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Schatten des Thera-Ausbruchs?

1600 – Cultural change in  
the shadow of the Thera-Eruption?

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Harald Meller,  
François Bertemes,  
Hans-Rudolf Bork  
und Roberto Risch

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# Inhalt/Contents

## 9 Vorwort der Herausgeber/Preface of the editors

## Sektion Naturwissenschaften/Section sciences

### 19 Hans-Rudolf Bork und Stefan Dreibrödt

Vulkanische Extremereignisse in der Nacheiszeit und ihre Folgen für den Menschen und seine Umwelt in Mitteleuropa

### 23 Hartmut Leser

Paläo-Umweltgeschichte und Geomorphologie: Möglichkeiten eines geowissenschaftlichen Forschungsansatzes

### 37 Walter L. Friedrich

The Minoan Eruption of Santorini around 1613 B.C. and its consequences

### 49 Clive Oppenheimer

Nature and impacts of the Minoan Eruption of Santorini

### 59 Walter Kutschera

Dating of the Thera/Santorini volcanic eruption

### 65 Mike Baillie

Radical thinking on the Thera debate

### 77 Christoph Siart and Bernhard Eitel

Santorini tephra on Crete: a mineralogical record of Bronze Age environmental change

### 89 André Billamboz

Der Standpunkt der Dendroarchäologie zu den Auswirkungen der Thera-Eruption nördlich der Alpen

### 101 Gernot Patzelt

Bergstürze im 2. Jahrtausend v. Chr. im Ostalpenraum

### 109 Leo Rothacker and Frank Sirocko

Evaluation of flood events in three Eifel maar sediment records during the 16<sup>th</sup> century B.C.

### 117 Giovanni Orsi, Raffaello Cioni and Valeria Di Renzo

The Campanian Plain during the Bronze Age: development of volcanism and impact of the Vesuvius Avellino eruption in a densely populated area

## Sektion Archäologie/Section archaeology

### 137 Anna Michailidou

The final settlement at Akrotiri on Thera: the buildings, the people, and the eruption

### 149 Annette Højen Sørensen, Walter L. Friedrich, Samson Katsipis and Kirsten Molly Sørholm

Miniatures of meaning – interdisciplinary approaches to the miniature frescos from the west house at Akrotiri on Thera

- 163 Tobias Neuser**  
Willkommen sei die Ordnung, denn das Chaos hat versagt. Die Auswirkungen des Vulkanausbruchs von Akrotiri auf das Selbstverständnis ägäischer Eliten
- 177 Wolf-Dietrich Niemeier**  
Die Auswirkungen der Thera-Eruption im ägäischen Raum
- 191 François Bertemes**  
Tavşan Adası. Das Thera-Event und seine Auswirkung auf das minoische Kommunikationsnetzwerk
- 211 Katharina Pruckner**  
The so-called »Middle Helladic Tradition« in Aegean pottery production of 1600 B. C.
- 221 Joachim Friedrich Quack**  
Gibt es in Ägypten schriftliche Quellen zum Thera-Ausbruch?
- 235 Reinhard Jung**  
The time around 1600 B. C. in Southern Italy: new powers, new contacts and new conflicts
- 253 Halinka Di Lorenzo, Mauro Antonio Di Vito, Pierfrancesco Talamo, Jim Bishop, Nicola Castaldo, Sandro de Vita, Rosella Nave and Marco Pacciarelli**  
The impact of the Pomice di Avellino Plinian eruption of Vesuvius on Early and Middle Bronze Age human settlement in Campania (Southern Italy)
- 267 Alessandro Vanzetti**  
1600? The rise of the Terramara system (Northern Italy)
- 283 Vicente Lull, Rafael Micó, Cristina Rihuete Herrada and Roberto Risch**  
Political collapse and social change at the end of El Argar
- 303 Mauro S. Hernández Pérez, Francisco Javier Jover Maestre and Juan Antonio López Padilla**  
The social and political situation between 1750 and 1500 cal. B. C. in the central Spanish Mediterranean: an archaeological overview
- 315 Francisco Javier Abarquero Moras, Antonio Blanco-González, Ángel Esparza Arroyo and José A. Rodríguez Marcos**  
The Central Iberian Meseta at the time of the Thera-Eruption: an overview
- 327 Carola Metzner-Nebelsick**  
Gedanken zur Frage des kulturellen Wandels in der Zeit um 1600 v. Chr. in Nordwest-Rumänien und Nordost-Ungarn
- 355 Klára P. Fischl, Viktória Kiss, Gabriella Kulcsár and Vajk Szeverényi**  
Transformations in the Carpathian Basin around 1600 B. C.
- 373 Jozef Bátora**  
The settlement structure problem and the end of fortified settlements from the final period of Early Bronze Age in Slovakia
- 387 Jaroslav Peška**  
Das Besiedlungsbild in der Blütezeit der Frühbronzezeit im Gebiet des mittleren Donauraumes
- 411 Alexandra Krenn-Leeb**  
Sozialer Wandel um 1600 v. Chr. in Österreich
- 435 Margarita Primas**  
Settlement and interregional connections in the Central and Eastern Alps

- 443 Florian Innerhofer**  
Von der frühen zur mittleren Bronzezeit in Süddeutschland – Wandel oder Zäsur?
- 453 Michal Ernée**  
Bernstein und der Zusammenbruch der klassischen Aunjetitzer Kultur in Böhmen
- 469 Bernd Zich**  
Aunjetitz – Nebra – Sögel. Die Zeit um 1600 v. Chr. im westlichen Mitteldeutschland
- 493 Harald Meller**  
Der Hortfund von Nebra im Spiegel frühbronzezeitlicher Deponierungssitten
- 527 Johannes Müller**  
1600 B.C. – Social topographies and the development of Early Bronze Age societies in Central Europe
- 539 Anna Swieder**  
Carpathian Basin, Oder, Baltic Sea. The role of the Oder River as communication corridor at the end of the Early and the beginning of the Middle Bronze Age
- 551 Juliane Filipp**  
Southern Scandinavia around 1600 B.C. Signs of mobility, trade, and communication – the scimitars from Rørby (Denmark)
- 567 José Gomez de Soto**  
The Bronze Age in Atlantic France around 1600 B.C.
- 577 Timothy Darvill**  
Dark sides of the moon: life, death, ritual, and regional identity in Britain ca. 1600 B.C.

## Abschlussdiskussion/Final discussion

- 597 Roberto Risch und Harald Meller**  
Wandel und Kontinuität in Europa und im Mittelmeerraum um 1600 v. Chr.

# Dark sides of the moon: life, death, ritual, and regional identity in Britain ca. 1600 B.C.

Timothy Darvill

## Zusammenfassung

Die zwei Jahrhunderte vor und nach 1600 v. Chr. fallen in die Bedd Branwen-Periode der britischen Frühbronzezeit und umfassen die Arreton Down- und die Acton Park-Metallurgie, deren Produkte Ähnlichkeiten zum Material der Stufen Reinecke Bz A2/B1 auf dem europäischen Festland aufweisen. Es ist dies eine Zeit zunehmender fundamentaler Veränderungen. Sechs bedeutende, regionale Stile können in der Zeit um etwa 1700 v. Chr. bis 1600 v. Chr. in England nachgewiesen werden, von denen die Wessex-Kultur im mittleren Südens England die bekannteste ist. Jede von ihnen ist durch spezifische Merkmale gekennzeichnet. Diese regionalen Stile zeigen sich in der materiellen Kultur sowie der Errichtung von Monumenten, beispielsweise Rundhügeln, runden Steinhäufen oder abgegrenzten Gräberfeldern. Des Weiteren werden auch ältere rituelle Stein- oder Holzmonumente genutzt. Einige nehmen in ihrer Ausrichtung auf den Mondkalender Bezug. Das keramische Material umfasst Fußschalen und Kragengefäße. Dauerhafte Siedlungen sind selten und auch Nachweise intensiver Landwirtschaft sind spärlich.

Im Gegensatz dazu scheint man nach ca. 1600 v. Chr. die Astronomie neu zu entdecken, während das Interesse an Sonnensymbolik und rituellen Aktivitäten, die mit der Sonne im Zusammenhang stehen, an älteren Anlagen abnimmt. Neue Keramikstile – wie die Deverel-Rimbury-Keramik – treten auf. Siedlungen sind häufiger anzutreffen und meist mit Feldsystemen und landwirtschaftlichen Anlagen verbunden. Die vorwiegend in eimer-, tonnen- oder kugelförmigen Urnen vorgenommenen Brandbestattung liegen in bisweilen ausgedehnten Urnengräberfeldern. Regionale Traditionen sind weiterhin feststellbar, jedoch nun etwas häufiger und jeweils auf eine kleinere geografische Region begrenzt.

