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EUROPEAN SOCIETIES IN THE BRONZE AGE

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CONTENTS

<i>List of figures</i>	viii
<i>List of tables</i>	xiii
<i>Preface</i>	xv
1 Introduction	1
2 The Bronze Age house and village	22
3 Burial	73
4 The domestic economy	124
5 Transport and contact	164
6 Metals	197
7 Other crafts	242
8 Warfare	271
9 Religion and ritual	308
10 Hoards and hoarding	352
11 People	369
12 Social organisation	386
13 The Bronze Age world: questions of scale and interaction	414
14 Epilogue	431
<i>References</i>	436
<i>Index</i>	531

FIGURES

1.1	Political and physical divisions of Europe	2
1.2	Cultural sequence, west-central and northern Europe	12
1.3	Cultural sequence, east-central and eastern Europe	13
1.4	Cultural sequence, western Europe	15
1.5	Cultural sequence, Italy, Sicily and Sardinia	16
2.1	Depictions of Bronze Age buildings	25
2.2	Apalle, central Sweden: outline house plans	29
2.3	Round hut plans from southern England	31
2.4	Plans of settlements in northern England	33
2.5	Plan of Hut 3 at Clonfinlough, Co. Offaly, Ireland	35
2.6	Plan of Early Bronze Age houses at La Muculufa, Sicily	37
2.7	Plan and reconstruction of houses of Horizon B at the Padnal near Savognin, Engadin, Switzerland	39
2.8	Zürich-Mozartstrasse, plans of Early Bronze Age villages	41
2.9	House plans on tell sites	43
2.10	House plans in Scandinavia and north Germany	46
2.11	Zedau, Ostmark: simplified plan of the Late Bronze Age settlement	49
2.12	Lovčičky (Moravia): general plan of the Late Bronze Age settlement	51
2.13	Biskupin, plan of house 3, earlier phase	53
2.14	Settlement plans in wetland areas	59
2.15	General excavation plan of the settlement at Peñalosa, southern Spain	62
2.16	Nitriansky Hrádok, reconstructed plan of the Early Bronze Age fortified settlement	63
2.17	Cabezo de Monleón (Zaragoza): plan of the Late Bronze Age hilltop site	65
2.18	St-Oedenrode (North Brabant): general plan of house cluster 3	68
3.1	Burial traditions in Early Bronze Age Europe	78
3.2	Plan of the Early Bronze Age inhumation cemetery at Výčapy-Opatovce, Slovakia	79
3.3	Plan of the inhumation cemetery at Singen (Konstanz)	81

3.4	Reconstructions of 'mortuary houses' in barrows	83
3.5	Barrows with post rings of various types	88
3.6	Plan of the barrow cemetery at Oakley Down, Dorset	90
3.7	Burial cists in Breton First Series barrows	94
3.8	Tumuli in Albania and Yugoslavia	102
3.9	Barrow with coffin burial, Beckdorf, Kr. Stade, Lower Saxony	104
3.10	Cemeteries with coffin graves	107
3.11	Ship settings from Germany and Sweden	110
3.12	Plan of the Urnfield cemetery at Vollmarshausen	115
3.13	Gemeinlebern F, hypothetical reconstruction of three contemporary burying communities	116
3.14	Telgte, Kr. Warendorf, Westphalia, grave forms	119
3.15	Novaya Kvasnikova, Staropoltavkino, Volgograd, kurgan 4, burial 5: burial of a craftsman	121
4.1	Ards on Bronze Age sites	127
4.2	Wooden yokes	129
4.3	Sickle types in Bronze Age Europe	131
4.4	Twisk, North Holland, Middle Bronze Age circular structure interpreted as a corn-stack	133
4.5	Animal species at sites in north-west Europe and Germany	135
4.6	Animal species at sites in Hungary and Romania and Serbia	137
4.7	Animal species at sites in Italy and Sardinia and Spain and the Balearics	139
4.8	Cultivated plants on central European Bronze Age sites	147
4.9	Cultivated plants on Mediterranean Bronze Age sites	148
4.10	Fence lines under barrows	152
4.11	Field systems on the Marlborough Downs, Wiltshire	154
4.12	Field system on Holne Moor, Dartmoor	156
4.13	Animal hoofprints on Bronze Age sites	157
4.14	Cairnfields and field systems in the Midlands and north of England	160
4.15	Prehistoric fields at Vinarve, Rone parish, Gotland	162
5.1	Wheels from Bronze Age vehicles	166
5.2	Cult vehicle from Strettweg, Austria	168
5.3	Horse harness: cheek-pieces in bone and antler	171
5.4	Bronze Age wooden trackways	174
5.5	The lines of Bronze Age trackways in the Somerset Levels	175
5.6	Sprockhoff's attempt at representing Late Bronze Age trade routes in northern Germany and Poland	176

5.7	Bronze Age boats	178
5.8	Paddles from Bronze Age sites	179
5.9	Bronze Age wreck sites around European shores	182
5.10	Boats from a rock-art panel at Vitlycke, Bohuslän, western Sweden	183
5.11	Rock-art sites in southern Uppland in relation to a presumed Bronze Age shoreline	186
5.12	Distribution of amber beads of the Tiryns and Allumiere types	191
5.13	Distribution of selected razor types in western Europe	192
5.14	Distribution of bronze vessel types	194
6.1	Major sources of copper in Europe	198
6.2	Copper ore sources in the Swiss Alps (<i>Fahlerz</i> and sulphide ores)	200
6.3	The effect on hardness after cold working of adding 8% tin to copper; 'phase diagram' of a copper-tin alloy	203
6.4	Metal types in the 'Developed Early Bronze Age' of the British Isles	205
6.5	Metal types in the Wilburton phase	206
6.6	Extraction area at Špania Dolina-Piesky, central Slovakia	209
6.7	Extraction shafts (<i>Pingen</i>) and adjacent processing areas at the Mitterberg	212
6.8	'Mining tools' from copper mines, and tongs, hammers and anvils from metalworking sites	214
6.9	Tuyères from Bronze Age metalworking sites	221
7.1	Wooden containers	245
7.2	Construction techniques on wooden trackways and pile sites	246
7.3	Pustopolje tumulus 16, reconstruction of the wooden grave chamber	248
7.4	Briquetage from Bronze Age sites	250
7.5	Loom installations and depictions	257
7.6	Loom-weights, spindle-whorls and spools	259
7.7	Textile from Ledro	261
7.8	Spin and weave types known from Bronze Age Europe	262
7.9	The occurrence of spin and weave types in Bronze Age Europe	265
7.10	Glass and faience beads	267
8.1	Ritual fighting with battle-axes: part of a rock-art panel at Fossum, Bohuslän	272
8.2	Bronze swords: the progression of types	276
8.3	Bronze spears: the progression of types	282
8.4	Shields and helmet on Iberian grave stelae	286

