Megalithic People, Megalithic Missionaries: the history of an idea

Chris Scarre, Durham University

The idea that the megalithic monuments of western and northern Europe were built by a specific group of people who travelled long distances along the Atlantic seaways was first proposed in the 18th century. It remained a dominant concept among 19th century antiquarians and archaeologists and became a feature of diffusionist models of Neolithic cultural interaction in the early 20th century. Opinions on the direction of travel were varied, some favouring a north-south and others a south-north movement of people. The ritual or religious character of these monuments was given particular focus in Gordon Childe's notion of 'megalithic missionaries'. Connections with the East Mediterranean also came to play an increasingly prominent role. The development of radiocarbon dating in the 1960s gave rise to different explanations of megalithic origins, emphasising regional sequences and indigenous social change. In recent years, however, novel scientific techniques – stable isotopes, ancient DNA, and improved dating methods – have given unexpected insight into the movement of prehistoric populations. Studies of exotic materials such as variscite and jadeitite have also renewed interest in maritime interconnections during the Neolithic.

Given their visual prominence and the impressively large stones of which they are made, it is not surprising that megalithic monuments have long attracted theories about their origins. Early accounts typically attributed them to giants, or to the devil, on the assumption that only superhuman powers could have created them. It was believed that Stonehenge, for example, had been built by Merlin, the magician associated with the legendary King Arthur (Chippindale 1994, 22-24). As recently as the 18th century, indeed, scholars such as Ludolph Smids were still claiming that the megalithic tombs of the northern Netherlands had been built by giants (Bakker 2010, 59). Other explanations invoked Christianity. According to folklore, the Merry Maidens stone circle in Cornwall takes its name from the tradition that young girls were turned to stone in punishment for dancing on the Sabbath (Hunt 1865); while the stone rows of Carnac were thought to be Roman soldiers petrified by the fleeing Saint Cornély (Mérimée 1836).

These popular traditions have been steadily supplanted in recent centuries by more rational enquiry into the character and age of megalithic monuments, associated with the rise of archaeology as an academic discipline. Separate excavations in 1685 of two megalithic tombs, at Cocherel in northern France and D-27 Borger in the Netherlands, confirmed that they contained the remains of buried individuals (Monfaucon 1719, 194-195; Martin 1727, 311ff.; Schnapp 1996, 268-9, 357-8; Bakker 2010, 54-56). There is indeed documentary evidence for the recovery of human remains in an even earlier excavation near Sines in southern Portugal in 1591, from what was probably a small megalithic tomb (Cardoso 2017).

Antiquarian excavations, coupled with detailed observation and recording, multiplied during the 18th and 19th centuries and laid the foundations of our current understanding of megalithic tombs and associated Neolithic monuments. As it became clear that the megalithic monuments of individual regions of western and northern Europe formed part of a much broader tradition, present from Poland to Portugal, so theories of a common origin began to be entertained. Chief among these was the idea

that megalithic monuments had spread throughout the lands in which they are found from a single point of origin, and were the work of a 'megalithic people'.

Celts and others

The notion of a migratory 'megalithic people' seems first to have taken shape during the 18th century. One of the earliest to write in these terms was the Comte de Caylus, in his lavish seven-volume *Recueil des Antiquités Egyptiennes, Etrusques, Grecques, Romaines, et Gauloises* (1752-1767). Each volume is arranged as a series of images (lithographs) with accompanying commentary. The megalithic tomb of La Pierre Levée de Poitiers appears in the fourth volume (1761) where Caylus attributes it to the Gauls: "il est vraisemblable que les ouvrages de ce genre & de cette nature sont du tems des Gaulois; & que leur construction doit avoir précédé de plusieurs siècles les guerres de César" (Caylus 1761, 371).

The sixth volume returns to northwestern France (Caylus 1764). Plate 115 shows standing stones at Avrillé in the Vendée; plate 117 a *dolmen angevin* close to Saumur; plates 120 & 121 illustrate tombs, mounds and stone rows around Locmariaquer and Carnac, including the famous Carnac alignments; plate 123 the Roche aux Fées at Essé. For several of these, Caylus was drawing on the unpublished manuscript of Christophe-Paul de Robien. Président of the Parlement de Bretagne, De Robien was the first to closely observe, describe and draw the megalithic monuments of the Carnac region (Closmadeuc 1882). His *Description historique et topographique de l'Ancienne Armorique ou Petite Bretagne*, completed a few months before his death in 1756, was unequivocal in assigning these monuments to the Celts who had inhabited Brittany before the Romans (Closmadeuc 1882, 39-41). Caylus, on the other hand, had revised his earlier opinion and by 1764 was no longer convinced that these monuments were the work of the Gauls encountered by Julius Caesar. His argument was based on their predominantly coastal distribution, inconsistent with the domain of the Gauls who had occupied not only the coast but also inland: "car il est constant qu'étant maîtres de l'intérieur du pays, ils auroient élevé quelques-unes de ces pierres en plusieurs endroits du Continent, & l'on n'en a jamais trouvé que dans quelques Provinces situées sur le bord de la mer, ou du moins qui en sont peu éloignés" (Caylus 1764, 386). This led him to a new interpretation of their origins, one that envisaged the arrival of the megalith-builders by sea: "il est plus simple & plus dans l'ordre des vraisemblances, de convenir que ce genre de monument est l'ouvrage du même Peuple. . . le rapport des ces opérations certifie que ce Peuple a successivement débarqué en Gaule & en Angleterre" (Caylus 1764, 387-388). That "même peuple" could not have been the Celts.