Warum in den mittleren Jahrhunderten des 2. Jt. v. Chr. solch tief greifende soziale, wirtschaftliche und kulturelle Veränderungen stattfanden, bleibt eine Schlüsselfrage der Forschung. Jedoch wird immer deutlicher, dass Umweltfaktoren – vielleicht sogar katastrophale Ereignisse – sowie Einflüsse aus anderen Teilen Europas eine bedeutende Rolle spielten.

## Introduction

Throughout Britain, the century or so either side of 1600 B.C. marks a watershed in the development of indigenous communities; a period of fundamental and progressive changes in the use of public monuments, the treatment of the dead, and the organization of the landscape. Conventionally, this

## Summary

The two centuries centred on 1600 B.C. fall within the Bedd Branwen Period of the British Early Bronze Age, spanning the Arreton Down and Acton Park metalworking industries whose products share some similarities with Reinecke Bz A2/B1 material on the continental mainland. It is a period of fundamental and progressive change. Six main regional traditions can be recognized in Britain for the period ca. 1700–1600 B.C., of which the most well-known is the Wessex Culture of central southern England. Each can be characterized by the presence of distinctive personal identities expressed through material culture, as well as regional styles of monument construction such as preferences for fancy round barrows, ring cairns, or enclosed cemeteries. There is also much interest in earlier ceremonial monuments built in stone or timber, especially circles, rows, and pairs. Some have orientations that focus on lunar events. Pottery styles include food vessels and collared urns. Permanent settlements are rare, and evidence of intensive agriculture is poor.

By contrast, after ca. 1600 B.C., cosmologies seem to re-establishes an interest in solar symbolism and activity at earlier sites declines. New kinds of pottery – Deverel-Rimbury Ware – come into circulation. Settlements are more common and are usually associated with fieldsystems and agricultural facilities. Burials are typically cremations in bucket, barrel, or globular urns and are placed within sometimes extensive urnfields. Regional traditions continue to be recognizable, but they are now slightly more numerous and each covers a smaller geographical area.

Why the middle centuries of the second millennium B.C. should see such profound social, economic, and cultural change remains a key research question. However, it is increasingly recognized that environmental factors, perhaps even cataclysmic events, as well as influences from other parts of Europe play a significant role.

is the transition between the Early Bronze Age (EBA) and the Middle Bronze Age (MBA), but archaeologically the boundary is slightly blurred because of geographical variations, poor resolution to recognizable changes to material culture, and the rather rudimentary radiocarbon-based real-time chronologies (Fig. 1). Pottery provides a fairly clear picture as it is relatively distinctive and is found widely across the

Date		Period	Stage	Industry
1300 B. C.	Middle Bronze Age Deverel-Rimbury Pottery	Penard	X	<b>Penard</b> Links to Montelius III; Rosnoën; and Hallstatt A1/A2.
1400 B. C.		Knighth Heath	IX	<b>Taunton/Barton-Bendish/Bishopsland</b> The ornament horizon. Links to Montelius IIb-c; Tumulus Culture C.
1500 B. C.		Bedd Branwen	VIII	<b>Acton Park/Killimaddy/Caverton/Auchterhouse</b> Links to the European Tumulus Culture/Reinecke B1.
1600 B. C.	Early Bronze Age Late Beaker, Food Vessels, Collared Urns		VII	<b>Arreton Down/Inch Island/Ebnal/Gavel Moss</b> Wessex: Snowhill-Camerton daggers. Reinecke A2/B1 or A3.
1700 B. C.				
1800 B. C.		West Overton	VI	<b>Falkland/Willerby Wold industries.</b> Wessex: Armorico-British dagger series; Bush Barrow daggers. Influences from classic Únětice/Reinecke A2 metalwork on the continent.
1900 B. C.				

Fig. 1 Chart showing the main periods, stages and industries represented by bronze tools, weapons, and ornaments during the period 1900–1300 B.C. in the British Isles.

country. Late Beakers, Collared Urns, and Food Vessels current from ca. 2000 B.C. through to ca. 1600 B.C. (Needham 2005, 206) were replaced, gradually and at different rates in different areas, by Deverel-Rimbury style vessels also known as Bucket, Barrel, and Globular Urns (Fig. 2).

More complicated is the sequence of metalwork types that has tended to dominate discussions, but for which the dating of different styles and industries is notoriously difficult (Barber 2003). In general terms, 1600 B.C. equates with the boundary between the stylistically-defined British metalworking Stages VII and VIII (Burgess 1980, 122–129): between the technologies of the Arreton Down, Inch Island, Ebnal, Gavel Moss Industries with their typological links to Reinecke Bz A2/B1 or B3 on the Continent, and the succeeding Acton Park, Killymaddy, Caverton, Auchterhouse industries with their connections to the European early Tumulus Culture Reinecke Bz B1 (Needham et al. 1997). Slightly problematic is the metalworking associated with the classic 'Wessex Culture' (Piggott 1938; Gerloff 1975) whose later phases align with metalworking Stage VII – the Arreton Down Industries – characterized by Snowhill-Camerton daggers, flanged axes, and tanged spearheads (Needham et al. 1989). The succeeding Stage VIII – the Acton Park Industries – includes rapiers, palstaves, and leaf-shaped and lozenge socketed spearheads. Culturally, 1600 B.C. falls within

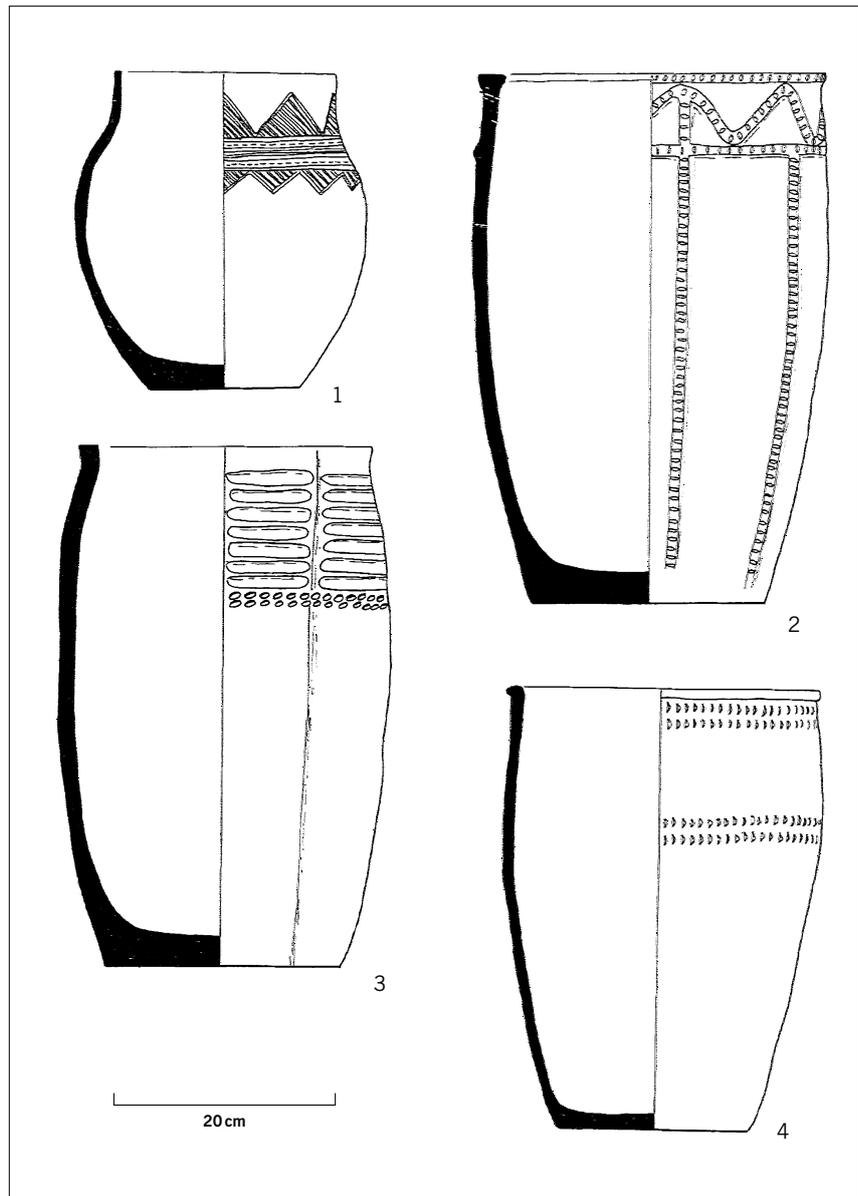
C. Burgess's (1980, 115–131) Bedd Branwen Period, and right in the middle of S. Needham's (1996, 132–133) Period 4 which he considers the end of the Early Bronze Age.

Clearly there is much more work to be done reconciling the sequences of material culture with secure chronological frameworks both within Britain and between Britain and the Continent. In this paper, the aim is to step back a little from these debates and instead focus on the broad patterns of change through the middle centuries of the second millennium B.C. (Darvill 2010, 188–243 for a more extended account). Accordingly, I have subdivided my comments into three parts: the archaeology of the EBA before 1600 B.C.; the archaeology of the MBA in the centuries after 1600 B.C.; and a brief consideration of the catalysts of change during this transitional period.