8.5	Sheet-bronze cuirass from Marmesses	288
8.6	The two bronze horned helmets from Viksø, Zealand	290
8.7	Distribution of Bronze Age hilltop sites in southern Württemberg	293
8.8	Distribution of settlements and fortified hill-sites in the Esztergom region	294
8.9	Hillfort plans	297
8.10	Two views of the Middle Bronze Age hillfort at Monkodonja, Istria, Croatia	301
8.11	A fortified tower on Sardinia: the Nuraghe Asoru	302
8.12	Forts on the Aran Isles	304
8.13	Dún Aonghasa, plan showing excavated area with house outlines	305
9.1	Bronze Age cult installations	310
9.2	Pits and shafts	314
9.3	Wells on Bronze Age sites	316
9.4	Caves with Bronze Age occupation	319
9.5	Bronze Age wooden figures	323
9.6	Human and animal clay figurines	325
9.7	The percentage representation of different categories of object from moorland and from the Rhine near Mainz	327
9.8	Bronze horns from Drumbest, Co. Antrim	328
9.9	The average numbers of finds per year in different parts of the Main and Rhine	330
9.10	Pot deposits on Bronze Age sites	332
9.11	The main rock-art provinces of Bronze Age Europe	337
9.12	The frequency of rock-art motifs in two parts of Scandinavia	340
9.13	Distribution of petroglyph clusters in Stjørdal, Nord-Trøndelag	347
9.14	Gold cones ('hats')	349
10.1	Early Bronze Age hoard from Dieskau, Saalkreis	353
10.2	The composition of the hoard from Uioara de Sus, Romania	357
10.3	The different representation of worn and unworn objects in different regions of Denmark in Periods II and III	359
10.4	Marchésieux (Manche): findspots of axe hoards	366
11.1	Sardinian bronze figurines	370
11.2	Dress in Bronze Age Denmark, male and female	371
11.3	Figurines and ornaments in the Carpathian Basin	373
11.4	Reconstructions of female ornament sets from graves of the Tumulus culture	375

11.5	Grave 2/1983 at Grundfeld, Bavaria: skull and ornaments, as found and reconstruction	377
11.6	Mortality curves for various Early Bronze Age populations	378
11.7	Mortality curves for three Late Bronze Age Polish populations	379
12.1	Iwanowice, Babia Góra cemetery: wealth distribution across all graves, and wealth by age	397
12.2	Mokrin, numbers of metal ornament types in male and female graves, and wealth markers at Mokrin and Szöreg	399
12.3	Przeczyce, Lower Silesia, numbers of pots by age/sex category (inhumations, and cremations)	403
12.4	Massive male figure holding a spear, from a rock-art panel at Litsleby, Bohuslän	411
13.1	Alternative models of the 'Bronze Age world'	415
13.2	Sites and site catchments in the Late Bronze Age on Lakes Neuchâtel, Bienne and Morat	424
13.3	Village and 'territory' at Fosie IV, Scania	425
13.4	Territorial patterning in the barrow distributions of Scania	425
13.5	Schematic reconstruction of settlement nuclei in north-eastern West Friesland, based on the distribution of surviving barrows	427
13.6	Interpretative map of Bronze Age settlement areas in north-east Scania, based on the distribution of graves, rock-art sites and stone settings	428

TABLES

1.1	Radiocarbon chronology for Bronze Age Europe	18
3.1	Main Bronze Age burial traditions by area	77
3.2	Grave-goods at Těšetice-Vinohrady	84
3.3	Barrows in East Anglia	86
3.4	Coffins in Nordic barrows	106
3.5	Burial rite by sex at Pitten	112
8.1	Numbers of metal and organic-hilted swords in various countries of Europe	280
9.1	Special elements in art provinces of the British Isles	341
10.1	Bronze hoards by period in Croatia, Hungary and Romania	356
12.1	Burial differentiation by burial type	395

INTRODUCTION

This book is concerned with the history of human societies and the course of human interactions in Europe during the period that is traditionally called the Bronze Age, that is to say in absolute years the period of time between about 2500 and 800 BC. During this time, Europe changed from a continent settled by small farming and pastoral groups, strongly linked at the local level but only weakly linked, if at all, at broader levels, to one where it is possible to discern the existence of quasi-political groupings on a relatively large scale; from a society where individuals were powerful but did little to express that power in their material remains to one where the expression of status and power was extremely important; and from a society where the use of metal was rather rare and its circulation highly restricted to one where metals were a commonplace and vast quantities were produced.

The progress of these aspects of life and death was not, however, even across time or space. Nor were the processes outlined uniform in their manifestation. Europe is a large and geographically complex area (fig. 1.1), and the variety of its landscapes inevitably finds reflections in the patterns of activity of its inhabitants. It has also traditionally been seen as a melting-pot for the creation of 'peoples', that is to say ethnic identities. Although perspectives on both these aspects have shifted in recent years, it is undeniable that people reacted differently in different places and at different times to stimuli that from today's perspective look to have been similar or identical. In other words, one can identify groups of people, that is to say common groupings of material culture remains, whom it is convenient to lump together, naming them 'groups' or 'cultures'. It is this diversity of human reactions that is explored in this book.

Since people were different and reacted differently, the inevitable temptation is to write a book that merely lists or describes those reactions, in the form of material manifestations. It is in truth hard to escape this tendency altogether, since one is forced to relay some of the details of the more significant finds and sites that constitute the remains of any period of the prehistoric past, and the reader will find plenty of such descriptions in this work. These are, however, accompanied by an attempt to view the finds in a wider perspective, to arrive at some understanding of a common approach to particular aspects of life or death. The advantage of this approach is the

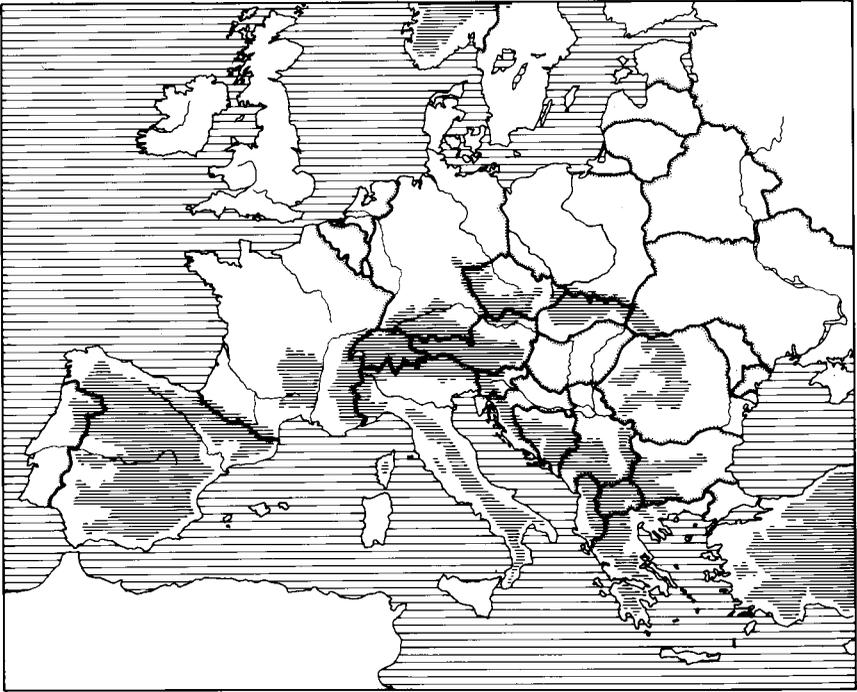


Fig. 1.1. Political and physical divisions of Europe.

possibility it offers of taking a wide view of problems common to everyone at particular periods of the Bronze Age. The disadvantage, and sometimes it is a crucial one, is that any attempt at discerning a common pattern becomes an imposition on the data, because it is clear there was no common pattern – things really were different in different parts of Europe.

