post-Palaeolithic archaeology, although it had been temporarily eclipsed by the momentous discoveries concerning still earlier phases of human development. Because of their growing realization of the inadequacies of the unilinear evolutionary approach, a new generation of professional archaeologists was to view its decline as a liberation rather than a loss.

CHAPTER 6

Culture-Historical Archaeology

We Danes... have a fatherland in which ancient monuments lie spread out in fields and moors... this feeling of having a history and a fatherland actually means that we are a nation.

JOHAN SKJOLDBORG, quoted by K. Kristiansen (1993), p. 21

Generally speaking, nationalist ideology suffers from pervasive false consciousness. Its myths invert reality: it... claims to protect an old folk society while in fact helping to build up an anonymous mass society.

E. GELLNER, *Nations and Nationalism* (1983), p. 124

The culture-historical archaeology of the late nineteenth century was a response to growing awareness of geographical variability in the archaeological record at a time when cultural evolutionism was being challenged in western and central Europe by declining faith in the benefits of technological progress. These developments were accompanied by growing nationalism and racism, which made ethnicity appear to be the most important factor shaping human history. Nationalist fervor increased as spreading industrialization heightened competition for markets and resources. Toward the end of the century, it was encouraged by intellectuals who sought to promote solidarity within their own countries in the face of growing social unrest by blaming economic and social problems on neighboring states.

Early Interests in Ethnicity

National consciousness has a long history. Already in the sixteenth and seventeenth centuries it had played a significant role in the development of antiquarianism in northern and western Europe. Political scientists frequently distinguish this early patriotism, which tended to be expressed by loyalty to a king or hereditary prince, from the

nationalism that developed in Europe along with industrialization and has since spread around the world. Nationalism is defined as an all-embracing sense of group identity and loyalty to a common homeland that is promoted by mass media, widespread literacy, and a comprehensive educational system. This new concept was a product of the French Revolution but in France national identity was at first not explicitly linked to ethnicity. As a result of their allegiance to the new French Republic, minority groups such as Celtic-speaking Bretons, German-speaking Alsatians, and Italian-speaking Corsicans became as much French citizens as anyone else. Even so, French authorities sought to ensure national unity by using the educational system to promote the French language and culture at the expense of ethnic diversity. Hence, even in France, national identity gradually became equated with cultural unity (Gellner 1983; Anderson 1991; Dumont 1994).

Most European nation states came to be viewed as political expressions of ethnic identity that was grounded in linguistic, cultural, and racial unity as well as in a shared history. Citizens often were encouraged to regard themselves as constituting an immutable and indivisible biological entity. Efforts were made to strengthen existing states by identifying them with single ethnic groups, by ethnic groups to achieve the status of nation states, and by some countries to expand their borders on the pretext that they were justified in doing so because they were politically uniting a single people. Nationalism also tended to identify racial divisions, which before the nineteenth century had often been thought to correspond with class divisions within countries, with national or ethnic boundaries. Gobineau was a transitional figure in this process. Under these circumstances, prehistoric archaeologists were encouraged to study the origins and early histories of specific ethnic groups.

Throughout the nineteenth century in England and France, nationalism was powerfully expressed in historical writing, which emphasized the internal solidarity of national groups. Yet its influence on archaeology was quite muted, in part as a result of the continuing importance of Lubbock's and Mortillet's evolutionary interests. During the French Revolution, the suppression of the aristocracy was represented as the expulsion of foreign conquerors and the restoration of sovereignty to the descendants of France's indigenous Celtic inhabitants. Henceforth, the origin of the French people was traced back to

the Celtic-speaking Gauls. In 1803, Napoleon Bonaparte established the *Académie Celtique* whose members employed archaeological, historical, folkloric, and linguistic data to cultivate a sense of direct continuity between the Gauls and the modern French, despite the replacement of their Celtic language by that of their Roman conquerors.

In the 1860s, Napoleon III (r.1852–1870), who had proclaimed himself Emperor of the French after being elected President of the French Republic, supported major excavations at three Celtic *oppida*, or fortified towns, that had been identified as ones that were associated with major events that had occurred during Julius Caesar's conquest of Gaul in the first century BC. These excavations revealed a close resemblance to the late Iron Age culture found at the La Tène site in Switzerland in 1856. It is suggested that Napoleon III supported these excavations because of his desire to use belief in a common ethnic heritage to craft a uniform national culture that would help to unite modern France (Dietler 1994, 1998; Weber 1976). Yet Napoleon III claimed to sponsor these excavations as part of a massive program of historical and archaeological research that he was carrying out for a biography of Julius Caesar he was writing (Gran-Aymerich 1998: 142). His admiration for Caesar was probably inspired by a tendency for French monarchs, beginning during the Renaissance, to regard themselves as the true spiritual heirs of the Roman imperial tradition (M. Heffernan 1994: 30–1). Napoleon III's uncle, Napoleon Bonaparte, had shared this fascination with ancient Rome.

In Britain, fantasizing about possible Druidical associations of Neolithic and Bronze Age sites, which had been the main form of patriotism antiquaries had indulged in during the eighteenth century, was banished to the realms of popular history and folklore (Owen 1962: 239). The British were as proud of their supposed Nordic or Aryan racial affinities as were the Germans. Yet, unlike the Germans, who could trace themselves back into prehistoric times as the sole occupants of most of their modern homeland, the British were keenly aware from historical records that England had been conquered and settled in turn by Romans, Saxons, Danes, and Normans. Beginning in the late nineteenth century, British archaeologists regularly assumed that similar invasions had occurred in prehistoric times (T. Holmes 1907). Although some English specified that the

prehistoric Celtic peoples were only their predecessors and not their ancestors, most historians argued that what was biologically and culturally most desirable in successive indigenous populations had combined with what was most advanced in invading groups to produce a people whose hybrid vigor, composed of various European stocks, made them the best in the world (Rouse 1972: 71–2). This historical chain of increasing biological and cultural superiority corresponded with the modern regional and ethnic hierarchy within Britain. The dominant upper and upper-middle classes viewed themselves as the spiritual, if not the biological, heirs of the Normans, whereas the English as a whole were identified with the earlier Saxons, and the more remote Celtic fringe with the still earlier and more primitive British. It was also argued that, as a result of natural selection, each ethnic group in Britain was best adapted to the locality and condition in which they were living. Each of these interpretations was related to Boyd Dawkins's (1874) proposal that over time in Europe culturally more advanced peoples had pushed aside less developed ones. Already by the middle of the nineteenth century, British archaeologists were interpreting the distributions of distinctive types of pottery as evidence of migrations (Latham and Franks 1856) and by 1913 E. T. Leeds was using similar artifacts found in graves on the European continent and in England to trace the English migrations into Britain following the collapse of the Roman Empire.

In northern and central Europe, the study of prehistory remained closely associated with nationalism throughout the nineteenth century. Although Scandinavian archaeologists continued to be interested in learning about how peoples had lived in the past and in cultural evolution (Fischer and Kristiansen 2002), they were mainly concerned with working out cultural chronologies that elucidated the prehistories of their respective countries and provided them with a source of pride and deeply rooted cultural identity. The revival of German literature in the eighteenth century had been characterized by a glorification of Germany's medieval and ancient past. At the end of that century, the philosopher Johann Herder had defined history as the account of the development of a people as exemplified by their language, traditions, and institutions (Hampson 1982: 241, 248–9; Zammito 2002). By encouraging a sense of pan-German ethnic identity, antiquaries and archaeologists played a significant role in promoting the unification of Germany, which was achieved in 1871.

Yet the study of German prehistory remained largely an amateur activity. It was not encouraged by the conservative Prussian leaders, who exploited German national feeling but, especially after the popular uprisings of 1849, feared to promote it. In eastern Europe, archaeologists, by helping to encourage a sense of national identity amongst Poles, Czechs, Hungarians, Lithuanians, and other ethnic groups living under Austrian, Russian, and Prussian domination, played a role in weakening those multinational empires and promoting the eventual emergence of a series of nation states. For this reason, archaeology was supported by nationalist elements such as the Czech middle class and the Polish landed aristocracy.

During the nineteenth century, growing amounts of archaeological material were collected throughout Europe as a result of more intensive agriculture and land reclamation projects; the construction of roads, railways, canals, and factories; the founding of increasing numbers of museums and research institutes; and the establishment of teaching positions for archaeologists in universities. Nonprofessional recovery peaked in the early nineteenth century, whereas recovery by professional archaeologists gradually increased thereafter (Schnapp and Kristiansen 1999: 29). As more evidence was collected, the attention of archaeologists turned increasingly to the study of artifacts and with that came a growing awareness of variations in their geographical distributions. In the 1870s and 1880s, archaeological research in central and eastern Europe was influenced by the evolutionary archaeology of France and England and by work being done by Scandinavian archaeologists, which encouraged the more detailed classification and comparison of archaeological finds. The development of local chronologies was retarded in some areas, however, by a longstanding reluctance to adopt the Scandinavian Three-Age system, which was opposed, because of personal rivalries and for nationalistic reasons, by a number of prominent German archaeologists (Böhner 1981; Sklenář 1983: 87–91). A concern with historical and ethnic issues nevertheless led archaeologists to pay increasing attention to the geographical distribution of distinctive types of artifacts and artifact assemblages in an effort to relate them to historical peoples. In addition, a nationalist orientation encouraged archaeologists to concentrate on the study of the Neolithic and more recent periods rather than on Palaeolithic times.

The culture-historical approach also drew prehistoric and classical archaeologists closer together than they had been previously in terms of goals, methods, and common interests. The ancient Greeks and Romans had interacted with peoples who had lived to the north of them, which made the findings of classical archaeologists and European culture-historical archaeologists of mutual interest. Among Italians and Greeks, the study of classical archaeology was accompanied by an interest in the prehistoric and postclassical periods of their respective countries that promoted communication between different types of archaeology, even though classical archaeology maintained its distinctive art-historical approach. In Germany, France, Britain, the United States, and elsewhere, classical archaeology remained a separate discipline, but its focus had always been culture-historical in a generic sense, inasmuch as classical archaeologists were devoted to the study of only two ethnic groups and two national cultures. In France and England, the study of local classical sites frequently led prehistoric and classical archaeologists to work together. In southern and western Germany, studies of the Roman frontier played a vital role in the development of prehistoric archaeology, as indicated by the establishment of the Roman-Germanic Central Museum at Mainz in 1852. The creation in 1892 of a special commission to investigate the Roman frontiers of central Europe is credited with making the resources of the well-funded German Archaeological Institute, hitherto reserved for classical archaeology, available for the study of late central European prehistory (Veit 2001: 580–1). Like classical studies, Egyptology and Assyriology were generically culture-historical from the beginning.

Finally, although prehistoric archaeologists frequently were interested in the pre- and protohistory of specific peoples or countries, this did not rule out a concern with the archaeology of Europe as a whole or even of Europe and the Middle East. Ian Morris (1994b: 11) calls this "continentalist," as distinguished from "national," archaeology. Very often, this sort of archaeology sought to define the distinctive features of European civilization and to account for the development of what was believed to be its superiority over all others. Many European archaeologists viewed the national and continental approaches as entirely complementary to one another.

Diffusionism

Although evolutionary archaeologists attributed cultural change to diffusion and migration as well as independent invention, the rejection of evolutionism led to diffusion and migration becoming privileged explanations and independent development being almost totally abandoned. By the 1880s, growing social and economic difficulties in western Europe were encouraging a new emphasis on the conservatism and rigidity of human nature in the heartland of evolutionary anthropology. The problems of the Industrial Revolution had been becoming increasingly evident for some time, especially in Britain where it had been going on the longest, in the form of slums, economic crises, and growing foreign competition. The political supremacy of the middle classes also was being challenged by the first labor movements, which sought either to share power by electoral means or to seize it through revolution. As a result of these developments, the younger generation of intellectuals turned against the idea of progress. Industrialism, which had formerly been a source of pride, was now seen as a cause of social chaos and ugliness (Trevelyan 1952: 119). The influential writer and art critic John Ruskin (1819–1900) had long argued that the preindustrial past had been superior to the present and sought to revive artisanal skills. His views promoted romanticism and devalued rationalism and Enlightenment values.

The efforts that were made at this time to externalize the economic and social conflicts that were going on within nation-states also encouraged a growing emphasis on racism. It was argued that French, Germans, and English were biologically different from one another and that their behavior was determined, not by economic and political factors, but by essentially immutable racial differences. Middle-class intellectuals sought to assure their readers that workers of different nationalities were so different in temperament that they could never unite to pursue a common goal. In contrast, these intellectuals sought to promote national unity by arguing that within each nation everyone, regardless of social class, was united by a common biological heritage, which constituted the strongest of human bonds. Therefore, instead of seeking political power for themselves, the working classes should trust that middle-class politicians would do their best to help ordinary people.

Disillusionment with progress, together with the belief that human behavior was biologically determined, encouraged growing scepticism about human creativity. Writers and social analysts maintained that human beings were not inherently inventive and that change was therefore contrary to human nature and potentially harmful to people. It was argued that an unchanging society was most congenial to human beings, who were naturally predisposed to resist alterations in their styles of life. This led to declining credence in independent development, to a belief that particular inventions were unlikely to be made more than once in human history, and hence to a growing reliance on diffusion and migration to explain cultural change. It also encouraged an increasing interest in the idiosyncratic features associated with particular ethnic groups rather than with the general characteristics of successive stages of cultural development. If the insecurity of the middle classes of western Europe in the 1860s had led Lubbock and other Darwinians to abandon the doctrine of psychic unity and view indigenous peoples as biologically inferior to Europeans, the still greater insecurity of the 1880s led intellectuals to jettison the doctrine of progress and regard human beings as far more resistant to change than they had been viewed since before the Enlightenment.

Increasing reliance on diffusion and migration, as well as the concept of cultures as ways of life related to specific ethnic groups, were soon evident in the work of German ethnologists such as Friedrich Ratzel (1844–1904) and Franz Boas (1858–1942). Ratzel, a geographer and ethnologist, rejected the German ethnologist Adolf Bastian's concept of psychic unity. In works such as *Anthropogeographie* (1882–1891) and *The History of Mankind* ([1885–1888] 1896–1898), he argued that, because the world was small, ethnologists must beware of thinking that even the simplest inventions were likely to have been made more than once, let alone repeatedly. Both invention and diffusion were described as capricious processes; hence, it was impossible to predict whether a particular group would borrow even a useful invention from its nearest neighbors. Ratzel maintained arbitrarily that because of this it was necessary to rule out the possibility of diffusion in order to prove that the same type of artifact had been invented more than once. He asserted that items such as the blowpipe and the bow and arrow, wherever they occurred in the world, could be traced back to a common source. This argument was

directed against Bastian's claim that, in the absence of evidence to the contrary, all similarities should be attributed to the operation of psychic unity (Zimmerman 2001: 204). Both positions were equally unscientific, as most archaeologists appear to have intuitively realized, but there was as yet no detailed archaeological record against which each claim might be evaluated. Ratzel also argued that, despite its capriciousness, the prolonged diffusion of traits created culture areas or blocks of similar cultures located adjacent to each other (H. Kuklick 1991a: 121–30; Zimmerman 2001: 203–6).

Ratzel's ideas influenced the younger Boas, who introduced them to North America. Boas opposed the doctrine of cultural evolution and argued that each culture was a unique entity that had to be understood on its own terms. Doing this required accepting two concepts: cultural relativism, which denied the existence of any universal standard that could be used to compare the degree of development or worth of different cultures, and historical particularism, which viewed each culture as the product of a unique sequence of development in which the largely chance operation of diffusion played the major role in bringing about change. Boas believed that, if the development of cultures displayed any overall regularities, these were so complex as to defy understanding. The only way to explain the past was to determine the successive idiosyncratic diffusionary episodes that had shaped the development of each culture (M. Harris 1968a: 250–89). About the same time, the Viennese school of anthropology, developed by the Roman Catholic priests Fritz Graebner (1877–1934) and Wilhelm Schmidt (1868–1954), argued that a single series of cultures had developed in central Asia, from where these cultures had been carried to various parts of the world. The complex cultural variations observed on every continent resulted from the mingling of cultures at different levels of development (M. Harris 1968a: 382–92; Andriolo 1979). This approach was applied to European archaeology and then carried to Argentina after World War II by the Austrian archaeologist Oswald Menghin (1888–1973) (Kohl and Pérez Gollán 2002). Menghin's religious conservatism and his hostility to socialism led him to embrace a variant of culture-historical anthropology that not only rejected cultural evolution and psychic unity but also embraced primitive monotheism and degenerationism.

Diffusion displaced an evolutionary approach in English ethnology as a result of the work of the Cambridge scholar W. H. R.

Rivers (1864–1922) (1914). Unable to detect an evolutionary pattern in his detailed study of the distribution of cultural traits in Oceanic societies, he rejected evolutionism and adopted a diffusionist approach (Slobodin 1978). Diffusionism was carried further in British anthropology by Grafton Elliot Smith (1871–1937). Born in Australia, Smith studied medicine and became interested in mummification while he taught anatomy at the University of Cairo, before moving to the University of London. Noting that embalming was practiced in various forms elsewhere, he decided that it had been invented in Egypt, where it had reached its most highly developed form, and that it had degenerated as it spread to other parts of the world. He went on to theorize that all early cultural development had occurred in Egypt. Before 4000 BC, there had been no agriculture, architecture, religion, or government anywhere in the world. Then the accidental harvesting of wild barley and millet in the Nile Valley led to the discovery of agriculture, which was followed by the invention of pottery, clothing, monumental architecture, and divine kingship, producing what hyperdiffusionists called the "Archaic Civilization." Smith maintained that these events had occurred in a unique environment and were unlikely ever to have happened elsewhere. Egyptian innovations were carried to all parts of the world by merchants who were searching for raw materials that had the power to prolong human life. Although these influences acted as an "exotic leaven" encouraging the development of agriculture and civilization in other parts of the world, many secondary civilizations, such as that of the Maya, declined when cut off from direct contact with Egypt (Smith 1911, 1915, 1928, 1933).

Smith's hyperdiffusionist ideas were elaborated using ethnographic data by W. J. Perry, who taught cultural anthropology at the University of London. His two major works, *The Children of the Sun* (1923) and *The Growth of Civilization* (1924), still make fascinating reading, although the real explanation of the worldwide parallels that he noted in political organization and religious beliefs remains illusive. Lord Raglan (1939) also advocated hyperdiffusionism but believed Mesopotamia rather than Egypt to have been its source. The ideas on which these three men agreed were that most human beings are naturally primitive and will always revert to a state of savagery if not stopped from doing so by the ruling classes; that savages never invent anything; that the development of civilization, and by extrapolation

the Industrial Revolution, were accidents that produced results contrary to human nature; and that religion was a prime factor promoting the development and spread of civilization. Yet, in denying that progress was natural or that there was any plan to human history, the hyperdiffusionists were only carrying to an extreme ideas that had come to be shared by a growing number of anthropologists since the 1880s.

Some European archaeologists were influenced by Smith to the extent that they argued that megalithic tombs might be a degenerate form of pyramid, the idea of which had been carried from Egypt to western Europe by Egyptian agents seeking for life-giving natural substances (Childe 1939: 301–2, 1954: 69). Yet, by the 1920s, the archaeological record was sufficiently well known that hyperdiffusionism had little appeal to archaeologists as an explanation of world prehistory. Insofar as archaeologists thought about the problem, cultures in the Old and New Worlds were recognized to be distinct stylistically and in many other ways and hence were assumed to have developed largely independently of one another from hunting and gathering to civilization. Yet, within the diffusionist intellectual milieu that had begun to evolve in the 1880s, the human capacity for innovation was considered to be sufficiently limited and quixotic that basic discoveries, such as pottery and bronze working, seemed unlikely to have been invented twice in human history and hence they were believed to have spread from one part of the world to another. The chronologies that had been elaborated before radiocarbon dating, especially on an intercontinental scale, were not sufficiently cross-dated to rule out such interpretations. Almost all cultural change in the archaeological record was attributed to the diffusion of ideas from one group to another or to migrations that had led to the replacement of one people and their culture by another.

Because they accepted the capacity of one group to learn from another, archaeologists who emphasized diffusion tended to be more optimistic about the capacity of human societies to change than were those who attributed almost all change to migration. The latter fashion is exemplified by the work of W. M. F. Petrie (1939), who, in discussing the prehistoric development of Egypt, attributed all cultural changes either to mass migrations or to the arrival of smaller groups who brought about cultural change by mingling culturally and biologically with the existing population. According to Petrie, the early

Neolithic Fayum culture represented a "Solutrean migration from the Caucasus," which also was the homeland of the Badarian people. Amratian white-lined pottery was introduced by "Libyan invasions," whereas the Gerzean culture was brought to Egypt by an "Eastern Desert Folk" who invaded and dominated the country. Finally, Egypt was unified by the "Falcon Tribe" or "Dynastic Race" that "certainly had originated in Elam" (Iran) and came to Egypt by way of Ethiopia and the Red Sea. In each case, Petrie's arguments were based on tenuous resemblances between a few traits in Egyptian culture and those in some culture or cultures outside Egypt, while the general patterns were ignored. Petrie saw no possibility of significant cultural change without accompanying biological change. Still earlier, he had written in a Vicoesque style about millennium-long cycles of growth and decay in which he believed racial struggle to be of paramount importance (Petrie 1911).

Archaeological interpretation everywhere in Europe was influenced by growing pessimism about human creativity. Changes in the archaeological record were attributed mainly to migration and diffusion. Multiple inventions of the same items were now believed to be highly improbable. There also was no sense of pattern to human history. The archaeological record made it hard for archaeologists to deny that cultural development had taken place, but few now regarded this development as universal, inevitable, or even desirable.

The transition between evolutionary and migrationist-diffusionist modes of thought was gradual and "diffusionist" explanations often shared many of the features of evolutionary ones. W. J. Sollas, in his *Ancient Hunters and their Modern Representatives* (1911), based on a series of lectures delivered in 1906, appears to be following an evolutionary model when he compares successive ages of Palaeolithic development with different modern hunter-gatherer groups. Thus, the Mousterians are "represented" by the Tasmanians, the Aurignaciaus in part by the Bushmen, and the Magdalenians by the Inuit and the American Indians. Yet Sollas maintains that most of these modern counterparts are appropriate analogues because they are the literal descendants of these Palaeolithic groups, who, as more "intelligent" races emerged, were "expelled and driven to the uttermost parts of the earth" where they remained in an arrested state of development (1924: 599). Under the impact of diffusionism, holistic analogies based on the assumption that historically unrelated groups

at the same level of development would be culturally similar gradually were replaced by the assumption that because cultures are inherently static only the comparison of historically related ones could facilitate the interpretation of archaeological data (Wylie 1985a: 66–7; Bowler 1992).

The Montelian Synthesis of European Prehistory

The growing interest in cultural variation and diffusion in the social sciences provided a theoretical framework that allowed archaeologists to account for the evidence of spatial as well as temporal variation that was becoming obvious as archaeological data accumulated across Europe. As early as 1847, Worsaae had noted major stylistic differences between Bronze and Iron Age artifacts in Scandinavia and Ireland. In the course of the nineteenth century, archaeologists in Britain, France, Switzerland, Germany, and central Europe traced the geographical and temporal distributions of coins (J. Evans 1864), megaliths, and other Stone (J. Evans 1872), Bronze (J. Evans 1881), and Iron Age remains. As La Tène finds were more firmly identified with late prehistoric Celtic groups, their status as a culture rather than a stage of development or a period became clearer; a process that was accelerated in 1870 when Mortillet interpreted La Tène artifacts found in northern Italy as archaeological evidence of a historically recorded Celtic invasion of that country. In 1890, Arthur Evans identified a late Celtic urnfield in southeastern England with the Belgae, who the Romans reported had invaded England in the first century BC. John Abercromby (1841–1924) (1902, 1912) associated Early Bronze Age beaker pottery, probably wrongly (Harrison 1980), with a putative "Beaker folk" who he believed had migrated over much of western Europe. In 1898, the Danish archaeologist Sophus Müller (1846–1934) argued that, although the Single Graves and Megalithic Burials of the Danish Neolithic were at least partly contemporary, the weapons, pottery, and ornaments associated with them were different and hence they must represent two distinct peoples (Childe 1953: 9). As early as 1874, Boyd Dawkins (p. 353) had suggested the possibility of regional variations in the Palaeolithic.

This growing emphasis on the geographical distribution as well as the chronology of archaeological finds led to important creative work being done by archaeologists who were interested primarily

Figure 6.1 Oscar Montelius (1843–1921)

in the European Neolithic, Bronze, and Iron Ages rather than the Palaeolithic period. Their work would replace the evolutionary pre-occupation that western European prehistoric archaeologists had with a succession of cultural stages with a historical orientation focused on cultures, but this change occurred slowly. The major figure in initiating this transition was the Swedish archaeologist Gustaf Oscar Montelius (1843–1921) (Figure 6.1). He was trained in the natural sciences but became interested in archaeology and was employed full time at the Museum of National Antiquities in Stockholm beginning in 1868. He shared Thomsen's and Worsaae's interest in elaborating a prehistoric chronology. Between 1876 and 1879, he also traveled throughout Europe in order to study collections, thus becoming the first archaeologist to investigate prehistory on a continental scale. The enlarged scope of his research was made possible by the increasing tempo of archaeological activity throughout Europe and by the development of a network of railways, which made travel easier.