A key element in this discussion was the observation that similar monuments were to be found in England. Indeed, Caylus in his 1761 volume had noted "La Pierre de Poitiers qui m'a conduit à cette digression, est si ancienne, que semblable aux monumens de l'Angleterre" (Caylus 1761, 372), and both there and in Volume VI he referred specifically to Stonehenge in discussing the megalithic monuments of France. Nor was it only in England that parallels to the French megalithic monuments had been reported. The Swiss antiquary Jacques Christophe Iselin, writing to Bernard de Monfaucon about the discovery of the Cocherel tomb a few decades earlier, had drawn attention to the existence of similar monuments in Scandinavia (Monfaucon 1719, 200-201; Martin 1727, 323-324). Hence by the mid 18th century it was increasingly recognised that European megalithic monuments had an international

distribution. That inevitably demanded a broader theory of their origins than one that was relevant to France alone.

A few decades later, the geographical canvas had been considerably broadened. Jacques Cambry in *Monumens Celtiques, ou Recherches sur le Culte des Pierres* (1805) describes megalithic monuments not only in Britain and France but also in Germany, Italy, Spain and Portugal, Switzerland, Thrace, Greece, Asia and Egypt. He and draws parallels with similar structures in Sri Lanka, South America and Madagascar, concluding "Je crois en avoir dit assez pour démontrer que le genre de monumens que j'ai décrits couvre toute la terre". For Cambry, the worldwide distribution of megalithic monuments was evidence of a general and widespread early belief in the power of stones, a 'culte des pierres'. This is not, however, an argument for a series of parallel independent processes. Breton by origin, the focus of Cambry's interest was the stone rows of Carnac, and in the notes to the very first illustration, a view of Carnac, he writes of "Les pierres si régulièrement alignées de Carnac, si massives , monument imité par tous les peuples de l'antiquité, semblent déjà former un cercle immense autour de la terre, à l'époque des premiers Celles , des Scythes , des Pelages , des Cares , des Lélèges , des Saces, des Titans, des Corybantes, des Amazones, des Telcbines, dont l'histoire ne nous a presque conserve que les noms." (Cambry 1805, vii). This was not the product of a wandering megalithic people, however, but "l'imitation des monumens druidiques par les différens peuples à des époques variées" (Cambry 1805, 271). Hence for Cambry, Carnac lay at the heart of the megalithic phenomenon, but its worldwide expression was the result of imitation and emulation rather than migration.

Cambry's enthusiasm for the Celts as the authors of the European monuments, a proposal that had been rejected by Caylus, was shared by other writers of the period. A landmark study for northern Europe was Nicolaus Westendrop's 1812 thesis *Verhandeling over de Hunebedden* that sought directly to determine which people they had built the megalithic tombs of the northern Netherlands (Bakker 2010, 108-120; Westendorp 1822). Westendorp considered a number of alternatives, including the Vikings (who had been proposed by De Rhoer in 1770: Bakker *ibid*. 113), but ultimately came down in favour of the Celts. He recognized the presence of megalithic tombs (all of which he called *hunebedden*) not only in his home province of Drenthe, but also in Scandinavia, in northern Germany, in Britain and Ireland, and in France and Spain (Westendorp 1822). He provided no distribution map, but described their geographical presence in sufficient detail to allow one to be drawn from his account (Bakker 2010, 116). Westendorp correctly concluded that the tombs had been built at a time before the use of metal, though he also envisaged them as the work of a nomadic people who made pottery but did not practice farming. He then by a process of elimination narrowed down the possibilities to arrive at the Celts and the Cimbri (whom he considered a single people), on the basis that they were the only people who were known in pre-Roman times to have occupied all of the lands concerned. The Celts and Cimbri together were responsible for all the megalithic tombs of Europe, from Denmark to Portugal (Westendorp 1822).

Westendorp's conclusions were soon challenged. It was observed, for example, that the tombs could as easily be the work of an unrecorded prehistoric people as of the historically recorded Celts and Cimbri (Bakker 2010, 118-119). But he had attempted to address the question of megalithic origins in a systematic manner and on a large geographical canvas.

The 'peuple à dolmens'

The Celtic associations of megalithic monuments were deeply rooted in popular belief, but as the 19th century progressed, it became clear to many that an earlier, pre-Celtic origin was a more plausible option. The new model was set out clearly by the Baron de Bonstetten in his famous *Essai sur les Dolmens*. His aim was to "esquisser à l'aide de ces sépultures et de la diversité de leur mobilier funéraire la marche d'un peuple qui eut le triste privilege de ne marquer son existence dans l'histoire que par l'architecture bizarre de ses tombeaux" (Bonstetten 1865, 1). He recognized a great arc of dolmens extending from the Baltic to Cyrenaica (North Africa now being included in the distribution), with six separated branches in the Crimea, Etruria, Palestine, Corsica, Greece and India. His conclusion was that in all probability they were all the work of a single people "dont le nom et l'existence se perd dans les ténèbres des temps anté-historiques" (Bonstetten 1865, 40).