An appreciation of this diversity is vital, particularly when one is concerned with mental processes that led to superstructural developments in the field of ideology and beliefs. With purely technological matters one is on safer ground, since there were only a limited number of ways of solving particular problems, such as extracting and smelting copper, working timber, or building houses. Even here, though, there are aspects which can be regarded as having had an ideological component, for example the form of houses, or attitudes to wood or stone that were more than merely utilitarian. This interplay between daily needs and expressions of the psyche finds its commonest expression in the treatment of the dead: the dead must be disposed of, but the way it is done can take on an enormous variety of forms, not merely in terms of the mechanics of disposal, but as regards the funeral service itself.

One can no more suppose that the last rites as practised in Ireland were the same as those in Romania than suppose that the Bronze Age Irish were ethnically the same as the Bronze Age Romanians.

Nevertheless, the attempt at discerning common patterns has been thought worthwhile in enough cases to justify the writing of a book with this broad geographical scope. The alternative, that of writing many smaller books about the Bronze Age of particular regions (and at what scale? that of the county? the state? the geographically defined region?), has often been done, and to this author at least has little appeal, tending as it does to create divisions where there are none. Thus general books on the Bronze Age in Hungary,¹ or Slovakia,² or eastern Austria³ or the British Isles,⁴ serve a useful local purpose but do little to further the understanding of the period on a wider level.⁵

The themes presented here therefore explore the extent to which general trends may be discerned, while endeavouring to avoid imposing such trends on the data. Although by today's standards the Bronze Age was a long period (around 1700 years in most of barbarian Europe, equivalent to all the time that has elapsed since the adoption of Christianity under Constantine), by comparison with anything which had gone before it was a time of rapid development and change, particularly so in the later stages. Furthermore, it was a time when contact between different parts of the European continent became common, so that major innovations in one area were adopted almost simultaneously in others; this is particularly true of technological change, but could apply as well to other, more 'psychological' developments such as burial modes. This means that it could be perfectly reasonable for common trends to have developed across much of the continent, and for archaeologists to attempt to spot them. Since the object of study is human beings and their responses, however, it would be unrealistic to expect such similarities to go beyond the most superficial of levels.

As well as dealing in the general, therefore, it will be necessary to look at the particular. In this, the study of local context is especially important. It has become a commonplace that sites and finds must be contextualised in order for any understanding of their meaning and form to be developed. The aim is laudable, but the results presented for public digestion so far, though bold and imaginative, have seemed less than impressive when it comes to convincing the sceptical that the particular interpretation presented has to be the correct one.

¹ Kovács 1977.

² Furmánek *et al.* 1991.

³ Neugebauer 1994.

⁴ Burgess 1974; 1980a.

⁵ One of the criticisms levelled at *The Bronze Age in Europe* was that the authors did not have an adequate knowledge of the period in given countries, so that multi-author volumes using local specialists were said to be the way forward e.g. V. Trbuhović, *Starinar* 30, 1979, 137–8.

A word is necessary about the use of the terms 'Europe' and 'Bronze Age' in this book. 'Europe' is intended purely as a geographical description, meaning that part of the globe that lies between Connemara and the Urals, Malta and the North Cape; for purely practical reasons, I do not include Greece and the Aegean area in the present work except in order to introduce the occasional comparison.⁶ I do not believe that any other significance can or should be assigned to the term in a rather remote period of the past, least of all that there was any special 'Europeanness' about Bronze Age Europe. By the same token, the 'Bronze Age' merely represents that chunk of time, roughly 2500 to 800 BC, that is traditionally called the Bronze Age. On the other hand, I believe that the phenomena encountered in this area and period are intrinsically interesting and that at certain times it is possible to illustrate the existence of trends and processes that were common to large parts of the territory, and were different from those occurring elsewhere on the globe. In this sense, I intend to show that 'Bronze Age Europe' is a worthwhile subject of study.

The Bronze Age is a much-studied period, and since the last century many authors have trodden the ground that underpins the present work. On the other hand, there have been astonishingly few books written that deal with the period as a whole and with Europe at large. Exceptions from the older literature are the works on chronology by Montelius and Åberg,⁷ while Childe wrote a very general brief account, drawing in the East Mediterranean as well as 'barbarian' Europe.⁸ The huge volume by Gimbutas, dealing with central and eastern Europe, represented a milestone in Bronze Age studies, bringing a vast quantity of little-known and inaccessible data before a wider public, and presenting a daring if controversial picture of the period in ethnogenetic terms.⁹ Some of these matters were picked up by Coles and Harding in an attempt at treating the whole period over the whole continent; a more recent survey based primarily on radiocarbon dating is that by González Marcén, Lull and Risch.¹⁰ A brief but extremely useful summary is provided by Müller-Karpe, who also gives a wide range of illustrative material from all parts of Europe,¹¹ while a short general account was provided by Bergmann.¹²

The problems faced by the generalist attempting to write a synthesis of a long period over a wide geographical area are compounded by political and linguistic difficulties, which create artificial divisions in the cultural story

⁶ No disrespect is thereby intended to Greece and its archaeology, which are of course fully 'European' in a geographical sense; but the cultural manifestations are so different, and so extensive, that only a full-length book (of which many already exist) could do justice to the situation.

⁷ Åberg 1930-5.

⁸ Childe 1930.

⁹ Gimbutas 1965.

¹⁰ Coles and Harding 1979; González Marcén, Lull and Risch 1992.

¹¹ Müller-Karpe 1974; 1981.

¹² Bergmann 1987.

and render much literature inaccessible to many people, especially to Anglophones. With the changes that have occurred in Europe since 1989, however, much more is being written in the major world languages, especially English. Several countries have made one or more of their vehicles of archaeological publication into foreign-language journals (e.g. *Archaeologia Polona*, *Památky Archeologické*); in others this was the case already (e.g. *Acta Archaeologica* (Budapest)). While there are some areas where this trend is not yet apparent (Russia is a notable example), there is no doubt that it is now much easier to acquire and read the literature than it used to be. Of course English speakers are in a particularly privileged position in this respect. Unfortunately, the trend mentioned will do nothing to encourage them to widen their linguistic horizons, reinforcing many in their present view that what is not written in English is not worth reading. This form of cultural imperialism and isolationism is particularly sad at a time when many barriers in Europe are in other respects being broken down.

While the literature is more accessible than it was, this fact does bring other problems in its wake. During the period over which this book was written, a glut of publication on Bronze Age archaeology has occurred, stimulated among other things by the designation of 1994 as the 'Year of the Bronze Age' by the Council of Europe, part of a campaign to raise awareness of Bronze Age sites and monuments, for both touristic and conservation reasons. Conferences and exhibitions have been held in more than a dozen countries, and books or exhibition catalogues have been produced to accompany them, often lavish in scale. It is still too early to assess the longer-term benefits of this awareness-raising action, but the publication of many hitherto unknown sites and artefacts has certainly been of benefit to the scholarly world, even though this frequently involves sifting through great masses of semi-popular writing to extract a small number of pearls.