During the mid-nineteenth century, Scandinavian archaeologists had subdivided the Bronze and Iron Ages into an increasing number of periods, often using limited criteria, such as grave types or dated trade goods, and without taking account of whole assemblages. The typological method, as Montelius developed it, was a refinement of Thomsen's chronological approach. The creation of systematic

typologies or classifications of prehistoric artifacts began with the Swedish archaeologist Hans Hildebrand (1842–1913). He derived the idea of a clearly defined type from numismatic work by his father, Bror Emil Hildebrand (1806–1884), who in 1846 formally identified different types of Anglo-Saxon coins (Gräslund 1987: 96–101). Hans Hildebrand was, however, little interested in chronology. Montelius, by contrast, carefully defined artifact types on the basis of variations in form and decoration for numerous classes of artifacts throughout Europe and on this basis sought to work out and correlate a series of regional chronologies. He did this by examining, as Thomsen had done, material from closed finds, such as graves, hoards, and single rooms, to determine what types of artifacts occurred and never occurred together. Experience taught him that, after comparing two hundred to three hundred finds of this sort, clusters of association would form that represented, not large units of time such as the Bronze Age, but subdivisions of these ages that he believed must each have lasted for only a few hundred years. Because of the vastly greater amount of data available and Montelius' more detailed artifact classifications, it was possible for him not only to identify shorter periods but, by identifying artifact types that were common to more than one period, to order these periods chronologically. For such a sequence to be persuasive, materials, techniques of manufacture, shape, and decoration had to covary in a coherent pattern. Montelius established seriation as a self-contained and convincing technique for constructing archaeological sequences.

After Montelius had established chronological sequences on the basis of formal criteria and closed finds, he drew attention to evolutionary trends in these sequences. Bronze celts, for example, began as flat axes that were later flanged to strengthen them. Next they were provided with a crossbar and cylindrical shaft and finally with a heavy cast socket to facilitate mounting and use (Figure 6.2). Montelius viewed such a developmental sequence as a natural and logical one and drew parallels between the evolution of material culture and of biological organisms. Yet, as Gräslund (1974) has shown, despite Montelius's training in the natural sciences, his thinking about human behavior owed little to Darwinism. On the contrary, it continued the traditions of Scandinavian archaeology. Montelius believed, as had the philosophers of the Enlightenment, that technology developed because human beings used their powers of reason to

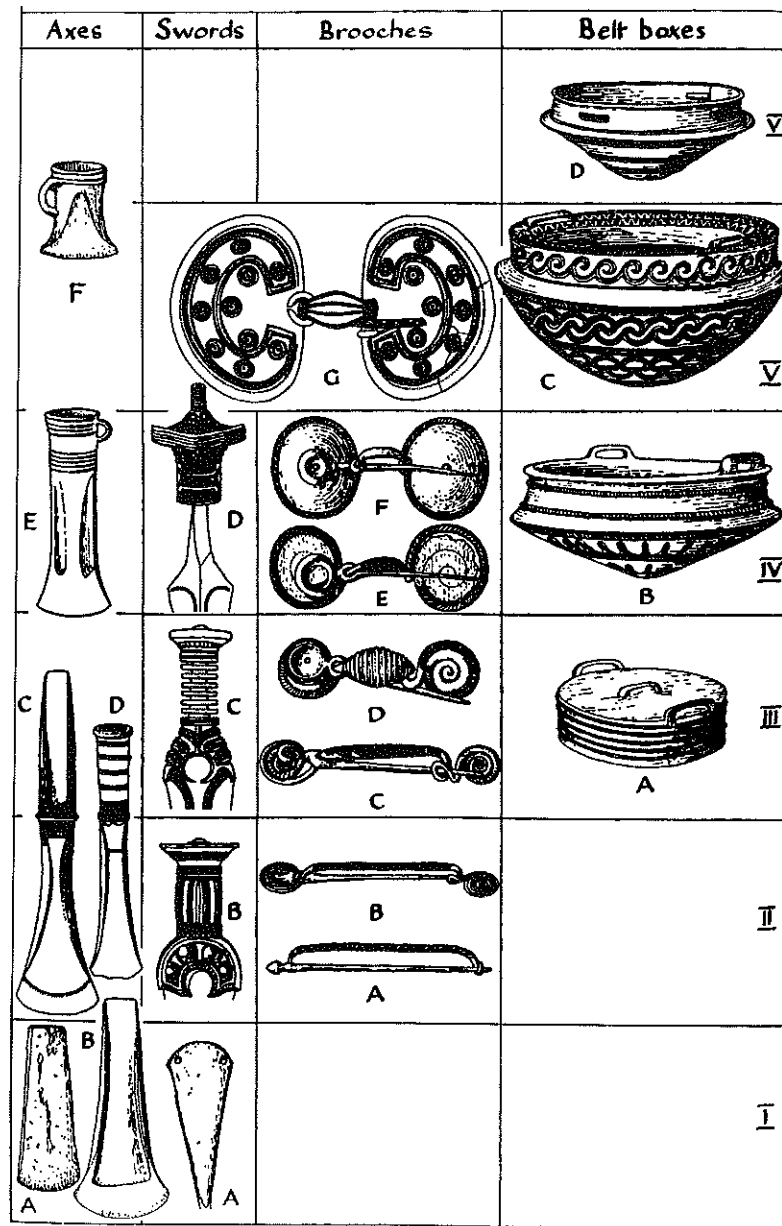| Axes	Swords	Brooches	Belt boxes
			D VI
F		G	C V
E	D	F E	B IV
C D	C	D C	A III
	B	B A	II
B A	A		I

Figure 6.2 Bronze Age artifacts arranged according to Montelius's system, 1881

devise more effective ways of coping with nature and thereby making their lives easier and more secure. His references to biological evolution seem to have been intended mainly as analogies designed to enhance the status of archaeology in an era dominated by Darwinian evolution. It is also significant that not all Montelius's evolutionary patterns were unilinear. He demonstrated, for example, that during the Bronze Age fibulae (safety pins), which were used to fasten clothing, had been manufactured in Italy as one piece with a coiled spring and in Scandinavia as two pieces with a hinge (Bibby 1956: 180–1). In due course, the best features of both types were merged to form a new pan-European variety. Hence, Montelius took account of how idiosyncratic historical factors as well as logical ones influenced the evolution of material culture.

By the 1880s, Montelius (1885) had worked out a detailed chronology of the Scandinavian Bronze Age. By 1903, he had divided the European Neolithic into four periods, the Bronze Age into six periods, and the Iron Age into ten periods. Although he regarded such periods as applicable in general terms to the whole of Europe, he had noted considerable regional variation within each period and had come to doubt the assumption that all parts of Europe had reached the same stage of development at the same time. Instead, he sought to use artifacts that he assumed had been exchanged from one region to another, or been copied from more advanced areas, as geographical cross-ties to temporally correlate various periods in different parts of Europe. As a result of the discovery of Mycenaean Greek pottery in historically dated Egyptian sites and Egyptian goods in Greece, it was possible for archaeologists to date the Mycenaean period in Greece to the fifteenth century BC. Cylindrical faience beads found across Europe that were presumed to have come from Egypt through the Mycenaean civilization provided a benchmark calendrical dating for a number of Bronze Age cultures. In general, these beads turned up in typologically less evolved Bronze Age contexts in central, western, and northern Europe than in the southeast, suggesting that the farther a region was from the Middle East, the later most technological innovations had been adopted there. This correlation gave rise to what was later called the "short chronology" of European prehistory (Bibby 1956: 181–2). Other periods were aligned using goods that on the basis of stylistic criteria appeared to have been traded from

one part of Europe to another. It was assumed that all these goods were exchanged soon after they had been manufactured.

Montelius believed that his cultural chronology of European prehistory was derived objectively from the archaeological evidence. Today, archaeologists are not so certain that presuppositions did not play a significant role in determining his selection of the cross-ties that he used to correlate the chronologies of different parts of Europe. Montelius thought that his chronology indicated that in prehistoric times cultural development had occurred in the Middle East and achievements had been carried from there to Europe by waves of diffusion and migration making their way through the Balkans and Italy. Because of that, the level of cultural development in southeastern Europe in prehistoric times was always ahead of that to the north and west and Europe as a whole "was for long but the pale reflection of Eastern civilization." Montelius became the most distinguished exponent of a diffusionist explanation of European cultural development, the so-called *ex oriente lux* ("light from the east") school (Renfrew 1973a: 36–7).

Montelius's (1899, 1903) interpretation of the development of European civilization required a belief not only in diffusion but also that over long periods innovation tended to occur in particular areas and to diffuse outward from those areas to peripheries. A similar concept of cultural cores and peripheries played a significant role in Boasian anthropology, together with the age/area assumption, which maintained that more widely distributed traits tended to be older than ones spread over a smaller territory. In general, American anthropologists tended to view broad natural zones, such as the Great Plains or boreal forests of North America, as constituting the most active spheres of diffusion. The concepts of cultural cores and age/area were later subjected to a withering critique by the anthropologist R. B. Dixon (1928). In Europe, however, these theoretical assumptions were neither articulated nor criticized so clearly.

Many archaeologists supported Montelius's interpretation of European prehistory. Moreover, the most vocal objections were directed not against his idea of diffusion from a center of innovation but, rather, against his claim that this center was located in the Middle East. Some archaeologists objected to an interpretation that ran counter to European convictions of their own superior creativity by deriving civilization from beyond Europe. Carl Schuchhardt

(1859–1943), Adolf Furtwängler (1853–1907), and other German archaeologists maintained that the Mycenaean civilization of Greece was the creation of "Aryan" (Indo-European-speaking) invaders from the north. Montelius's thesis was opposed on more general principles by the Austrian archaeologist Matthäus Much (1832–1909) (1907) and by the French prehistorian Salomon Reinach (1858–1932) in *Le Mirage oriental* (*The Eastern Mirage*) (1893). Overthrowing Montelius's scheme required, however, either ignoring or refuting his chronology, which most impartial prehistorians were convinced was based on sound evidence.

There were, however, subjective reasons as well as scientific ones for the support given to Montelius. His diffusionist views clearly accorded with the conservative opinions denying human creativity that were fashionable at the end of the nineteenth century. Tracing the origins of European civilization to the Middle East also appealed to many Christians because it appeared to offer support for the biblical view of world history. In the late nineteenth century, growing social and economic problems led many members of the middle class in western Europe to turn once more to religion. Montelius's scheme also accorded with a biblically based interpretation of history dating from the medieval period that saw successive empires – Babylonian, Persian, Hellenistic Greek, and Roman – gradually transferring the center of power and creativity westward from the Middle East to Europe. Finally, throughout the nineteenth century, European powers, especially England and France, had been intervening to an ever greater degree in the political and economic affairs of North Africa and the Middle East (Silberman 1982; Gran-Aymerich 1998). A scheme of prehistory that treated the western European nations rather than the modern Arab peoples as the true heirs of the ancient civilizations of the Middle East helped to justify European colonial interventions in that region, just as myths about the nonindigenous origin of Great Zimbabwe were used to support the European colonization of sub-Saharan Africa. Montelius's demonstration that early technological innovations in the Middle East had constituted the origins of European civilization may help to explain why his arguments were of greater interest in France and England than in Germany, where political interventions in the Middle East began only toward the end of the nineteenth century.

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Montelius did not subscribe to racial interpretations of human history. Moreover, although he believed that diffusionary processes accounted for the spread of civilization to Europe in prehistoric times, he saw evolutionary ones explaining its origins in the Middle East. As the citizen of a geographically peripheral European nation whose cultural and academic life was being transformed during the nineteenth century by influences coming principally from Germany, he must have regarded diffusion as a powerful stimulus for beneficial change. His views about the origins of European technology were generically similar to those of Thomsen and Worsaae. Furthermore, despite his pioneering contributions to the study of pan-European prehistory, the primary focus of his research remained Scandinavia. Although he was the first great archaeological innovator to be strongly influenced by a specifically diffusionist view of cultural change, his position in the debate about human inventiveness was a moderate one and much of his thinking continued in an evolutionist mode.

Montelius's influence was not limited to central and western Europe. In the late nineteenth century, Russian archaeology, inspired by patriotism and romanticism, shifted rapidly from being an antiquarian to being a scientific pursuit. The models Russian archaeologists followed were the Scandinavian and German archaeologists who were in the process of creating culture-historical archaeology. The Russian government's forbidding as early as 1826 of the publication of any studies dealing with human evolution had effectively discouraged the consideration of evolutionary archaeology during the mid-nineteenth century (Klejn 2001b: 1130–1).

In the second half of the nineteenth century, Russia experienced rapid development in industry, transport, trade, and educational opportunities. The middle classes expanded and the educated segment of the population became interested in natural science, philosophy, history, and political economy. Archaeological research, publications, museums, associations, and congresses proliferated. All the archaeologists at this period were landowners, teachers, civil servants, or military officers who were self-instructed in the discipline. Yet they carried out research comparable to that being done elsewhere in Europe (M. Miller 1956: 28). The rapid development of archaeology in Russia, and a growing number of remarkable finds, led the government to establish the Imperial Russian Archaeological Commission

in St. Petersburg in 1859. It was intended to safeguard archaeological remains. Already in 1851 a Russian Archaeology Society had been founded in St. Petersburg and iu 1864 Count Aleksey Uvarov, who had excavated over 7000 burial mounds, organized the Moscow Archaeological Society, which he, and later his widow, Countess Praskovia Uvarova, directed until 1917. Each of these bodies established major publications series, which continued until the Bolshevik revolution of that year. In the late 1870s and 1880s, regional archaeological societies were established in Tbilisi, Kazan, Pskov, and other provincial cities. Although the Russians, like the Americans and other European colonizing powers, were seizing control of regions occupied by tribal peoples, the Russians did not invoke archaeological evidence to justify their actions racially. Having been conquered and ruled for centuries by the Mongols, they were less inclined to despise racially different peoples than were the Americans.

Beginning in the 1870s and continuing into the early twentieth century, archaeological interests diversified. Kurgans and classical sites continued to be excavated, but there was a growing emphasis on settlements and cemeteries from all periods of Russian history. The Palaeolithic sites at Kostenki, in the Ukraine, began to be studied in 1879 and Neolithic sites, including those of the Tripolje culture, as well as Bronze and Iron Age ones were excavated across western Russia. There also was much interest in Slavic and medieval Russian archaeology, especially among the members of the Russian Archaeology Society, where a special section was established for such research. This interest reflected the pan-Slavism that played a significant role in Russian foreign policy in the late nineteenth century and supported the government's efforts to strengthen Russian influence throughout eastern Europe. By this time archaeology was being taught, although not yet in separate departments, at the universities in St. Petersburg and Moscow.

Many archaeologists working in Moscow and St. Petersburg were influenced by recent developments in prehistoric archaeology in northern and central Europe. The most prominent of these was Vasily Gorodtsov (1860–1945), who began to excavate in the 1880s but remained employed as a military officer until 1906. In the early 1900s, he became senior curator at the Moscow Historical Museum and also a lecturer at the Moscow Archaeological Institute, where he trained a large number of professional archaeologists. Gorodtsov was the

outstanding exponent of what later was labeled the formalist school of Russian archaeology, which was inspired by the work of Montelius and other Scandinavian typologists. His systematic classification of Neolithic ceramics according to material, then shape, and finally decoration enabled him to trace the distribution and establish the boundaries of clusters of similar sites and to note material evidence of contacts between such clusters. He accepted that diffusion and migration were important processes bringing about cultural change. He also produced the first periodization of pre-Scythian burial mounds along lines similar to those employed by Sophus Müller in Denmark. In 1899, Aleksander Spitsyn (1858–1931), who was the leading member of the St. Petersburg school, combined archaeological data about temple ring types and historical information to trace the distribution of some early Russian tribes in a manner resembling that being developed by the German archaeologist Gustaf Kossinna.

The Concept of Culture

In the late nineteenth century, a growing interest in ethnicity encouraged increasing use of the concept of the archaeological culture. Archaeologists in Scandinavia and in central and eastern Europe began to draw an explicit parallel between the numerous geographically restricted remains of a distinctive character they were finding and ethnographic cultures. The term "culture" seems first to have been used in Italian and Spanish, where it originally referred to the cultivation of the human mind. By the seventeenth century, it was employed to designate the distinctive way of life of a people and in the late eighteenth century, Herder was maintaining that each people (*Volk*) had their own culture (*Kultur*). The equivalent term in French was *civilisation* (Díaz-Andreu 1996a: 51–7). In Germany, *Kultur* came to be used more narrowly to designate the slowly changing ways of life ascribed to tribal or peasant groups, or modern rural dwellers, as distinguished from the cosmopolitan, rapidly changing "Zivilisation" of urban centers.

After 1780, works on *Kulturgeschichte* (culture history) began to proliferate and, beginning in 1843, the German ethnologist Gustav Klemm published books titled *Allgemeine Cultur-Geschichte der Menschheit* (*General Culture History of Humanity*) (1843–1852) and *Allgemeine Kulturwissenschaft* (*General Ethnology*) (1854–1855).

Friedrich Ratzel based his antievolutionary theories on the use of the concept of culture to denote distinctive ways of life transmitted by specific peoples from one generation to another as well as on the concept of diffusion. The English ethnologist Edward B. Tylor (1832–1917) was aware as early as 1865 of Klemm's use of the term culture, but it was only in *Primitive Culture* (1871) that he adopted the word and provided it with its now classic English definition as "that complex whole which includes knowledge, belief, art, morals, law, custom, and other capabilities and habits acquired by man as a member of society" (p. 1). In general, nineteenth-century evolutionary archaeologists tended to use the term culture only in the singular. It referred to all the knowledge and beliefs of humanity that were transmitted by teaching and imitation and that were believed to grow more complex and refined over time. This holistic usage contrasted with the German use of the word (often in the plural) to designate the distinctive ways of life of various peoples (Stocking 1987: 18–19).

The labeling of geographically and temporally restricted assemblages of formally similar prehistoric archaeological material as cultures or civilizations and identifying them as the remains of ethnic groups seem to have occurred independently to a number of archaeologists. In V. G. Childe's (1935b: 3) view, the concept of the archaeological culture was "forced" on Scandinavian and central European archaeologists by the wealth of material that their excavations had produced for the Neolithic and later periods. The early Scandinavian archaeologists were aware of the German ethnographic use of the concept of culture, and the oldest known use of the term culture to designate an archaeological unit is found in Thomsen's contribution to the *Ledetraad* (1836). In his discussion of the Bronze Age, Thomsen refers to the diffusion in prehistoric times of technological knowledge from one culture to another. In *Danmarks Oldtid* (1843), Worsaae made even more use of the term culture to designate archaeological entities, referring to "higher cultures," "later cultures," and "Roman culture" among others. No need was felt to explain this usage, which seems to have been regarded as self-evident. Nor, because of the general homogeneity of prehistoric cultures at any one time in Denmark, was a need perceived to assign specific geographic boundaries to archaeological cultures. Yet both Thomsen and Worsaae were aware that different cultures had coexisted in

different parts of Europe and even different parts of Scandinavia in prehistoric times.

In 1866, the Norwegian archaeologist Olof Rygh interpreted distinctive spear points and arrowheads found in his country as the products of a particular Stone Age "culture and people" and by 1871 he had noted the existence of two "Stone Age cultures" and "Stone Age peoples" in Norway (Meinander 1981: 106). In his multivolume *Geschichte des Alterthums* (*History of Ancient Times*), which began to appear in 1884, the historian Eduard Meyer (1855–1930) wrote casually of the Egyptian, Greek, Trojan, and Mycenaean cultures, while in the works of Heinrich Schliemann and others the terms Aegean, Mycenaean, Helladic, and Cycladic were used to distinguish various Bronze Age "civilizations" of the eastern Mediterranean region (Daniel 1950: 243; Meinander 1981).

By 1891, A. Götze was referring to the Bandkeramik and other Neolithic cultures; V. V. Hvojko wrote about the Tripolje culture in 1901; and Spitsyn about the Fatyanovo culture in 1905 (Meinander 1981). In 1908 Raphael Pumpelly (1837–1923), an American geologist turned archaeologist, who was excavating at the stratified site of Anau in central Asia, used the term culture to distinguish successive levels of occupation at that site, explaining that "culture" was employed as a synonym for "civilization" (p. xxxv). In some cases, it is possible to trace the process by which specific cultures were recognized. Following the excavations at a Bronze Age cemetery at Únětice in Czechoslovakia, archaeologists began to identify Únětice-like finds in nearby regions and finally organized these to establish a Únětice culture. In a similar manner, the Burgwall-type pottery that had been defined in central Europe in 1870 was broadened into the concept of a Burgwall culture (Sklenář 1983: 110). These developments generally occurred first in northern and central Europe, where there had been a longstanding interest in tracing ethnic identities in the archaeological record. Yet, despite the enormous influence that the concept of the archaeological culture was to exert on the development of archaeology, it would be erroneous to regard the development of a culture-historical approach at this time as inherent in the nature of archaeology. Had archaeologists in northern and central Europe been more interested in studying ecological adaptation than in nationalism, race, and ethnicity, it is possible that their concern with geographical variation in the archaeological record

might instead have led to the early development of an ecological approach.

The Birth of Culture-Historical Archaeology

A growing interest in the concept of the archaeological culture did not lead immediately to the development of culture-historical archaeology, which occurred in Germany. There anthropology had evolved as a positivist, human-science alternative to the text-based humanism of German universities. Most of its practitioners were employed in museums. Led initially by Adolf Bastian, they advocated the study of all cultures, not simply ones that had produced "great" art and literature. The professionalization of prehistoric archaeology began in Germany with the establishment of the German Society for Anthropology, Ethnology, and Prehistoric Archaeology (*Urgeschichte*) in 1869, three years after the first meeting of the *Congrès international d'anthropologie et d'archéologie préhistorique* was held in Neuchâtel, Switzerland. The leading figure in this new German society was the eminent pathologist and left-wing politician Rudolf Virchow (1821–1902), who had become actively involved in archaeological research in Germany. He advocated the incorporation of prehistoric archaeology, along with physical anthropology and ethnology, into a comprehensive prehistoric anthropology. Together with his followers, he sought to identify prehistoric cultures, to trace their origin and movements, and if possible to associate them with known peoples, often largely on the basis of pottery types, although grave types, settlements, and historical data were also considered. The excavations of prehistoric sites carried out by archaeologists such as Carl Schuchhardt were modeled on the best work being done by classical archaeologists (Ottaway 1973; Fetten 2000). Yet, although their work offered insights into European prehistory, it did not provide an understanding of the past that was comprehensive enough to challenge Mortillet's evolutionary approach. This was to be produced by a professional librarian who had little interest in doing fieldwork and who regarded prehistoric archaeology not as a branch of anthropology but as an independent discipline dedicated to the study of German prehistory.

Gustaf Kossinna (1858–1931) first presented his views in 1895 in a lecture that traced the German tribes historically recorded as living

between the Rhine and Vistula Rivers about 100 BC back to the Neolithic period. His approach was expounded in greater detail in *Die Herkunft der Germanen (The Origin of the Germans)* (1911) and his two-volume *Ursprung und Verbreitung der Germanen (Origin and Expansion of the Germans)* (1926–1927). A fanatical German patriot, Kossinna declared archaeology to be the most national of sciences and the ancient Germans the most noble subject for archaeological research. He criticized German archaeologists for their interest in classical and Egyptian archaeology, which he viewed as indicating a lack of patriotism. Before 1918, however, some caution was required, as the German emperor, Wilhelm II, was both a zealous nationalist and an enthusiastic supporter of classical and Middle Eastern archaeology. Although Kossinna had been trained in philology, he turned from linguistics to archaeology in an effort to discover the original homeland of the Indo-European speaking peoples and hence of the Germans. He was appointed Professor of Archaeology at the University of Berlin and in 1909 founded the German Society for Prehistory (*Vorgeschichte*), which was soon renamed the Society for German Prehistory to publicize more clearly its nationalist commitments.

Die Herkunft der Germanen, the first systematic exposition of Kossinna's approach to archaeology, was a mixture of important theoretical innovations and a fanciful glorification of German prehistory. His work helped to reinforce German nationalism and won the favor of high-ranking conservatives, such as Field Marshall Paul von Hindenburg, who was to be elected President of Germany in 1925. Because of Kossinna's misuse of archaeological data for political purposes, careful attention is required to separate his positive contributions from the pernicious aspects of his work. It also should be remembered that, in interpreting archaeological evidence in a way that encouraged Germans to regard Slavs and other neighboring European peoples as inferior to themselves and which justified German aggression against these peoples, Kossinna was not acting differently from the amateur and semiprofessional archaeologists of other countries who at the same time were portraying the indigenous peoples of North America, Africa, Asia, and Australia as inferior to Europeans. In different ways archaeology in all these countries was reflecting racist attitudes that in the course of the late nineteenth century had become widespread not only in Germany but throughout

Western civilization (Césaire 1955). The Polish archaeologist Józef Kostrzewski (1885–1969), who had studied with Kossinna, sought to use his methods to emphasize the great achievements of Poland's prehistoric Slavic inhabitants.