For Bonstetten, this *peuple à dolmens,* similar to the Scythians in physique and pastoralist in their lifestyle, came from the East and entered Europe via the Caucasus, settling along the northern shores of the Black Sea. Forced from their new homeland by the arrival of further 'asiatic hordes', they embarked on a two-pronged movement, one towards and across the Mediterranean accounting for the dolmens of Syria, Greece, Italy and Corsica; the other around the vast Hercynian forest into northern Europe, where the great arc of dolmens begins. From northern Europe they travelled down the coast to northern France, to Britain and Ireland, and then across the Pyrenees into Portugal and finally North Africa (Bonstetten 1865, 44-49). Note that they avoided eastern Iberia, either because it was already occupied by another people, or simply by chance. The driving force behind this long-term but incessant movement of pastoral communities was, Bonstetten argued, most likely to have been famine, and the result was the replacement in western Europe of 'l'homme des cavernes' by 'le peuple à dolmens', before the latter in turn were replaced by the peoples known to history (Bonstetten 1865, 51).

Bonstetten was not alone in these elaborate conjectures. At the same period, Alexandre Bertrand (founder and first director of the Musée des Antiquités Nationales) was giving detailed consideration to the distribution of megalithic tombs across France. He highlighted the coastal emphasis of dolmens, and used that to reject the idea that they were Celtic in origin (since the Celts had occupied the whole of France, not only the coastal regions) (Bertrand 1863a, 1863b, 1864). He concluded: "L'impression que laisse cette distribution des dolmens sur la surface de la Gaule, c'est que les populations qui y sont ensevelies n'ont point été, comme on l'a cru, repoussées de l'est à l'ouest par des envahisseurs, mais sont venues directement du nord, le long des côtes ou par mer, et ont directement pénétré dans l'intérieur par les rivières ou les vallées" (Bertrand 1863a, 235). The words are almost exactly those of the Comte du Caylus a century before. It was, however, in drawing attention to similarities between the megalithic monuments of North Africa and those of Scandinavia that Bertrand developed his 'megalithic people' most clearly: a people pushed out from Central Asia to the Baltic shores, then again forced onward to Britain and Ireland, France and Portugal, until dying away in North Africa (Bertrand 1863b, 531).

North or south?

The reaction to this mid-19th century notion of a megalithic people moving from north to south down the Atlantic coasts took two forms. The first was a simple reversal of the direction, suggesting that the megalith-builders had moved northwards from the Mediterranean, not southwards from the Baltic (Figure 1). The second was a rejection of the whole concept of a travelling megalithic people. Thus Gabriel de Mortillet in the 1870s ('Sur la non-existence d'un people des dolmens' 1874) remarked that the hypothesis of a 'megalithic people' was inconsistent with the diversity of the artefactual assemblages recovered from these tombs, and with the diversity of cranial types among the inhumed. Comparison of regional tomb sequences and their contents in Brittany and Jutland underlined the point: "Les dolmens des deux régions ont donc assisté à la même évolution industrielle. Ils étaient indépendants les uns des autres, pendant tout le temps, fort long, que s'est effectuée cette évolution, qui probablement même n'a pas été synchronique, comme chronologie absolue, dans les deux regions" (De Mortillet 1874, 531). It was not the spread of a people that was responsible for the building of megalithic tombs, but the spread of a religion or a cult (De Mortillet 1877, 157).

It was in the 1860s that Portuguese archaeologists first began to enter this debate. Among the first was Pereira da Costa, who in his *Descripção de alguns dolmins ou antas de Portugal* (1868) followed closely the conclusions of Bonstetten in tracing a north-south ancestry for Portuguese megalithic tombs. A decade later, Augusto Filippe Simões argued by contrast (echoing De Mortillet) that the megalithic tombs of western Europe were not the work of a single migrant people but had been built by the different peoples inhabiting the regions in which they are found; and furthermore, "that the custom of building the dolmens spread from south to north, in the opposite direction contrary to that attributed to the migrant people" [Julgam mais que o costume de construir os dolmens se propagaria do sul para o norte, em direcção contraria áquella que faziam seguir ao povo emigrante] (Simões 1878, 98). Simões goes on to discuss the possibility and practicability of early seafaring along the Atlantic coast using only log boats, and asks whether these voyagers might be considered the precursors of the Phoenicians. Thus his rejection of the megalithic people is coupled with an acceptance, nonetheless, of long-distance maritime contact.

Twenty years later, the underlying question had been radically reframed by the publication of Oscar Montelius' *Der Orient und Europa* in 1899. Montelius attributed the arrival of the later Stone Age in Europe to the migrations of the Aryan peoples from Asia, but by this time the chronology of megalithic monuments was sufficiently well established to indicate that they did not belong to the earliest Neolithic but to a later phase. Montelius nonetheless was firmly of the opinion that they had spread to Europe from Asia, albeit not as the work of a single people. He traced their progress along the north coast of Africa to southwest Europe and thence northwards to northwest and northern Europe, arriving in Scandinavia long before the end of the 3rd millennium BC (Montelius 1899, 34-35). Earlier theories for a north-south direction of spread were discounted, in large measure because they were inconsistent with the newly emerging Neolithic chronology.

The proponents of a northern origin did not, however, immediately give way. A few years earlier, Salomon Reinach (who succeeded Alexandre Bertrand as director of the Musée des Antiquités Nationales) had been very clear: "tout porte à croire que les dolmens de l'Allemagne du Nord, formés de blocs erratiques, sont les plus anciens que nous connaissions" (Reinach 1893, 557). Another firm advocate of a northern

origin was Matthaeus Much. He suggested that the origin of the megalithic tomb lay not in the practice of collective burial in natural caves (as had previously been proposed), but in the opportunities for secure burial offered by the many glacial erratics of the North European plain, "die Leiche zwischen solchen Steinblöcken zu betten, statt in der Erde zu begraben" (Much 1902, 151). In accounting for the spread of the tombs to western and southern Europe, he envisaged some "Viking sea-king of the Stone Age" with his followers sailing the Atlantic shores and settling the exposed islands and peninsulae. The obvious place of origin for such a seafaring people was the Baltic with its many inlets and islands (Much 1902, 161-162).