This cannot be the only reason, however. The designation of the 'Year of the Bronze Age' was really a symptom, not a cause. Scholarly interest in the period had been on the increase for years prior to 1994; there has been a vast outpouring of publication on Bronze Age matters in the last twenty years. It is not altogether easy to explain the reasons for this. In part it stems from the hugely increased level of activity within archaeology generally. But it must also reflect the fact that people have come to realise that the Bronze Age contains material for study of a kind and quantity that cannot be found in other prehistoric periods. A comparison with the Neolithic is instructive. In the Neolithic, very large numbers of sites are now known in many parts of Europe – settlements in central Europe, graves in north and west Europe, various combinations of these in other areas – and during the 1970s a great deal of attention was focused on these cultural manifestations. To the dispassionate observer, however, there is no doubt that there is a certain sameness, a lack of variety, about the material remains of the Neolithic; this is

perhaps one of the features that were attractive to those of a positivist persuasion in earlier decades. Where this is not the case, the opposite is often true: the remains are so bafflingly enigmatic that it is hard to see how one can make much progress with understanding them, other than through post-processual approaches. A good example of this would be the study of megalithic tombs, where detailed typological study is a quick route to insanity. This is not to say that these problems do not also afflict Bronze Age studies in some part. It is rare to find a student – at least in the Anglo-Saxon world – who finds bronze implement typology fascinating, and stone circles are just as resistant to typological study as are megalithic tombs. But the range and quantity of material available for study is very much larger in the Bronze Age, particularly as modern survey and analytical techniques have demonstrated the richness of the source materials. Maybe too there has been a feeling that it is now the turn of the Bronze Age, that it has been understudied in the past and now offers possibilities for fruitful study. Whichever of these is correct, the problem remains. Anyone wanting to embark on serious study of the Bronze Age faces an enormous task in assimilating the literature. It is hoped that this book will make such a task somewhat easier.

The Bronze Age and its students

The course of Bronze Age studies over the last century, and especially over the last half century, has been determined by, but has also determined the work of, the scholars who have engaged in it. This observation is not, of course, peculiar to the Bronze Age; it applies to the study of any period or any subject. The Bronze Age differs from preceding periods, however, in that it produced very large quantities of specialised artefacts, which it has seemed natural to study in great detail; at the same time, it has lacked the great fortified sites and proto-urban centres that characterise the Iron Age. Its subjects of study have been conditioned accordingly.

To some extent these preoccupations have been those of their age. Morris has indicated how the nature of Bronze Age studies has changed with successive generations of archaeologists, at least in a British context;¹³ similar effects have been felt in other countries. For many years, artefact studies and funerary monuments were the principal objects of study. Artefacts were long ago appreciated as the key to Bronze Age chronology. In the nineteenth century, the work of Montelius or of Reinecke showed the way to the development of a sound chronological basis, by means of a sophisticated analysis of artefact types and associations. Workers in other areas, such as Déchelette in France or John Evans in Britain, also used artefacts for chronological purposes, even though their schemes did not have the same permanency.

¹³ Morris 1992.

Funerary studies were extremely popular in earlier years, especially in the last century but also in this. Funerary monuments, particularly tumuli or barrow mounds, are conspicuous and usually produce finds. In many instances, the foundations of our knowledge of the period are the work of early barrow excavators: F. X. Franc in western Bohemia or Sir Richard Colt Hoare and William Cunnington in Wessex are good examples. The excavation of Bronze Age funerary monuments was not, however, confined to the last century. Many excavators have dug large numbers of funerary monuments in recent times, for instance P. Ashbee in Britain or Zh. Andrea in Albania.¹⁴

Given these preoccupations, it is not surprising that other aspects of the archaeological record and its interpretation were left out of consideration. Settlement studies, for instance, made barely any impact for many years, with the notable exception of the Swiss lake sites (in many ways the Swiss equivalent to Victorian barrow digging in Britain). But even the recovery of vast quantities of material from both the west and the east Swiss sites did not lead to any significant attempt at understanding the sites other than in terms of their situation and building method. In other parts of Europe, settlement studies relating to the Bronze Age hardly existed; even where settlement sites were dug, such as the southern English sites excavated by General Pitt Rivers, the Argaric settlements of south-east Spain dug by the Siret brothers, the Sicilian sites dug by P. Orsi,¹⁵ or the *nuraghi* dug by Taramelli, no real attempt was made to set them in an overall context of a Bronze Age living system. Even fewer efforts were made to understand the nature of the Bronze Age economy, or the society that gave rise to it, except in the most general terms.

Few works that aimed to set the Bronze Age in an overall context emanate from these earlier years. One exception is Gordon Childe's book *The Bronze Age* (1930), an early work, but one that built on the foundations for European Bronze Age studies laid in *The Danube in Prehistory* of the preceding year. In this work, Childe foreshadowed many of the debates that concern Bronze Age scholars today: the economic and social significance of metalworking, the status and role of the smith, the effects of metalworking on small communities, and the longer-term effects on human society more generally. The work differs from all others written on the Bronze Age at this period by its willingness to engage in speculation about matters that some considered unknowable, and its insistence on a social and economic role for technological matters; in view of Childe's personal and political beliefs, this is perhaps not surprising, but it was for its day unusual, and finds few parallels until the very recent past.

Not surprisingly, major trends in archaeology generally have found their reflection in Bronze Age studies. Thus the fashion for environmental

¹⁴ Ashbee 1960; Andrea 1985.

¹⁵ Leighton 1986.

examination and explanation that was prevalent in Britain in the 1970s under the influence of E. Higgs spawned a series of articles that considered sites in their environmental setting, examined the economic foundations for their existence, and catalogued their biological debris in exemplary detail. While one could not pretend that the 'New Archaeology' had a big influence on mainstream Bronze Age studies, there was a certain spin-off: the number of quantitative analyses increased markedly, and the influence of new modes of thought can be gauged from, for instance, the work of J. Levy or K. Kristiansen. This last author has also been one of those responsible for the application of World Systems Theory to European Bronze Age studies, while his contributions to various volumes that have applied models of various kinds to the archaeological record have seen Marxist, structuralist and other approaches tried out on selected Bronze Age evidence. The stimulus this provided has not, however, translated itself – at least in the Anglo-Saxon world – into large numbers of students entering the field for research purposes, though in Germany, Spain and Italy Bronze Age studies have always attracted plenty of them. Through the 1980s and 1990s, the mood has been characterised more by uncertainty than anything else. On the one hand, many Bronze Age workers continue to adopt a positivist attitude to their subjects of study, and to believe that definite answers to specific questions can be obtained from the rich data sources at their disposal, if only enough analysis can be done; on the other, there is a trend to more subjective approaches to the Bronze Age, as to other periods of the past, under the influence of the post-modern movement. An extreme example of this is perhaps C. Tilley's 1991 book on Norwegian rock-art,¹⁶ but glimmerings of the same thing can be seen in a number of articles that have appeared since the mid-1980s.

A fully post-modern approach to the Bronze Age is yet to come. The contextualisation of the study of the Bronze Age is a task that is already under way, though few mainstream Bronze Age scholars would consider the task either legitimate or necessary. Yet for the study of a society and an economy where exchange mechanisms, industrial production and personal display were key elements, it clearly is necessary to specify one's personal context before any attempt at interpretation is made. The nature of archaeological facts in a Bronze Age context is also something to which little – if any – attention has been paid; it will become apparent that for this author the equation of 'archaeological facts' and 'artefacts' is still valid, and that artefacts constitute the source material with which the Bronze Age is to be studied.

¹⁶ Tilley 1991.

Frameworks of study: chronology

In order to set the developments that are the subject of this book in correct perspective, an appreciation of the time-scale over which they occurred is essential. The relative chronology of most parts of the European Bronze Age is well understood, though the details still give rise to debate and discussion in the literature. On the other hand, the absolute chronology has long been a matter of considerable uncertainty, stemming from the fact that the available sources were incapable until recently of giving a definitive answer to the question being asked. Traditionally, absolute chronology in the Bronze Age depended on the time-scale established in Egypt and Mesopotamia, to which that of the Aegean could be related, and that of Europe in turn to the Aegean (the cross-dating method). This produced results that were broadly acceptable, but did not command unanimous support.