Kossinna proposed that from Mesolithic times onward the archaeological record of central Europe could be organized as a mosaic of cultures (*Kulturen, Kultur-Gruppen*), the location and content of which had altered over time. On the basis of his belief that cultures are invariably a reflection of ethnicity, he argued that similarities and differences in material culture correlate with similarities and differences in ethnicity. Hence, clearly defined cultural provinces always correlate with major ethnic groups or peoples, such as the Germans, Celts, and Slavs, whereas individual cultures correspond with tribes, such as the Germanic-speaking Saxons, Vandals, Lombards, and Burgundians. Like many other archaeologists, Kossinna believed that cultural continuity indicated ethnic continuity. Hence, he argued that, by mapping the distributions of types of artifacts that were characteristic of specific tribal groups, whose homelands could be pinpointed for the early historical period by using written sources, it would be possible to identify the material culture associated with each of these groups and use that information to determine archaeologically where they had lived at earlier periods of prehistory. He called this procedure *Siedlungsarchäologie* (settlement archaeology), which did not signify the study of habitation sites but, rather, determining where particular ethnic groups had lived in earlier times. At some point in the past, it would not be possible to distinguish individual German tribes, as they would not yet have differentiated from each other, but archaeologists could still differentiate among Germans, Slavs, Celts, and other major groups of Indo-Europeans. For still more remote periods, it might only be possible to differentiate Indo-Europeans from non-Indo-Europeans.

In all of his later writings, Kossinna specifically identified cultural and ethnic variations with racial differences. In particular, he accepted the commonly held belief that the original Indo-European speaking peoples and hence the direct ancestors of the Germans were members of the blond, longheaded Nordic (or Aryan) racial group. He also believed that racial characteristics were the fundamental determinants of human behavior. Kossinna also accepted Klemm's distinction between *Kulturvölker*, or culturally creative peoples, and

Naturvölker, or culturally passive peoples. For him, this was a distinction between Indo-Europeans, and above all Germans, and all other peoples. He believed that the Indo-Europeans could be traced back to the Mesolithic Maglemosian culture found in northern Germany. In particular, he traced their origins to the vicinity of Schleswig and Holstein, which Germany had recently annexed from Denmark. By claiming maximum antiquity for the cultural chronology of Germany, he sought to demonstrate that this region had been the center of cultural development for Europe and the Middle East. Late Neolithic flint daggers were interpreted as evidence of a noble German pride in weapons and as prototypes for later bronze ones and Bronze Age trumpets were construed as evidence of the superior musical ability of the Germans in prehistoric times. In another flight of fantasy, Kossinna proposed that even the alphabet had a Stone Age European origin rather than a Phoenician one.

Because more advanced cultures were believed to manifest the biological superiority of their creators, it was assumed that they could spread from one region to another only as a result of migrations of people, not by diffusion. Kossinna acknowledged that diffusion occurred but assigned it a minor role in bringing about cultural change. Although most of his studies were limited to northern and central Europe, Kossinna stated that race was the key to understanding world history. He proclaimed an original Indo-European mentality to be common to the Greeks, Babylonians, and Sumerians (Schwerin von Krosigk 1982: 53, 69). These ideas conjured up visions of waves of Indo-Europeans migrating south and east, conquering indigenous populations and using them to build civilizations in the Middle East, Greece, and Italy. Each of these waves in turn, however, interbred with local populations and as a result impaired their creative abilities. Hence, even the Indo-European speaking peoples of ancient Greece and Italy eventually became incapable of sustained cultural creativity. Kossinna argued that, because the Germans had stayed in their original homeland, they remained the racially purest and therefore the most talented and creative of all the Indo-European peoples. They alone were still capable of carrying out the historical responsibility of creating civilization and imposing it on inferior peoples. Hence, the Germans became the first-born (*Erstgeborenen*) of the Indo-Europeans. These fantasies resembled the "Hamitic" hypothesis and other speculations that attributed ancient civilizations to

conquering peoples coming from the north. Kossinna also viewed archaeology as establishing a historical right to territory. Wherever allegedly German artifacts were found was declared ancient German territory, which modern Germany either held by right or was entitled to win back. The same argument did not, of course, apply to non-German groups, such as the Slavs, who in medieval times had settled as far west as the recent border between East and West Germany (Klejn 1974).

Finally, Kossinna stressed the need to learn as much as possible about how human groups, or at least Germans, had lived in prehistoric times. Cultures were not to be defined simply as artifact assemblages but archaeologists were urged to try to determine the nature of prehistoric lifestyles. Yet, in his own work, Kossinna paid little attention to archaeological evidence of house types, burial customs, and rituals but based his interpretations on artifacts in museum collections. His speculations about prehistoric German life often were fanciful in the tradition of Stukeley and his latter-day druidical followers. Nevertheless, in its intention, Kossinna's desire to understand individual archaeological cultures as evidence of how people had lived in prehistoric times had more in common with the Scandinavian approach to archaeology than it had with a "scientific" archaeology modeled on French and English Palaeolithic studies.

There was much about Kossinna's work that was not new and much that remained controversial. The idea that the Indo-Europeans had originated in northern Europe had been supported for some time by various linguists and physical anthropologists on the basis of evidence that is no longer persuasive. Much of Kossinna's understanding of northern European prehistory and archaeological method was borrowed with little public acknowledgement from Montelius, including the principle that continuity of material culture in the archaeological record indicates ethnic continuity. Virchow and the Polish archaeologists Erzam Majewski (1858–1922) and Leon Kozłowski (1892–1944) expressed reservations about Kossinna's defining of cultures and his migrationism. More specifically K. H. Jacob-Friesen (1886–1960) (1928), A. M. Tallgren (1885–1945) (1937: 156–7), and Ernst Wahle (1889–1981) (1941) questioned his uncritical interpretation of archaeological cultures as being the same as ethnographic ones and argued that data derived from different sources could not be expected always to coincide. It also was observed that, especially in

his later work, his culture units tended to be defined on the basis of only one or a few items of material culture that he assumed were correlated with ethnic identity. It is possible that the variations in brooches that he used to equate late Iron Age cultures with specific historical German tribes may in fact correlate with production centers and not with ethnic differences.

Yet Kossinna's work, for all its chauvinistic nonsense and its often amateurish quality, marked the final replacement of an evolutionary approach to prehistory by a culture-historical one. By organizing archaeological data for each period of prehistory into a mosaic of archaeological cultures, he sought not simply to document where different groups of Europeans had lived at different stages of prehistoric development but also to learn how particular peoples, many of whom he believed could be identified as the ancestors of specific modern groups, had lived in the past and what had happened to them over time. To many of his contemporaries his approach, grounded in the familiar concept of ethnicity, offered a plausible means to account for the growing evidence of geographical as well as chronological variations in the archaeological record. Kossinna must therefore be recognized as an innovator whose work was of very great importance for the development of culture-historical archaeology.

Although Kossinna died in 1931, in his final years he was increasingly attracted to the Nazi party (Grünert 2002). Calling themselves National Socialists, the Nazis promoted an ethnic policy that sought to unite all German-speakers within a single state. When the Nazi party came to power in 1933, much of Kossinna's interpretation of German prehistory was incorporated into a new history curriculum for German schools (Frick 1934). A large number of teaching and research positions in German prehistory were established for Kossinna's followers in German universities, whereas archaeologists who were politically or racially anathema to the regime were dismissed from their positions. Most German prehistoric archaeologists had been nationalists already before 1933 and their sort of archaeology benefited sufficiently from Nazi patronage that opposition from within the archaeological community was limited. One of the chief uses that the Nazis made of archaeology was to reinforce or create myths about German behavior in antiquity that were designed to promote their own policies, such as the claim that Germans had always respected and obeyed their leaders (Hassmann 2000). Two rival Nazi

organizations recruited archaeologists to carry out research for ideological and propaganda purposes. Curiously Adolf Hitler, the Nazi leader, was enamored of ancient Greek and Roman art and architecture. He is reported to have deplored prehistoric archaeology for revealing how culturally primitive the ancient Germans had been (Speer 1970: 141) and appears to have believed that the alleged biological superiority of the modern Germans resulted from selective pressures exerted during the medieval period. His personal views were never made public.

Childe and The Dawn of European Civilization

Kossinna's interpretations of prehistory had little direct influence on archaeology outside German-speaking countries, except in Poland, no doubt because his chauvinism was so repellant. Because of their positive attitude towards foreign influences, British archaeologists were receptive to Montelius's arguments that prehistoric Europe owed much of its cultural development to the Middle East. Yet they did not hold his views and those of more Eurocentric archaeologists to be mutually exclusive. One of the two main themes of John L. Myres's (1869–1954) *The Dawn of History* (1911) was the spread of technology from Egypt and Mesopotamia to Europe. The second was his belief that all hierarchical societies developed when politically dynamic, pastoral peoples, such as the Semites and the Indo-Europeans, were forced by drought to leave their homelands and to conquer and rule politically less innovative peasant societies. This scenario was, like the Hamitic hypothesis, based on the widespread belief that pastoralists, who were equated with the medieval European aristocracy, were natural rulers, while farmers, like medieval peasants, were by nature submissive and predisposed to be ruled by others. According to Myres the Indo-Europeans, whom he believed to be nomads from the steppes of central Asia, were particularly adept at imposing their language, beliefs, and social customs on conquered peoples, while adopting the latter's material culture. Out of the encounter between cultural influences that had been transmitted to Europe from the Middle East and Indo-European political skills a vital and distinctive European way of life was created. Similar views were held by Arthur Evans (1851–1941) (1896), who was Myres's colleague at Oxford University. Yet, although Myres wrote of "peoples"

in *The Dawn of History*, he did not yet refer to archaeological cultures.

In the early 1920s, individual cultures were being mentioned by British archaeologists such as M. C. Burkitt (1921), Stanley Casson (1921), J. L. Myres (1923a, 1923b), Harold Peake (1922), and Cyril Fox (1923). Burkitt idiosyncratically defined industries, cultures, and civilizations as nested cultural units of increasing generality, but he referred indiscriminately to entities such as the Mousterian and Solutrean as both cultures and civilizations. In *Man and his Past*, O. G. S. Crawford (1921: 78–9) discussed geographical methods for delineating the origins, extent, and frontiers of cultures. Yet no effort was made to apply the concept of the archaeological culture in a systematic fashion in Britain before the publication of V. Gordon Childe's (1893–1957) *The Dawn of European Civilization* (1925a). Through this book, which Glyn Daniel (1950: 247) called "a new starting-point for prehistoric archaeology," the archaeological culture became the working tool of all European archaeologists.

Childe was born in Sydney, Australia in 1893, the son of a conservative Church of England minister. He studied Classics at the University of Sydney, where he became committed to socialist politics. At an early stage he also grew interested, like Kossinna, in locating the homeland of the Indo-European-speaking peoples. He went on to Oxford University where he studied with Myres and Evans. In 1916 he returned to Australia and political activities became the focus of his life until 1921. Then, disillusioned with politics, he returned to the study of archaeology. His already extensive command of European languages and an acute visual memory enabled him to visit and assemble a vast amount of data from museums and excavations across the whole of Europe (Figure 6.3). He presented the results of this research in two books: *The Dawn of European Civilization* (1925a), which was a synthesis of European prehistory to the end of the Bronze Age, and *The Danube in Prehistory* (1929), a more narrowly focused and more detailed examination of a hitherto little-known region. In 1927, as part of his research for the latter book, Childe participated in a joint Cambridge University–Hungarian excavation at the site of Tószeg in Hungary (Makkay 1991). The theoretical basis of both books was outlined at the beginning of *The Danube*. At this period, theoretical discussions were not a common feature of archaeological literature.

Figure 6.3 Childe (wearing tie) with a party of workmen at Skara Brae, Orkney, 1928–1930 (Royal Commission on Ancient Monuments, Scotland)

In *The Dawn of European Civilization*, Childe adopted Kossinna's basic concept of the archaeological culture and his identification of such cultures as the remains of prehistoric peoples, while exhibiting no awareness of the racist connotations that Kossinna had attributed to both of these concepts. It is possible that Childe had come to understand Kossinna's concept of the archaeological culture mainly through his close associations with the Polish archaeologist Leon Kozłowski (1892–1944) (he visited Poland in 1923), and hence was not fully aware of the ethnic and racial prejudices that Kossinna had built into it (Lech 1999: 49–51). Childe combined this concept with Montelius's chronology and Montelius's belief that in prehistoric times technological skills had diffused to Europe from their place of origin in the Middle East. This is one of the earliest examples of an archaeologist's combining the different approaches and results of more than one previous researcher to create a new way of

interpreting archaeological evidence. Childe's doing this constitutes evidence of the existence of a growing body of archaeological theory. His interpretations of European prehistory were also influenced by those of Myres and Evans, inasmuch as he stressed the creativity of prehistoric Europeans to a much greater extent than Montelius had done.

Childe defined an archaeological culture, unfortunately with deceptive brevity, as "certain types of remains – pots, implements, ornaments, burial rites, house forms – constantly recurring together" (1929: v–vi). He stressed that each culture had to be delineated individually in terms of constituent artifacts and that cultures could not be created simply by subdividing the ages or epochs of the evolutionary archaeologists either spatially or temporally. Instead, the duration and geographical limits of each culture had to be established empirically and individual cultures aligned chronologically by employing stratigraphy, seriation, and synchronisms. In this way, he interpreted the prehistory of the whole of Europe as a complex mosaic of cultures. Although this mosaic was represented using small-scale maps and tables in *The Dawn of European Civilization*, a detailed chart showing the chronological and geographical distributions of all the archaeological cultures known in the Danube Valley was published in *The Danube in Prehistory* (Figure 6.4) and a chart by Childe and M. C. Burkitt covering all of Europe appeared in *Antiquity* in 1932. In preparing this chart, the authors were able to utilize cultures that had already been provisionally identified by local archaeologists to a far greater extent for central and eastern than for western Europe. These charts were the prototypes for ones that other archaeologists would use to represent regional cultural chronologies around the world.

Most of Childe's cultures were defined on the basis of a small number of diagnostic artifacts. Yet his selection of these artifacts was based on a functionalist view of material culture. Childe argued that the historical significance of different types of artifacts could only be ascertained by considering what role they had played in prehistoric cultures. He decided, apparently on the basis of common sense, that home-made pottery, ornaments, and burial rites tended to reflect local tastes and were relatively resistant to change; hence, they were useful for identifying specific ethnic groups. By contrast, the marked utilitarian value of tools, weapons, and other items of technology
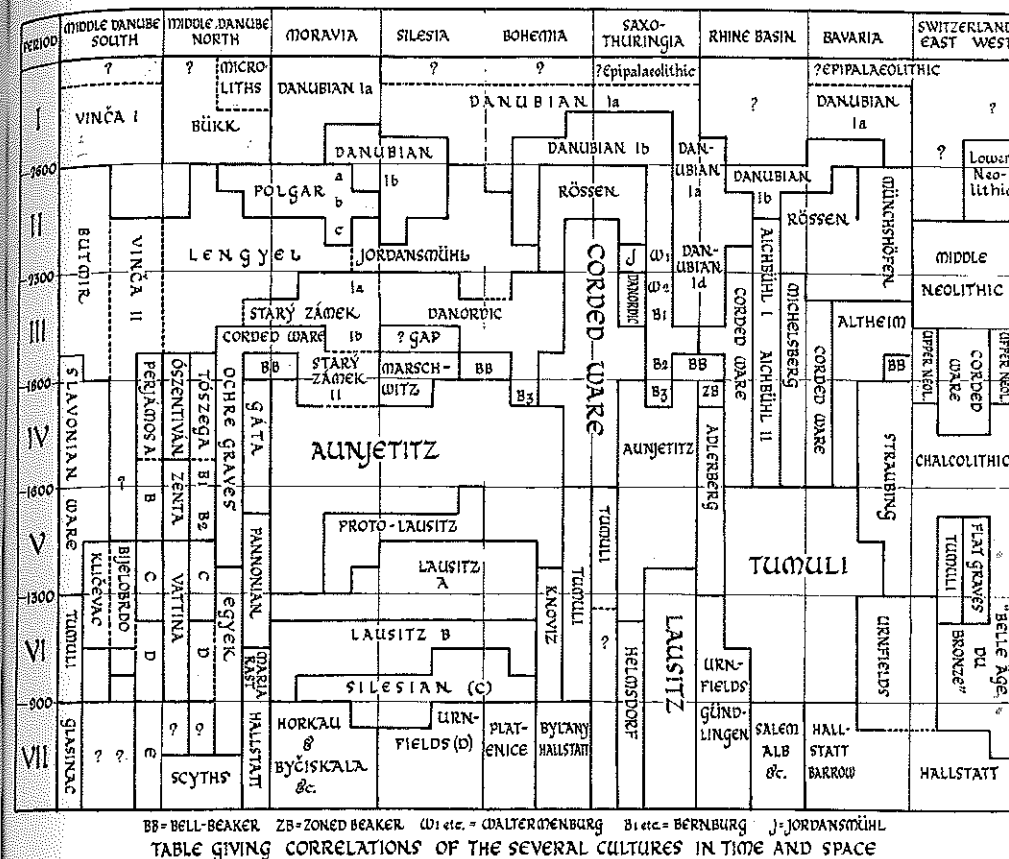

Figure 6.4 Childe's first chart correlating the archaeological cultures of central Europe, from *The Danube in Prehistory*, 1929

caused them to diffuse rapidly from one group to another, as a result of either trade or copying. Hence, he considered these types of artifacts especially valuable for assigning neighboring cultures to the same period and establishing cultural chronologies before the invention of radiocarbon dating (Childe 1929: viii, 248; cf. Binford 1983a: 399–400). Childe concluded that the synchronisms produced by this operation supported the same picture of the diffusion of material culture westward across Europe as had emerged from Montelius's work.

Childe believed that although diagnostic artifacts might serve to define an archaeological culture, they did not suffice to describe it. For that purpose every type of artifact was relevant. Childe was interested in viewing archaeological cultures not simply as collections of traits but also as the means for providing an ethnographic interpretation of how specific groups had lived in prehistoric times. Yet he went about doing this more systematically than Kossinna had done. In the first edition of *The Dawn of European Civilization* he attempted to summarize what could be inferred about the way of life associated with each major culture. In later editions, he surveyed each culture more systematically, covering – insofar as this was possible – economy, social and political organization, and religious beliefs (Childe 1939, 1956a: 129–31). When it came to interpreting cultural change, Childe paid equal attention, as Montelius had done, to diffusion and migration. He interpreted diffusion as the spread of functionally advantageous or stylistically more attractive traits from one culture to another, whereas migration resulted in the replacement of one culture by another or in cultural mixing. Cultural continuity was ascribed to ethnic continuity in the absence of these processes. Childe's approach thus bore a close resemblance to the diffusionist ethnology found in Europe and North America in the 1920s.

Yet, although equating archaeological cultures and peoples, as Kossinna had done, Childe developed grave doubts about the possibility of tracing specific peoples in the archaeological record. Unlike Kossinna, he attributed great importance to diffusion and had come to believe that over time this process could obscure even the most tenacious cultural continuities. Because of this he abandoned his efforts to use archaeological data to identify the homeland of the Indo-Europeans. In *Prehistoric Migrations in Europe* (1950a), he tentatively associated the Indo-Europeans with the Urnfield culture but that identification was refuted within a decade (Childe 1958b: 73). His avoidance in *The Dawn of European Civilization* of the Iron Age, with its connecting links to the historic period, may have been related to his decision to avoid discussing specific ethnic identities. In any case, although not doubting that cultures had been produced by prehistoric peoples, as a diffusionist Childe was far more sceptical than Kossinna, or even Montelius, had been about it being possible to trace specific ethnicities far back in the archaeological record.

The Dawn of European Civilization provided a model that was to be applied to the study of archaeology throughout much of Europe into the 1950s. It was an approach that Childe, despite his own changing interests, followed closely in his later regional syntheses, such as *The Prehistory of Scotland* (1935a) and *Prehistoric Communities of the British Isles* (1940a). The primary aim of archaeologists who adopted this approach was no longer to interpret the archaeological record as evidence of stages of cultural development. Instead, they sought to identify often nameless prehistoric peoples by means of archaeological cultures and to trace their origins, movements, and interactions. The Neolithic period was no longer seen primarily as a stage of cultural development but, rather, as a mosaic composed of sharply delineated cultural groups. The questions being addressed were of a particularist, historical variety. There also was a general interest in learning about how specific peoples had lived in prehistoric times.

Childe was fully aware of the revolution that he had brought about in archaeology. In 1925, he noted with satisfaction that the clarity with which the migrations of nameless prehistoric peoples stood out in the archaeological record when it was studied as a mosaic of cultures was a revelation to fellow archaeologists (Childe 1925b). He thus distinguished between an older evolutionary archaeology and a new culture-historical approach. He also observed, with reference to the British and French rather than the Scandinavian school, that in the nineteenth century evolutionary archaeologists had become more interested in artifacts than in their makers. He claimed that in constructing evolutionary sequences they had treated artifacts as dead fossils rather than as expressions of living societies (1940a: 3). In his opinion, scientific progress had left archaeologists with no alternative but to adopt the concrete methods of history. Yet the concept of the archaeological culture, which he had borrowed from Kossinna, and the diffusionist views of Montelius were both closely related to the widely held interpretations of human behavior that had developed as a reaction against cultural evolutionism in western Europe beginning in the late nineteenth century. The new culture-historical view of prehistory was as deeply rooted in a pessimistic assessment of cultural change and human creativity as the previous evolutionary one had been rooted in an optimistic assessment.

Childe, despite his left-wing political radicalism, did not wholly escape the racism that was part of this new outlook. In *The Aryans* (1926), which may have been based on material he had written before *The Dawn of European Civilization*, he argued that the Indo-Europeans succeeded, not because they possessed a material culture or natural intelligence that was superior to those of other peoples, but because they spoke a superior language and benefited from the more competent mentality it made possible. He pointed out that the Greeks and Romans had only a diluted Nordic physical type but that each had realized the high cultural potential that was inherent in their language. This interpretation contrasted with Kossinna's belief that ethnic and racial mixture in these countries had resulted in cultural decline. Yet, at the end of *The Aryans*, Childe bowed to prevailing racist sentiments by suggesting that the "superiority in physique" of the Nordic peoples made them the appropriate initial bearers of a superior language (Childe 1926: 211). In later years, as he adopted other explanations for cultural variation, he repudiated these early speculations, which he had come to regard as shameful.

European Archaeology and Nationalism

The gradual development of culture-historical archaeology in Scandinavia, Germany, and England took place while prehistoric archaeology was being professionalized across Europe and strongly influenced the sort of archaeology that emerged. Prehistoric archaeology clearly developed differently in every country (Ucko 1995b: 8). Yet that does not rule out identifying some shared features. Hodder (1991b) has observed that European archaeology has been and remains deeply historical. Most archaeologists seek to learn about the history and prehistory of specific parts of Europe or the whole continent. Their original goal was to extend history as it was known from written sources back into the still more remote past. They did this by defining archaeological cultures and trying to explain their origins and changes by means of diffusion and migration. Because nationalism was ubiquitous in Europe, it seems likely that it played a significant role in shaping the practice of archaeology. Yet it is going too far to claim that nationalism was embedded in the very concept of archaeology and was the only cause of its development (Díaz-Andreu and Champion 1996b: 3) or that nationalism cannot

do without archaeology (Slapšak and Novaković 1996: 290). Everywhere in Europe, the discipline of document-based history played an early and continuous role in cultivating ethnic identities and encouraging patriotic and later nationalist sentiments. These studies usually focused on the early modern and medieval periods or on any earlier ages for which there were written records. The role played by archaeology was generally subordinate to that of history, while at the same time not all archaeology was national in orientation (Kaeser 2002).

Archaeology's greatest asset was the heightened and immediate sense of connection with the past that material objects can provide. Sites such as Tara in Ireland or Biskupin in Poland at various times have played important roles as foci of national sentiment in their respective countries. Archaeological finds also have provided enduring symbols of national identity. Examples include Neolithic barrows, bronze lurs (trumpets), golden drinking horns, and a ceremonial object, the sun wagon, in Denmark and the Tara brooch and Ardagh chalice in Ireland (Sørensen 1996; Cooney 1996). In recent years, the right to use the star of Vergina, associated with the Greek-speaking kings of ancient Macedonia, has been bitterly contested between the governments of Macedonia and Greece (K. Brown 1994). Yet the sentiments associated with such archaeological finds can also be transitory and they can as easily be local or regional as they are national in scope. Much important archaeological research has been done by archaeologists who were primarily interested in sites or historical problems that were of only local concern.

The significance of archaeology for national projects has varied greatly in duration and intensity. Political unrest, national crises, and rapid economic and social change frequently stimulate interest in a nation's past, which often is romantically represented as having been more stable than the present and therefore as having valuable lessons to teach modern times. Greeks have long derived a sense of ethnic continuity and identity from their combined prehistoric, classical, and Byzantine archaeological heritage, which has helped them to cope with repeated episodes of political instability and multiple foreign threats to their country's survival. The urgent concern of Greek archaeologists to control this past has been sustained by their resistance to the efforts of foreign archaeologists to appropriate the

study of ancient Greek civilization for themselves (Kotsakis 1991: 66–7). Throughout much of the nineteenth century, a strong public interest in Danish prehistory was spurred by the military threat posed to Denmark by more powerful European nations (Sørensen 1996). By contrast, Norwegian archaeology played a prominent role in supplying symbols of ancient achievements mainly in the period that immediately followed Norway's political independence in 1905 (Dommasnes 1992: 2), whereas in France Celtic archaeology appears to have been invoked by political leaders to promote unity in the 1860s and again only in 1985 (Dietler 1998).