The Vikings thus entered the debate alongside the Phoenicians as a possible prototype for the people or peoples who had carried the building of megalithic monuments in prehistory along the coasts of northern and western Europe. The power of the Phoenicians as a potential parallel was greatly strengthened by the discoveries of the Siret brothers in southeast Spain, especially the excavations by Louis Siret at Los Millares in the 1890s. For Siret, the corbel-vaulted *tholos* tombs were derived from Mycenae and ultimately from Egypt, and the 'colonies' themselves (such as Los Millares) were attributed to the Phoenicians (Siret 1913).

Georg Wilke drew on this in his study of the Iberian megaliths, accepting that the presence of corbelled vaults and porthole entrances in southern Iberia demonstrated links with the East Mediterranean (Wilke 1912). He noted also that 'false vaults' are found not only in southern Iberia but also in southern France, Brittany and the British Isles; whereas they are absent from Holland, Belgium, Netherlands, northern Germany and Scandinavia (Wilke 1912, 11). That would be consistent with a spread of this particular feature from south to north. But Wilke rejected a simple East Mediterranean origin for megalithic tombs as a whole, arguing that the typological development from simple dolmen to passage grave and then to corbel vaulted tomb can be traced only in western Europe, and not in the east. Furthermore, he noted that it is Scandinavia and Portugal that have the simplest forms of tomb (by which he implied the earliest); and he also observed that the corbel-vaulted tombs that show the strongest evidence of Mediterranean influence are not the earliest tomb type in the southwest. What also seemed clear was that the northern tombs were built by Indogermanic peoples who were the ancestors of the Germanic people: "Diese nordischen Dolmenbauern waren – das dürfen wir heute mit grosser Bestimmheit aussprechen – Indogermanen und zwar Nordindogermanen und die inmittelbaren Vorfähren der nachmaligen germanischen Völkerstämme" (Wilke 1912, 155). Wilke concluded that the claims of a southwest or northern origin for European megalithic tombs could not be resolved without a robust chronology that would allow the relationship between the two regions to be established. At the same time, he was not convinced that it came down to a simple choice between Iberia and Scandinavia. He observed that the tradition of stone-built tombs need not necessarily have originated in either the north or the south, as earlier writers had contended, but could have begun in an intervening region of Atlantic Europe (Wilke 1912, 171).

Kossinna, Childe and Daniel

The association of the north European tombs with the Indogermanic peoples, and their distribution as evidence of the movement of those peoples, became a key point of contention in the following decade. Writing in same year as Wilke, Gustav Kossinna argued for the Indogermanic people emanating from Scandinavia and the Baltic

coastlands as the source of many of the cultural innovations in western Eurasia. It was in that context that megalithic tombs had originated in the Baltic region and spread southward to Iberia (Kossinna 1912). A decade later, Gordon Childe was robust in rejecting this Indogermanic association: "Most archaeologists consider that the idea of constructing these unwieldy tombs was diffused by a maritime race who set out from the Eastern Mediterranean in the search for metals and precious substances; for there is a rough coincidence between the distribution of the monuments and the substances in question. It is supposed that these early voyagers established trading stations or even dynasties where they found the objects of their quest and initiated the natives into their cult of the dead and the architecture which it inspired. In some form this view seems to me to be the right one, but none of its advocates have identified their treasure-seekers with Aryans" (Childe 1926, 101). Furthermore the direction of travel was wrong: "some consider that the Scandinavian tombs are typologically the most primitive. So it is proposed to reverse the usual account of their diffusion and locate the original focus of dolmens in Denmark. Thence, it is suggested, tall sea-rovers with golden locks, the forerunners of the Vikings, set out in glorified dug-outs for Barbary and India." The alternative was much more convincing: "it is certain that the mariners from the West introduced to Scandinavia the cult of the dead and the megalithic funerary architecture associated therewith, first simple dolmens and then more pretentious structures termed passage graves" (Childe 1926, 172).

Iberian archaeologists not surprisingly held that megalithic tombs had their origin in the peninsula. Bosch-Gimpera, for example, situated the origins of the megalithic tombs in the mountainous regions of northern and eastern Portugal, and attributed them to an isolated community, perhaps "mountain shepherds that gradually developed the cult of the dead (as in general did all the peoples of Neolithic Spain) and who moved in a territory rich in large stones" (Bosch-Gimpera 1932, 84). Bosch-Gimpera was here following a previous article co-authored with Lluís Pericot, which likewise situated the origins of the polygonal "dolmens simples" in northern and central Portugal, perhaps extending northwards to include Galicia. It was probably from Galicia, in their view, that the megalithic tomb tradition spread across northern Spain to the Pyrenees (Bosch-Gimpera & Pericot 1925, 417, 421).