From the 1960s, radiocarbon dating has been available to provide an independent chronology, but the progress of research on Bronze Age chronologies for most areas of Europe has been patchy and faltering. Earlier attempts to use radiocarbon dates to derive chronologies for central Europe were often decried as unreliable because they enforced a rethink of the traditional position. Added to this were numerous problems of context with many of the dated samples, for the most part isolated dates from poorly stratified or inadequately excavated sites. In recent years, however, the situation has changed with the advent of dendrochronologically dated sequences. These are only available in certain areas, notably the Alpine zone and Ireland, but since it is usually possible to link cultures, sites and objects to those areas with dendro dates the results are still of good quality. Added to this is the vast improvement in the quality of radiocarbon dates. Laboratories are extremely careful to date only those samples whose context is good; long stratified sequences are preferred; high-precision dating, using the results of dendrochronological calibration of the radiocarbon age, is possible; and the advent of accelerator mass spectrometry (AMS) dating has enabled the carbon-14 atoms to be measured directly in samples, rather than by counting the emission of beta-particles as happens in conventional dating. As a consequence, it is now possible to place absolute dates on many of the important transitions between different periods of the Bronze Age in much of central, southern and western Europe. This is not to say that problems do not remain, for instance in the East Mediterranean, where a major event such as the eruption of Thera in the Late Bronze Age is still the subject of controversy.

Relative chronologies

In broad terms, it is usual to divide the Bronze Age into three parts, Early, Middle and Late. In practice, the progress of knowledge in many areas means

that these divisions are barely meaningful any more; in Germany, for instance, a series of phase labels based on representative finds has largely displaced the Early/Middle/Late system, which was in any case hard to apply because of the subtle meanings attached to German or French versions of such terminology (e.g. Spät-, Jung-, Jüngere- Jüngst- and End-Bronzezeit, or Bronze tardive and Bronze final, all loosely translatable as 'Late Bronze Age'). Similar trends are visible in other areas, for instance in the British Isles.

It is necessary, however, to have an understanding of the principal chronological schemes that are in use in continental Europe, above all those devised long ago by Reinecke for southern Germany and by Montelius for Scandinavia, because they are still in everyday use. These two schemes have been successively applied to larger and larger areas of Europe, and continue to exert a major influence.

Reinecke

Paul Reinecke (1872–1958), working with closed find groups (graves and hoards) in Bavaria, developed over a period of decades a system of phase labels for the 'Bronze Age' (Bronzezeit) and 'Hallstatt Age' (Hallstattzeit), each of them being assigned four stages labelled A, B, C and D. The Hallstattzeit was based on the finds from the great cemetery of Hallstatt in central Austria, which included finds of iron and were therefore attributable in broad terms to the Iron Age. Subsequently it became clear that phases A and B of the Hallstattzeit actually belonged to the period that came to be called the Urnfield period (Urnenfelderzeit) because of the characteristic burial mode of depositing cremated bone in a funerary urn, and the urns in a defined burial place or 'urn-field'. Accordingly the practice grew up of assigning Bronzezeit A–D and Hallstattzeit A–B to the Bronze Age (in its general sense), and Hallstattzeit C–D to the Iron Age (the abbreviations Br or Bz and Ha are commonly used).

In broad terms, Br A represents the Early Bronze Age, Br B–C the Middle Bronze Age (or Tumulus Bronze Age, after the characteristic burial form of the period), and Br D with Ha A–B the Late Bronze Age or Urnfield period. All of these phases have at various times been subdivided, but the precise meaning attached to the divisions has not been constant from scholar to scholar. I cannot here enter into the complex debates which have attended these exercises. Instead, a brief indication of the more important aspects of the subdivisions is necessary.

Br A is divided into A1, representing the earliest full bronze industries, and characterised by inhumation cemeteries such as Singen (Konstanz) or Straubing, and hoards with flanged axes and metal-hilted daggers such as Bresinchen (Guben),¹⁷ and A2, to which a different range of specific types such as the pin with perforated spherical head or the socketed spearhead are

¹⁷ Breddin 1969.

assigned.¹⁸ There is also good evidence for the existence of a third Early Bronze Age phase, sometimes called A3, sometimes A2/B1, containing material that is clearly later than classic A2 but not yet fully developed into the full Tumulus Bronze Age material; this phase is represented at the recently excavated Austrian cemetery of Franzhausen II.

Phases B and C, the Middle Bronze Age, have both been subdivided at various times, but in general terms all that is relevant for present purposes is that they represent the sequence of the 'Tumulus cultures'. On the other hand, the divisions of the Urnfield period (Br D, Ha A and B) are extremely important. All three phases have been divided, but the divisions established by H. Müller-Karpe in 1959 have proved most influential. Building on the foundations of earlier scholars, he codified a system which divided Ha A into A1 and A2, and Ha B into B1, B2 and B3. This has not proved uncontroversial. A number of authors denied that they could recognise the separate existence of phase B2 as defined by Müller-Karpe on the basis of the cemetery of Kelheim near Munich. Nevertheless, the usage has continued in Germany, at least; in Switzerland, where the second phase is not generally discernible, Ha B2 is sometimes used in more or less the same sense as Ha B3 in Bavaria.¹⁹ Each of the phases is characterised by a range of artefact types known from graves and hoards (settlement material is not always easy to slot into this sequence), and in general the range of material is extremely well known and easily recognised, though debates continue over the details. Thus the relative chronological sequence is not in doubt (fig. 1.2).

Montelius

Oscar Montelius (1843–1921) lived and worked in Stockholm but had a vast knowledge of the archaeology of all parts of Europe. The chronological scheme for which he is justly famous was developed by him in order to understand the phasing of the Scandinavian Bronze Age, but his panoramic knowledge meant that it had ramifications far beyond Scandinavia.²⁰ Working from closed find groups, Montelius distinguished six periods, I–VI, of which I–III are referred to as Early Bronze Age, IV–V as Late Bronze Age, and VI falls at the transition to the Iron Age. In Period I local metal production was still slight, and significant numbers of objects were imported from central Europe and the Carpathian Basin. Period II is the main *floruit* of the earlier northern Bronze Age, with many richly furnished barrow graves and large quantities of metal. In Period III, cremation started to become common, and by Period IV it was absolutely dominant. In terms of the central European chronology, I corresponds to the Early Bronze Age, II and part of III to the Tumulus period, and IV and V to the Urnfield period.

¹⁸ e.g. the Langquaid hoard: Hachmann 1957, table 54.

¹⁹ Though recently it has become evident that there is indeed funerary material that falls between Ha B1 and B3: Matter 1992, 312ff.

²⁰ Montelius 1986.

France	N. Europe	C. Europe
	(Montelius)	(Reinecke, Müller-Karpe)
Ha Final		Ha D
Ha moyen		
Ha ancien	Period VI	Ha C

Br. Final IIIb	Period V	Gündlingen
		Ha B2/3
Br. Final IIIa		D S
Br. Final IIb	Period IV	J E Ha B1
		E E Ha A2
Br. Final IIa		J U
Br. Final I	Period III	F T Ha A1
		N L
		R U Br D
		C
Br. moyen	Period II	Asenkofen 2
		Br C
		Göggenhofen
		(1 2
Br. ancien	Period I	TUMULUS
		BRONZE
		Br B
		Lochham 1
Campaniformes (Beakers)	Late Neolithic	Langquaid 2
		Br A
		Singen
		Nitra 1

Fig. 1.2. Cultural sequence, west-central and northern Europe.