### Before 1600 B. C.

The archaeology of the early second millennium B.C. across Britain is dominated by ceremonial sites such as henges, stone and timber rows, pairs, and circles, and burial sites that include round barrows (bowl barrows), either singly or in cemeteries, and ring cairns in upland areas. Also distinctive of the early second millennium B.C. are the so-called

Fig. 2 Deverel-Rimbury style pottery of mid second millennium B. C. date. 1 Globular Urn; 2–4 Bucket Urns.



›fancy barrows‹ – bell barrows, disc barrows, saucer barrows, pond barrows, and platform barrows – where between one and five mounds with characteristic profiles lie within a ditched enclosure or on a carefully constructed platform, a wide range of round barrows either singly or in cemeteries. Settlements are poorly represented, but even before 1600 B. C. the standard oval houses associated with Beaker-using communities had been replaced by round houses. Fieldsystems and associated agricultural infrastructure are rare. Material culture in the form of personal ornaments and dress fittings show marked regional preferences that broadly accord with pottery styles and metalworking traditions. Although the Wessex Culture of central southern Britain is often perceived as the dominant EBA culture, it is in fact just one of half a dozen cultural traditions across Britain at this time (Fig. 3). Each such broad territory can be recognized by preferred styles of burial monument, ceremonial structures, and material culture.

### Highlands and islands

North of a line between Ayr in the west and the Firth of Forth in the east, the coastal plain, major river valleys and island groups provided the main settlement areas through the early second millennium B. C. Food Vessels dominate the ceramic repertoire with lesser numbers of Collared Urns. A cluster of Clava Cairns around Inverness show a late continuation of passage-grave style tombs with a marked interest in sunsets (Bradley 2000). Stone circles of various kinds are well represented (Fig. 4), as too multiple stone rows (Burl 1969–70; Bradley 2005). Burials were mainly in enclosed cremation cemeteries, within ring cairns, or under round barrows (Ritchie/MacLaren 1972). Rich graves are present, many containing neckwear. More than 30 disc-bead necklaces of local cannel coal are known from Perth and Kinross alone, most associated with females. At West Water Reservoir near West Linton, Scottish Borders, excavations in 1992 revealed a flat cemetery of nine cists with a mixture of inhumations and cremations associated with Food Vessels. There

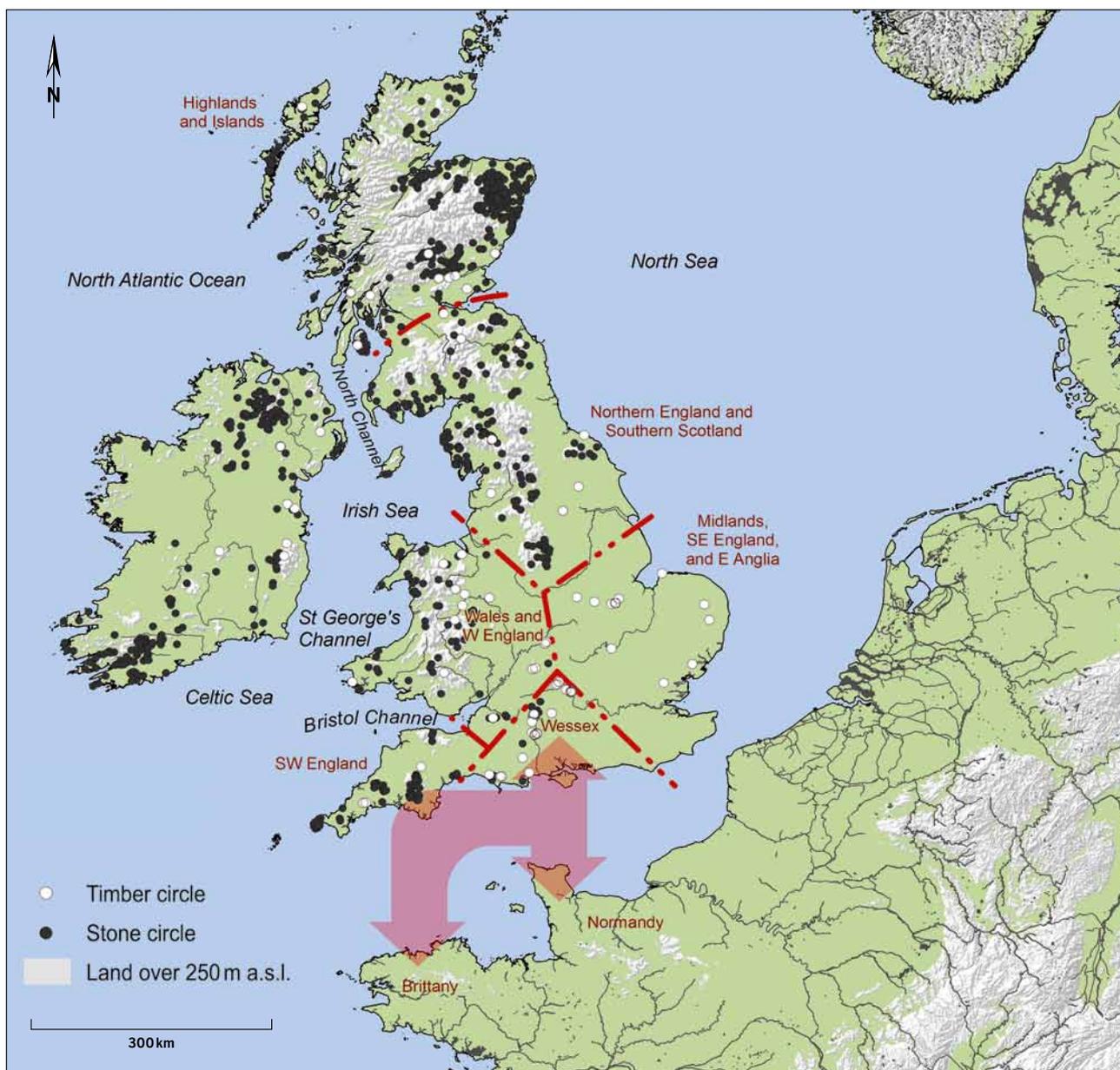


Fig. 3 Map showing the distribution of timber and stone circles in the British Isles with broad regional divisions.

was evidence of floral tributes in three cists, and one contained a necklace of cannel coal beads (Hunter 2000). Copper armlets, often as pairs, have been found at 21 sites in the region as well as four gold lunulae (Taylor 1980, 147; Hughes 2000, 34–36). Elaborate jet bead necklaces such as those from Mount Stewart, Argyll and Bute, Melfort, and Pitkenedy, Angus, may be imitations of the lunulae (Taylor 1980, 25; Sheridan 2003).

### Northern England and Southern Scotland

An upland spine from the Pennines of the Peak District to the southern uplands of the Scottish Borders are flanked east and west by coastal plains punctuated by upland outliers such as the Yorkshire Wolds and the North York Moors.

Localized natural resources in the form of metal ores are known in the southern part of this territory, while the rest comprises mixed topography. The ceramic sequence in the area includes a wide range of Collared Urns. Food Vessels and Food Vessel Urns are widespread and form the dominant ceramic style in the region. Round barrows are generally simple bowl-shaped forms and kerb cairns, often slightly flattened and inevitably built of local materials. Many are set in conspicuous positions and cover slab-lined cists or burial pits. Fancy barrows are rare, but include ring-cairns and bell-shaped mounds. Enclosed cremation cemeteries are widely scattered. The example at Weird Law near Tweedsmuir, Scottish Borders (MacLaren 1968), dates to 1970–1520 B.C.<sup>1</sup>

Small late style stone circles are well represented in upland areas and are also known on the Isle of Man (Burl

<sup>1</sup> NPL-57: 3440 ± 90 B.P.



Fig. 4 Lewis, Western Isles, Scotland. Stone circle Callanish 3. View looking south.

2000; Darvill 2000, 380). About 20 four-poster stone circles are known in the region, well illustrated by Three Kings, Jedburgh, Scottish Borders, with a diameter of 4,4 m (Burl 1988). Timber circles are confined to the interiors of classic henges, although later isolated examples no doubt await discovery. Single grave style rock-art is strong here with more than thirty sites recorded. Slabs decorated with cup-and-ring rock-art were often re-used in the construction of cists (Simpson/Thawley 1973).

Rich burials include a barrow at Kellythorpe, East Riding of Yorkshire, the last resting place of an adult male was accompanied by a late Beaker, a wristguard with gold headed rivets, a copper knife/dagger and amber buttons (Taylor 1980, 89). At Mellor, Stockport, a burial within a stone-lined cist discovered in 2008 had a necklace of amber beads of various forms brought together on a single string (Anonymous 2008). Gold lunulae have been found at three sites in the region, and copper armlets are known from a dozen sites (Taylor 1980, 147; Hughes 2000, 34–36).