That claim for an Iberian origin was contested by Daryll Forde in a detailed review of the broader Atlantic context (Forde 1930). Forde rejected Kossinna's argument for a northern origin of megalithic tombs, but he sought the inspiration for the Iberian tombs outside Iberia, following earlier writers in positing East Mediterranean influence. He reversed Bosch-Gimpera's sequence, interpreting the simpler megalithic tomb types of northern Portugal and Galicia as degenerate forms emanating from a twin source of origin in southwest and southeast Iberia. For Forde, it was the earliest forms of tomb that had been the most elaborate, and hence "If the Iberian megalithic culture was already at a high level of achievement in the earliest centers of the south, the problem of its origin is pushed one stage further back and must be sought, not in the degraded megaliths of northern Portugal but in some higher civilization elsewhere" (Forde 1930, 53). That place of origin was to be found, just as Wilke and Montelius had suggested, by looking eastwards across the Mediterranean.

Forde was in no doubt, however, that Iberian models lay behind the megalithic tombs of Brittany, Britain and Scandinavia, and extended those connections to include pottery and polished stone axes, and (in the case of Brittany) variscite beads. Thus "[t[he Breton peninsula projecting westwards to the north of Iberia was the scene of a

colonization which rivaled the southern Iberian centres" (Forde 1930, 68). "[T]here was undoubtedly extensive migration", while "[t]he general littoral distribution of the megalithic tombs of the Breton peninsula and the existence of several maritime focal points, leaves us in little doubt . . . that the original implantation was effected by sea" (*ibid*., 68-69). A similar pattern held for Britain, for example in "Devon and Cornwall, where the first impact of Breton or Iberian migrants might be expected" (*ibid*., 92). Thereafter "voyagers from the south along the western coasts introduced the passage tomb in a less degenerate form in the remote northerly parts of the island. The chambered cairns of western and northern Scotland are corbeled tombs with precise analogies in southern Iberia" (Forde 1930, 93). Forde's narrative was unequivocal in attributing the megalithic tombs of Britain and Britain to seafarers from the south.

By the middle decades of the 20th century, detailed regional studies such as those by Bosch-Gimpera on Iberia and by Sprockhoff (1938) and Nordman (1935) on northern Europe had greatly amplified the amount of detailed information available to researchers seeking to compare and connect the different megalithic traditions. Bosch-Gimpera, as we have seen, favoured an Iberian origin; whereas Nordman accepted a southern origin for many megalithic tombs but argued that the earliest megalithic tombs of northern Europe were an indigenous development, although the idea was introduced from outside (Nordman 1935, 85). Reviewing all of this evidence, Glyn Daniel, however, was "in no doubt that at one stage in its early history Europe was colonized by a movement of people diffusing megalithic tombs" (Daniel 1941, 7), nor was there any question about the direction of movement: "it was from the south of Europe to the north-west and north, from Spain and the West Mediterranean to France, the British Isles, and north Germany and Scandinavia" (*ibid*. 8), and those responsible, "hardy megalithic seafarers" (*ibid*. 23). In Daniel's view, it was likely "that the spread of burial chambers represents a fairly extensive series of colonising movements—something between the small groups of leaders and chiefs and the hordes of the Megalithic 'Race'". He saw nothing in the tombs themselves or their contents "to suggest that these tombs represent anything more than the colonisation of Atlantic Europe in prehistoric times by adventurous folk emanating from Iberia and the Western Mediterranean" (*ibid*. 48). Nor was he any more equivocal about the way this had all begun: "the first event in the megalithic colonisation of Europe is the settling in south-east Spain of folk who buried their dead in these Tholoi" and those Iberian tholoi themselves were derived, in his view, from the Aegean (*ibid*. 41).

Daniel favoured colonization – the displacement of entire communities and their relocation in a new land. Others, by contrast, while accepting the movement of people and the direction of that movement (from the Mediterranean to northern Europe), argued that it was pioneers searching for raw materials who were behind the spread of the tombs. Hence Gordon Childe in the first edition of *The Dawn of European Civilization* (1925) had commented on various parallels between British megalithic tombs and those of Iberia – the corbel-vaulted chambers, for example – but had attributed them to trade: "No actual colonization on any large sale is presupposed in the phenomena of our new stone age. The neolithic arts and the idea of megalithic architecture may simply have been taken over by the natives from traders touching on the shores" (Childe 1925, 291-292).

By the third edition of *The Dawn of European Civilization* (1939), Childe had modified that interpretation and supported an alternative vision of "the spread of some religious idea expressed in funerary ritual" (Childe 1939, 209). A decade later he was

writing of "missionaries or prospectors" whose arrival, from southern France to northern Scotland, was marked by the construction of megalithic collective tombs that "can only have been built or inspired by voyagers arriving by sea" (Childe 1950, 88-89). "Indeed there was no single megalithic culture but perhaps a cult, superimposed upon a number of already differentiated cultures. So there was no megalithic people; yet the diffusion of a cult could not be effected without a settlement by actual people" (*ibid*. 90). The idea that megalithic tombs had been built by or at the instigation of megalithic missionaries was not altogether new (see e.g. Hawkes 1934, 26). It drew particular support from the fact that burial practices were an expression of religious belief, and from the puzzling lack of a common culture – in terms, for example, of pottery – between the different megalithic regions. What was spread, it was argued, was not a colonising people but a set of religious beliefs and practices. This, essentially, had been Gabriel de Mortillet's proposal in the 1870s, when he rejected the idea of a 'megalithic people': "Le dolmen n'est donc qu'une des formes d'un usage sépulcral qui s'est répandu de proche en proche chez des peuples nombreux et divers. Il ne peut, par conséquent, servir à càractériser un peuple special" (De Mortillet 1874).