The Montelian periodisation is still in common use, though the phase definitions have been refined or modified. In addition to Scandinavia, the scheme is used in northern Germany and Poland, and in part in the Low Countries. Between Reinecke and Montelius, therefore, the larger part of the European continent is covered, or at least can be cross-referenced.

For other areas there are other schemes in use (fig. 1.3). A. Mozsolics developed a special phasing for the bronze hoards of the Carpathian Basin,²¹ which has not, however, been adopted by all students of the period, even in Hungary.

²¹ Mozsolics 1967; 1973; 1985.

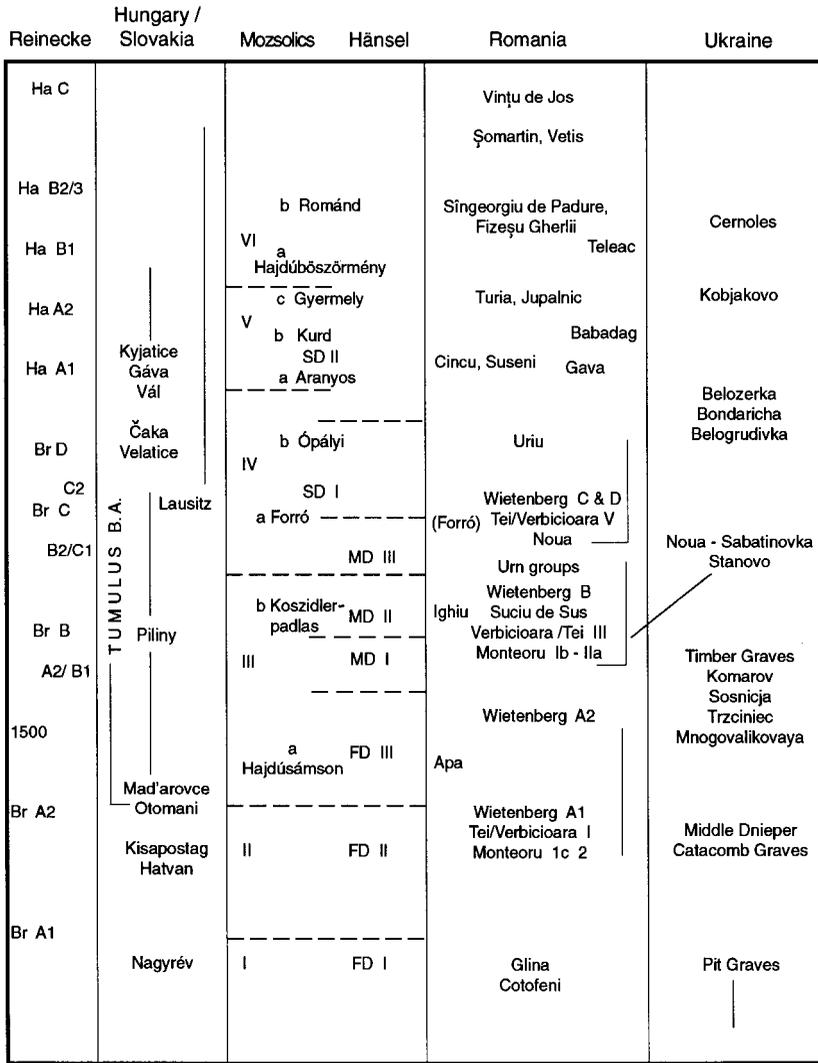


Fig. 1.3. Cultural sequence, east-central and eastern Europe.

More widely used in recent years is the scheme of B. Hänsel for the same area, but resting on a wider range of sites and artefacts than Mozsolics's scheme.²² This uses the terms Early, Middle and Late Danubian Bronze Age (frühe/mittlere/späte Danubische Bronzezeit, or FD I-III, MD I-III, and SD

²² Hänsel 1968.

I-II); it has come to be widely adopted, not least because of the prolific writings of Hänsel's pupils on the Carpathian Basin and neighbouring areas.

A cultural sequence of great importance that must also be introduced is that named after the cemetery of Únětice (German 'Aunjetitz') near Prague. The characteristic material culture from this and similar inhumation cemeteries, including the famous 'hour-glass' cups, is found over a wide area of central Europe, centred on the Czech Republic but also occurring in eastern Germany, central and southern Poland and northern Austria. Although it can be equated with Br A1 and A2 in the Reinecke system, a local five-stage sequence of development has been distinguished for the pottery.²³

In most other areas of Europe, either the Early/Middle/Late scheme is in use, or a sequence of culture names is preferred. This is the case in Britain and France, Italy and Spain (figs. 1.4 and 1.5), and the Balkans. One area that has its own distinctive sequence is south Russia and Ukraine, where it has been usual to refer to culture names based on grave form – Pit Grave (Russian *jamnaya kultura*), Catacomb Grave (*katakombnaja kultura*) and Timber Grave (*sрубnaja kultura*).²⁴ In other parts of Russia a sequence of local culture names is used.

Absolute chronology

Had this book been written thirty, or even twenty, years ago, it would probably have been considered necessary to devote many pages to a consideration of the absolute dating of the phases and cultures which would have been enumerated. This dating would have been derived largely from cross-dating via the Aegean to Egypt, and the links between the Aegean Bronze Age civilisations and the 'barbarian' world.²⁵ As it is, the progress of development of independent dating frameworks has been so rapid and so successful that for much of the period discussion is no longer necessary: the time-spans involved are now clear in outline. This optimistic statement needs to be qualified in a number of respects. First, dendro dates come mainly from settlement sites, and are largely concentrated in those areas where there is good preservation of organic remains (dates for oak coffins of northern Europe are the exception). In practice this means the Alpine area, southern Germany and Ireland, with some material now becoming available from elsewhere (e.g. Poland).

²³ Moucha 1961; 1963.

²⁴ Both Russian and translated versions may be found in the literature. Gimbutas (1965), Sulimirski (1970) and Coles and Harding (1979) use the translated form, as did Piggott and others; Mallory (e.g. 1989) and Anthony (e.g. 1996) use the Russian form. In this work the translated form is used, because I believe it aids comprehension and is more consistent: in Britain the term 'Schnurkeramik' is not used, let alone 'šnurová keramika', but 'Corded Ware'. Complete consistency is impossible since it is commonplace for Anglophones to refer to the Linearbandkeramik or LBK, and the TRB, rather than their English translations.

²⁵ e.g. Renfrew 1968; Harding 1980; Randsborg 1991; Gerloff 1993; 1996.