Political events also can influence how archaeological data are interpreted. After the unification of Italy in 1861 by the northern Italian kingdom of Piedmont, archaeologists working for Luigi Pigorini (1884–1925) attributed the cultural development of prehistoric Italy to the spread southward during the Bronze Age of more advanced northern Italian peoples who superimposed themselves on the Neolithic southerners. Although the implications were not explicitly emphasized by Pigorini, this interpretation made the modern political domination of southern Italy by the north appear to be merely another example of a long established historical process (Guidi 1996: 111–2).

Archaeological research has been suppressed or controlled by governments for political reasons in some European countries. The study of Polish archaeology was interrupted by the repression that followed the Polish November Uprising of 1831 against the Russian occupation of eastern Poland and the Russians banned the study of local archaeology by Lithuanians between 1863 and 1904 after a Lithuanian nationalist uprising was crushed (Puodžiūnas and Girininkas 1996). In Spain, where archaeological research had previously displayed strong regional tendencies, during the dictatorship of Francisco Franco (1939–1975) the study of prehistory from such multiple perspectives was suppressed. Archaeologists were to some extent encouraged to identify the origin of the Spanish people with the prehistoric arrival of the Celts, which was construed as the triumph of Europeans over earlier African elements of the population. Nevertheless, the Franco government's recognition of the period that followed the discovery of America in AD 1492 as Spain's Golden Age resulted in chronic underfunding of prehistoric archaeology (Díaz-Andreu 1993, 1997; Ruiz Zapatero 1996; Ruiz et al. 2002). Culture-historical

archaeology also was controlled for political purposes in Italy, where the fascist regime of Benito Mussolini (1922–1943) promoted classical archaeology as a means of identifying itself as the modern reincarnation of the ancient Roman state. Despite lavish financing, much of the archaeological research that was carried out during the fascist period aimed to publicize the grandeur of ancient Rome rather than to understand ancient Rome better (Guidi 1996).

In 1935, when the Soviet Union was threatened by Nazi expansion, the Communist party ordered archaeologists to combat German claims of racial and cultural superiority and strengthen Russian patriotism by bolstering the image of the Slavic peoples in prehistoric times. This involved demonstrating that Slavic culture had evolved independently of German influence, that it was older and more developed than German culture, and that no Germans had ever lived on modern Slavic territory in prehistoric times. This endeavor expressed itself in a growing concern with "ethnogenesis," which involved searching for ways to trace the origins of specific national groups in the archaeological record. Previously, Soviet archaeologists had ridiculed the debates between Polish and German archaeologists as to whether the late Neolithic and early Bronze Age Lusatian culture was Slavic or German, observing that those two linguistic groups had probably not yet differentiated at that time (M. Miller 1956: 83–4). In the late 1930s, Russian archaeologists sought to demonstrate that from ancient times their ancestors, the East Slavs, had occupied the European territory of the Soviet Union, as well as to refute German claims that throughout history the Slavs had been culturally backward peoples. Both before and after World War II research was carried out to trace the origins of the Russian people and the development of their ancient culture and handicrafts (M. Miller 1956: 135–44).

The post-World War II study of medieval Russian towns, especially the excavations at Novgorod, set new standards for urban archaeology for that period (Figure 6.5). The recovery at Novgorod of numerous letters written on birch bark revealed an unexpected degree of literacy that was not restricted, as many scholars had previously believed, to the clergy. These studies demonstrated that the development of towns in ancient Russia started at the same time as, and proceeded simultaneously with, the development of towns in central and western Europe. They also showed that the Russians were
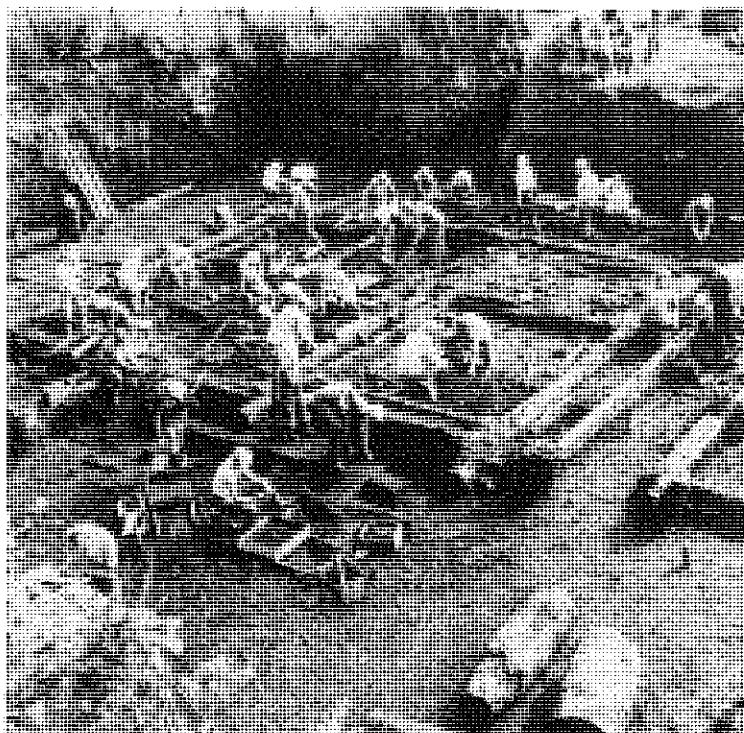
Figure 6.5 Excavations at Novgorod after World War II
(Institute of Archaeology, St. Peterburg)

abreast of other European groups in the development of crafts, trade, and culture (M. Thompson 1967). The long-held view that Russian towns had begun as Scandinavian colonies was vehemently rejected. Yet in studies of ethnogenesis the concept of autochthonous development was frequently ignored and cautious use was made of diffusion and migration to explain changes in the archaeological record. Leo Klejn (1974) has observed that Russian archaeologists adopted a German culture-historical approach but used it, as Polish archaeologists had done, to counter German myths concerning their own racial and cultural superiority. As with much Soviet archaeology, the general nature of the results was ordained by the government before the research was carried out. After 1945, when Eastern Europe was recognized as a Soviet sphere of influence, an International Congress of Slavic Archaeology was founded to encourage closer relations among

Slavic nations. In the Soviet Union, the allocation of substantial resources for researching Slavic ethnogenesis did not result in the significant curtailment of research on other problems.

European archaeologists were not always successful in using the potential national relevance of their research to secure government funding. In Portugal, foreign and local archaeologists had by the 1930s produced what they believed was evidence of continuity between the local Copper Age and the modern nation and also established that still earlier Portugal had been a major center of the development of megalithic culture. Yet the right-wing regime of António Salazar, which controlled Portugal from 1932 to 1974, chose, like the Franco regime in Spain, to ground Portuguese nationalism on historical accounts of the medieval period and the Age of Exploration. The lack of support for archaeological research resulted in Portuguese archaeology falling behind that of all other countries in Europe (Oliveira and Jorge 1995; Lillios 1995; Fabião 1996).

In Ireland, a strong identification with the past developed in the mid-nineteenth century as part of the Celtic revival (Sheehy 1980). Perhaps because of the Irish perception of their struggle for independence from Britain as being as much a religious conflict as it was an ethnic one, their interest in the past did not stimulate a major involvement with prehistoric archaeology, despite the presence of Newgrange and other extraordinary prehistoric monuments in Ireland. Instead, Ireland's Golden Age was identified with the historically documented early Christian period that followed the conversion to Christianity of a supposedly ethnically pure Celtic society. The Keeper of Irish Antiquities of the National Museum of Ireland from 1927 to 1939 was the Austrian archaeologist and Nazi sympathizer Adolph Mahr and the first large-scale scientific excavations in Ireland were carried out by the Harvard Archaeological Expedition beginning in 1932.

The scientific prestige and predominance of evolutionary archaeology in nineteenth-century England and France impeded the development of culture-historical archaeology in those countries. It also tended to identify prehistoric peoples as generic savages rather than heroic national ancestors, although for romantics these two categories were not mutually exclusive. Nor was there much doubt among intellectuals in these countries that for much of human history cultural development in the Middle East had been in advance of

that in western Europe. Although these factors limited the political scope of ethnic archaeology, they did not prevent archaeology from serving the cause of nationalism in other ways. By appropriating the archaeological heritage of foreign lands – especially ones that had produced great civilizations in ancient times – it was possible for European nations to affirm their leading role in the modern world. In 1794 the victorious Napoleon Bonaparte systematically carried off many major classical art works from Italian museums to Paris, on the grounds that the cultural supremacy of the French allowed them to be better appreciated there than in Italy. In 1816, the British Museum purchased from Lord Thomas Elgin the marble sculptures that he had removed from the Acropolis in Athens in 1801–1802 and competition between French and English agents to acquire ancient works of art from Egypt and northern Mesopotamia continued throughout the first half of the nineteenth century (R. Chamberlin 1983; M. Larsen 1996; Ridley 1998; Mayes 2003). Only powerful and wealthy nations could afford to carry out such activities on a truly impressive scale. Chief among these were Britain, France, Germany, the United States, and to a lesser extent Italy. Another expression of national preeminence was the ability to carry out archaeological research not only in one's own country but around the world. In such endeavors, the same five nations excelled. Although such activities did not contribute to an understanding of national prehistory, they were a source of national distinction and pride (Jenkins 1992). In that sense, although it collected artifacts from all parts of the world, the British Museum was, despite recent claims to the contrary (Champion 1996: 130–2), truly a national museum (Díaz-Andreu 2004).

It was not until after World War I that a culture-historical approach replaced an evolutionary one in Britain and France. Childe was the leading archaeologist, but not the only one, who brought this about in Britain. In France, Joseph Dechélette (1862–1914) had already worked out a detailed pottery chronology for the Gallo-Roman period and published a manual of prehistoric, protohistoric, and early historical archaeology. Yet his primary focus was artifact types not cultures and his career was cut short when he was killed in action early in World War I (Binétruy 1994). Beginning in the 1920s, Henri Breuil (1877–1961), a Roman Catholic priest and the first Professor of Prehistory at the Collège de France, applied a culture-historical approach to the evolutionary stronghold of French Palaeolithic archaeology.

His interpretation of the European Palaeolithic was based on the belief of the physical anthropologist Marcellin Boule (1861–1942) that modern-type human beings had existed in Europe alongside the Neanderthals and their ancestors and on Hugo Obermaier's (1877–1946) division of the Lower Palaeolithic into contemporary flake and core traditions. All three men were opposed to Gabriel de Mortillet's unilinear evolutionism and his anticlericalism. Breuil argued that archaeological evidence indicated that two hominid groups had coexisted in France from earliest times. One group, making bifacial tools, had produced the Abbevillian, Acheulean, and Micoquian cultures, whereas the other, producing flake tools, accounted for the Clactonian, Languedocian, Levalloisian, Tayacian, and Mousterian sequence. Breuil argued that the Aurignacian culture had been introduced to France by *Homo sapiens* coming from the east and that in France some bearers of this culture had mingled with the Mousterian Neanderthals. He also maintained that the Solutrean culture originated in central Europe and the Magdalenian came from the northeast (C. Cohen 1999). After World War II, François Bordes (1919–1981) defined sixty-three tool types that were recurring features of Middle Palaeolithic assemblages and used these to identify several archaeological cultures that he associated with a number of distinct Neanderthal tribes that he believed had lived in southern France. The replacement of an evolutionary by a culture-historical approach in Palaeolithic archaeology epitomized the success of this approach in French archaeology (Binford 1983b: 79–94; Bisson 2000).

In the late nineteenth and early twentieth centuries, European archaeologists became interested in the prehistory of Egypt and the Middle East. In the 1870s and 1880s, Heinrich Schliemann (1822–1890) excavated late prehistoric sites in Greece and Turkey in an effort to confirm Homeric legends. At the same time, historical archaeologists generally extended their research back into prehistoric times when they inadvertently encountered prehistoric material. Systematic study of the prehistory of the Middle East increased after World War I, when large areas of the former Ottoman Empire were placed under French and British political control. In the 1920s and 1930s work was carried out in the Middle East by archaeologists familiar with European prehistory, such as Dorothy Garrod (1892–1968), or who specialized in studying the prehistory of the Middle East, such as Gertrude Caton Thompson. These archaeologists sought to

define prehistoric cultures and trace their origins and the influence they had exerted on each other. To do this, they had to rely far more on stratigraphy and cross-dating cultural sequences than did historical archaeologists working in the region. Gradually, a set of local cultural sequences was produced extending temporally from Palaeolithic times to the historical period and geographically from Europe and North Africa eastward through the Middle East to India. This research reinforced the idea of the Middle East as the cradle of European civilization. It also established the maximum effective range of interest for most European archaeologists before the invention of radiocarbon dating. Although European archaeologists also carried out research in East Asia and the Americas, their inability to correlate findings in these areas with cultural developments in Europe and the Middle East precluded the development of world prehistory. When Henri Berr launched his global history project *L'évolution de l'Humanité*, its volumes dealing with prehistory were restricted to covering Europe and the Middle East (Gran-Aymerich 1998: 268–98, 349–57, 408–16). In general, prehistoric archaeology in the Middle East reflected and confirmed the Montelian view of the priority of cultural development in this region and of its impact on Europe.

In most European countries, the cruder and more obvious uses of archaeology to promote ethnic and nationalist agendas disappeared after 1945, as growing political and economic cooperation and gradually improving standards of living resulted in less blatant political manipulations of nationalist sentiments. One of the strongest continuing engagements of archaeology in national projects was in Poland, the borders of which had been radically altered after World War II and were not universally accepted until the early 1970s. By the 1960s, the culture-historical approach, as it had been defined by Childe in 1925, also was being abandoned as many archaeologists sought for other explanations of cultural change to supplement or replace diffusion and migration. Yet European archaeologists did not become less interested in studying the history of Europe at the local, national, and continental levels. In part, this continuing influence was assured by the institutionalization of prehistoric archaeology as an independent historical discipline or a branch of history in many universities. It also reflected a strong, broadly held conviction among Europeans that archaeology was first and foremost a study of their past. Under these circumstances, it is not surprising that archaeological interpretation

continued to be influenced in various ways by national political, ethnic, and cultural concerns that were sometimes serious and sometimes fanciful in nature (Gjessing 1968; Rowlands 1984b).

In Scandinavia, a commitment to peace and social welfare was accompanied by a compensatory, whimsical fascination with the Viking period, which was conceptualized as a violent, wanton, and romantic time in contrast to the dull and peaceful present. In the 1970s, 20 to 25 percent of all archaeological publications were devoted to these 300 years (Moberg 1981: 215). As Britain's role as a world power declined, there was a resurgence of popular interest in that country's rich assemblage of megalithic circles and stone alignments, which were interpreted as evidence that highly skilled engineers and "astronomer priests" had lived there in prehistoric times. On these grounds, some archaeologists maintained that Britain had been a center of scientific excellence since the Neolithic period (Ellegård 1981; Fowler 1987). According to Gabriel Cooney (1995: 273), Irish archaeology remains essentially nationalistic in outlook. Migration is still an important explanatory device, reflecting a continuing interest in ethnicity. On the other hand, suggestions of links with Britain generally tend to be played down (Cooney 1995, 1996; Woodman 1995; Crooke 2000). The evidence produced by the excavations at Wood Quay of Dublin as a Viking center during the Dark Ages, although exciting much local public interest, accorded less well with a Celtocentric nationalist view of Irish history (Sheehy 1980; T. Heffernan 1988).

Other archaeological projects have played a major role in countering centrist narratives and the prejudices associated with them. In England, the discovery that during the Dark Ages the Viking settlement at York was a center of manufacturing and trade has confirmed to northerners that their region was culturally as advanced as southern England, contrary to establishment history, which portrays Saxon Wessex as an outpost of civilization valiantly resisting the incursions of barbarous Scandinavians who eventually settled in the north (Graham Campbell and Kidd 1980). In Spain, following the demise of the Franco regime, regional archaeologies reemerged in various parts of the country, including for the first time in the south, where archaeologists began seriously to study that region's Islamic period (Díaz-Andreu 1996b). Yet archaeological findings were used much less for polemical purposes than they had been in the past.

Across Europe, nations seemed more interested in achieving and affirming modernity than in recalling past hostilities and injustices.

Culture-historical archaeology survived more completely than anywhere else in West Germany and in neighboring German-speaking Austria and Switzerland. Despite the devastation of World War II and the denazification program that followed, a large number of professional archaeologists who had been working before and during the war continued to do so after 1945. The experiences these archaeologists had with adjusting to new political programs during and immediately after the Nazi period led to a heightened mistrust of all theories and generalizations and an even greater emphasis than in the past on empirical and inductive approaches. In 1987, the distinguished prehistorian Ulrich Fischer declared that, with a few minor exceptions, all the basic theoretical knowledge that prehistoric archaeologists required had been invented before the end of the nineteenth century. All that was needed was to discover better ways of applying such knowledge. Racial interpretations were abandoned immediately after the war and a growing emphasis was placed on the technical excellence of excavation, typological analysis, the production of artifact catalogues, and using seriation to create more refined chronologies. These all were aspects of archaeology in which German archaeologists had taken pride before World War II.

Although the concept of the archaeological culture continued to be regarded as a valuable classificatory device, Kossinna's belief that this entity necessarily coincided with a specific people or language group was widely abandoned (Eggers 1950; Veit 1989). Ethnic interpretations of archaeological cultures were replaced by ones referring to economic spheres, trading zones, political or social structures, and cult activities. A heavy emphasis was placed by Herbert Jahnkuhn (1905–1990) (1977), B. Sielmann (1971), Georg Kossack, and others on the study of prehistoric settlements in their ecological and economic settings. This type of analysis was favored because the examination of zoological and botanical finds, soils, and sources of raw materials added the prestige of "value-free" scientific research to such studies. It was generally accepted that the best way to interpret archaeological data was by employing the direct historical approach, although comparisons of this sort often were made in an impressionistic and uncontrolled fashion (Härke 1991, 1995; Kossack 1992; Arnold and Hassmann 1995; Wiwjorra 1996; Wolftam 2000).

Despite the emphasis on empiricism, some highly innovative theoretical work was accomplished. In 1950, Hans-Jürgen Eggers (1906–1975) published a study of how knowledge concerning the deposition, survival, and recovery of archaeological material influenced an understanding of the past that anticipated modern taphonomic studies in Britain and the United States by several decades. In keeping with the historical orientation of German archaeology, Eggers thought of these procedures as the archaeological equivalents of historical source criticism. In 1964, Günter Smolla analyzed the role of uniformitarian assumptions for evaluating analogies in a way that anticipated some aspects of middle-range theory. He received support from Karl Narr, one of Germany's few senior archaeologists who had an understanding of anthropology. Although Eggers's practical suggestions were incorporated into German archaeological practice, neither his publications nor Smolla's gave rise to significant archaeological discussion (Wolfram 2000: 189–92). While efforts have been made since the late 1980s, mainly by younger archaeologists, to encourage theoretical debates, German archaeology appears to have persisted as a culture-historical approach from which the concept of ethnicity has been largely eliminated. There has been little serious examination of the reasons for cultural change. In a world in which archaeological interpretations have been changing rapidly, German archaeology remains characterized by craft, continuity, consensus, and an abiding faith in the efficacy of accumulating data (Härke 1995: 47–51). The empirical approach has been strongly championed by the students and followers of Otto von Merhart (1866–1959), who beginning in 1928 held the first German chair in prehistoric archaeology, which was established at Marburg University.

Although nationalism continues to influence European archaeology to varying degrees in different countries, the concern with Europe as a whole and with the status of Western Civilization in world perspective that was evident in the work of Montelius and Childe still seems to be as strong as it was in the past, or even more so. Colin Renfrew (1973a), by using calibrated radiocarbon dates to argue that metallurgy may have developed independently in Europe as early as it did in the Middle East and to demonstrate that megalithic structures were being erected in Malta and western Europe before any known monumental constructions in the Middle East, except perhaps at Jericho, played a major role in challenging the Montelius–Childe

diffusionary model of European prehistory and emphasizing the technological superiority of Europe in prehistoric times. His more recent proposal to link the arrival of the Indo-Europeans in Europe with that of agriculture also assigns most modern European peoples a longer in situ history there than was previously envisaged (Renfrew 1988). The neoconservatism of the 1980s was accompanied by a resurgent emphasis on economic dynamism, equality before the law, and the sharing of political power within a society as special features of Western Civilization (Wells 1984; Lamberg-Karlovsky 1985; Willey 1985). Ian Hodder in *The Domestication of Europe* (1990) has attempted to use archaeological evidence to trace assumed distinctive patterns of European thought back to the Neolithic or even the Upper Palaeolithic period. With the growing importance of the European Union, efforts were made to adopt the widespread Celtic culture of the Iron Age as a symbol for European unity. This endeavor has been criticized by various archaeologists (Collis 1996; Díaz-Andreu 1996a: 56–7; Fitzpatrick, A. P 1996) and does not appear to have generated much public enthusiasm.

A concern with heritage management began in Europe in the late nineteenth century, but for a long time it was mainly concerned with preserving a small number of buildings and archaeological sites deemed to be of special importance. It thus reflected, often in an extreme manner, the historical values of specific times and places. In the late twentieth century, governments increasingly competed in ensuring the conservation and rational management of cultural resources. Where this management process has resulted in archaeological surveys and investigations being extended to cover all periods of a nation's history and all parts of its territory, it has helped to counter the biases introduced into archaeology by political partisanship. In France, this approach is said to have resulted in the development of a "national," rather than a "nationalist," archaeology (Fleury-Ilett 1996). Such an approach also has increased the ability of regional and local concerns to influence archaeological research and in some cases has produced "community archaeology," which seeks to involve local groups in the planning and carrying out of research projects that are of direct interest to them (S. Moser 1995b; Marshall 2002). Similar engagements of dispersed ethnic minorities, occupational groups, social classes, and alternative life styles further increase the multivocality of inputs into archaeological research. The ongoing

acrimonious debates concerning the use, management, and interpretation of Stonehenge indicate how difficult it can be to accommodate conflicting demands (Bender 1998). Although contributions of this sort help to counteract narrow, elite biases and to generate valuable research problems, Kristian Kristiansen (1996: 143) has appropriately stressed the need for archaeologists to be critical of all efforts to manipulate archaeological findings for political and ideological purposes. Doing this requires archaeologists to exercise their professional judgment about what is archaeologically possible and to strive as much as possible to be objective in their designing and execution of research projects.

Other National Archaeologies

The European culture-historical approach, with its emphasis on studying the prehistory of specific peoples, provided a model for national archaeologies around the world. It remains the dominant approach to archaeology in many countries. Like nationalist history, to which it is usually closely linked, the culture-historical approach can be used to bolster the pride and morale of nations or ethnic groups. It is most often used for this purpose among peoples who feel thwarted, threatened, or deprived of their collective rights by more powerful nations or in countries where appeals for national unity are being made to counteract serious internal divisions. It is also used to strengthen insecure political regimes, and to justify aggression against neighboring peoples and the oppression of ethnic minorities. As in Europe, the culture-historical approach often promotes its agenda by stressing specific periods of history and assigning particular ethnic identities to archaeological finds. It celebrates the achievements of indigenous early civilizations and usually pays more attention to the recent past than it does to the Palaeolithic period. History and late prehistory tend to be treated as a continuum. This section will examine a few examples of the culture-historical approach from Asia, Africa, and Latin America.

Western-style field archaeology was introduced into Japan by American and European natural scientists and physicians who were hired to teach there after the Meiji revolution of 1868, when the new government determined to catch up with advances in Western science, technology, and medicine. The most important of these

visiting scholars was the American zoologist Edward Morse (1838–1925), who had participated in shell-mound research in the eastern United States. He identified and excavated a shell mound at Omori in 1877 and recorded a great interest in archaeology among the Japanese he encountered (Morse 1879). Those who became Japan's leading archaeologists in the late nineteenth and early twentieth centuries were often educated in other disciplines and many of them had studied in Europe. Hence, their backgrounds were similar to those of self-trained or informally trained professional archaeologists in the West during the nineteenth century.

Although Morse was an evolutionist, the Japanese archaeologists who followed him had more in common with the European culture-historical archaeologists of the late nineteenth century. The first generation of Japanese professional archaeologists was led by Tsuboi Shogoro (1863–1913). In 1884, he and several other science students established the Anthropological Society of Tokyo and nine years later he was appointed Professor of Anthropology at the University of Tokyo. Tsuboi conceived of anthropology, in the continental European fashion, as a branch of zoology interested in human physical remains and regarded archaeological evidence as providing clues for identifying racial groups. He specialized in the study of the Mesolithic Jomon culture, which he attributed to a pre-Ainu population. Already by 1919 Matsumoto Hikoshichiro had demonstrated stratigraphically that some variations in Jomon ceramics were the result of chronological rather than tribal differences.