### The Midlands, South East England, and East Anglia

From the Weald of Kent northwards across the North Downs and on through the great river valleys of eastern England as far as the Humber Estuary much of the landscape is low-lying but, while agriculturally rich, is relatively poor in natural resources. The ceramic sequence in this area includes a wide range of primary series Collared urns and many second-

ary series Collared Urns I the South Eastern style. Food vessels are comparatively rare but Biconical urns figure prominently, especially those with fingernail impressed decoration and rustication.

The poverty of robust building materials and the heavy impact of later cultivation means most sites in this area have been levelled. Round barrows are now mainly represented as ring-ditches making it hard to know what kind of mounds once stood within them and how many simple bowl barrows without encircling ditches there might originally have been (Lawson 1981).

No stone circles are known in this region, but timber circles of the early second millennium B.C. include Site 3 at Dorchester-on-Thames, Oxfordshire (Whittle et al. 1992, 169–175). Likewise, there are no stone rows, but the post rows recorded at Barleycroft Farm, Cambridgeshire, probably served a similar function (Evans/Knight 2001). Single grave style rock-art is scarce because of the poverty of suitable stone, but at Lockington and Tugby, Leicestershire, portable slabs with single cup-marks were incorporated into round barrows (Hughes 2000, 76–77).

A fair number of rich burials are known: Rochford, Essex, with gold and amber beads (Piggott 1938, 92) and Little Cressingham, Norfolk, with gold hilt-mountings on a dagger, a rectangular gold breastplate, a necklace of amber beads, and the remains of a gold box (Taylor 1980, 84). At Lockington, Leicestershire, excavations in 1994 brought to light a small pit containing two incomplete pots, two gold armlets, and a copper dagger with attached fragments of an organic scab-

2 OxA-6447: 3630 ± 55 B.P.

bard dated to 2190–1880 B.C.<sup>2</sup>. Within a century or so a ditched bowl barrow had been raised on the site, although no associated burial was found (Hughes 2000). A gold cup from Ringlemere, Kent, found in a mound post-dating a henge monument may have been associated with an amber dagger pommel and an amber pendant, originally perhaps in a grave (Needham et al. 2006).

### Wales and Western England

From the lands surrounding the Severn Valley westwards into the Welsh Marches, Cambrian Mountains, and the coastal plains of Wales this area represents an extremely diverse landscape of vales, hills, and high mountains, parts of which were rich in natural resources. The ceramic sequence includes a scatter of Collared Urns, Food Vessels, and Encrusted Urns.

Round barrows in this area are predominantly simple bowl barrows with earthen mounds or stone cairns according to the underlying geology; some have ditches. Well-structured examples with internal rings of posts or stones are known (Lynch 1972). A few impressive barrows are sited on mountain tops, as at Pen-y-Fan and Carn Dû, Powys, and Foel Trigarn and Foel Cwmcerwyn, Pembrokeshire. Fancy barrows are represented as a range of platform cairns and ring-cairns. At Brenig, Denbighshire, a cemetery of eleven round barrows contained five bowl barrows with internal stake circles (45%), three small cairns, one kerb cairn, one platform cairn, and one ring-cairn (Fig. 5; Lynch 1993).

Small stone circles are widely scattered through the region. At the Druid's Circle near Penmaenmawr, Conwy, excavations in 1958 revealed a ring of 15 stones set in a low band about 25 m across. Quartz was scattered through the enclosed area, especially over a cist near the centre which contained the cremated remains of a child and an enlarged Food Vessel Urn (Griffiths 1960). A handful of stone rows, mainly connected with stone circles, are present in central Wales (Grimes 1963). Single grave style rock-art is rare in this region, although re-used cup-marked slabs have been found forming the walls of a cist at the Simondson Cairn near Coity, Bridgend, and in the kerb of a bowl barrow at Crick, Monmouthshire (Darvill/Wainwright 2003).

A few rich burials are known, amongst them one from Mold, Flintshire, already referred to where the gold cape was seemingly accompanied by a necklace of amber beads (Powell 1953). At Pen-y-Bonc, Isle of Anglesey, an inhumation was accompanied by a necklace of shale beads, a jet button, a bronze armlet, and two collared urns. A single gold lunula has been found at Llanllyfni, Gwynedd (Lynch 1991, 157; Taylor 1980, 96).

### Southwest England

From the Quantocks and Blackdown Hills of west Somerset and west Dorset westwards through Devon and Cornwall

was a largely upland region rich in natural resources. The ceramic sequence in this area includes some Collared Urns alongside Food Vessels that tend to have a bipartite form and Cornish handled urns of barrel-shaped form with horizontally perforated lugs projecting just above the widest point.

Entrance graves are present in the Isles of Scilly and the far west of Cornwall, perpetuating a long standing interest in passage graves around the Irish Sea (Jones/Thomas 2010). Late small stone circles are well represented on Exmoor and Dartmoor in Devon, and on Bodmin Moor and in West Penwith, Cornwall (Burl 2000, 147). More than a dozen stone rows of various kinds are represented on Bodmin Moor, Dartmoor, and Exmoor (Burl 1993). Single grave style rock-art is rare with only a handful of sites recorded: Priddy, Somerset, is an elaborate cover-slab with footprint motifs (Pitts 1978).

Round barrows are dominated by simple bowl-shaped and flattened-hemisphere forms variously built of earth and turf in the lowlands and turf and rubble in the uplands. Ditches are present where material needed to be quarried. A few bowl barrows are very large and occupy prominent positions making them visible from a long way off. Fancy barrows occur in a wide range of forms, the details of which have been well documented through detailed surveys on Bodmin Moor where they include: kerbed cairns, platform cairns, rimmed platform cairns, platform cairns with central mounds, kerbed platform cairns, and tor cairns (Johnson/Rose 1994, 34–42). In many cases the graves within these barrows were constructed as stone-lined rectangular cists.

Rich burials and dagger graves are more common than often supposed. At Rillaton, Cornwall, a beaten gold cup accompanied an inhumation under a large simple round barrow, while two shale cups of similar design are known from Farway, Devon (Needham et al. 2006, 84–87). A bronze dagger from a burial at Hammeldon, Devon, had an amber pommel with gold-pin decoration (Taylor 1980, 80). Excavations at Shaugh Moor on Dartmoor, Devon, in 1977, examined a small cemetery of six monuments: a bowl barrow, two ring cairns, and three kerbed cairns (Wainwright et al. 1979). One of the ring cairns (cairn 2) appears to have focused on a scatter of earthfast boulders (Fig. 6). A primary central mound covered a small pit, perhaps a burial pit, containing ten fragments of segmented faience bead and charcoal that yielded a radiocarbon date of 1960–1510 B.C.<sup>3</sup>. The surrounding ring-cairn was slightly later as it sealed a second pit that produced charcoal dated to 1740–1320 B.C.<sup>4</sup>. Four gold lunulae have also been found along the north Cornish coast (Taylor 1980, 78–79).

### Wessex

The large swathe of central southern England from the eastern Cotswolds and Thames Valley southwards to the Channel coast between Bridport and Brighton was the heartland of what S. Piggott referred to as the Wessex Culture (1938). Later work by A. ApSimon suggested a binary division of

<sup>3</sup> HAR-2220: 3430 ± 90 B.P.

<sup>4</sup> HAR-2214: 3240 ± 80 B.P.



Fig. 5 Denbighshire, Wales. Brenig 44 Ring Cairn. View of the reconstructed monument looking northwest with wooden posts inserted into the sockets found outside the stone ring-cairn. Radiocarbon dates place the main construction and use of this site in the period 1650–1500 B. C.

the Wessex Culture into two stages (Wessex I and II) based on changing styles of metalwork and burial rite (ApSimon 1954). More recent work has challenged the sequence and dating of the metalwork<sup>5</sup>, but most devastating to the original model was the recognition that gold objects from both stages had in fact been cast from the same metal from the same crucible (Taylor 2005). Unless there was a complicated pattern of recirculating metal and holding on to heirlooms it is hard to explain the evidence as other than simultaneous production. The apparent differences in material culture between Wessex I and II are more easily explained in terms of status differences linked to wealth and gender within a geographically coherent if fuzzy-edged region.

The ceramic sequence in Wessex is dominated by a wide range of Collared Urns (Longworth 1984). Accessory Cups (also known as Miniature Vessels or Pygmy Cups) sometimes deposited alongside urns in burial contexts include Aldbourne Cups, perforated wall cups, grape cups, and simple plain cups (Simpson 1968). The small size and overall character of these vessels led C. Allen and D. Hopkins to suggest that they might be connected with drinking and smoking rituals, equipment so personal that it was taken to the grave (Allen/Hopkins 2000). Food Vessels are sporadically represented (ApSimon 1959), mainly in bipartite forms with sparse decoration, and there are also cordoned urns and Wessex Horseshoe-handled urns (also known as Wessex Biconical Urns: ApSimon 1972).