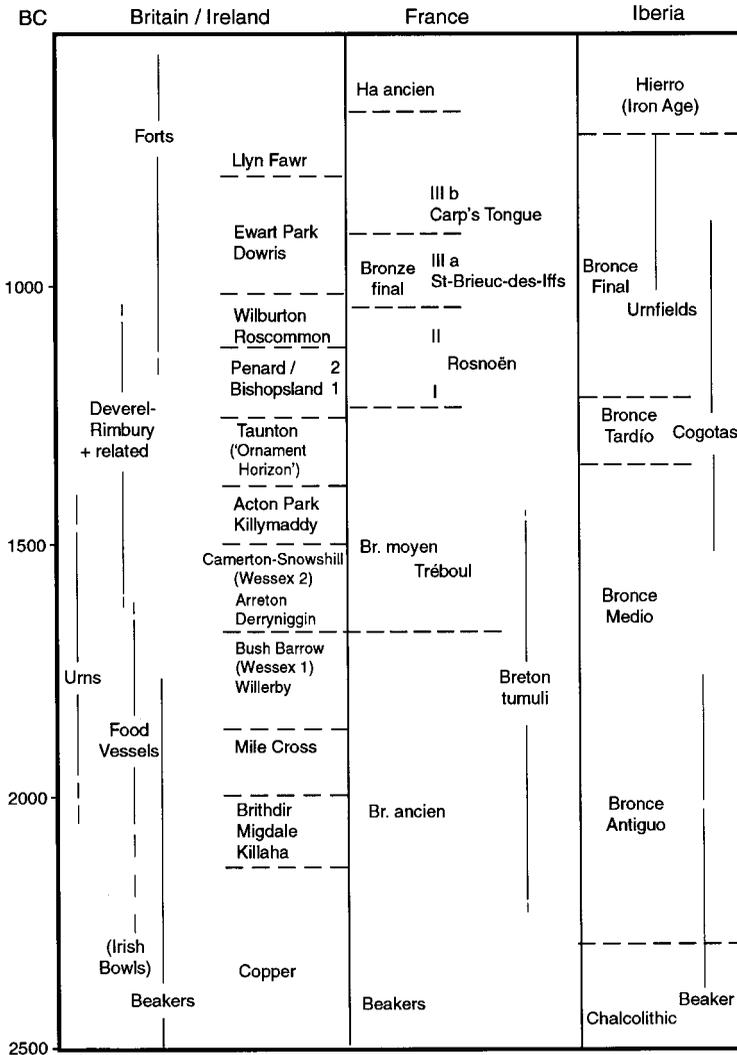


Fig. 1.4. Cultural sequence, western Europe.

Thus the dates for the felling of trees used on a site such as Zürich-Mozartstrasse (below, p. 42) are known to the exact year; what is more difficult is to relate the material culture used on the site to the established phases as known from graves and hoards. Second, sizeable parts of Europe still have no adequate radiocarbon chronology, certainly not one based on series of carefully contextualised samples subjected to high-precision dating. All too often the

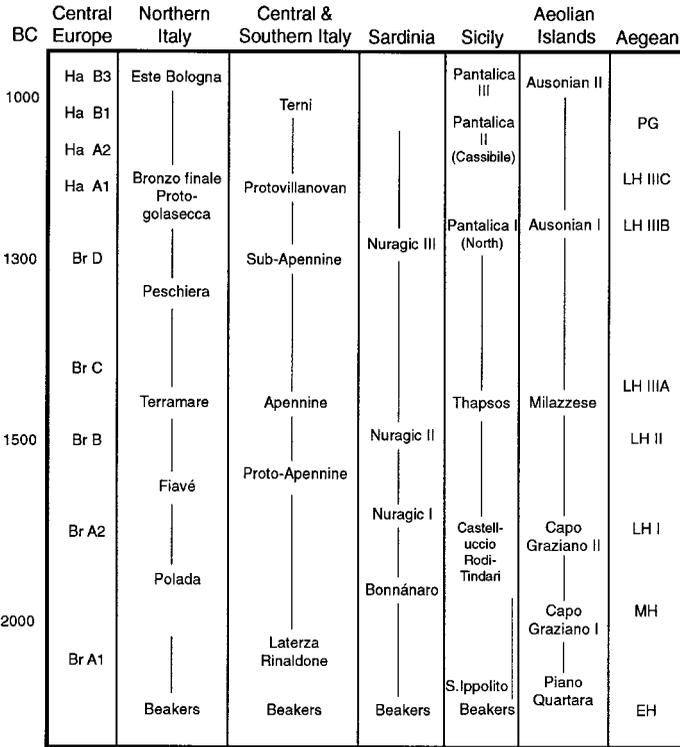


Fig. 1.5. Cultural sequence, Italy, Sicily and Sardinia.

association of samples with events on sites is vague or absent altogether, and the dates are isolated. Still rarer are programmes of dating on organic materials that are integral parts of bronze implements, such as has been carried out by the British Museum in recent years.²⁶ Admittedly one cannot be sure in these cases that the organic element dates to the time of manufacture and original hafting of the bronze object, but given enough objects to date in this way patterns become clear. Third, the establishment of an independent chronology in one area need not necessarily give a precise chronology to another, though it is likely to act as a good general guide. Fourth, radiocarbon dates have to be calibrated against the curve derived from samples of known age in order to obtain true calendrical dates, and the calibration curve does not affect all periods equally. In some centuries (most notably in the mid-first millennium BC) there is a plateau in the curve which means that a wide range of calendrical dates is possible for a given radiocarbon age. This

²⁶ Needham *et al.* 1997.

problem affects the latest dates for the Bronze Age, though it is more acute in the Iron Age.

In spite of these difficulties, little – except the availability of finance to procure datings – stands in the way of establishing a sound chronological framework for all parts of Europe throughout the Bronze Age. The procedures are routine; subject to the availability of suitable material, cultural sequences should be accurately dated everywhere within a couple of decades.

A good example of the way in which traditional dating methods (cross-dating) are modified by new independently derived dates is given by the oak coffin graves of north Germany and Denmark. The famous ‘princely’ burial sites of Helmsdorf and Leubingen belong to the classic phase of the Únětice culture, equivalent to the earlier part of Br A2, and were assigned to the middle of the second millennium BC, in accordance with the standard view that Br A2 and its congeners in the Carpathian Basin were to be placed parallel with the Shaft Graves of Mycenae (c. 1650–1450 BC on the traditional chronology). Dendro dates on the grave constructions of these two graves in fact gave the dates 1942 ± 10 BC (Leubingen) and 1840 ± 10 BC (Helmsdorf).²⁷ Even allowing for a period of time represented by the outermost (absent) rings of the timbers involved, the gap between the two sets of dates is at least two centuries, probably three, and cannot be bridged by special pleading alone. A radical revision of traditional chronologies became necessary.

Less dramatic in its effects, but equally important as a rather precise indicator of deposition date, is the series of dendro dates obtained on Danish coffin graves. Those that were datable belong to Period II.²⁸ The latest rings on these coffins all fall in the period 1425–1350 BC, and with an allowance of 20 additional years for the absent sapwood they span the period 1396–1330 BC. In this case, the dates are in accord with the expectations of traditional chronology – one implication of which is that the Early and Middle Bronze Ages must have lasted considerably longer than previously thought.

Dendro dates have also had a marked effect in the dating of the Urnfield period, introducing a general tendency to heighten the start and finish dates of each period.²⁹ The problems of relating settlement materials to grave and hoard finds reappear here, and the discrepancies between the dendro-dated sequence and the ‘historical’ chronology laid down by Müller-Karpe have not yet been resolved.

Table 1.1 illustrates current best estimates for absolute ages in each area, on the basis of radiocarbon dates.³⁰

²⁷ Becker, Jäger *et al.* 1989; Becker, Krause and Kromer 1989.

²⁸ Randsborg 1991.

²⁹ Sperber 1987.

³⁰ These are derived from a variety of recent sources, but above all from the proceedings of a conference held in Verona in 1995 (Randsborg 1996), and selected other works e.g. Chronologie 1986; Skeates and Whitehouse 1994; Needham *et al.* 1997; Sperber 1987.