In 1895, historians working at the Imperial Museum (today the Tokyo National Museum) founded the Archaeological Society. It had closer links with pre-Meiji antiquarian scholarship than did the Anthropological Society of Tokyo. Its aims were to study the "archaeology of our country, with the view to throwing light on customs, institutions, culture and technologies in the successive periods of our national history" (Ikawa-Smith 1982: 301). These scholars concentrated on the late prehistoric Yayoi and the protohistoric Kofun periods and had a special interest in fine art, as exemplified by bronze mirrors and elite weapons. The main tradition of Japanese archaeology was established by Hamada Kosaku (1881–1938), an art historian by background who was appointed Professor of Archaeology at Kyoto University after he returned from Europe in 1916, where he had studied archaeology with W. M. F. Petrie. Hamada encouraged

the development in Japan of systematic excavation techniques, which he combined with a rigorous typological approach within the general framework of culture-historical archaeology. His reports on sites he excavated in Japan, Korea, and China provided models for many Japanese researchers. His ablest student and successor at Kyoto University, Umehara Suezi (1893–1983), excavated more than 200 sites. Umehara's primary interest was the detailed study of artifacts, including Chinese and early Japanese metal objects.

Before World War II, Japanese archaeologists of all schools continued to pursue a culture-historically oriented archaeology, which did not preclude an interest in understanding "the outline of human development and regularities of social transformations" (Ikawa-Smith 1982: 302). Political pressures, particularly those associated with efforts to promote national unity by stressing the veneration of the emperor as the direct descendant of the gods and the divinely appointed head of the Japanese national family, impeded archaeological development at certain periods. Government regulations issued in 1874 and 1880 made it difficult to excavate large burial mounds that were identified as tombs of the royal family. Some excavations of tombs of this sort were carried out in the politically relaxed atmosphere of the 1920s. At that time, historians also published Marxist interpretations of Japanese history in which archaeological data were used. From the nineteenth century onward, however, most archaeologists were careful not to contradict officially sponsored accounts of ancient Japanese history based on the *Kojiki*, *Nihon Shoki*, and other chronicles recorded in the eighth century AD. The Jomon culture, which was dated before 1500 BC and therefore antedated the events described in these accounts, was ascribed to the Ainu by the anatomist Koganei Yoshikiyo (1859–1944) and to a pre-Ainu people by Morse and Tsuboi, but was not associated with a people regarded as ancestral to the modern Japanese. Either interpretation justified the late-nineteenth-century colonization of the island of Hokkaido, where the Ainu lived, by representing it as the continuation of a historical expansion of the Japanese people northward through the Japanese archipelago (Fawcett 1986). In the ultranationalist atmosphere of the 1930s, it became extremely dangerous to engage in any research that even inadvertently might cast doubt on Shinto myths concerning the divine origin of the royal family. Those involved in such activities risked removal from their posts and imprisonment.

As a result of these pressures physical anthropologists and linguists avoided discussions of ethnicity, while archaeologists concentrated on elaborating artifact typologies and did not engage in discussions of cultural change that could have any bearing on the official version of history.

After 1945, archaeologists helped to provide a view of the development of the Japanese people that filled the ideological vacuum left following military defeat in World War II. Immediately after the war, Wajima Seiichi (1909–1971) used Marxist theories and information about pre- and protohistoric settlement systems to infer social transformations that had produced the early Japanese state and class system. Kobayashi Yukio (1911–1988) studied similar developments from a technological perspective. As Japan was steered politically away from left-wing radicalism and toward a more centrist position, the culture-historical approach that was entrenched before the war prevailed. Japanese archaeology provided tangible contact with the past and helped to reinforce a sense of stability through successive phases of postwar economic and cultural change and uncertainty. It was looked to as an important source of information about what was distinctively and inalienably Japanese.

In keeping with new ideas about the sovereignty of the people, popular accounts of archaeological discoveries were characterized by a fascination with the origin of the Japanese people and their culture. There has been a growing tendency to trace the Japanese as an ethnic group as far back as the Jomon or even the Palaeolithic period (Fawcett 1986). The following Yayoi period is celebrated as a prehistoric analogue of modern times that was characterized by the selective adoption of items of culture from abroad and their integration into Japanese life. The leading role assigned to the upper classes as mediators in this process resembles interpretations of British history offered by nationalist historians and prehistorians in England in the late nineteenth and early twentieth centuries (Mizoguchi 2002). By tracing current features of Japanese life deeply into the past, change and foreign ideas are made to appear less threatening to the nation's core values.

Archaeological activities have expanded enormously in Japan since the 1940s. Japanese archaeologists are proud of the technical excellence of their work and most of them seek to understand their findings from the perspective of Japan's national history. Public interest

in archaeology is high, surveys and rescue work are mandatory, and archaeological finds are exhibited to the public in many places (Tanaka 1984). The high quality of excavation and artifact analysis has produced detailed intrasite chronologies that permit questions about changes in social organization to be addressed in ways that are equalled in few other countries (Mizoguchi 2002).

The political problems and revolutionary changes that overtook China beginning in the nineteenth century produced a renewed interest in historiography and the development of a more critical attitude toward ancient texts as sources of information about the past. In particular, it was suggested that accounts of the two earliest royal dynasties were largely mythical creations of later times (G. Wang 1985: 184–8). The study of art objects and calligraphy was a long-established part of the Chinese tradition of historiography. Field archaeology developed, however, for the first time within the context of the reformist May 4th Movement, which, beginning in 1919, sought to replace literary scholarship with scientific knowledge from the West. There was a receptive audience for geology, palaeontology, and other sciences capable of collecting empirical data from the earth.

The first major archaeological fieldwork was carried out by Western scientists attached to the Geological Survey of China, which had been established in Peking (Beijing) in 1916. The Swedish geologist J. G. Andersson (1874–1960) (1934: 163–87) identified the Neolithic Yangshao culture in 1921 and major work at the lower levels of the Palaeolithic site of Zhoukoudian began under the direction of the Canadian anatomist Davidson Black (1884–1934) in 1926 (Hood 1964). The first indigenous Chinese scholar to direct the excavation of a major archaeological site was Li Ji (Li Chi) (1895–1979), who had earned a doctorate in anthropology at Harvard University in 1923. From 1928 to 1937, as first head of the Department of Archaeology in the National Research Institute of History and Philology of Academia Sinica, he dug at the late Shang site of Yinxu, near Anyang. These excavations, carried out at a site that yielded many inscriptions and works of art, played a major role in training a generation of Chinese archaeologists and also in turning the new science of archaeology into an instrument for studying Chinese history. Ironically, the written materials excavated at Anyang confirmed traditional historical sources concerning the late Shang Dynasty, contrary

to the expectations of the science-oriented Doubters of Antiquity (*yigupai*), who had grown out of the reformist May 4th Movement and had promoted Western-style archaeology. The work done at Anyang fueled a resurgence of pride in China's ancient past.

Foreign scholars, such as Andersson, sought to trace the origins of Chinese culture, or at least of major aspects of it, such as the Neolithic painted pottery, back to the Middle East, thereby implying that Chinese civilization was derived from the West. Chinese archaeologists sought the origin of Chinese civilization in the Neolithic Longshan culture, where what was assumed to be Western influence seemed less evident. Later they argued that Yangshao and Longshan represented an indigenous continuum of development that culminated in Shang civilization (W. Watson 1981: 65–6). Archaeological research was curtailed by the Japanese invasion in 1937 and, following the Communist victory in 1949, many archaeologists, including Li, retreated to Taiwan taking valuable collections with them.

Marxism had begun to influence the study of ancient China as early as 1930 in the works of Guo Moruo (1892–1978). A writer and revolutionary, Guo had been forced to flee to a still relatively liberal Japan in 1927 to escape the death squads of Chiang Kai-Shek, the current military dictator of China. During the ten years Guo lived in Japan, he produced a series of studies on ancient inscriptions and the stylistic evolution of bronze artifacts. Unlike Li and his associates, who were primarily interested in art, religion, and ideology, Guo stressed production as the basis of society and interpreted the Shang and Zhou Dynasties as examples of a slave society. More than any other Chinese scholar, Guo sought to place his country in a comparative framework of world history (G. Wang 1985: 188). After the Communist revolution, he became a major figure in Chinese intellectual life. From 1950 until his death in 1978, he was President of the Chinese Academy of Sciences.

Following the Communist victory of 1949, archaeology became a state-directed activity. Except briefly, when the value of any study of the past was challenged by extremists near the beginning of the Cultural Revolution (1966–1977), archaeology has been supported as an important instrument of political education. This was done in accordance with Mao Zedong's dictum that "the past should serve the present." A National Bureau of Cultural Relics administered thousands of provincial and local museums either directly or through

provincial and district Bureaus of Culture. Vast amounts of archaeological data were unearthed throughout China in the course of unprecedented industrial and agricultural development (Chang 1981: 168). Within the research divisions of Academia Sinica, Palaeolithic archaeology was separated from the study of the Neolithic and historical periods and attached to the Institute of Vertebrate Palaeontology and Palaeoanthropology. This arrangement may have reflected a lack of close identification of the earliest periods of human development with a specifically national history, although pride was officially expressed about the great antiquity of China's Palaeolithic record. On a practical level, this division reflected the close working relations among Palaeolithic archaeologists, geologists, and palaeontologists in China.

In keeping with nationally sanctioned Marxist tenets, the Chinese past was conceptualized in terms of a unilinear sequence of stages: primitive society, slave society, and feudal society. No questioning of this model was tolerated. Yet very little archaeological research was directed towards actually utilizing Marxist theories of social evolution, which would have involved the detailed investigation of social and political organization, subsistence systems, settlement patterns, and trade. This may partly have resulted from the scarcity of well-trained personnel, but unpredictable shifts in Chinese government policy also may have discouraged archaeologists from addressing problems that politically were potentially dangerous. Instead, archaeological finds were interpreted as required by the government to promote a variety of specific political goals. They were used to remind people of the cruelty and exploitation that had characterized life for the Chinese masses under successive royal dynasties. The great tombs, temples, and other monuments of the past also were interpreted as testimonials to the skills and energy of the workers and artisans who had created them. Archaeological finds were used to promote national dignity and pride and respect abroad by documenting China's accomplishments over the ages. Despite a Marxist veneer, these functions encouraged the continuation of an archaeology that remained culture-historical in practice and nationalistic in its goals (Falkenhausen 1993).

Chinese archaeology also played a significant role in promoting national unity, as historiography in general had done before 1949. The interpretation of the archaeological record continued to accord

with long-standing northern-centered Chinese traditions. Chinese material culture and institutions were interpreted as first having evolved in the Yellow River Valley and spreading out from there to produce the pan-Chinese culture of the Iron Age. The cultural creativity of other parts of China was thereby minimized, even though under the Communists China was officially recognized to be a multi-ethnic nation and the past chauvinism of its Han majority was officially repudiated.

During the 1980s, as a result of the decentralization brought about by the government of Deng Xiaoping, decision-making powers increasingly became the responsibility of provincial archaeological institutions. Archaeologists began to develop culture-historical sequences for individual provinces and to identify these sequences with ancient nations and ethnic groups that had been incorporated into the Chinese state, usually in the first millennium BC. By drawing attention to the special roles individual provinces had played within China, archaeologists were accommodating to new sources of financial support. At the national level, beginning in the early 1980s, Su Bingqi (1909–1997) evolved a model in which, in accordance with Marxist "laws of social evolution," distinctive cultures were seen as having developed alongside one another in the different regions of China. This model accounted far better than did the older northern core-periphery one for the growing evidence of regional cultural diversity and increasing social and cultural complexity throughout China in prehistoric and early historical times. Su's multiregional model of cultural origins also validated the current regionalist tendencies of Chinese archaeology within a broader national context (Falkenhausen 1995, 1999). These early regional divisions had been noted earlier by Western archaeologists (Meacham 1977) and by Chinese archaeologists working abroad (Chang 1986: 234–94) but their interpretations had been publicly rejected by archaeologists in China (W. Watson 1981: 68–9). National unity remains a crucial issue in China. Su's formulation struck an even balance between Marxist and culture-historical interpretative trends and between central and provincial interests in contemporary China.

Archaeological research in India began in a colonial setting and for a long time remained remote from traditional Indian scholarship. European travelers noted ancient monuments as early as the sixteenth century and systematic scholarly interest in these monuments began

about 1750. This interest was further stimulated beginning in 1786 by the realization that the modern languages of northern India were related to the Indo-European ones of Europe (G. Cannon 1990). In the nineteenth century, amateur British archaeologists began to examine and report on megaliths, Buddhist stupas, and other monumental sites with some regularity. Often, they treated these monuments as evidence of a Golden Age in India's remote past and implied that these finds indicated that the duty of British colonial rulers was to rescue India from the decline that had followed (Harding 2003). The Archaeological Survey of India, first established in 1861, published an immense amount of research under directors such as Alexander Cunningham (in charge from 1861 to 1865) (U. Singh 2004), John Marshall (1902–1929), who discovered the Indus Valley civilization, and Mortimer Wheeler (1944–1948). Wheeler trained many Indian students in modern field methods and encouraged several Indian universities to begin offering instruction in archaeology. Lallanji Gopal (1985: i) has observed that the "glorious cultural heritage, which was unearthed by archaeologists... aroused the self-confidence of the Indian people [and] was one of the major factors contributing to the Indian renaissance, which ultimately ushered in independence."

In general, the British justification of colonialism was based on historical and linguistic data rather than archaeology. Colonial historians argued that cultural progress had been brought about by the migration into India of successive waves of racially superior northern peoples who introduced important innovations but then interbred with the general population. The primary message was that India was unable to change without external influences. In this scheme, the British presented themselves as the latest and most advanced standard bearers of progress in India, while acknowledging a distant ethnic affinity to the allegedly racially purer Indo-European elements in the population of northern India. In this way, the Indian caste system was racialized and the higher castes portrayed as a separate ethnic group. Dilip Chakrabarti (2001: 1192) notes that British-educated colonial collaborators and freedom fighters alike were pleased to believe that they stood racially aloof from the non-Aryan autochthonous peoples at the lower end of the caste hierarchy. This use of "Aryanism" to coopt the Indian elite into a high status position in the racial and class hierarchy of colonial India may explain why most Indian historians

did not seriously challenge a migrationary view of their country's past (Chakrabarti 1997). Because direct historical sources for early Indian history are few, historians had to rely on ancient religious and literary texts and on archaeological evidence and tended to interpret both in conformity with the migrationary model. It is largely within the framework of this model that India's archaeological heritage was understood by those who brought India to independence in 1947.

In the years following independence, archaeological activities continued to receive moderate levels of government financial support and there was little interference by governments or public opinion with what archaeologists did. Indian archaeology became well established in universities and much research was carried out (Thapar 1984). Many archaeologists kept abreast of world trends in archaeology and adopted the most recent scientific methods for analyzing their finds. More so than in China and Japan, researchers were aware of new theoretical trends, such as processual archaeology, and some participated in international discussions relating to these developments (Jacobson 1979; Paddayya 1980, 1982, 1983, 1986; Lal 1984). Yet archaeology remained closely attached to the study of ancient history and most archaeologists remained content to work out cultural sequences and attach ethnic and linguistic labels to cultures rather than trying to explain cultural processes. As late as the 1980s, it appeared to outsiders that Iudian archaeologists continued to adhere to what they had learned during the late colonial period.

With the growing influence of Hindu nationalism in Indian politics, marked changes have occurred in archaeology. Archaeologists who support Hindu nationalism have challenged traditional explanations that derive changes from outside India. There now is a tendency to search for inuovations inside India, including ones that relate to the domestication of plants and animals, iron-working, and the development of Indian scripts. Some Indian archaeologists assign the "Aryans" a local origin along the now dried-up Sarasvati River in northwestern India. In southern India, Dravidian-speaking archaeologists analogously emphasize the primordial status of Dravidians as India's first people. Reacting against such tendencies, Dilip Chakrabarti (2003) rejects ethnicity as a legitimate focus of archaeological euquiry and stresses the importance of an approach that traces the gradual development of Indian culture in relation

to India's landscape as a way of uniting India's ethnically diverse peoples. Although the Hindu and Dravidian nationalist approaches remain resolutely culture-historical, Chakrabarti's might better be described as processual-historical. The internalist viewpoint that is shared by his approach and the nationalist ones has the great advantage of encouraging archaeologists to examine India's prehistory and early history on their own terms rather than treating them as reflections of what was happening elsewhere.

Most Arab and other Moslem countries in the Middle East have extensive bureaucratic organizations to protect and administer cultural heritage. The duty of these organizations is to guard and develop archaeological sites, control museums, regulate foreign archaeologists working in the country, and perform rescue excavations. Yet in these countries there is relatively little public interest in the archaeological remains of pre-Islamic times. Archaeology, as we have seen, was introduced by Europeans who developed and long monopolized research under *de facto*, if not official, colonial regimes. In the early part of the tweutieth century, the Egyptian middle class developed considerahle interest in ancient Egyptian civilization within the context of a secular and modernizing nationalism. Ancient Egypt provided symbols and a shared past around which both Moslem and Christian Egyptians could rally to resist contiuuing British domination of their country. During this period, monuments displaying Pharaonic motifs were constructed to commemorate heroes of the struggle for national independence. Yet, beginning as early as the late 1920s, Moslem intellectuals were claiming that Egypt could not exist in isolation but had to take part in, or lead, a broader pan-Arab or pan-Islamic world. To do this, the revival of paganism implied by an interest in Egypt's Pharaonic past had to be swept away. They reminded Egyptians that in the Quran pharaohs were portrayed as archetypal villains. Since the 1940s, the growing influence of pan-Arabism and more recently of Islamic movements has resulted in a political discourse that is iucreasingly hostile to the glorification of ancient Egypt. The Pharaonic heritage has largely been reduced to being a source of tourist revenue (J. Wilson 1964: 159–77; D. Reid 1997; Hassan 1998; Wood 1998).

In Iraq, during the 1970s and 1980s, the secularist Baath Party stressed the country's distinctive Mesopotamian heritage as a focus

of national loyalty that might symbolically help to counter modern Iraq's powerful religious and ethnic divisions, especially as relations with neighboring Arab and Moslem states became more troubled. Iraq's dictator, Saddam Hussein, liked to be portrayed as an ancient Babylonian king. However, as his regime's difficulties increased, this interest in pre-Islamic times was played down in an effort to stress his regime's Islamic religious credentials (Bahrani 1998; Bernhardsson 2005).

In Iran, Persian ethnicity long has played an important political role. Before the Islamic Revolution of 1979, much of the archaeological research in Iran was carried out by foreign expeditions. The work done by Iranian archaeologists also tended to be focused on the more recent Parthian, Sassanian, and Islamic periods. The last Shah of Iran, Mohammad Reza Pahlavi, sought to emphasize the glories of pre-Islamic Persian civilization and to identify his secularist and modernizing regime with the ancient Persian Achaemenian dynasty (539–330 BC) rather than with a more recent Islamic past. This included a magnificent celebration in 1971 of the supposed 2,500th anniversary of the founding of that monarchy held in the ruins of its greatest palace at Persepolis. Archaeological fieldwork came to an almost total standstill in the decade following the Islamic Revolution and now seems to be heavily focused on the Islamic period (Abdi 2001; S. Brown 2001). Although Iranian concerns with their national identity have traditionally encouraged more interest in the study of pre-Islamic periods than has been common in Arab countries, in recent decades there has been an increasing emphasis on Islamic archaeology in most Arab and Islamic countries (Masry 1981).

In few areas of the world has the development of culture-historical archaeology been more complex, or its history more studied, than in Palestine and Israel. In the nineteenth century, European and American archaeologists conducted surveys in an effort to locate places mentioned in the Old and New Testaments. Beginning in the late nineteenth century, excavations were carried out at important sites that were thought to be associated with biblical accounts. Biblical archaeologists, such as the American William F. Albright (1891–1971), were mainly believing Christians, who sought to confirm the historical truth of biblical accounts. As a consequence, little research was done on prehistoric sites, the most important work being that carried out by Kathleen Kenyon (1906–1978) in the lower levels at

Jericho in the 1950s. The primary motive for doing archaeology in Palestine was religious (Dever 2001a).

Israeli archaeology, as it developed in the 1950s and 1960s, served the very different purpose of affirming links between an immigrant population and the homeland that they believed God had given to their ancestors (Benvinisti 2000). Israeli archaeology was not primarily religious in orientation but was promoted by the Zionist movement to heighten national consciousness and strengthen Israeli ties to the land they were settling. By encouraging Israelis to view the Bible as a source of national history, archaeologists also were promoting a secular view of modern Israel. Although Israeli archaeology was closely related to biblical archaeology in terms of many of the problems both groups of archaeologists studied, and there was close cooperation between biblical and Israeli archaeologists in the early stages of the development of Israeli archaeology, archaeology in Israel from the beginning was primarily a nationalist not a religious enterprise.

Like many other nationalists, Zionists viewed archaeology as a source of potent symbols. After it was excavated with great publicity by Yigail Yadin (1917–1984) between 1963 and 1965, Masada, the site of the last Jewish resistance to the Romans in AD 72–73, became a monument possessing great emotional and ceremonial value as a symbol of the will to survive of the new Israeli state (Paine 1994). This site and the heroic narrative associated with it also were used to promote a more proactive sense of Jewish personal identity to replace that of the diaspora (Ben-Yehuda 1995, 2002). The identification of ancient Hebrew sites throughout Israel reinforced a sense of unity between present and past at the local level that aided the formation of a national identity. Archaeological projects, by altering the landscape, in some instances erased evidence of Arab settlement and materially enhanced a sense of continuity between ancient and modern Jewish settlement (Abu El-Haj 2001: 167), a process also promoted by the imposition of Hebrew place names (Benvenisti 2000). Zionists interested in archaeology further encouraged an interest in the past to ensure the protection of biblical sites at a time of rapid Jewish settlement and economic expansion (Abu El-Haj 2000: 49).

Like most national archaeologies, Israeli archaeology was selective. It was primarily interested in studying the history of Jewish settlement and culture in the region and relatively little attention was paid to

the archaeology of the Christian and Islamic periods (Bar Yosef and Mazar 1982; Dever 2001b). Most Israeli archaeologists were trained in historical and biblical research and devoted much time to studying history, philology, and art history. Palaeolithic archaeology was of relatively little interest and the influence of anthropological archaeology was generally limited to encouraging the use of new technical aids to analyse data (Hanbury-Tenison 1986: 108).

In the 1970s, archaeology was becoming less important for Israeli nation-building. Nevertheless, political and religious groups used the archaeological discovery of numerous early Iron Age settlements on the West Bank, following the annexation of the region in 1967, to help promote Jewish settlement in the "heartland of ancient Israel" (Hallote and Joffee 2002). Reacting to this partisan political exploitation of archaeological data, some Israeli archaeologists sought to upgrade the professional status of Israeli archaeology by advocating a more critical attitude toward historical data when they were being used to interpret archaeological finds. This development also was related to a broader trend among biblical scholars to question the historicity of biblical narratives dealing with the period before the eighth century BC (Finkelstein and Silberman 2001; Dever 2003: 137–42). Efforts also were made to expand the temporal range of Israeli archaeology to make it national in scope rather than simply ethnic or nationalist, a development that some commentators associate with a new, "post-Zionist" appropriation of all the history associated with the national territory claimed by Israel. Processual archaeology also encouraged a growing concern with economic and ecological interpretations of the past. Today, Israeli archaeology is interpretationally far less unified than it was in the 1960s and 1970s. It is challenged from within by critical scholars and by the commitments of Israeli archaeologists to various political agendas and research priorities. It is also challenged by ultraorthodox Jewish religious groups who oppose it on the grounds that excavation violates ancient Hebrew burials (Paine 1983).

William Dever, an American archaeologist, sought to replace biblical archaeology with a local variant of processual archaeology that he called "Syro-Palestinian" archaeology (2001a). His approach involved ignoring texts and emphasizing ecology. Yet even he has found it difficult to avoid questions of ethnicity (Dever 2003). Recent decades have also witnessed the emergence of Palestinian

archaeology. Specifically, Palestinian archaeology seeks to fill the gaps caused by the failure of most Israeli and Christian archaeologists to study the material remains of recent phases of Palestinian history (Ziadeh 1995); but, more generally, it claims the right to study the material remains of all the people who have ever lived in Palestine, and hence are referred to as Palestinians, as a continuity extending from earliest times to the present (E. Fox 2001); thus completely overlapping with Israeli "national" archaeology.

The decolonization of sub-Saharan Africa in the 1960s accelerated the changes in the archaeology of that region that had begun in the late colonial period. This was a time of great hope for the continued development of archaeology at least within some of Africa's most prosperous nation states. Archaeologists of African descent were not necessarily interested in the same problems as were foreign scholars. Like nationalist archaeologists elsewhere, they were more concerned with recent prehistory and issues related to national history than with Palaeolithic archaeology. Topics of interest included the origin of specific states, the development of regional trade, the evolution of historically attested social and economic institutions, and the history of relations among ethnic groups living within the borders of modern African states (Tardits 1981; Posnansky 1982: 355; Andah 1985). Later Bassy Andah (1995), Nigeria's leading archaeologist, maintained that African archaeologists had to study the past in terms of local, culturally specific meanings, as daily life was guided by such concepts. This required archaeologists to become familiar with local ethnography and to use such information rather than Western anthropological generalizations to explain archaeological data. Thus, he advocated a cognitively oriented form of the direct historical approach.