Some existing stone circles in the region continued to be used and new ones were created in west Dorset (Burl 2000, 307). A post circle at Hungerford (Ford 1991) and the timber

rows at Bucklebury (Collard et al. 2006) suggest that more such timber ceremonial sites remain to be found. Standing stones and stone pairs did not figure in the rituals and ceremonies of this region, but may have been replicated in timber. Palisaded enclosures have been found at Dorchester and Mount Pleasant in Dorset and West Kennet in Wiltshire (Gibson 1998). Single grave style rock-art is rare, but important panels include a decorated cist cover from Badbury, Dorset, and three panels on the trilithons and seven on the uprights of the Sarsen Circle at Stonehenge, Wiltshire (Darvill 2006, 130); motifs include axes, daggers, and a possible »buckler-motif« similar to examples recorded in Brittany (Burl 1997; but cf. Scarre 1997).

Barrows in Wessex include conventional bowl barrows as well as a range of fancy barrows including bell barrows, disk barrows, saucer barrows, and pond barrows<sup>6</sup>. The last-mentioned is a reversal of the usual upstanding mound being characterized instead by a hemispherical depression. Something of the balance of barrows types represented can be glimpsed from the cemetery of 31 extant mounds at Snail Down, Wiltshire (Thomas 2005). Here, 19 (61 %) were bowl barrows, the remainder fancy barrows including six bell barrows, three saucer barrows, two disc barrows, and one pond barrow.

About 100 richly furnished graves have been identified in this region, a dozen with objects made of gold<sup>7</sup>, almost all under individual round barrows in linear or nucleated barrow cemeteries. Among the richest is Bush Barrow in the Wilsford cemetery near Stonehenge, Wiltshire (Fig. 7). This burial was that of an adult male, unusual in that the body

5 Renfrew 1968; Coles/Taylor 1971; Gerloff 1975.

6 Ashbee 1960; Woodward 2000; Last 2007.

7 Gerloff 1975; Taylor 1980; Taylor 2005.



Fig. 6 Shaugh Moor, Devon, England. View of ring cairn 2 under excavation in spring 1977. The scatter of earthfast boulders providing the focus for the construction of the monument can be clearly seen within the circular outline of the cairn.

was laid directly on the ground rather than in a grave pit. The corpse had been accompanied by three daggers, one with its handle inlaid with gold wire, a leather helmet represented by rivets, a lozenge shaped sheet gold plate with impressed decoration, a gold belt hook, a small gold lozenge, a stone macehead with bone fittings from the handle, and a bronze axe (Ashbee 1960, 76–78). The range of objects from other graves in Wessex includes crutch-head bronze pins, bronze awls, bone pins, gold and amber ornaments, perforated whetstones, polished stone axe-hammers, battle-axes, bone tweezers, ogival bladed daggers, amber and faience beads, bulb headed pins, and, at Wilsford 23, Wiltshire, a

bone whistle (Clarke et al. 1985; Woodward et al. 2005). An unusual grave at Upton Lovell G 2, Wiltshire, seems to be that of a shaman with some involvement in metalworking (Shell 2000).

At least four cups of amber or shale have been found in Wessex, reinforcing the complicated network of foreign connections enjoyed by those living in central southern Britain also clearly visible in the assemblage of six items from the Clandon, Dorset (Needham/Woodward 2008). Here the bronze dagger, gold lozenge, jet macehead with gold-covered shale studs, amber cup, ceramic accessory vessel, and Collared Urn suggests a record of great exploits through distant

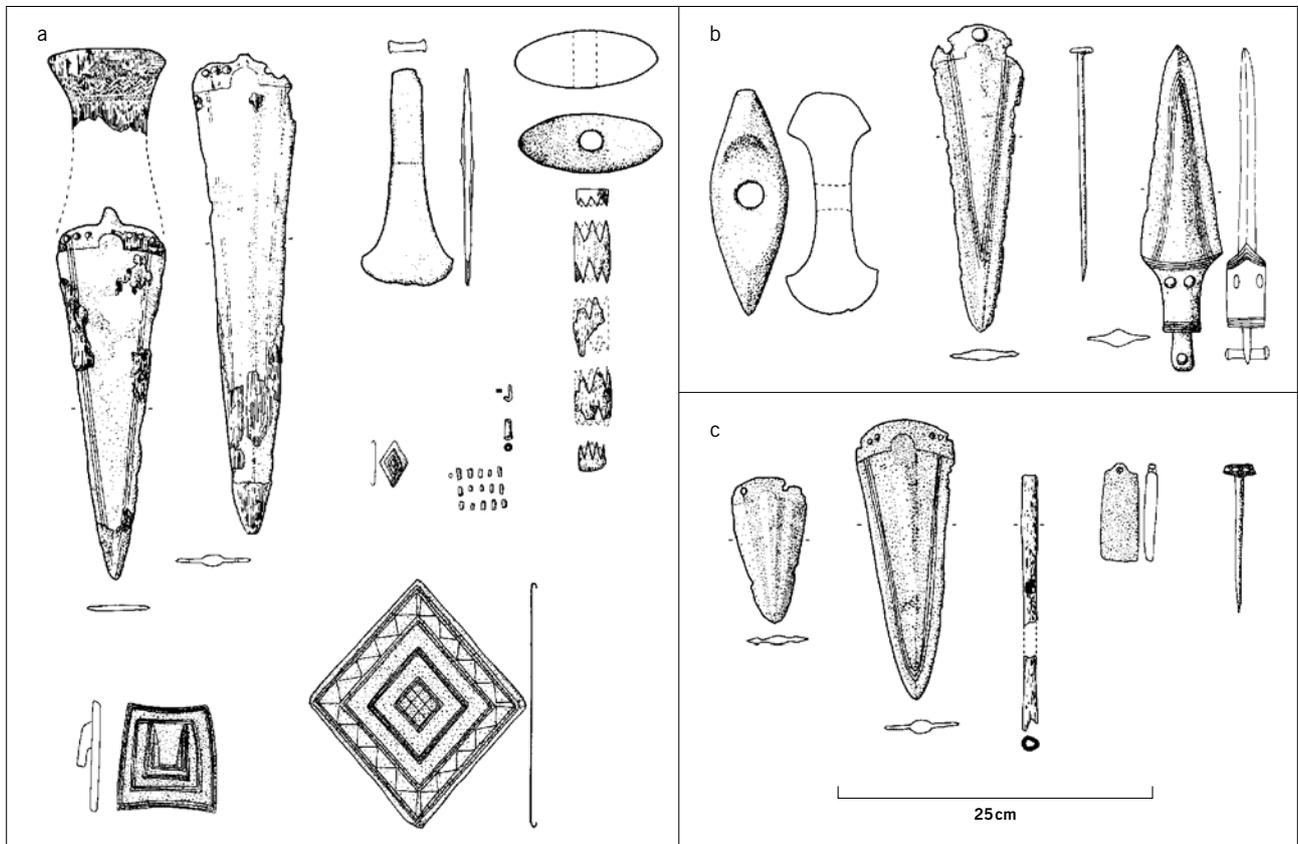


Fig. 7 Grave goods from rich graves of the early second millennium B. C. in the Wessex region of central southern England. a Bush Barrow, Wiltshire; b Snowhill, Gloucestershire; c Wilsford G23, Wiltshire.