Table 1.1. *Radiocarbon chronology for Bronze Age Europe*

Britain	Start	End
Beakers	2450	1700
Early Copper (MA I-II)	2400	2150
Migdale (MA III)	2200	1950
Food Vessels, Collared Urns (MA IV-V)	2100	1500
Acton Park, Taunton	1770-1350	1380-1210
Penard	1380-1210	1220-1080
Wilburton	1220-1080	1100-960
Blackmoor	1100-960	1000-860
Ewart Park	1000-860	880-750
Llyn Fawr	880-750	
France		
Early Bronze Age	2300/2200	1600/1500
Middle Bronze Age	?1800/1700	1500/1400
Bronze final I-II	1400	1200
Bronze final III	1300	800/700
North and central Italy		
Beakers	2550	1800
Polada	2400	1400
Apennine	1690	660
Late Bronze Age	1500	1140
Protovillanovan	1430	660
Spain		
Argaric Bronze Age, motillas	2300/2250	1600/1500
Middle-Late Bronze Age	1600/1500	1300
Bronze Final I	1250	1100
Bronze Final II	1100	940
Bronze Final III	940	750
Iron Age (Hierro)	800	
Central Europe		
Bell Beaker/Corded Ware		2000
Singen (Br A1)	2200	2000/1950
Bodman/Schachen, Zürich-Mozartstrasse (Br A2)	2000/1950	1600/1500
Tumulus Bronze Age (Br B-C)	1500	1300
Br D	1400	1200
Ha A1-A2	1250	1050
Ha B1	1100	1000
Ha B2/3	1050	750
Ha C	750	
Scandinavia		
Late Neolithic II	1920	1730
Period I	1730	1510
Period II	1500	1250
Period III	1440	1040
Period V	850	760

Climate and environment

A detailed discussion of the natural environment in Bronze Age Europe is beyond the scope of this book. The availability of relevant source materials is extremely variable, though pollen sequences have been studied in almost all areas and other types of proxy data are also available.³¹

The Bronze Age falls within the climatic period called the Sub-boreal, which is sandwiched between the Atlantic and Sub-atlantic periods. In general, this was a warm and dry period, in contrast to the warm wet Atlantic and the cool wet Sub-atlantic. But such a bland general statement conceals a mass of small variations, both spatial and temporal. Fine-resolution pollen sampling shows that within the broader picture obtained by traditional pollen analysis there is a similar detailed set of fluctuations happening in the pollen record, which as a proxy climate indicator reflects changes in air temperature, precipitation and so on. Lake-level fluctuations and the movement of the tree-line in the Alps similarly indicate a constantly changing pattern. In peat bogs there are indications that peat growth was periodically halted, and soil profiles in some central European sites suggest that markedly dry conditions prevailed at some points in the Urnfield period. At other times, these were replaced by catastrophically wet conditions, which were responsible for the abandonment of many lakeside sites that lay close to normal lake water level. Indeed, it has been suggested that the pattern of climate change can be followed through the study of lakeside settlement: at the times when it is absent, water levels were high; when present, water levels were relatively low. There are problems with this approach as the importance of cultural factors is almost totally ignored, but it is certainly puzzling that many sites were completely abandoned after major flooding episodes and never, or only centuries later, reoccupied.

On British moors and heaths, there is extensive evidence for the deterioration of soils during the course of the Bronze Age.³² The examination of buried soils beneath Early Bronze Age barrows has sometimes shown that mixed oak forest lay not far away, while the presence of cereal pollen is a clear sign that parts of the landscape were cleared and cultivated. But examination of some 'cairnfields' (below, p. 158) has found that soils were already podsolised and the clearance of stone that they represent has even been seen as a strategy for maintaining yields in the face of catastrophic environmental deterioration.

One of the problems in determining the nature and importance of environmental conditions in the Bronze Age is that both human and natural agencies were at work. Specifically, clearance of forests that may never have been

³¹ Coles and Harding (1979) include brief discussion of environmental conditions in each area of Europe. The general picture may be obtained from works such as Tinsley in Simmons and Tooley 1981, Harding 1983a, and other syntheses.

³² Dimbleby 1962.

touched since the global warming after the Ice Age must have proceeded apace. Molluscan evidence in southern England has sometimes shown an extensively cleared landscape in the Late Neolithic and Early Bronze Age (for instance at Stonehenge); pollen diagrams on moorlands suggest a recurring attack on the woodlands, probably in the form of numerous small-scale clearances rather than the extensive clearance of large tracts.³³ Similar patterns can be seen in the lowland areas of much of the rest of Europe.

Much has been written in recent years about the possible impact of major natural catastrophes and other events, notably volcanoes,³⁴ and, most recently, comet or asteroid impacts. The only active volcanoes in Europe are in Iceland and the central and eastern Mediterranean (Vesuvius, Etna, the Aeolian Islands and Thera), but Thera at least is known to have undergone a massive eruption in the Bronze Age. Such eruptions eject huge clouds of debris into the atmosphere, and the finer particles can linger at high altitudes for months or years, where they may block solar radiation. As a consequence, vegetation on the earth's surface can be severely affected. Short-lived plants will leave no permanent trace in the fossil record, but trees can show stunted growth in their annual rings. This phenomenon is visible in Irish bog oaks in the 1620s BC.³⁵ There are other grounds for believing that this pattern is to be associated with the eruption of Thera (though the date of the eruption has been the subject of controversy and is still not definitively settled). Whether or not this was the case, growing trees suffered a severe setback at that date, which must reflect the sudden onset of markedly colder conditions worldwide. If the impact on trees was so strong, it would also have had dramatic effects on growing crops and grassland. The effects on human life must have been correspondingly significant; various marked changes in the archaeological record have been attributed to the aftermath of such events.

But for most of the time life was not rocked by calamities on such a grand scale. Climatic and environmental conditions fluctuated, so that the observer on the ground will have suffered bad years for crop production along with the good ones, as has always been the case. The extent to which human groups buffered themselves against such effects is a cultural matter; there is some evidence that in the Late Bronze Age, for instance, specific strategies were adopted for this precise purpose (p. 145). Given the small scale of most Bronze Age communities, however, responses to the natural environment were probably palliative rather than prophylactic.

³³ e.g. Balaam *et al.* 1982.

³⁴ Baillie 1989; 1995; Burgess 1989; Gross-Klee and Maise 1997.

³⁵ Baillie 1995, 75ff.

Conclusion

In an age where relativist approaches are becoming the norm and there is a tendency to deny the relevance of constructs such as 'the Bronze Age', it might be thought a risky enterprise to devote a book to the topic. Yet, as I hope to show, the geographical area known today as Europe in the time-span 2500–800 BC was host to a mass of technical and conceptual developments that make it legitimate to describe and analyse it, and appropriate to treat it as an entity with its own character and trajectory that was different from those of other continents.

In contrast to most previous approaches to the period, however, this book does not deal much with artefact typology or chronological analysis, and it attempts to avoid straight description of sites and artefacts. An inclusive approach is adopted to Bronze Age studies, though it will become evident that I believe some are more useful than others. The 'Year of the Bronze Age' was a celebration of 'Europe's first Golden Age', concentrating on the spectacular end of the range of monuments and artefacts that emanate from the period. This book is intended no less as a celebration of the period, which represents a crucially formative phase in the human past, constituting the change from Neolithic farming villages, in many ways little altered since the arrival of the first farmers, to Iron Age proto-states on the verge of literacy and written history. The people who created the archaeological record studied here were in all likelihood biologically the same throughout, and enter history with particular ethnic labels attached to them. One of the tasks of this book is to chart the ways in which the complexity that is visible then was achieved, what were its roots, and what its constituents.