There also was much interest in the study and preservation of major sites that related to precolonial African history. Although archaeology was seen as a means of increasing awareness of, and pride in, Africa's past, there also was political concern about how the presentation of archaeological findings might help to enhance national unity or promote regional and local self-awareness (Nzewunwa 1984). While African archaeologists, who were often tied to administrative positions, generally welcomed research by anthropologically trained colleagues from abroad, anthropology as a discipline was not well regarded. Across Africa, archaeology was becoming increasingly

aligned with history in the 1960s, just as ethnological studies were being redefined as sociology (Ki-Zerbo 1981). As a result of this realignment, as well as a growing involvement with the study of oral traditions and historical linguistics, it was believed that Africans would be equipped to investigate periods of their history for which no written records were available and that archaeology would become African rather than colonial in its orientation (McCall 1964; Ehret and Posnansky 1982). Yet these dreams have not been realized. As a result of economic downturns, wars, political instability, lack of concern by governments, and other misfortunes, African archaeology has generally been unable to live up to the hopes of the 1960s. Where it did not die out completely, archaeologists were either starved of resources or compelled to collaborate with foreign institutions or partners, often on the latter's terms (McIntosh 2001: 28–34). Over most of Africa, colonial archaeology seems to have been followed, not by national, but by neocolonial archaeology.

Throughout Latin America, individual archaeologists, such as Julio C. Tello (1880–1947) and Rafael Larco Hoyle (1901–1966) in Peru, have made distinguished contributions to understanding pre-Columbian culture-history. Yet, lack of funds, political instability, government interference, and the massive intervention of large numbers of foreign archaeologists and archaeological projects have impeded the development of coherent national traditions of doing archaeology in many Latin American countries (Politis and Alberti 1999; Funari 2001; Politis 2003; Politis and Pérez Gollán 2004). The most successful development of a national archaeology has been in Mexico. It began with Leopoldo Batres's massive restoration projects at Teotihuacán that were carried out to celebrate the 1910 centenary of Mexico's independence from Spain.

Porfirio Díaz's lengthy dictatorship was brought to an end by the Mexican Revolution of 1910–1917, which was successful largely as a result of armed support by peasants, who were mainly Indians and constituted a majority of the population. The revolution resulted in major changes in government policy towards these people. The injustices of the colonial period were acknowledged and far-reaching economic and social reforms promised. The government undertook to integrate Indians into national life and increase their sense of self-respect by encouraging the study of Mexico's rich pre-Hispanic heritage and making its findings an integral part of Mexican history. In

this way the government also hoped to assert Mexico's cultural distinctiveness to its own citizens and the rest of the world (Gamio 1916). Large sums of money were allocated for archaeological instruction and research. A Department of Anthropology was established in 1937 at the National Polytechnical School, which had as one of its duties to train archaeologists. It later became part of the National Institute of Anthropology and History, which was granted an absolute monopoly to license archaeological excavations throughout Mexico.

Since the revolution, Mexican archaeology has exhibited a strong historicist orientation. Already in 1913, Manuel Gamio (1883–1960) conducted a series of stratigraphic excavations at San Miguel Amantla that provided the first prehistoric cultural sequence for the Valley of Mexico. Since then, Mexican and foreign archaeologists have produced cultural chronologies for all the diverse regions of the country. Mexican archaeologists accepted that it was their duty to provide Mexicans with a past of their own that would promote national unity by formulating a historical understanding that could be shared by all sections of the population. This required the humanization and popularization of prehistory. An important feature of this policy was the creation of public museums and the development of major archaeological sites or zones for the entertainment and instruction of Mexicans and foreign visitors alike (Lorenzo 1981, 1984). Early projects included Gamio's excavations at the Ciudadela complex at Teotihuacán and Alfonso Caso's work at Monte Albán. Today, over 100 major archaeological zones have been at least partially restored and are open to the public. Archaeology continues to document a continuity in Mexican history from earliest pre-Hispanic times to the present. It also seeks symbolically to unite all the people of Mexico and to affirm Mexico's uniqueness by documenting the country's vast cultural achievements prior to the Spanish conquest. This approach reinforces the culture-historical orientation of Mexican archaeology, even though Mexican archaeologists are familiar with and make use of alternative approaches (I. Bernal 1983). Yet, in recent decades, the continuing political uses of archaeology have been accompanied by chronic underfunding of scientifically oriented research. Many of the most important longterm research projects in Mexico continue to be carried out by foreign expeditions. Archaeology done by Mexicans looks increasingly like tourist archaeology

and a token way to honor indigenous peoples while ignoring the current daily needs of large numbers of them (Vázquez León 2003).

The national archaeologies we have examined all have much in common with the culture-historical archaeology that developed in Europe. All have as their primary objective to trace the histories of specific nations or ethnic groups in the archaeological record. They also tend to focus on those periods and cultures that are of greatest interest to the people whose past they are studying. Only a strong commitment to cultural resource management results in equal attention being paid to all periods and all cultures. Even where ideas derived from processual and postprocessual archaeology have deflected attention from migration and diffusion as explanations of cultural change, a nationalist orientation tends to preserve a historical perspective.

Culture-historical archaeologists also wish their findings to be popular. Although they validate their scientific credentials by employing internationally recognized archaeological methods, the historical narratives they construct tend to be highly intuitive and subject to change as political conditions alter. Their interpretations also diversify in situations in which political debate encourages alternative views of the past. Public interest in the findings of archaeologists fluctuates according to changing social, political, and economic circumstances. There is also considerable variation in the extent to which national and foreign archaeologists work together. In China and Japan, most research is carried out by local archaeologists; Indian and Mexican archaeologists work together with, or compete with, foreign archaeologists; whereas in many smaller and poorer countries foreign archaeologists tend to dominate archaeological practice.

Culture-Historical Archaeology in the United States

In the United States, a culture-historical approach was adopted soon after 1910 as a response to growing familiarity with the archaeological record. Archaeology also was increasingly influenced by Boasian cultural anthropology, which during the first half of the twentieth century enjoyed great prestige as a result of many of the nation's key social problems relating to the assimilation of various ethnic groups being defined in cultural terms. The spread of central European

cultural theory to North America as a result of the activities of Boas and his followers encouraged similar developments in archaeological interpretation on both continents.

Continuing archaeological research revealed temporal changes that could not be explained by the simple replacement of one group of people by another. As a result of the first confirmed Palaeo-Indian finds, made in a late Pleistocene context at Folsom, New Mexico, in 1927, it also became evident that indigenous people had lived in North America for longer than most archaeologists had hitherto believed and that their cultures must have changed considerably over time (Willey and Sabloff 1993: 141–3). Boasian anthropology had already popularized the ethnographic culture as a basic unit of study and diffusion as the major cause of cultural change. In addition, Boas's persuasive advocacy of cultural relativism and his strong opposition to racism encouraged the view that Indians were capable of change. Yet, although Boas had some interest in archaeology, which he actively promoted in Mexico, there is no evidence that he introduced the European concept of the archaeological culture to the United States. On the contrary, the distinctive way in which this concept developed in North America and the fact that the term as applied archaeologically was used in North America before it received any formal definition in Europe suggest an independent origin. By contrast, the American concept of the ethnographic culture had its roots in the teachings of Friedrich Ratzel, which were expounded in America in an explicit, albeit modified, form by Franz Boas.

We have already noted that, during the nineteenth century, American archaeologists became increasingly aware of geographically circumscribed cultural manifestations in the archaeological record, especially in the central United States, where a concern with the Moundbuilders had led to much archaeological activity. In 1890, G. P. Thruston defined a prehistoric Stone Grave "race" in Tennessee, which he believed was the remains of a single tribe or a group of related tribes (pp. 5, 28). The term *culture* was first applied to groups of sites containing distinctive artifact assemblages in the Ohio Valley. By 1902, William C. Mills had distinguished the Fort Ancient and Hopewell cultures. In 1909, W. K. Moorehead identified the Glacial Kame culture and soon after H. C. Shetrone (1920) was noting more such units in that area. These archaeological

"cultures" differed from European or later American ones inasmuch as they remained primarily cultural-geographical, not culture-historical, entities; their temporal relations to one another not yet being established. Not until 1936 was the Hopewell culture securely dated as being earlier than the Fort Ancient one.

In 1913, the American ethnologist Berthold Laufer (1913: 577) diagnosed the most serious shortcoming of American archaeology as being its lack of chronological control. This was a problem that American archaeologists had already recognized and begun to remedy. Stratigraphic excavations had been undertaken with increasing frequency since the 1860s and for a long time important conclusions had been flowing from such excavations, such as Richard Wetherill's demonstration that the Basketmaker culture had preceded the more sedentary Pueblo one in the American Southwest (Kidder 1924: 161). Wetherill may have learned the value of observing stratigraphy from the Swedish explorer and scientist Gustaf Nordenskiold when Nordenskiold collected archaeological material in the southwestern United States in 1891 (McNitt 1990: 38–43). On somewhat speculative typological grounds, Adolf Bandelier in the 1880s and Edgar Lee Hewett in 1904 had attempted to work out a rough chronology of prehistoric Pueblo sites (Schwartz 1981). In many parts of the United States, archaeological evidence was being collected which showed that local cultures had varied markedly over time.

The systematic study of North American culture history developed in the southwestern United States, beginning with the work of Nels C. Nelson (1875–1964) and Alfred Kidder (1885–1963). In 1914, Nelson carried out important stratigraphic excavations at the San Cristóbal Pueblo site in New Mexico (Nelson 1916). His earlier excavations at the Ellis Landing shell midden near San Francisco already seem to have been influenced by Max Uhle's stratigraphic work at nearby Emeryville. In 1913, Nelson toured Hugo Obermaier's and Henri Breuil's stratigraphic excavations at Palaeolithic sites in Spain and dug at the Castillo Cave. His excavations in New Mexico were done using arbitrary levels. Kidder had studied archaeological field methods at Harvard University with the celebrated Egyptologist George Reisner, who was one of the most meticulous excavators of the early twentieth century (Givens 1992a: 25; Wauchope 1965: 151). Beginning in 1915, Kidder excavated in the thick refuse deposits at Pecos Pueblo, New Mexico, collecting artifacts from
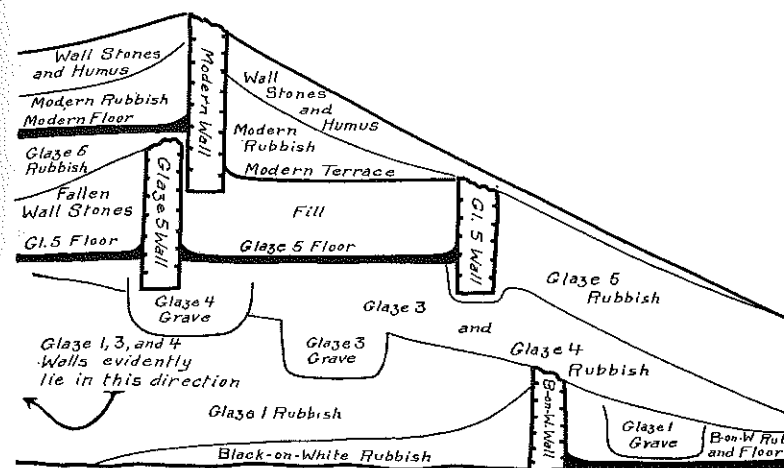
Figure 6.6 Kidder's profile of refuse stratigraphy and construction levels at Pecos Ruin, New Mexico, from *An Introduction to the Study of Southwestern Archaeology*, 1924

distinct depositional units (Figure 6.6). Both archaeologists discovered that in these middens the frequencies of various pottery types varied in an orderly fashion from top to bottom. They interpreted these variations as evidence of gradual changes in preferred pottery styles. Such alterations provided evidence of simultaneous cultural continuity and cultural change (Browman and Givens 1996; Lyman et al. 1997a: 34–55). These excavations and the innovative observations that Nelson and Kidder made while carrying them out laid the basis for the development of culture-historical archaeology in the United States. By 1917, Clark Wissler was describing the revolution that the preoccupation with cultural chronology was bringing about as a "new archaeology."

Kidder believed that studying the spatial distributions of combinations of artifact types was as important as studying their chronological transformations. In his *An Introduction to the Study of Southwestern Archaeology* (1924), he attempted the first culture-historical synthesis of the archaeology of any part of the United States. This study was published one year before Childe's *The Dawn of European Civilization*. In it, Kidder discussed the archaeological material from nine river drainages in terms of four successive periods, or stages, of cultural development: Basket Maker, Post-Basket Maker, Pre-Pueblo,

and Pueblo. He sometimes called each period a culture but also designated regional variants of each period that were associated with individual river drainages as the Chihuahua Basin culture, Mimbres culture, and Lower Gila culture. Kidder's imprecise utilization of the concept of "culture" closely paralleled the way it was being used in Britain before 1925. Although the term *culture* had not yet acquired a standard meaning in the Southwest, as a result of chronological studies supplementing an existing knowledge of geographical variation, something approaching the concept of an archaeological culture was beginning to evolve.

Yet what interested other archaeologists most about Kidder's work was his chronology. At the first Pecos Conference, held in 1927, the archaeologists who were working in the area adopted a general classificatory scheme made up of three Basketmaker periods followed by five Pueblo ones. H. S. Gladwin (1883–1983) complained, however, that among its other shortcomings the Pecos classification was better suited to the northern Pueblo area of the Southwest than to more southerly regions, where quite different cultures were found. In a paper entitled "A method for designation of cultures and their variations" (1934), he and his wife Winifred Gladwin (born McCurdy) proposed a hierarchical classification of cultural units for the region, the most general of which were three roots called Basketmaker (later Anasazi), Hohokam, and Caddoan (later Mogollon). Each of these roots, which respectively were found in the northern, southern, and intervening mountainous areas of the Southwest, was subdivided into stems, that were named after regions, and these in turn into branches and phases that were given more specific geographical names. Phases could follow one another in the same locality and each was defined as a set of sites with a high degree of similarity in artifact types. Although the Gladwin classificatory hierarchy was based on relative degrees of trait similarities, its dendritic pattern involved geographical considerations and it was implicitly chronological; roots formed before stems and stems before branches. The Gladwins followed much earlier archaeologists in believing that Indians, after they had arrived in North America, adapted to increasingly specific areas, but they differed from their predecessors in assuming that once a specific group was established in a particular location, its material culture might continue to change. Willey and Sabloff (1993: 123) observed that the Gladwins's belief that the prehistoric cultures of the southwestern

United States had become increasingly differentiated "while a possibility, was by no means demonstrated."

A different and even more influential classificatory scheme was proposed in 1932 by a group of archaeologists, including Thorne Deuel, Carl Guthe, and James B. Griffin, all of whom worked in the midwestern United States. The leader and chief spokesman for this group was William C. McKern (1892–1988) (1939). This scheme, called the Midwestern Taxonomic Method, was soon used throughout the central and eastern United States to classify material being recovered in a region where few stratified sites displaying occupations over long periods of time were yet known. The goal of the Midwestern Taxonomic Method was to classify finds on the basis of formal criteria alone. Artifact assemblages representing a single period of occupation at a site were designated a "component" and they in turn were grouped to form five nested taxa. Components sharing an almost identical set of artifact traits were assigned to the same focus; foci with a "preponderating majority of traits" to the same aspect; aspects sharing only more general characteristics to the same phase; and phases sharing a few broad traits to the same pattern. The traits used to define a pattern were said to be "a cultural reflection of the primary adjustments of peoples to environment, as defined by tradition." The patterns that were identified were Mississippian, with sedentary sites, incised pottery, and small triangular points; Woodland, characterized by semisedentary sites, cordmarked pottery, and stemmed or sidenotched projectile points; and Archaic, which lacked pottery but was marked by ground slate artifacts.

Foci and aspects were defined by drawing up lists of various sorts of cultural traits (types, attributes, and burial patterns) for each component and determining how many of these traits different components had in common. This approach corresponded with the historical particularist conception championed by Boas during the early part of his career, which viewed cultures not as integrated systems but as collections of traits that had come together as a result of random patterns of diffusion. No inferences about human behavior were included in defining traits, nor was any attention paid, unlike Childe, to the functional significance of different types of artifacts or the ecological significance of what was being found. The prevalence of different traits also was rejected in favor of simply noting their presence or absence

in each unit being compared. Contrary to what was being done in the Southwest, changing frequencies of traits were not viewed as having chronological or functional significance. The problem was noted, but not resolved, that artifacts that were stylistically highly variable, such as pottery, were a potential source of many more traits than were stone or bone tools. It also was recognized that cemeteries and habitation sites belonging to the same culture might contain a different selection of artifact types. Because of this, some archaeologists proposed to base foci on a range of different types of sites or on a balanced selection of traits from various functional categories of finds representing the complete cultural manifestations of a people, rather than simply on components (McKern 1939: 310–11). McKern recommended rather obscurely "the selecting, from the traits comprising a complex subject, of those trait details which have sufficient cultural significance to qualify them as cultural determinants" (p. 306). He also argued that these considerations, as well as the incompleteness of archaeological data, precluded the statistical method from being used to establish degrees of relations among components, although he accepted that quantitative similarity was important for determining the classificatory status of archaeological manifestations. John C. McGregor (1941) proposed that components should have more than 85 percent of traits in common, foci 65 to 84 percent, aspects 40 to 64 percent, phases 20 to 39 percent, and patterns fewer than 20 percent. These recommendations were ignored.

Both the Gladwin system and the Midwestern Taxonomic Method eschewed the term *culture*, which McKern (1939: 303) believed archaeologists used to designate too broad a range of phenomena. Nevertheless, these two systems initiated the systematic use of cultural traits for classifying archaeological data as cultural units in the United States, in the guise of the Gladwins' phases and McKern's foci and aspects. These units were widely regarded as the archaeological expression of a tribe or group of closely related tribes. The Gladwin scheme assumed that cultures, like biological species, differentiated along irreversible paths, thereby ignoring the convergence brought about by diffusion. McKern and most others who formulated the Midwestern Taxonomic Method appear to have regarded foci and phases as culturally and historically significant taxa. They acted on the assumption that formal differences among such units in a single locality usually indicated temporal differences, whereas similar

cultures distributed over large areas dated from the same period. By contrast, they generally understood the higher taxa of the Midwestern Taxonomic Method as pragmatic groupings that were useful for classifying foci and aspects on the basis of formal similarities until they could be understood historically. Yet many archaeologists who used this system in its early days assumed that shared traits at all levels signified common origins, history, and ethnicity. They also believed that traits that were more generally shared were older than more culturally specific ones, a fallacy that even in the 1930s would have made the Coca-Cola bottle older than the Acheulean handaxe. This view had some retrograde effects on the interpretation of archaeological data. For example, in New York State McKern's Woodland pattern embraced prehistoric cultures that archaeologists traditionally had associated with Algonquian-speakers, whereas his Mississippian pattern embraced the historical cultures of linguistically unrelated Iroquoians. The assumption that cultures could not evolve from one pattern to another, any more than an Algonquian language could change into an Iroquoian one, hindered the realization that the historical Iroquoian cultures had developed from local Middle Woodland antecedents (Ritchie 1944; MacNeish 1952). As a result of this misunderstanding, the Midwestern Taxonomic Method, although struggling for classificatory objectivity and quantitative precision, inadvertently helped to perpetuate the pessimistic views about the Indians' capacity to change that had characterized American archaeology during the nineteenth century.

Yet in practice this misunderstanding was of short duration. Phases in the Southwest and foci in the East were soon being aligned to form local chronologies by means of stratigraphy and seriation, as was being done with cultures in Europe. As this happened, the higher levels of both the Gladwin scheme and the Midwestern Taxonomic Method were abandoned and archaeological cultures were viewed as forming mosaics, in which each culture had to be assigned its own empirically determined spatial and temporal boundaries. Cultures, as well as artifact types, were viewed as persisting in particular areas, possibly with slow modifications, to form traditions, or spreading geographically to create cultural horizons, which were used to align traditions chronologically. As regional cultural chronologies were constructed and archaeologists became increasingly aware of the complex patterning of material culture both within and among

archaeological cultures, they began increasingly to credit diffusion with playing an important role in bringing about cultural change. Yet diffusion was employed mechanically. Most archaeologists continued to pay little attention to understanding the internal dynamics of cultural change or trying to determine why a particular innovation did or did not diffuse from one group to another. By 1941, enough data had been collected for James A. Ford and G. R. Willey to present a synthesis of the culture history of eastern North America in which the known cultures were grouped to form five stages of development: Archaic, Burial Mound I (Early Woodland), Burial Mound II (Middle Woodland), Temple Mound I (Early Mississippian) and Temple Mound II (Late Mississippian) (Figure 6.7). In this arrangement, the three patterns of the Midwestern Taxonomic Method were transformed into three stages of cultural development. Each new stage was viewed as coming from the south, and ultimately from Mesoamerica, and then spreading north through the Mississippi Valley. Thus an interpretation of eastern North American prehistory was created that closely resembled what had been presented sixteen years earlier for prehistoric Europe in *The Dawn of European Civilization*.

Although diffusion implied recognition of the capacity for indigenous cultures to change, diffusionist explanations were employed very conservatively. Innovations, such as pottery, burial mounds, metal working, and agriculture were almost always assigned an East Asian or Mesoamerican origin (Spinden 1928; McKern 1937; Spaulding 1946), thus implying that indigenous North Americans were imitative rather than creative. Moreover, archaeologists still tended to attribute major changes in the archaeological record to migrations. For example, into the 1950s the transitions from the Archaic to the Woodland pattern and from Woodland to Mississippian in the northeastern United States were usually explained as resulting from the entry of new populations into that region. As had happened in Europe, theories of cultural change and chronologies became linked to form a closed system of interpretation. A very short chronology was adopted in which late Archaic cultures, that are now radiocarbon dated around 2500 BC, were placed no earlier than AD 300 (Ritchie 1944). This short chronology reflected the belief that major changes had been brought about quickly by migrations. Yet, so long as that chronology was accepted, it discouraged archaeologists
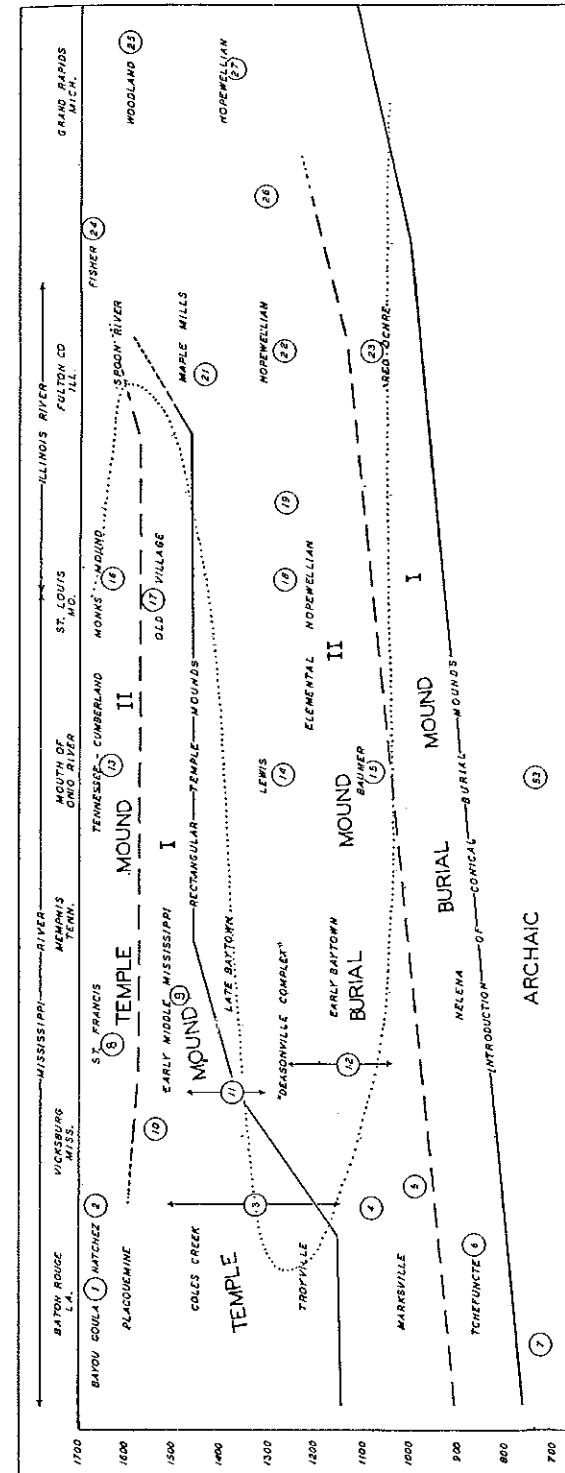
Figure 6.7 Chronological chart from Ford and Willey's synthesis of eastern North American prehistory (*American Anthropologist*, 1941)

from considering internal developments as an alternative explanation of cultural change in that area.