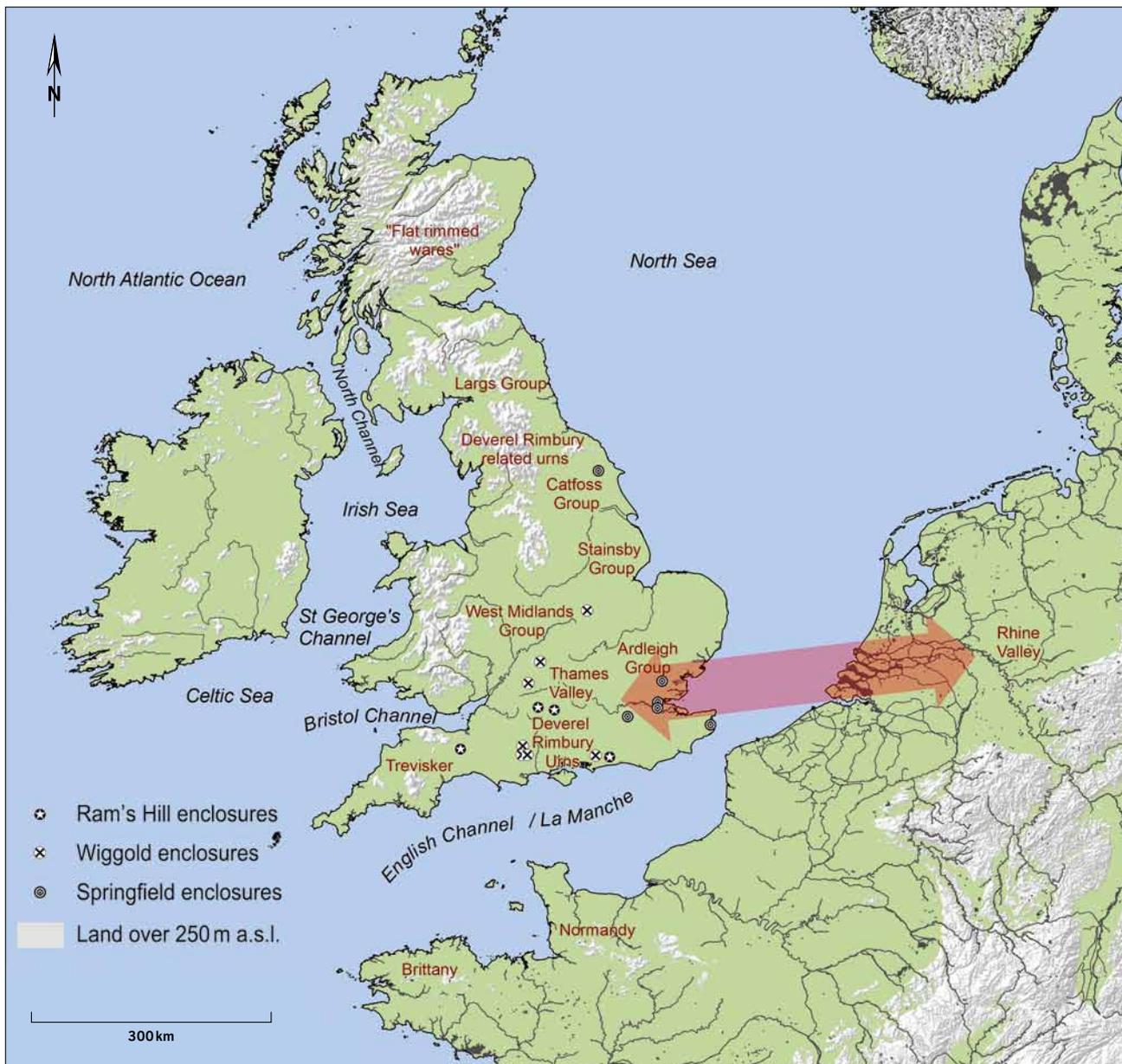


Fig. 8 Map showing regional styles of Deverel-Rimbury Ware and the contact zone between the Thames Estuary and the Rhine Valley. Within the Deverel-Rimbury heartland a series of earthwork enclosures associated with regional exchange systems have been recognized and their

locations are indicated. Three types can be discerned: round Springfield types in the east; three-sided Wiggold types in central areas; and rectangular Ram's Hill types mainly in central and western areas.

travel along the east coast of Britain, the Irish Sea basin, and across the Channel to Armorica and Frisia.

### After 1600 B. C.

Around 1600 B. C. the archaeology of Britain changes fundamentally. No longer is it dominated by burials and ceremonial monuments, instead there is a range of settlements, agricultural facilities, cemeteries, and ritual sites that are broadly similar across Britain (Barrett/Bradley 1980; O'Connor 1989). Patterns can also be seen in the spatial arrangement of habitation areas, fieldsystems, and burial grounds<sup>8</sup>. Regional identity continues to be visible, espe-

cially in dress ornaments (Roberts 2007) and in the styles of pottery used. Beyond the Deverel-Rimbury heartland in Wessex, five broad regional styles can be identified: Trevisker Ware in the southwest; West Midlands Group across western England and Wales; Ardleigh Group in East Anglia; Stainsby and Catfoss Groups in Lincolnshire, Yorkshire and northern England; and the Largs Group, Flat-rimmed Ware, or Covesea Ware in the far north of England and Scotland (Fig. 8).

The impact of these changes is nowhere clearer than in the history of the large ceremonial structures so distinctive of the early second millennium B. C. Typical is the situation at Mount Pleasant, Dorset, a palisaded enclosure covering about 5 ha and built using around 1600 oak posts each about

<sup>8</sup> Bradley 1981; Brück 1999; Brück 2001.



Fig. 9 Stonehenge, Wiltshire, England. View southwestwards across the earthwork enclosure towards the central stone settings.

0.5 m diameter and 8–10 m tall that was simply abandoned about 1600 B.C. or a little after (Wainwright 1979). Stonehenge, Wiltshire (Fig. 9), the most famous later Neolithic monument in Europe also witnessed these changes when two concentric rings of pits were dug perhaps to seal-off the site and draw an end to the activities that went on within it (Darvill 2006, 163). The inner Z-Holes are the earliest; followed at about 1640–1520 B.C. by the Y-Holes (Cleal et al. 1995, 256–265). More fundamentally, while the sun and moon seem to have been central to the cosmologies behind the monuments and beliefs of the early second millennium B.C., after about 1600 B.C. it is the sun and water that become the foci of attention. On a European canvas the same trend can be seen in Germany where the Nebra Sky Disc was modified to reflect a change from lunar to solar interests in the 17<sup>th</sup> century B.C. (Meller 2010, 62–65). Those who persisted in following ancient traditions were quite literally working on the dark side of the moon.

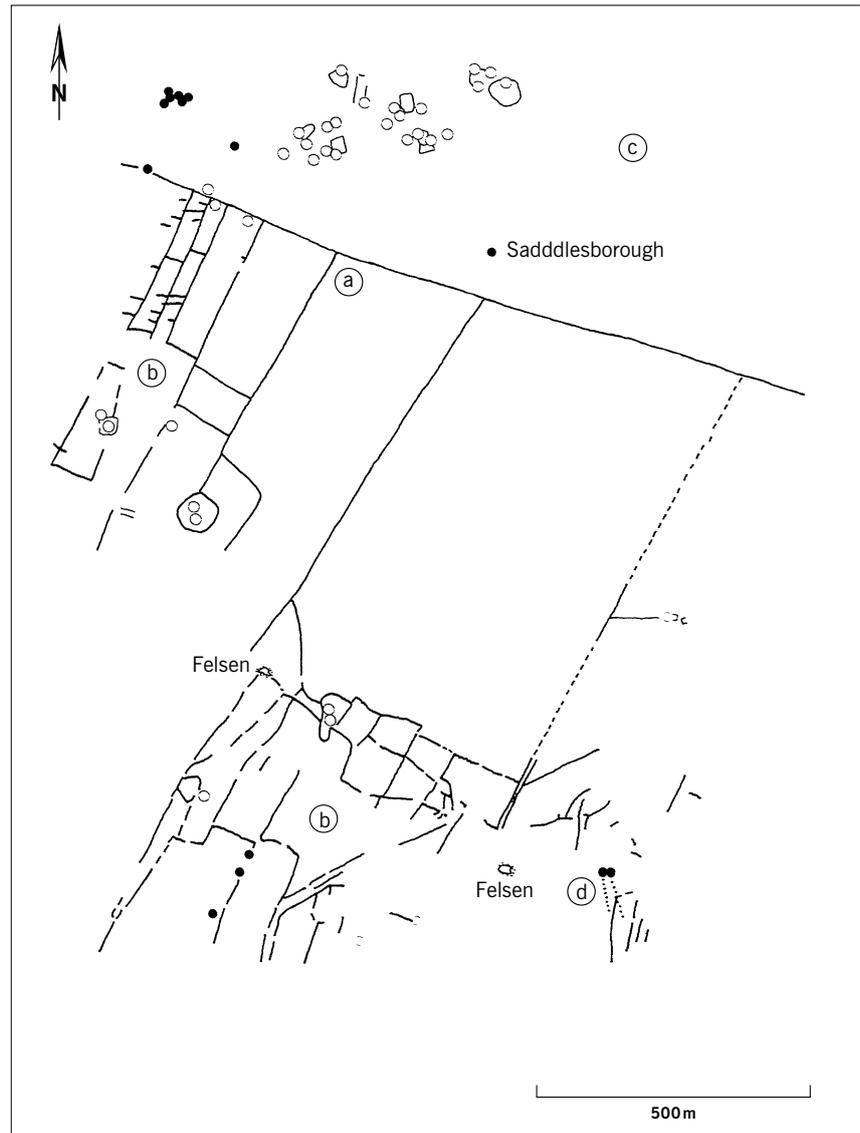
### Settlements, fields, and agricultural infrastructure

Superficially, the settlements and fieldsystems of this early enclosure movement look similar the length and breadth of Britain. Circular houses built of wood or stone – either spread among the fields or clustered together within compounds or ditched enclosures – droveways linking settlement and fields, and small square or rectangular fields were certainly widespread, but beneath these similarities lay marked differences in local subsistence practices.