Dates, isotopes and DNA

The fundamental problem behind all of these hypotheses, from Caylus to Childe, was the absence of a secure chronology. Parallels in tomb types and artifact categories too often assumed what they were held to demonstrate – that that there had been connections between the various megalithic regions, and that primacy should be assigned to one region over others. Whether the concept of the megalithic monument had begun earliest in Portugal, or Brittany, or Scandinavia, or in some place along the Atlantic façade, could not be established on the basis of morphological parallels alone; still less, the mechanisms that underlay their broad geographical distribution.

A breakthrough came with the publication of the first radiocarbon dates for megalithic tombs in the late 1950s (Giot 1959; Coursaget *et al*. 1962). Initially, however, it seemed possible to accommodate the older models to the new dates. Hence Bosch-Gimpera referred to the new date of 3030±75 BC (uncalibrated: Giot 1959) from the passage tomb of Ile Carn at Ploudalmézeau, on the northern coast of Brittany, when restating his view that developments in Iberia were ultimately behind the inception of megalithic tombs in Brittany and the British Isles: "pendant le quatrième millénaire, la culture mégalithique portugaise devait être déjà en plein développement: sépultures à couloir et construction mégalithique avaient commence à s'introduire en Bretagne et dans les Iles Britanniques. Le tumulus de Ploudalmézeau (Bretagne), avec une tombe à coupole et un couloir d'entrée de la fin du quatrième millénaire, est un indice indirect qui nous permet d'avancer que les sépultures portugaises se trouvaient alors en plein développement" (Bosch-Gimpera 1967, 30).

Once radiocarbon dates (and the first TL dates: Whittle & Arnaud 1975) became more widely available, however, and calibration was applied, it became clear that the previously accepted models positing a single or dual origin for megalithic tombs were no longer supported. By the mid 1970s, the pattern of dates that began to emerge suggested not one centre of origin for megalithic tombs, but several – in Denmark, Brittany, Iberia and possibly Ireland as well (Renfrew 1976, 204). No longer was it permissible to envisage a 'megalithic people' or 'megalithic missionaries' spreading from north to south or south to north; there was no clear evidence from the

radiocarbon dates that any one centre of megalithic monuments had chronological precedence over any other.

The theory of multiple independent origins that emerged from the calibrated radiocarbon dates was not entirely new: it had been suggested by critics of Westendorp's thesis 150 years earlier, and by De Mortillet and Simões in the 1870s. Furthermore, there had been an undercurrent of thinking throughout the 20th century that the Danish dolmens had in some way been an independent development, even if the 'idea' of the megalithic tomb had been introduced to that region from outside (e.g. Nordman 1935). But the new chronological scheme demanded a new model to explain the origins of megalithic tombs, and that model entirely rejected any concept of a 'megalithic people' – or indeed much contact of any kind between the different regions. Theories put forward to account for the parallel development of megalithic tombs in different regions focused on the spread of farming and the interaction with Mesolithic communities along the Atlantic façade. It was significant, for example, that a number of the independent centres for megalithic origins that were proposed coincided more or less closely with areas of significant Mesolithic cemeteries – in the Baltic, in southern Brittany, or in southwest Portugal (Renfrew 1976, 213; Sherratt 1990). It could hence have been the confrontation between indigenous Mesolithic and intrusive Neolithic communities that lay behind the genesis of the European megaliths.

The theory of independent multi-regional origins was consistent with the early evidence from radiocarbon dating but did not adequately explain the inter-regional parallels. This applied, for example, not only to the use of megalithic blocks in broadly similar ways, but to more specific features shared between the monuments of the different regions, such as megalithic art in Ireland and Brittany (Le Roux 1992; O'Sullivan 1997). This did not necessarily imply a return to the concept of a 'megalithic people' but it did suggest that maritime contacts had an important explanatory role to play in accounting for the distribution and approximate synchronicity of megalithic origins from Poland to Portugal.

It is only within the last decade that techniques of analysis have been developed that are capable of directly addressing the issue of human mobility in prehistory. Chief among these are stable isotope analysis (notably of strontium and oxygen), and the successful extraction of ancient DNA from burials. As yet, the latter has not extensively been applied to skeletal remains from megalithic tombs (though see Deguilloux *et al*. 2011). Coupled with the development of systematic dating programmes using Bayesian analysis, however, aDNA and stable isotope analysis are beginning to give a more detailed narrative for processes of change in the west European Neolithic.

One feature of this new narrative is the direct scientific evidence for the movement of people, both at the individual level (through stable isotopes) and at a larger scale (as shown by palaeogenetic patterns revealed through ancient DNA). A study of stable isotopes in Sweden indicated for example that almost one quarter of those buried in the passage graves of the Falbygden area may have been non-locals (Sjögren *et al*. 2009). Recent study of burial assemblages from British megalithic tombs likewise indicates that a number of the individuals buried within them had spent part at least of their childhood elsewhere (Neil *et al*. 2016, 2017). Such evidence for mobility must also be viewed against the growing consensus that colonist farmers from northern France were responsible for the introduction of the Neolithic to southern Britain, and

in light of arguments that the long mound and chambered tomb traditions of southern Britain were derived directly from those of northern France (Scarre 2015).