With the notable exception of Ford and Willey (1941), interpretations of archaeological data during the culture-historical period were characterized by a lack of will to discover, or even to search for, any overall pattern to North American prehistory. Only a tiny portion of P. S. Martin, G. I. Quimby, and Donald Collier's *Indians Before Columbus* (1947) was devoted to interpreting rather than describing the archaeological record. The authors concluded that from the arrival of the first Asian immigrants "there existed a continuous process of adaptation to local environments, of specialization, and of independent invention" that "led to the development of a series of regional Indian cultures" (p. 520). Yet they believed that the innovations they had selected as representing basic trends of cultural development, such as pottery making, were of external origin. Although their book documented change as a basic feature of North American prehistory, it made little effort to explain that change. Kidder was a rare exception to the prevailing diffusionist perspective when he maintained in 1924 that the prehistoric southwestern United States owed little more than the "germ" of its culture to the outside and that its development had been a local and almost wholly independent one that was cut short by the "devastating blight of the white man's arrival" (1962: 344). In this, as in much else, Kidder was intelligently far-sighted.

American culture-historical archaeology did not remain a passive victim of the stereotypes of Indians as being incapable of change that had dominated archaeology throughout the nineteenth century. Yet, although in the decades after 1914 cultural change and development were perceived for the first time as being a conspicuous feature of the archaeological record for North America, the main product of this period was a series of regional chronologies. Although overtly racist views concerning indigenous peoples were abandoned, the stereotypes of the American Indian that had been formulated before 1914 remained largely unchallenged. Major changes documented in the archaeological record continued to be attributed whenever possible to migration and diffusion was only grudgingly admitted to indicate creativity on the part of North American Indians. Because there was less concern than previously with reconstructing prehistoric patterns of life, the links between archaeology and ethnology, as well as

between archaeologists and indigenous people, were weakened. No alternative links were forged and to a large degree American archaeologists came to be preoccupied with creating typologies of artifacts and cultures and working out cultural chronologies.

The most influential programmatic statement of culture-historical archaeology was G. R. Willey and Philip Phillips's *Method and Theory in American Archaeology* (1958), based on two earlier and much discussed papers (Phillips and Willey 1953; Willey and Phillips 1955; see also Phillips 1955). Their primary concern was the methodology of "culture-historical integration." The principal formal units that they used for this purpose were components and phases, the Gladwins' term for culture being preferred to McKern's focus because they had assigned it a stronger temporal implication. Phases were characterized as arbitrary divisions of space-time-cultural continua. Willey and Phillips also defined three spatial units of different scales: localities, regions, and areas, the first two of which might correspond to a community or local group and a tribe or society respectively. Temporal series consisted of local (intrasite) and regional (multisite or phase) sequences. The integrative units that were used to link cultures were traditions and horizons, which were interpreted as evidence of any kind of historical relations, not just phylogeny. In addition, Willey and Phillips assigned all archaeological cultures to one of five developmental, but in their view not evolutionary, stages based on economic and political criteria: Lithic, Archaic, Formative, Classic, and Postclassic. The result was a programmatic statement that unintentionally drew the attention of readers to the limitations of American culture-historical archaeology. Willey (1966, 1971) went on to produce an attractive two-volume culture-historical synthesis of what was known about the prehistory of the New World. In 1972, Irving B. Rouse published what he had intended as the theoretical introduction to a major culture-historical synthesis of world prehistory. By the time it appeared, however, this introduction was no longer framed entirely in relation to culture-history. These works represented the final, synthesizing output of American culture-historical archaeology.

American archaeologists did not simply adopt a ready made culture-historical approach from Europe but reinvented much of it, as increasing knowledge of chronological variations in the archaeological record supplemented an older awareness of geographical

variations. The culture-historical approach had developed differently in Europe, where a growing sense of geographical variation in the archaeological record complemented a long-standing evolutionary preoccupation with chronological variation (Trigger 1978a: 75–95). Moreover, nationalist rivalries played no role in the evolution of the concept of the archaeological culture in North American prehistoric archaeology as they had done in Europe. Yet American archaeology did not, as a result of this enhanced perception of change in prehistoric times, totally overcome the negative views about indigenous peoples that had characterized the "colonial" phase of its development. The minimal acceptance of change in prehistoric times was primarily an adjustment of cherished beliefs to fit new archaeological facts. American archaeology remained colonial in spirit at the same time that it adopted a culture-historical methodology. The same problems were later to characterize archaeology in other white-settler countries, such as Australia, Canada, New Zealand, and South Africa.

Technical Developments

The adoption of a culture-historical approach by prehistoric archaeologists encouraged a considerable elaboration of archaeological methods. This was especially evident in terms of stratigraphy, seriation, and classification. As prehistoric archaeologists became increasingly interested in historical rather than evolutionary problems, they perceived the need for tighter controls over chronological as well as cultural variations. Temporal changes within sites over relatively short periods of time became crucial for answering many questions of a historical nature.

Classical archaeologists with their strong historical orientation were the first to perceive the need for more controlled excavations of sites. In the second half of the nineteenth century, Fiorelli, Conze, and Curtius devised new methods for the more detailed excavation and recording of plans and sections in major classical sites. In southern Europe and the Middle East, where text-based and prehistoric archaeology were pursued in close proximity and stratified sites often contained both historic and prehistoric components, these methods diffused rapidly. Wilhelm Dörpfeld (1853–1940), who had excavated under Curtius's direction at Olympia, worked for Heinrich

Schliemann from 1882 to 1890. Schliemann, who had begun digging at Hisarlik in Turkey in 1871, had pioneered the stratigraphic excavation of a multilayered "tell" site in an effort to discover the remains of Homer's Troy. He identified seven superimposed settlements at the site, most of them unaccompanied by any texts. Using more refined excavation methods, in combination with a pottery sherd chronology, Dörpfeld identified nine major levels and revised Schliemann's chronology. In 1890, Petrie recorded idealized profiles at Tell el-Hesy, a stratified site in southern Palestine that he dug by arbitrary levels, using Egyptian objects to date his finds (Figure 6.8). In 1897, Jacques de Morgan began his stratigraphic excavations at Susa, in western Iran, at the bottom of which he encountered prehistoric levels. Like Dörpfeld, he used different sherd types to establish a chronology. These stratigraphic excavations and the opening up of large areas of sites by archaeologists such as Petrie and Koldewey gradually spread improved methods for excavating and recording archaeological data through the Middle East, where they influenced both historical and prehistoric archaeology. Eve Gran-Aymerich (1998: 473) has described these developments as representing the transformation of archaeology from being a science of objects to being a science of buildings and sites.

Although prehistoric monuments in Europe occasionally were excavated with considerable attention to detail beginning in the seventeenth century (Klindt-Jensen 1975: 30), detailed recording techniques developed more slowly in this field than in classical archaeology. Until the 1870s, as a result of evolutionary preoccupations, across much of Europe interest was focused on the recording, frequently in an idealized fashion, of cross-sections of excavations, the main exception being richly furnished graves, such as those found in the early Iron Age cemetery at Hallstatt in Austria in the 1850s, which often were recorded in considerable detail (Sklenář 1983: 71–2, 77) (Figure 6.9). General Augustus Lane Fox (1827–1900), who took the name Pitt Rivers in 1880, altered this situation with his detailed excavations of sites on the extensive estates he had inherited in southern England. In the 1850s, he had become interested in anthropology as the result of a detailed study he made of the history of firearms in order to help select a new rifle for use by the British Army. Through the 1860s, he built up a large ethnographic collection and wrote about primitive warfare, navigation, and principles
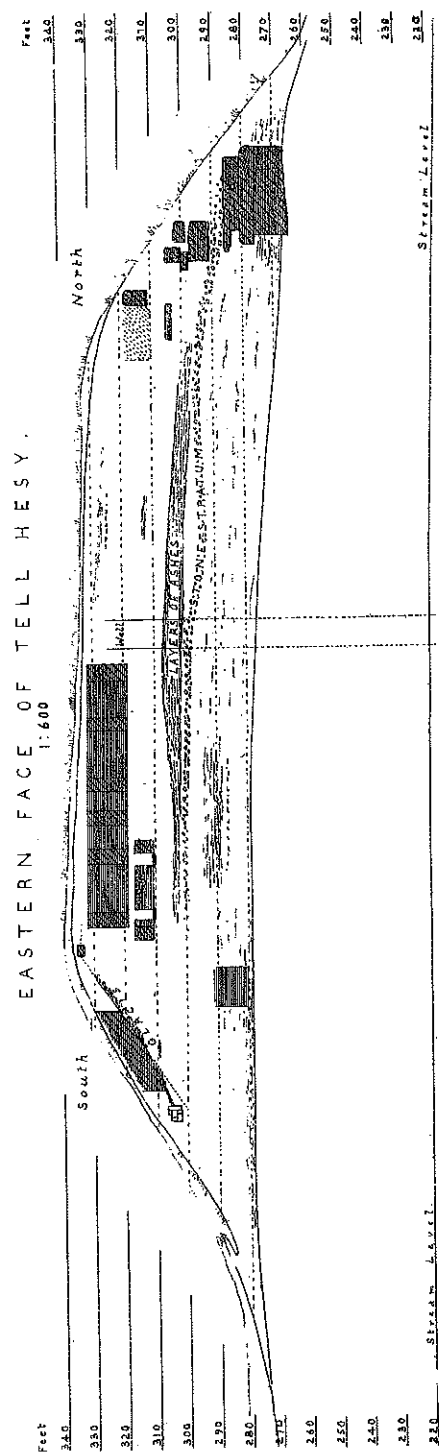
Figure 6.8 Petrie's profile of Tell el-Hesy, 1890 (*Tell el Hesy*, 1891)
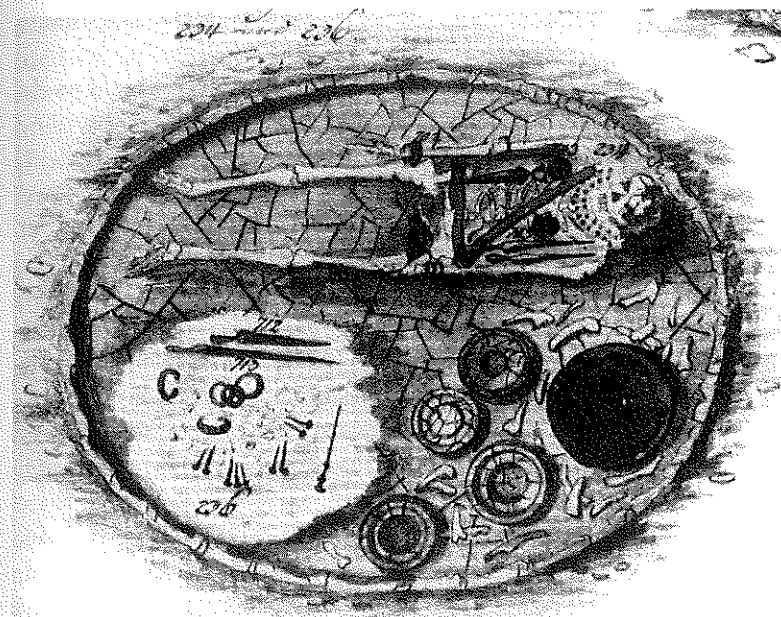

Figure 6.9 Grave from Hallstatt cemetery, Austria, recorded by the painter
Isidor Engel in the mid-nineteenth century

of classification (Pitt-Rivers 1906). To control the temporal dimension of change better, Pitt Rivers wanted to extend his studies to include prehistoric archaeological data. He soon realized, however, that many sites in England contained material from more than one prehistoric time period and that these sites would have to be excavated carefully to distinguish different periods if his findings were to be of any value for investigating evolutionary processes. Hence, the principal goal of the evolutionist Pitt Rivers as an archaeologist came to be to understand the history of individual archaeological sites. He did this by trenching ditches at right angles, leaving baulks to record stratigraphy, and carefully relating individual finds to their stratigraphic contexts. After he inherited the estates of his cousin, Horace Pitt, at Cranborne Chase in 1880, he had the resources to excavate, in an exemplary manner, numerous sites located on or near them. In his lavish excavation reports, he stressed the need for archaeologists to publish a complete record of their work, rather than only what was of immediate interest to them (M. Thompson 1977). Much

of the fieldwork and analysis was done by a small group of assistants whom he specially trained.

After Pitt Rivers died, several of these assistants continued to do archaeological work. Harold St. George Gray remained a prolific fieldworker to the end of his life. He and Arthur H. Bulleid, whose work had been mentored by Pitt Rivers before Gray joined him, recorded their excavations at the Late Iron Age settlement at Glastonbury between 1892 and 1911 in sufficient detail that their findings concerning houses and building levels could be reanalyzed in the 1970s (Bulleid and Gray 1911, 1917; Clarke 1972b; Coles et al. 1992). The general ebb in the quality of archaeological fieldwork and excavation in Britain in the early decades of the twentieth century had less to do with a lack of skilled excavators than with the lack of adequate funding for such work (M. Thompson 1977; Bowden 1991).

With the development of publicly funded excavations in Britain, Mortimer Wheeler (1890–1976), one of the few young British archaeologists to survive World War I, sought to emulate and surpass Pitt Rivers's excavating and recording techniques. He perfected his system in a series of excavations between 1921 and 1937. Excavation was carried out using plotted grid squares separated by baulks of soil which provided numerous sections for study. Sections were drawn only after they were interpreted, and the context of each find was carefully recorded. Wheeler's system emphasized the vertical sequence of a site rather than its horizontal features and hence was admirably suited for the study of site histories. He taught his method to British and foreign students from around the world and to Indian archaeologists during his brief appointment as Director General of the Archaeological Survey of India. His book *Archaeology from the Earth* (1954) expounded the philosophy of this style of excavation. By the 1930s, similar excavation techniques were being followed in North America (Willey and Sabloff 1993: 143–6).

Techniques of seriation also were refined in response to growing historical interests. In the 1890s, Petrie, who normally dated Egyptian sites by means of inscriptions, excavated a number of large cemeteries in southern Egypt that contained material that was unfamiliar to him and lacked any inscriptions. Eventually, it was established that these cemeteries dated from the late prehistoric and very early historical periods. There was considerable stylistic variation in the artifacts

found in different graves, suggesting that the cemeteries had been used for a long time, but no stratigraphy or obvious general patterns of expansion that could be used to arrange the graves even roughly in a chronological sequence. In order to devise a chronology, Petrie (1901) divided the pottery from the cemeteries at Diospolis Parva into nine major groups or classes and these in turn into several hundred types. He then recorded what types occurred in each of about 900 graves that contained more than five different types of pottery and tried to seriate the graves to produce a maximum concentration of each type (Heizer 1959: 376–83). This task, which proved to be a formidable one even when duplicated using modern computers (Kendall 1969, 1971), was facilitated by Petrie's having inferred, based on his knowledge of early historical Egyptian pottery, certain trends in major wares, in particular the tendency of Wavy-handled vessels to become smaller, cylindrical rather than globular, and their handles more vestigial as the historical period was approached. He was finally able to order his graves into fifty divisions that were arranged to form a series of "sequence dates" (Figure 6.10). The resulting chronological sequence was then tested against trends in nonceramic artifacts from the graves and overlaps resulting from later graves being cut into earlier ones. Petrie's chronology for Predynastic Egypt, which in general terms has stood the test of time (Kaiser 1957), differed from Montelius's seriation by defining intervals that in some cases may have lasted less than a decade rather than periods of several hundred years. Curiously, although Petrie presented his many pottery types as each increasing and then decreasing in relative popularity over time, he attributed their introductions to incursions of new peoples. While his seriation was an astonishing achievement by an intuitive mathematical genius, its cumbersomeness ensured that it was an approach that few archaeologists were ever likely to emulate.

In 1915, A. L. Kroeber, who was doing ethnographic fieldwork among the Zuñi Indians of western New Mexico, observed a number of archaeological sites and noted that the pot sherds visible on the surface differed in color combinations from one site to another. Almost certainly aware that Nelson had very recently demonstrated variations in the frequency of pottery types from one level to another at San Cristóbal Pueblo, Kroeber collected pot sherds from eighteen of these sites, divided them into three general types, and by comparing changes in the frequency of each type worked out a
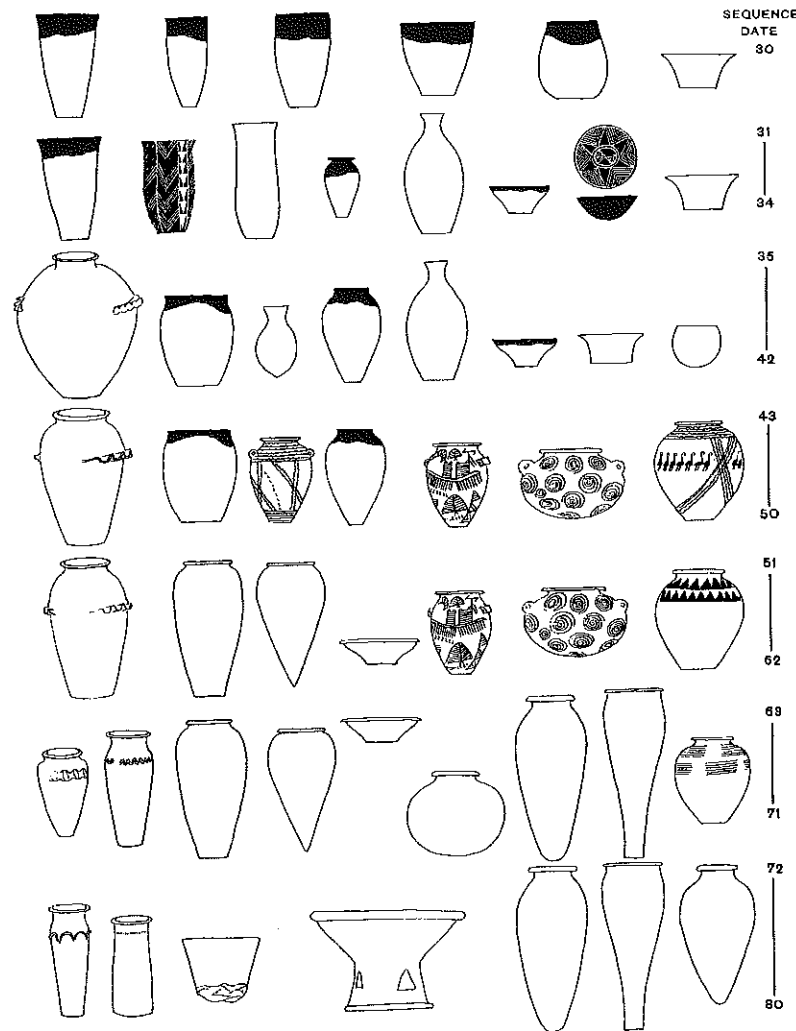
Figure 6.10 Pottery of successive periods in Petrie's predynastic sequence, from *Diospolis Parva*, 1901

historical sequence of these sites (Kroeber 1916; Heizer 1959: 383–93). This approach was adopted by Leslie Spier (1917), who applied it to a larger number of Zuñi sites and then conducted stratigraphic excavations that corroborated his findings (Lyman et al. 1997a: 55–62). Beginning in the 1930s, James Ford (1936) used this sort

of frequency seriation of pottery types to supplement stratigraphic sequences as a basis for working out the prehistoric cultural chronology of the Mississippi Valley (Ford 1938; O'Brien and Lyman 1998). Petrie's "occurrence seriation" depended on the individual occurrence or nonoccurrence in specific closed finds of a large number of different types, whereas Kroeber's "frequency seriation" depended on the changing frequencies of a much smaller number of types (Dunnell 1970). The greater ease with which frequency seriation could be implemented ensured its rapid spread and development. It has become the basis of all modern seriation. In both cases, seriation was being used to establish a detailed historical sequence of villages or graves rather than a succession of periods, as evolutionary archaeologists from Thomsen to Montelius had done. Petrie and Kroeber both chose to work with pottery because its stylistic attributes provided more sensitive indices of change than did the stone and metal tools that had been studied by the Scandinavian archaeologists.

Growing interest in defining cultures and working out more detailed seriations encouraged more systematic and elaborate classifications of artifacts in both Europe and North America. In Europe, these classifications tended to build on ones originally established by evolutionary archaeologists, usually by splitting or otherwise refining existing types. Types tended to be viewed pragmatically as a means for achieving chronological objectives or for understanding life in prehistoric times. Perhaps for these reasons, the discussion of the nature and significance of types generally remained low-keyed in Europe. Gorodtsov, however, continued to develop his typological approach, in which categories were divided into groups and groups into types on the basis of function, material, and form respectively. His final description of this system was translated into English and published in the *American Anthropologist* (Gorodzov 1933). After World War II, François Bordes (1919–1981) and Maurice Bourgon developed a new and more systematic approach to classifying Middle and Lower Palaeolithic assemblages to replace a reliance on diagnostic types. Bordes distinguished the description of artifact assemblages from that of the artifacts they contained and the description of artifact forms from the identification of the techniques that were used to produce them (Bordes 1953). Still later, G. Laplace (1964) produced an elaborate alternative classification of Palaeolithic stone

tools, and finally David Clarke (1968) provided a systematic treatment of archaeological classifications at all levels that sought to improve the procedures inherent in culture-historical archaeology as it was practiced in Britain (Shennan 2002: 72).

In the United States, artifact classification has been discussed from a theoretical point of view since the 1920s. In 1930, Winifred and Harry Gladwin argued that, because of processes such as trade, artifact classification had to be done independently from cultural classification. Although they viewed pottery styles as sensitive indicators of spatial and temporal variations in culture, they also believed that it was necessary to define pottery types in terms that were free from temporal implications, if subjectivity was to be avoided. They therefore proposed a binomial nomenclature in which the first term indicated a geographical location where the type was found and the second its color or surface treatment: for example, Tularosa black-on-white. Type descriptions were published in a set format involving name, vessel shape, design, type site, geographical distribution, and inferred chronological range. In 1932, Harold S. Colton proposed an elaborate, Linnaean-style system for classifying pottery (which was seen as equivalent to a Linnaean Class) on the basis of paste and temper (Order), surface color (Family or Ware), surface treatment (Genus or Series), and more specific features (types). In a systematic classification of southwestern pottery, based on the examination of several million sherds, published by Harold Colton and Lyndon Hargrave (1937), only wares, series, and types continued to be used. William Adams (2001: 347) has noted that, although this hierarchical approach did not find general acceptance, the individual wares that Colton and Hargrave defined have nearly all withstood the test of time.

James Ford (1938), by contrast, stressed that types should be recognized only if they could be demonstrated to be useful for interpreting culture-history and that there should be no formal splitting of types unless the results clearly correlated with spatial or temporal differences. Ford in particular regarded types as heuristic constructs to be used for historical analysis and therefore he sought empirically to isolate traits that had chronological significance. Later discussions centered on the reality of types to the people who had made and used artifacts, on the relations between types and the attributes or modes that are used to define them, and on the nature of attributes

and their usefulness for artifact seriation. Rouse (1939) proposed that an emic type could be recognized by the statistical clustering of attributes around the high points of statistical curves, which represent the norms or ideal mental templates shared by a group of artisans. In the 1950s, it was maintained that types could be discovered as regular clusterings of attributes and that these "natural" types would reveal much more about human behavior and cultural change than would Ford's arbitrary creations (Spaulding 1953). This prolonged discussion of artifact classification was the first substantial manifestation of the concern of American archaeologists to articulate and make explicit the analytical basis of their discipline.

Although the concept of the archaeological culture had been developed separately and from different baselines in Europe and North America, it came to be viewed on both sides of the Atlantic as a recurrent set of components characterized by similar material culture, normally occupying a small geographical area and lasting for a relatively brief interval of time. The spatial and temporal boundaries of each culture had to be determined empirically. When the cultures being compared represented successive stages of a single cultural tradition, the boundaries separating them were recognized as being arbitrary. Nevertheless, differences existed in how archaeological cultures were perceived in Europe and America. In America, especially under the influence of the Midwestern Taxonomic Method, cultures (foci) were established on the basis of the number of different kinds of traits components had in common, not the frequency of individual traits, even though frequency was recognized as being vital for seriation and neglecting it enhanced the classificatory importance of rare items that were traded or otherwise intrusive into single sites. Archaeologists also rejected their former interest in the functional roles that artifacts or traits had played. This new, formalistic approach was believed to be more objective and scientific than earlier, more "impressionistic" concerns with the functions of artifacts.

In Europe, archaeologists adopted a more functional view of material culture. It was widely recognized that cemeteries might contain a narrower, or even a different, set of artifacts from those found in habitation sites, and this difference was welcomed as providing a deeper insight into prehistoric cultures. Childe argued that cultures were best defined pragmatically on the basis of ethnically sensitive traits

that were resistant to change rather than by using utilitarian ones that diffused quickly over broad areas. He also emphasized that the boundaries of cultures were not the same as those of their constituent artifact types, thus in effect adopting what David Clarke (1968) would later call a polythetic concept of archaeological cultures. Childe also acknowledged that all types of artifacts were significant for understanding how people had lived in the past. He stressed, however, that their importance was not equivalent to their number: a single bronze axe might provide as much information as did 500 potsherds. This orientation probably reflected the greater interest in the "people behind the artifact" among European than among American prehistoric archaeologists in the early twentieth century. Childe did not suggest, however, that the relative frequencies of different types of artifacts might be important for understanding cultures.