Some of the most complete evidence for land-use at this period comes from the southwest of England. Sometime between 1600 B.C. and 1400 B.C. Dartmoor was divided up into ten or so unequal sized units. Each unit contained valley, hillslope, and open moorland which Andrew Fleming suggests was used communally, probably for grazing. Dividing the common land from the settlement units were stone banks or reaves (Fig. 10). But perhaps the most surprising thing about the way the landscape was organized is the fact that it seems to have happened as the result of single decision rather through piecemeal extension and the elaboration of a core area (Fleming 2008). The largest identifiable unit is around Rippon Tor on the east side of the Dartmoor. It covers some 3300 ha (about 6 km by 6 km) and includes several settlements (Fleming 1983). Single houses lie scattered among the fields, but there are also enclosures, as at Grimspound, Riders Rings, and Shaugh Moor which were all probably herders' settlements (Smith et al. 1981). Typical of the lowland farmsteads in the southwest is Trethellan Farm near Newquay, Cornwall. Surrounded by fields, this settlement was built along a natural south-facing terrace. Two main phases of occupation were recognized. The first phase, dated to around 1400 B.C., comprised two residential houses with three ancillary buildings and two open working hollows. The second phase, dating to about 1300 B.C., included three residential houses, two ancillary buildings, and one open hollow. Both phases represent the remains of a village of perhaps 20–25 people (Nowakowski 1991).

Further east, on the chalklands of Wessex and the surrounding heaths and vales, later second millennium B.C.

**Fig. 10** Shaugh Moor and Wotter Common, Dartmoor, England. Fieldsystems and enclosures of mid second millennium B. C. date. **a** terminal reave; **b** parallel reave systems; **c** unenclosed moorland (grazing ?); **d** stone row. Houses are shown by open circles, barrows and cairns by dots.



settlement was especially dense. Both enclosed and unenclosed sites are found, many undergoing enclosure later in their life. Excavations at Bestwall Quarry on the west side of Poole Harbour revealed six houses scattered amongst fields (Ladle/Woodward 2009). Inland, at South Lodge Camp, Dorset, a roughly square enclosure was constructed over an earlier unenclosed settlement within a fieldsystem. The internal organization of this enclosure is especially noteworthy. At least two circular post-built structures were found, the larger of which was a roundhouse some 5,5 m in diameter. The southern half of the enclosure was largely given over to storage pits while in the southwest corner was a midden. Near the main house was a mound of burnt stones, possibly debris from boiling meat (Barrett et al. 1991, 144–183). Nearby, at Down Farm near Cranborne, Dorset, a settlement lay within an enclosure represented on three sides by a bank and ditch while the fourth was closed by a fence. Unusually, the main building was a timber-framed rectangular structure 4 m wide and over 13 m long superficially at least of continental design (Barrett et al. 1991, 183–219). Fieldsystems, often called Celtic fields, have been recognized across Wessex, and many originate in the

late second millennium B. C. They comprise regular arrangements of small square or rectangular plots defined by low banks or lynchets (Bowen 1978).

Across East Anglia, the Thames Valley, and the Midlands the number of sites known from this period has grown substantially as a result of commercial archaeology. On the north side of the Thames Estuary at Mucking, Thurrock, an extensive fieldsystem was set out in the 13<sup>th</sup> and 12<sup>th</sup> centuries B. C. with a settlement nearby (Clark 1993, 18–19). Much the same happened further east and D. Yates has brought the evidence for the middle and upper Thames Valley together to show that a managed farming landscape emerged here by 1300 B. C., and lasted down to about 800 B. C. (Yates 2007). Excavations in the mid 1980s at Reading Business Park, Reading, beside the River Kennet revealed an extensive tract of well-preserved landscape dating to the later second millennium B. C. Eight settlement foci at intervals of 0,5 km to 1,5 km apart in an area of 6 square kilometers were investigated. One fairly typical example included an extensive and regularly remodeled fieldsystem comprising large rectangular plots demarcated by ditched boundaries. The plots had been used for cereal cultivation and the manage-

ment of cattle, and there were water-holes in some. The fields had been arranged with reference to a north–south boundary that structured the way the landscape was used. To the west was an earlier round barrow while cremation burials were placed beside a boundary ditch perhaps to strengthen the sense of communal identity. To the east a trackway flanked by over 150 pits gave access to the main settlement area which included 12 roundhouses, 11 four-post and two-post storage structures, eight water-holes, numerous post-holes, and a burnt mound over 85 m long (Moore/Jennings 1992). A similar density of occupation was revealed during the construction of new car-parks at Stanstead Airport, Essex, the largest settlement being set within a rectangular hedged enclosure at the heart of which was a standing stone and a substantial roundhouse (Framework Archaeology 2008). Further north at Barleycroft Farm, Cambridgeshire, excavations in advance of gravel extraction revealed part of a coaxial fieldsystem probably set out in the mid second millennium B.C. Lacking any driveways it might well have been mainly used for crops rather than animals (Evans/Knight 2001).

Little is known of settlement patterns during the late second and early first millennium B.C. in Wales and the Welsh Marches, despite the fact that numerous burials and stray finds of bronze tools and weapons have come to light. Rather unusual is a group of three rectangular buildings at Redwick, Newport, some of whose timbers were preserved in the waterlogged conditions (Bell et al. 2000). One structure was 11.5 m by 4.5 m and dated to 1490–1120 B.C.<sup>9</sup>.

In the eastern Cotswolds and upper Thames Valley occupation between 1600 B.C. and 800 B.C. was dense (Darvill 2011, 155–169). At Roughgrounds Farm, Gloucestershire, three parallel linear boundaries up to 300 m long and spaced at intervals of between 300 m and 50 m appear on a consistent southwest–northeast orientation (Allen et al. 1993). Pits, a four-post structure, and a single roundhouse with a porched entrance opening to the southeast lay mid-way between two widely-set boundaries. Angular tripartite jars and bowls are well represented in this assemblage; amongst the modest animal bone assemblage sheep were dominant (52 %) followed by cattle (31 %) and pig (12 %).

Across the north of England and southern Scotland uplands arable cultivation is attested by the numerous clearance cairns. One of the largest groups of extant examples is on Danby Rigg, North Yorkshire, where more than 850 small piles of stone suggest extensive clearance (Harding/Ostojaz-Zagórski 1994). In the border counties, settlements often comprise platforms supporting substantial roundhouses arranged around the contour of the hillslope. Among those investigated is Standrop Rigg, Northumberland, which lies at 380 m above sea-level in the Cheviots. Here five or six round stone houses were built within a fieldsystem of 2.75 ha or more (Jobey 1983). Further north at Lintshie Gutter near Crawford, South Lanarkshire, a total of 32 house-platforms run along a north-facing hillslope allowing cultivation of the lower ground below the settlement and grazing for animals on the slopes above (Terry 1995). Enclosed settlements are

also known, as at Bracken Rigg, Northumberland (Coggins/Fairless 1984), while scattered across the uplands are numerous agricultural features of this date such as lengths of dyke and the L-shaped and C-shaped walled enclosures forming wind breaks for animals grazing the exposed northern hills. At Culbin Sands, Moray, a coastal settlement broadly similar to those in southwestern Britain, dates from about 1500 B.C. (Coles/Taylor 1969–70).

On the Isle of Man, a hamlet comprising a dwelling and four or five ancillary buildings arranged around a cobbled yard with a small circular shrine to the north has been excavated at Billown Quarry (Fig. 11; Darvill 2003, 8–15). In Orkney and Shetland occupation sites of the later second millennium B.C. are scarce, but stray finds of ard shares and quernstones indicated cereal cultivation while sheep/goat bones show the nature of local husbandry. Seal, whale, and red deer bones show terrestrial and marine hunting.

Burnt mounds are found in association with many settlements of the later second millennium B.C., usually near residential areas. They typically comprise elongated, oval, or crescent shaped heaps of burnt stones with a trough or stone lined pit near the centre. Most are situated beside streams or near water. Traditionally interpreted as cooking sites at which heated rocks were placed in the central trough to heat water, other interpretations have been offered. L. Barfield and M. Hodder (1987), for example, suggest that some were saunas or some kind of sweathouse whose use might have involved narcotic substances.

### Cemeteries and the treatment of the dead

After 1600 B.C. the construction of round barrows became less popular, their place taken by cremation cemeteries or urnfields. Grave goods also became less common, and rich burials almost disappear. Interest in megalithic monuments waned too, and many ceremonial structures that happened to lie within areas taken into intensive cultivation were either ignored or slighted.

Many cremation cemeteries of the later second millennium B.C. lie partly over or adjacent to existing round barrows, perhaps because of the recognized sanctity of the site or perhaps because of the lack of space in the landscape to put it anywhere else. At Trelystan, Powys, a layer of turf was superimposed on the original cairn, rings of stakes were hammered in, and at least five new burials were added sometime about 1600 B.C. (Britnell 1982). Among the most spectacular must be the Knighton Heath Barrow, Poole, where no less than 60 cremations, mostly in urns, were placed in the upper levels of an earlier barrow between 1520–1310 B.C.<sup>10</sup>. Men, women and children were represented (Peterson 1981). The nearby cemetery at Simons Ground, Dorset, is similar (White 1982).