At a broader European scale, studies of ancient DNA are largely consistent with the hypothesis that the spread of the Neolithic across Europe was associated with the expansion of farming groups from Southwest Asia who to a greater or lesser extent replaced indigenous hunter-gatherer populations. This evidence appears to confirm long-held views that early farming travelled by two routes: through Central Europe to the north and northwest; and across the Mediterranean to Italy and Iberia (Hofmanová *et al*. 2016). Megalithic tombs, however, are a secondary phenomenon in most of the relevant areas, belonging to the Middle rather than the early Neolithic, and DNA studies have yet to explore connections and interactions along the Atlantic façade.

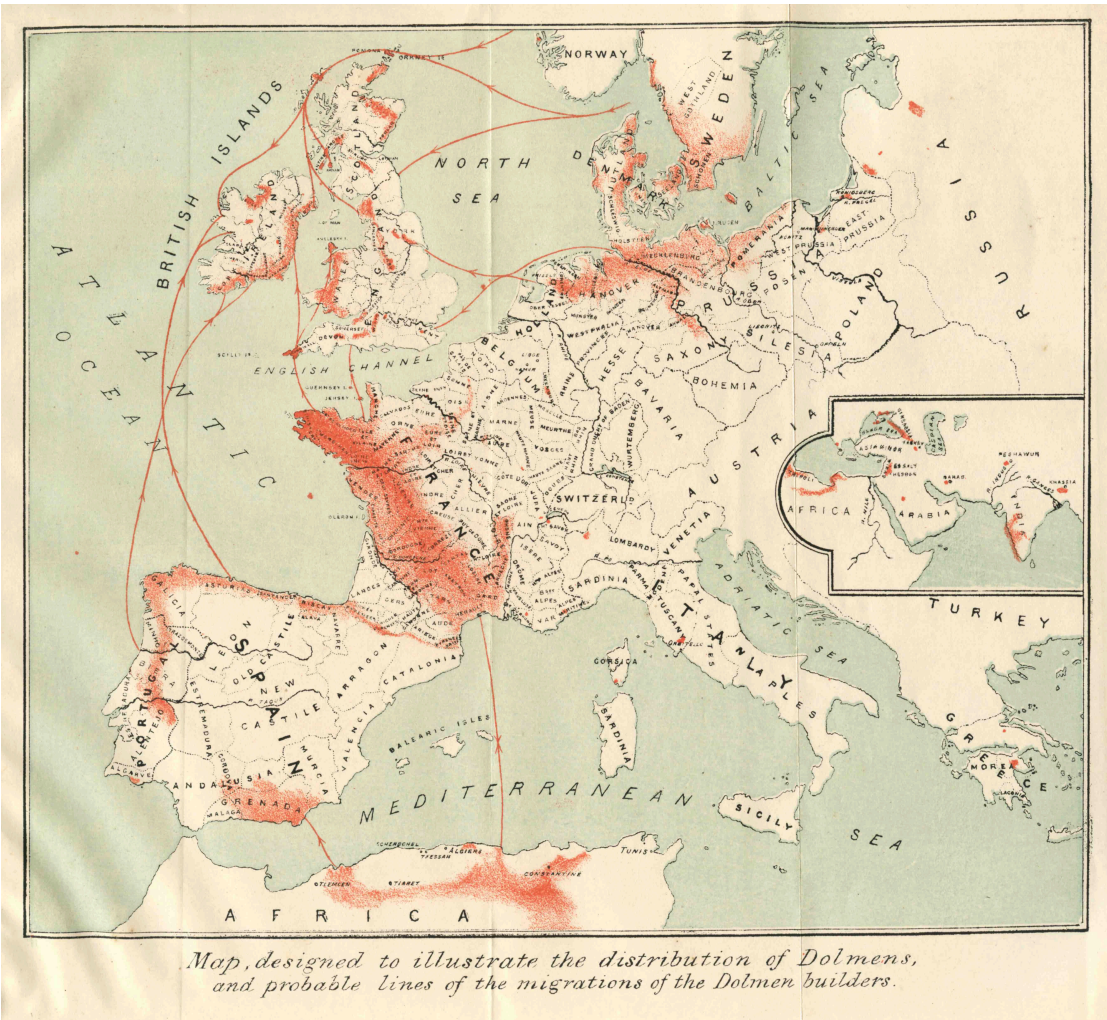
All of this may suggest that the oft-debated, oft-dismissed concept of a 'megalithic people' is about to experience a renaissance in Neolithic studies. There are persuasive arguments in support of some direct connection between the different areas of western and northern Europe where megalithic monuments appear; but such connections, even where convincingly demonstrated, do not in themselves necessarily indicate substantial movements of population. Whereas colonist farmers may have brought farming, and tombs, to Britain and Ireland, the nature of contacts southwards, from northwest France to northwestern Iberia, is unclear. Connections between northwest Iberia and Brittany are revealed by movements of variscite ornaments northwards and polished stone axes southwards, and by occasional finds of Breton Castellic pottery in Galicia (Pétrequin *et al*. 2012; Fábregas Valcarce *et al*. 2012, 2017; Gauthier & Pétrequin 2017; but see also Villalobos García & Odriozola 2017). These patterns of movement again, however, do not reveal the exact mechanisms of contact; whether, for example, Neolithic Iberians visited Brittany or the converse. Recent simulations indicate that journeys of this kind could have been completed in 5-6 weeks, or perhaps only half as long if direct open-sea voyages across the Bay of Biscay, out of sight of land, were undertaken (Callaghan & Scarre 2017). Copastal communities of Neolithic Brittany were capable of transporting substantial menhirs by sea over distances of up to 40kms, and must have correspondingly sophisticated vessels (Cassen *et al*. 2016). Long-distance maritime connections would hence have been entirely feasible, but are yet to be demonstrated unequivocally. That the tradition of megalithic monuments may have been transmitted by seafarers travelling between the coasts, islands and peninsulae of western and northern Europe hence appears entirely plausible.