A growing interest in how particular groups of Europeans had lived in prehistoric times, that was encouraged by nationalism but had its roots in the Scandinavian archaeology of the early nineteenth century, led archaeologists to pay attention to classes of archaeological data that previously had been ignored. A long-standing interest in cemeteries was supplemented by increasing study of the remains of settlements. This encouraged the development of large-scale, open-plan, horizontal excavations at the expense of vertical stratigraphic ones, as well as the recording of many new types of data. The first post molds sealed below ground were noted by Pitt Rivers before 1872 (Bowden 1991: 77). In the 1890s, the Roman-German Boundary Commission, studying sites along the northern frontier of the Roman empire in central Europe, developed techniques for recognizing post molds in all kinds of soils (Childe 1953: 13). German archaeologists, such as Carl Schuchhardt and Gerhard Bersu (1889–1964), were soon using postmold patterns to reconstruct decayed wooden structures. Archaeologists also began to record more systematically where in sites artifacts were found, so that these could be plotted in relation to features such as hearths and house walls. Gradually, lithic debitage and floral and faunal remains that hitherto had generally been dismissed as unimportant were saved and studied. This style of excavation was applied in the Netherlands by Albert Egges van Giffen (1884–1973) and was transmitted from Germany to England in the late 1930s, when Bersu arrived there as a refugee from Nazi persecution (C. Evans 1989).

These developments encouraged a new precision in excavation techniques. The principal goal of such research was not to reconstruct details of social organization or what people had thought in the past but rather to reconstruct a visual impression of life in the past. That involved determining what houses looked like, what kind of clothing people wore, what utensils they used, and in what activities they had engaged. These impressions could be reconstructed in drawings (Figure 6.11) or three-dimensionally in the form of open-air museums. One site that did not require much reconstruction was Skara Brae, a Neolithic settlement in the Orkneys that was excavated by Gordon Childe (1931). In this site not only houses but also furniture, such as beds and cupboards, were preserved as a result of being constructed from stone slabs. The most impressive developments in this sort of archaeology occurred in continental Europe between 1920 and 1940. Houses and their surroundings were completely excavated and post molds, hearths, pits, and artifact distributions interpreted as evidence of patterns of daily life (De Laet 1957: 101–3; Sieveking 1976: xvi).

In the United States, the development of a culture-historical approach initially encouraged archaeologists to excavate sites to recover artifact samples that could be used to elaborate trait lists, define cultures, and work out cultural chronologies. It was assumed that the sorts of artifacts found in any one part of a site were typical of the whole and therefore excavations were frequently directed toward middens, where artifacts were most abundant and could be recovered most cheaply. In addition to artifacts, archaeologists sometimes sought to obtain floral and faunal data as evidence of subsistence patterns and skeletal remains that could identify the physical types of the people who had occupied sites. During the economic depression of the 1930s, U.S. federal government relief agencies, working through park services, museums, and universities, made large sums of money available for archaeological research. Archaeological excavation was supported because it could be learned easily by unemployed manual laborers and did not produce anything that competed with private industry. Much of the work was rescue archaeology. Large sites were completely excavated in areas that were to be flooded by the construction of hydroelectric dams (Fagette 1996; Lyon 1996). The massive horizontal excavations carried out during the depression years resulted not only in the recovery of vast amounts of data

What must be examined? Dark places in the ground, animal bones, potsherds, stone pavings, receptacles, etc.

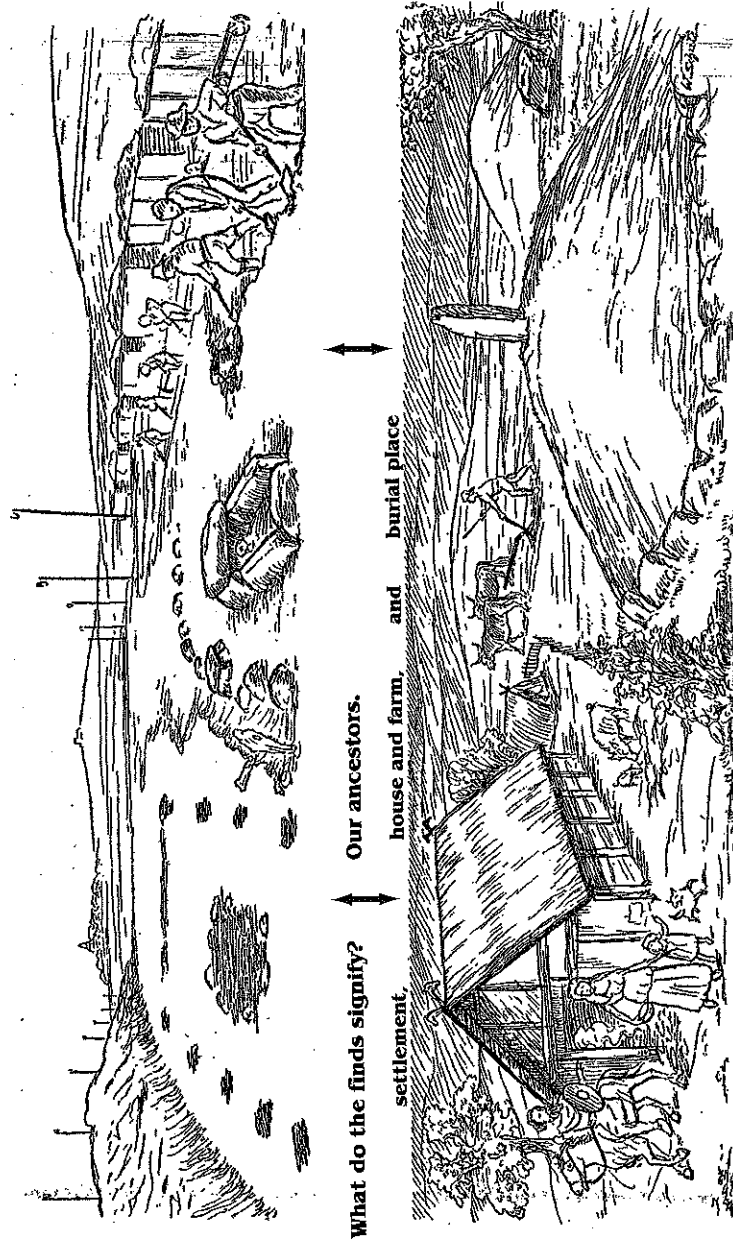What do the finds signify? Our ancestors. settlement, house and farm, and burial place

Figure 6.11 Illustration of horizontal excavation and reconstruction of a prehistoric German site, from a pamphlet issued by Halle Museum, republished in *Antiquity*, June 1938 (captions translated)

relating to the culture-history of the eastern United States but also in growing attention being paid to features such as hearths, house patterns, and community plans, in relation to which distributions of artifacts took on additional significance. These excavations expanded knowledge about the construction of houses and ritual structures and the plans of entire settlements (Willey and Sabloff 1993: 143–4). Yet these findings were initially envisaged as a means to expand trait lists and only slowly stimulated a renewed interest in how people had lived in prehistoric times. Government-supported archaeological rescue projects resumed in the 1950s, when the American government built additional dams along the Missouri and Colorado Rivers.

Convergences in European and American culture-historical research programs did not produce equivalent convergences in attitudes toward the past. Although Europeans were deeply involved emotionally in what they regarded as the study of their own prehistory, Euro-Americans continued to view the prehistoric archaeological record as the product of an alien people. Yet, on both sides of the Atlantic Ocean, the development of a culture-historical approach to archaeology carried classification, chronology, and cultural reconstruction far beyond the point they had reached previously. The switch from "scientific" to "historical" objectives stimulated rather than inhibited the development of archaeological methodology.

Theory

In recent decades archaeological theorists have looked to philosophy to provide guidance in matters relating to epistemology, or theories of knowledge. It is widely supposed, however, that culture-historical archaeologists did not make significant use of philosophical concepts (Spaulding 1968; M. Salmon 1982; Gibbon 1989; W. Salmon 1992). Even Gordon Childe had largely abandoned the culture-historical approach before he began in the 1940s and 1950s to employ philosophy to help him understand what archaeologists were doing. In fact, a profound encounter between culture-historical archaeology and philosophy took place in Romano-British archaeology, a field that traditionally has spanned the divide between classical and prehistoric archaeology. This encounter occurred in the person of the Oxford academic Robin Collingwood (1889–1943), who was simultaneously

a leading classical archaeologist and one of the most distinguished British philosophers of his time. Collingwood was perhaps the first philosopher who viewed efforts to understand the past as a testing ground for investigating the nature of thought in general and hence as a basis for philosophical enquiry. Beginning in 1911, he concentrated on archaeological studies that made him the leading authority on Roman Britain. This work culminated in his definitive study of this subject, *The Archaeology of Roman Britain* (1930). After that time, he produced his most important philosophical work, *The Idea of History*, which was published posthumously in 1946. A briefer and more accessible exposition of his philosophical ideas is available in *An Autobiography*, which appeared in 1939, at a time when, because of illness, he feared he might not live long enough to complete his major work.

Collingwood was an advocate of idealist philosophy in the Kantian tradition. He believed that even the simplest perceptions make sense only as the result of concepts, or categories, that already exist in the human mind. Individuals cannot perceive or make sense of the world independently of their existing understanding of the nature of things. Many of these concepts are learned, but others, such as basic notions of time, space, and causality, appear to be innate. Whatever the origin of such concepts, without them the observations that constitute the basis of a positivist epistemology would remain meaningless. As an idealist, Collingwood had much in common with the Italian philosopher Benedetto Croce (1866–1952), whose belief in history as the history of ideas and hence as a branch of philosophy greatly influenced the development of Italian archaeology (d'Agostino 1991: 53–4).

For Collingwood, the past that the archaeologist studies is not a dead past, but one that exists entirely in the present. He maintained that all we know about the past comes from texts and artifacts that exist in the modern world, together with knowledge that we believe is relevant for understanding the past when applied to this material (Collingwood 1939: 97–9). Collingwood's idealism also led him to deny that facts and theories are distinct from one another. Archaeologists, he argued, only perceive what they are conditioned to look for and nothing acquires meaning except in relation to clearly formulated questions that the archaeologist poses (pp. 24–5). As an idealist, Collingwood maintained that, because what is real to people is only

what exists in their minds, archaeologists must seek to understand the past by determining the intentions, goals, and knowledge that motivated the behavior of the people being studied. They therefore must attempt to replicate the intentions, purposes, and ideas that caused people to make and do things in particular ways in the past. Archaeological interpretation consists of the ideas that modern archaeologists have about the ideas that people once had, and is an activity in which a scholar strives to relive the past in her or his own mind. Only by seeking to reconstruct the mental activities that shaped events, and by rethinking the past in terms of their own experiences, can archaeologists hope to discern the significant patterns and dynamics of ancient cultures. Collingwood also stressed the importance of the convergence of multiple lines of independent evidence for establishing a persuasive understanding (Collingwood 1946: 276).

To study the past adequately, however, archaeologists also must try to expand their own consciousness by seeking to learn as much as possible about variations in human behavior and about specific ancient cultures from literary sources. There is no evidence that Collingwood viewed social anthropology as a useful source of information about variations in human behavior, although this would have been a productive way for him to expand his awareness of diversity. Instead, his classical bias led him to use the written records of ancient Greece and Rome to become more aware of the thoughts and practices of those civilizations that were distinct from modern ones and would help to place the past on a different plane from the present by contradicting the archaeologist's conventional beliefs (Collingwood 1939: 120–46, 1946: 302–15). Collingwood did not believe that such understanding would provide the basis for a definitive knowledge of the past. For him, the most that was possible was an imagining of the past that the archaeologist might hope approximated the understanding held by the people who had lived in the past. Working within the confines of the classical tradition, Collingwood seems to have been unaware of the dangers of ethnocentrism involved in this process.

Many British archaeologists of the 1940s and 1950s read Collingwood, or at least became generally familiar with his ideas. Yet most of them knew little about philosophy and were culturally predisposed toward some form of naive positivism or empiricism. That led archaeologists such as Glyn Daniel (1975), Stuart Piggott (1950,

1959), and Christopher Hawkes (1954) to interpret Collingwood's ideas along lines that in some respects were very different from what Collingwood had intended. Like Collingwood, they accorded ideas a major role in shaping human behavior, but, unlike him, they drew a clear distinction between facts and interpretations. They believed that archaeological data constituted the real and cumulative core of the discipline. Interpretations, by contrast, were matters of opinion that had little lasting importance. They argued that all archaeological interpretations are shaped by intellectual fashions and are invariably undermined by new data and new understandings. This position, which had much in common with the views of contemporary historians who followed the influential nineteenth-century German empirical historian Leopold von Ranke (1795–1886), combined extreme scepticism regarding the objectivity or lasting value of interpretations with unquestioning faith in the objectivity of archaeological facts (Carr 1967: 5–6; Iggers and Powell 1990). These archaeologists argued that, as the past no longer exists, there was no possibility of comparing inferences about the past with the actual events to establish if the inferences were correct. Because of the complexity of human phenomena, varying interpretations were possible and these were influenced to a considerable degree by the various standpoints or beliefs of individual archaeologists.

The idealist epistemology of these archaeologists influenced how they evaluated archaeology's potential and how they believed it should be organized. In 1954, Christopher Hawkes (1905–1992) maintained that, when totally unaided by written texts or oral traditions, it was easier for prehistoric archaeologists to learn something about ancient technologies than about economies, considerably more difficult to reconstruct sociopolitical institutions, and hardest of all to address religious and spiritual beliefs. The logic underlying this scale of increasing difficulty, which has come to be called "Hawkes's hierarchy" or "Hawkes's ladder," is that universal physical laws play a major role in shaping technology, whereas idiosyncratic and highly variable cultural factors influence human beliefs and behavior. Similar ideas had already structured the first edition of Grahame Clark's *Archaeology and Society* (1939), but as a materialist Clark believed that even working under these limitations archaeologists could learn much that was important about human behavior in prehistoric times. Hawkes, as an idealist, deplored the idea that archaeology was limited

to studying what was "generically animal" about human behavior rather than what was "specifically human," by which he meant human cognitive behavior (C. Evans 1999). Hawkes's argument evidently struck a responsive chord and was endorsed by M. A. Smith (1955), Childe (1956a: 129–31), Piggott (1959: 9–12), and André Leroi-Gourhan (1964), and more recently by J. Friedman and M. J. Rowlands (1978b: 203–4).

During the 1950s, British culture-historical archaeologists also tended to dichotomize the collection and interpretation of prehistoric archaeological data. The collection and primary analysis of data were widely viewed as the tasks of "dirt archaeologists," but the synthesis of their findings was the domain of prehistorians. Ironically, although data were believed to be the stable basis of archaeology and interpretations were regarded as little more than opinions, prehistorians were assigned much higher status than were archaeologists. This assignment of tasks was based on the assumption that there was no significant feedback between the synthesis and the collection of data. British empiricism suggested that fieldwork was best done in a theoretical vacuum, which was the opposite of Collingwood's belief that it should be undertaken to answer questions. Although this division of labor was noted by some American archaeologists (Rouse 1972: 6–11), it was not widely accepted in the United States. Yet Philip Phillips (1955: 249–50) agreed that the "integration" and "interpretation" of archaeological data were separate "operations."

Most prehistoric archaeologists, like palaeontologists, believed that analogical reasoning provided a means for interpreting their data. Within this general category, palaeontologists distinguished between analogies in the strict sense and homologies. Analogies are similar features that different species share as a result of natural selection having separately adapted them to a similar environment. An example is the streamlining acquired by fish and whales as a result of convergent evolution having adapted them to live in the water. Homologies are features species share as the result of a genetic relationship, such as the similarities between elephants and mammoths. Evolutionary archaeologists had believed that, as a result of psychic unity, different groups of people at the same level of development responded in similar ways to similar challenges and such resemblances were explained from a rational, adaptive point of view. Yet they did not rule out the possibility that two or more cultures shared features

because they were descended from a common ancestral culture or as the result of diffusion (something that could not happen between reproductively isolated species). Hence, they tended to explain similarities among distant cultures analogically and among neighboring cultures historically. Culture-historical archaeologists generally distrusted evolutionary explanations and relied almost exclusively on homologies to explain archaeological findings, very often by means of the direct historical approach. This choice reflected both their strong commitment to cultural particularism and their pessimism about human creativity, which resulted in diffusion and migration being almost the only mechanisms invoked to explain cultural change.

Culture-historical archaeologists long assumed that an archaeological culture was produced by a group of people who shared a common language and way of life and hence that ethnicity could be inferred from archaeological data (Kossinna 1911; Childe 1925a). By the 1950s, Eóin MacWhite (1956), Willey and Phillips (1958: 48–9), and other archaeologists had concluded that no single type of social unit corresponded with an archaeological culture. The distribution of the Chellean and Acheulean "cultures" over large parts of Africa, western Asia, and Europe and the great length of time they had endured made nonsense of the idea they could be equated with a single people. For this reason, these taxa often were called "industries" rather than cultures. The late prehistoric Thule culture, which spread over much of the Canadian Arctic, may have been associated with a single ethnic group, but it too clearly did not correspond with a single society. It was suggested that the archaeological remains of the ways of life of the Maya peasantry and elite might be classified as two linked "subcultures" or ethnic groups, although both groups almost certainly regarded themselves as members of a single social and economic system (Rouse 1965: 9–10). It was also observed that the geographical extent of the archaeological cultures of the European Neolithic was much larger than that of analogous ethnographic entities, an observation recently confirmed by H. P. Wotzka (1997). With the development of modern settlement pattern studies, new means for inferring prehistoric social and political units became available. It was gradually accepted that social organization had to be inferred from archaeological data on a case by case basis and that patterns of material culture were only one source of information. As a result, archaeologists in English as well as German-speaking

countries became increasingly aware that the social interpretation of archaeological cultures was more problematic than had generally been believed.

The ethnic significance of the archaeological culture also was being questioned on other grounds. Although Childe (1935a, 1940a) continued to produce detailed culture-historical syntheses, by the late 1920s he had begun to doubt that much could be learned about ethnicity from archaeological data alone or that ethnicity was a concept that could be central to the study of prehistory (Childe 1930: 240–7). The ethnographer Donald Thomson (1939) revealed that different seasonal manifestations of hunter-gatherer cultures might be associated with radically different material remains. It also became apparent that not all archaeological "cultures" had clearly defined boundaries. When variation in material culture occurred along clines or gradients, the delineations of archaeological cultures could be highly arbitrary and subjective and therefore be manipulated in accordance with interpretative agendas (Renfrew 1978b). This further called into question the relation between archaeological cultures and ethnic groups. As culture-historical archaeology declined in importance, the critiques of ethnic interpretations of the archaeological culture grew sharper. Processual archaeologists were inclined to construe variation in material culture as an expression of ecological adaptation rather than ethnicity.

Archaeologists now recognize that variations in material culture have numerous causes. Some of them reflect temporal differences, others differences in environmental settings, the availability of resources, local traditions of craft production and ornamentation, trading patterns, status emulation, gender identities, intergroup marriage patterns, and religious beliefs, as well as ethnic differences. It also has been shown that some peoples derive more powerful and enduring affiliations from clans or religious associations than they do from membership in tribes and communities. In these cases, material culture associated with clans and religious cults rather than with archaeological cultures is proving to be ideally suited for tracing the movement of groups of people in prehistoric times (T. Ferguson 2003: 141–2). Frederick Barth's (1969) demonstration that ethnicity is a subjective sense of identity that is manipulated by individuals and groups within many different contexts, that often have little to do with the material culture archaeologists study, makes ethnicity

unlikely to be the sole, or even the primary explanation either of cultural variation in the archaeological record or of cultural change (S. Jones 1997; Gosden 1999: 190–7; Shennan 2002: 84–5; Snow 2002; Chrisomalis and Trigger 2004).

Today, many archaeologists ignore or reject the concept of the archaeological culture (Shennan 1989b). Yet, where sharp breaks in material culture occur between adjacent groups of archaeological sites, the archaeological culture remains a useful concept for analyzing archaeological data. Archaeological cultures are increasingly being viewed as summary descriptions of patterns of spatial and temporal variation in material culture that were produced by many different factors. Hence, they are not explanations but phenomena that it is the duty of archaeologists to explain in specific instances. The search for ethnicity, which shaped the development of culture-historical archaeology for over a century, can now be understood as based on a misunderstanding of to what degree various factors shaped the archaeological record that persisted because of archaeologists' prolonged and largely uncritical preoccupation with producing ethnic or national prehistory. Although Kossinna and other German archaeologists pioneered this sort of archaeology, other German archaeologists were the first to discuss its shortcomings.

By the 1950s, culture-historical archaeology was running out of new ideas. In Britain, this era was characterized by the publication of numerous books dealing with how to dig sites and analyze finds using techniques derived from the physical and biological sciences. This approach culminated in Don Brothwell and Eric S. Higgs's *Science in Archaeology* (1963). Nowhere were there sustained discussions of how the interpretation of archaeological data might be grounded in archaeological and social science theory. The closest to such a body of theory was Eóin MacWhite's (1956) scheme of levels of archaeological interpretation, but this approach was not developed any further.

Although some culture-historical archaeologists traced the prehistoric development of technology (Piggott 1983) and art styles (Megaw and Megaw 1989), most continued to try to identify ethnic groups in the archaeological record and attributed changes in material culture to diffusion and migration. Archaeological findings were interpreted behaviorally or symbolically only when written texts or the direct historical approach provided additional sources

of information. The resulting narratives displayed little systematic grounding in archaeological data, with the result that they were increasingly criticized for being merely expressions of their authors' opinions (Clarke 1968: 30–1). The most striking shortcoming of culture-historical archaeologists was that change continued to be attributed to external processes, lumped under the rubrics of diffusion and migration, but little effort was made to discover why cultures accepted or rejected new traits or how innovations transformed societies. What was missing, despite a growing interest in what archaeological sites had looked like and what activities had gone on in them, was the will to learn how individual cultures had functioned and changed as systems. Without such an understanding, diffusion and migration were doomed to remain nonexplanations. These problems had been recognized for a long time, but ultimately the solutions would come from outside the culture-historical approach not from within it.

Conclusions

An approach centered on defining archaeological cultures and trying to account for their origins in terms of diffusion and migration developed as European archaeologists became more aware of the complexity of the archaeological record and ceased to view cultural evolution as a natural or desirable process. European archaeology became closely aligned with history and was seen as offering insights into what had happened to particular peoples in prehistoric times. Its findings became incorporated into struggles for national self-determination, the assertion and defense of national identity, and promoting national unity in opposition to class conflict. Archaeology of this sort also had great appeal elsewhere in the world. Ethnic and national groups continue to seek to learn about their early history as a means of enhancing group pride and solidarity and helping to promote economic and social development. Although the findings of culture-historical archaeology are now frequently enriched by the use of techniques for reconstructing prehistoric cultures and explaining cultural change that developed in other branches of archaeology, an approach that seeks to trace the histories of specific peoples continues to serve the needs of nation building in a postcolonial era. For this reason, culture-historical archaeology remains socially attractive

in many countries. In the United States, efforts to explain increasing evidence of complex patterning in the archaeological record slowly resulted in the grudging and limited acceptance of a formerly denied capacity of indigenous Americans to change.

Over the years, research by supporters and opponents of culture-historical archaeology has revealed the limitations of the archaeological culture as a source of information about ethnicity. Ethnicity is only one of many factors that shape the patterning of material culture; hence, archaeological cultures are not a privileged source of information about ethnicity but phenomena to be explained in many different ways. There is also considerable ongoing disagreement concerning to what extent archaeological cultures exist as bounded entities or are subjectively extracted from continua of variability.

Nevertheless, a more limited and formalist version of the culture-historical approach remains important. In places where little archaeological research has been done, it is necessary to construct culture-historical frameworks as a prerequisite for addressing other problems. In Canada, early in the twentieth century, cultural anthropologists asserted that ethnographic and linguistic data about indigenous peoples should be recorded before their old ways disappeared, whereas archaeological data could safely be left in the ground (Jenness 1932: 71). As a result, there was little government funding for archaeological research before the 1960s. Since then, Canadian archaeologists have been constructing cultural chronologies over half a continent. In this research, archaeological cultures have had to compete with social units, such as villages and site clusters, and with clinal variation for describing spatial and temporal variations in material culture. At the same time, processual archaeology has stimulated a strong focus on understanding how Canada's indigenous hunter-gatherer peoples adapted to diverse environments over many millennia. The resulting combination of culture-historical and processual archaeology continues to dominate Canadian archaeology. Even in countries where detailed chronologies already exist, functional and cognitive understandings of the past almost invariably require a more detailed understanding of the temporal and geographical variations of material culture in the archaeological record. Although Lewis Binford has made important contributions to understanding human behavior in Palaeolithic times, Palaeolithic archaeologists such as Olga Soffer and Clive Gamble continue to pursue a

more detailed culture-historical understanding of that era (Gamble 1999: 828–9).

The enduring value of a culture-historical approach is not its emphasis on ethnicity or on diffusionist and migrationist explanations of culture change but its ability to trace real lineages of the development of material culture in the archaeological record. Culture-historical, not evolutionary, archaeology is the equivalent of palaeontological research in biology. Like palaeontology, culture-historical archaeology's chief asset is its ability to trace historical relations through time and space. Such historical findings are the necessary prerequisites for evolutionary generalizations about the processes of change. Long ago A. L. Kroeber (1952: 63–103) observed that this relationship holds true in all historical sciences, whether they deal with natural, biological, or human phenomena.