Burials deposited in these flat cremation cemeteries were usually fairly well burnt and the ashes contained in large coarse pots, basically domestic vessels used for burial purposes. Some cemeteries in southern Britain were very large

<sup>9</sup> SWAN-227: 3060 ± 70 B.P.

<sup>10</sup> BM-870: 3155 ± 49 B.P. and 1420–1210 B.C.  
BM-874: 3052 ± 40 B.P.



Fig. 11 Billown Quarry, Isle of Man. Excavation of a middle Bronze Age house. The walls are marked by a ring of postholes. There is a central hearth and a stone capped drain within the house.

indeed. At Kimpton, Hampshire, a cemetery dating to between 1640–1310 B. C.<sup>11</sup> and 1490–900 B. C.<sup>12</sup> contained 158 urns and 164 cremations. Within the spread of graves were five distinct clusters, perhaps family groups or the result of progressive growth over time (Dacre/Ellison 1981).

In the north and west of Britain large urnfields are rare, although small examples are widespread perhaps reflecting lower population density, small group size, and because the traditions of reusing barrow burials continued longer. At Bromfield, Shropshire, 14 graves were found in single cluster dating to around 1190–800 B. C. (Stanford 1982), while further northwestwards Four Crosses near Llandysillio, Powys, a handful of secondary burials in Bucket Urns were dug into two of the barrows in this small cemetery (Warilow et al. 1986).

In the west of Britain cremations around standing stones are not uncommon, the stone becoming a marker for a small cemetery (Williams 1988). At Stackpole Warren, Pembrokeshire (Benson et al. 1990), a standing stone surrounded by a trapezoidal setting of over 3000 smaller stones was erected sometime after 1870–1460 B. C.<sup>13</sup> and a pit dug near the standing stone contained a cremation dated to 1302–902 B. C.<sup>14</sup>.

Investigations at Cladh Hallan on South Uist, Western Isles, have raised the possibility that some bodies were mummified thereby securing a place in the afterworld while also allowing them to watch over the world of the living. In

this case, two adults and two children were used as foundation deposits for a series of conjoined roundhouses around 1150 B. C.; their slightly earlier date, the chemistry of their remains, and the fact that they had been tightly bound and in some cases rearranged prior to burial suggests they have been curated as ancestors for decades if not centuries (Parker Pearson et al. 2005).

### Hoardings and ritual in a landscape context

Interest in rivers, lakes, and bogs increases during the later second millennium B. C. High quality metalwork was regularly deposited in wet places, weapons predominating as they did in graves during the preceding millennium (Ehrenberg 1980; Bradley 1990). Ceremony and ritual was clearly very important in the deposition of these items. At Flag Fen, Peterborough, rows of wooden post and raised trackways led from the fieldsystems out into the adjacent wetland with a deliberately constructed timber island supporting a rectangular structure or shrine out in the middle. Dendrochronology shows that the first post alignments were constructed between 1301 B. C. and 1257 B. C. and that the timber platform was built in the second half of the 10<sup>th</sup> century B. C. (Pryor 2001). Elsewhere in the landscape deposition was perhaps more modest in scale, although certainly wides-

11 HAR-4319: 3200 ± 70 B. P.

12 HAR-4317: 2970 ± 100 B. P.

13 CAR-100: 3345 ± 65 B. P.

14 CAR-101: 2890 ± 70 B. P.

pread as numerous hoards of bronze weapons, tools, and ornaments attest. A study by D. Yates and R. Bradley of 100 metalwork hoards in southeastern England showed that on the coastal plain most hoards were not far from occupation sites and were often associated with burnt mounds and fieldsystems. On the downlands hoards were concentrated beside watercourses especially at springs and confluences (Yates/Bradley 2010).

Interest in wet places undoubtedly connects with changing cosmological views and understandings of the world that developed ideas already circulating by the mid second millennium B. C. They are hard to glimpse from archaeological evidence, but seem to revolve around a set of mythologies related to three cosmological levels: the earth, the sky, and the underworld. Uniting them is the sun, and in particular its journey across the sky during the day and through a watery underworld during the night. K. Kristiansen and T. Larsson (2005) have traced this to a series of pan-European beliefs that they believe were widely transmitted through travel and pilgrimage during the second millennium B. C. In this the elite linked themselves to the gods that were seen as the creators of the universe through the control of objects, animals, and the dead; this in turn allowed them to rule the living population.

### Understanding change

As R. Bradley once observed (1984, 92), it is easy to describe changes to the archaeological evidence at this period, but much more difficult to explain them. No single reason can be seen as overwhelming, but various things may be contributory as catalysts for change.

One consideration is the role of environment, and here there are several key points. First is that in Atlantic north-west Europe the middle part of the second millennium B. C. was the period of sub-Boreal climatic optimum with generally warmer and drier conditions than a millennium earlier (Harding 1982). The effects of this can clearly be seen in the opening up of the landscape and the fact that cultivation is taken high into the hills, well above 250 m above sea level and for most areas the highest levels ever (Tinsley 1981).

On the coast, sea-levels were lower than today, but there are transgressions through the middle centuries of the second millennium B. C. as previously dry low-lying coastal lands such as those around the Severn Estuary were inundated (Bell et al. 2000). Coincidentally, salt production expands at coastal sites such as Brean Down in the Severn Estuary (Bell 1990) and along the shores of the Thames Estuary in Essex (Jones 1977).

In all cases, however, these are relatively slow incremental change in environmental conditions. But this is not the only view. M. Baillie, the leading authority on European oak tree-ring sequences takes a rather different view and sees the period around 1628 B.C. as one of great catastrophe (Baillie 1999). The reduced growth in European Oaks pin-

point the date, but he notes a series of other records from around the world whose evidence converges. This might coincide with the eruption of Thera, which M. Baillie (2010) has argued should be placed in the 1620s B. C., but he also suggests another possibility, perhaps linked, which is a collision with a comet or debris from a comet hitting the earth (Baillie in the present volume).

A third approach to this period of change focuses on social relations, economic systems, and both internal and external interaction networks<sup>15</sup>. In Atlantic Europe, especially on the islands, boats were tremendously important and it is in the period around 1600 B. C. that we start to see some rather sophisticated boats in the archaeological record, some of which could perhaps be involved in cross-channel trade<sup>16</sup>. The Dover Boat dated to 1575–1520 B. C. is one such vessel (Clark 2004a), but of broadly similar date are fragments of boat from Ferriby and Kilnsea in the Humber Estuary and Caldicot in the Severn Estuary (McGrail 2004). It is not the boats themselves that are important, however, but rather the routes they were plying. Through the early Bronze Age connections between Britain and the Continent focused on a series of passages between central southern England and northwestern France (Braird 1993; Tomalin 1988) – what S. Needham (2000; 2009) has characterized as a cross-channel ›Maritory‹ – that allowed the long-distance movement of people, goods, and ideas from as far away as the central Mediterranean<sup>17</sup>.

As we move into the middle centuries of the second millennium B. C., however, the picture changes and in addition to the Channel trade routes, considerably more interaction across the southern North Sea developed with the Thames Estuary and the Rhine Delta being drawn closer together<sup>18</sup>. Both are important river systems that run deep into their respective territories westwards and eastwards. Linkages in terms of metalwork and barrow construction are fairly well known, and Deverel-Rimbury pottery is found in both areas too (Bourgeois/Talon 2009). By the turn of the first millennium B. C. southeastern England and the Low Countries were very closely connected as is well represented by the so-called Carp's Tongue Complex (Burgess 1968; Champion 1975).

So where does that leave us? All three catalysts can perhaps be seen as making a contribution to the evident changes to societies in Atlantic North-West Europe around 1600 B. C. The changing environment allowed new opportunities for farming and settlement in areas of the landscape that were previously unsuitable. Catastrophic events in the sky focused attention on cosmology, providing a challenge to the traditional beliefs and forcing attention on water and the sun as key elements. Realigned exchange networks stimulated developments in material culture and a closer integration on parts at least of Britain with a new world order that was developing in Continental Europe. What the relative balance of these factors was is hard to determine at present, but all of them represent ideas that can be worked on and tested through further research and investigation.

15 Ellison 1981; Rowlands 1976; Shennan 1982; Shennan 1982a.

16 Chapman/Gearey 2004; Clark 2004; 2009; Muckleroy 1981.

17 Needham/Giardino 2008; Harrison 2004; Sheridan/Shortland 2004.

18 Butler 1963; Fox/Britton 1969; O'Connor 1980; Samson 2006; Van de Noort 2006.

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## Address

Prof. Dr. Timothy Darvill  
Bournemouth University  
Archaeology Group, School of Applied Sciences  
Fern Barrow  
Poole  
GB-Dorset BH12 5BB  
tdarvill@bournemouth.ac.uk