that a fair amount of agreement has been noted where both methods have been employed.

8 A particularly well-controlled test is that carried out on a stone boiling tank from Orkney, Scotland, dating from early in the first millennium B.C. For what it is worth the eleven thermoluminescent dates agree much more closely with straight rather than with recalibrated radiocarbon determinations.

In closing this Preface I wish to acknowledge the immense debt I owe to my wife for enduring and assisting the writing of this book as well as to all those at the Cambridge University Press who in their various capacities have been responsible for its production.

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July 1976

Grahame Clark

*In the margins of this book, italic numbers refer the reader to items in the list of further reading (pp. 510ff.), upright numbers refer to illustrations.*