That does not, in itself, reinstate the idea of a 'megalithic people'; maritime interconnections do not equate to mass migration. We are perhaps closer to Childe's 'megalithic missionaries': the spread of a mortuary tradition associated with a particular engagement with the material world exemplified by the use of megalithic blocks. Some might view these new interpretations as only the latest stage in a debate that reaches back to the earliest days of European archaeological enquiry. Indeed, we may argue that the changing fortunes of the 'megalithic people' have at every point reflected wider trends within the discipline: from the attribution of megalithic monuments to historically recorded peoples (Celts or Gauls) in the 18th and 19th centuries; to the general models of migration and diffusion that dominated archaeology in the early 20th century; to the processual explanations of the 1970s. The powerful new analytical techniques that are now available have the potential to transform that debate by providing direct evidence of human movement. It is clear

that today, in the 21st century, we are closer than ever before to understanding the patterns of human mobility and interregional contact that underlay the adoption and spread of megalithic architecture in Neolithic western Europe.

Acknowledgements

I am very grateful to Professor Cardoso for his invitation to attend the conference *História das Ideais e dos Conceitos em Arqueologia*, at which an earlier version of this paper was presented. I am also grateful to Floor Huisman for help with the Dutch text of Westendorp's *Verhandeling ter beantwoording der Vrage*.



Map, designed to illustrate the distribution of Dolmens, and probable lines of the migrations of the Dolmen builders.

Figure caption

Figure 1. The migrations of the 'Dolmen builders' as mapped by James Fergusson in 1872, following Bertrand and Bonstetten. The direction of the arrows illustrates multiple routes of diffusion, from northern Europe, France, and Iberia, with other inputs from North Africa. The small inset map indicates the presence of megalithic monuments also in India, the Near East and the Caucasus. Ironically, Fergusson did not support the hypothesis of a migratory 'megalithic people', instead considering

"these rude stone monuments as merely the result of a fashion which sprung up at a particular period, and was adopted by all those people who, like the Nasamones, reverenced their dead and practiced ancestral worship rather than that of an external divinity" (Fergusson 1872, 408).

References

Bakker, J. A., 2010. *Megalithic Research in the Netherlands, 1547-1911. From 'Giant's Beds' and 'Pillars of Hercules' to accurate investigations*. Leiden: Sidestone Press.

Bertrand, A., 1863. Les monuments primitifs de la Gaule. Monuments dits celtiques: dolmens et tumulus. *Revue Archéologique* 7, 217-37.

Bertrand, A., 1863. Monuments dits celtiques dans la province de Constantine. *Revue Archéologique* 8, 519-31.

Bertrand, A., 1864. De la distribution des dolmens sur la surface de la France. *Revue Archéologique* 10, 144-54.

Bonstetten, A. de, 1865. *Essai sur les dolmens*. Geneva: Jules-Guillaume Fick.

Bosch-Gimpera, P. & L. Pericot, 1925. Les civilisations de la Péninsule ibérique pendant le Néolithique et l'Énéolithique. *L'Anthropologie* 35, 409-52.

Bosch-Gimpera, P., 1932. *Etnologia de la Península Ibèrica*. Barcelona: Editorial Alpha.

Bosch-Gimpera, P., 1967. Civilisation mégalithique portugaise et civilisations énéolithiques. *L'Anthropologie* 71, 1-48.

Callaghan, R. & C. Scarre, 2017. Biscay and Beyond? Prehistoric voyaging between two Finisterres. *Oxford Journal of Archaeology* 36, 355-73.

Cambry, J. de, 1805. *Monumens Celtiques, ou recherches sur le culte des pierres, précédées d'une notice sur les Celtes et sur les Druides, et suivies d'étymologies celtiques*. Paris: Johanneau.

Cardoso, J.L., 2017. O mais antigo registo conhecido da escavação de uma estação pré-histórica em Portugal. São Torpes e a sua sepultura da foz da ribeira da Junqueira (Sines). *Al-Madan* 21, 132-41.

Cassen, S., C. Chaigneau, L. Lescop, G. Querré, J.-M. Rousset, V. Grimaud & E. Vigier, 2016. Le déplacement des mégalithes extraordinaires sur le littoral morbihannais. Modèles d'embarcations et questions relatives à la navigation atlantique dès le Ve millénaire av. J.-C., in *La maritimisation du monde de la préhistoire à nos jours. Enjeux, objets et méthodes*Paris: Presses de l'université Paris-Sorbonne, 237-.

Caylus, A.C.P. comte de, 1761. *Recueil d'Antiquités Egyptiennes, Etrusques, Grecques, Romaines et Gauloises, Tome IV*. Paris.

Caylus, A.C.P. comte de, 1764. *Recueil d'Antiquités Egyptiennes, Etrusques, Grecques, Romaines et Gauloises, Tome VI*. Paris.

Childe, V.G., 1925. *The Dawn of European Civilization*. London: Kegan Paul, Trench, Trubner & Co.

Childe, V.G., 1926. *The Aryans. A Study of Indo-European Origins*. London: Kegan Paul, Trench, Trubner & Co.

Childe, V.G., 1950. *Prehistoric Migrations in Europe*. London: Kegan Paul.

Chippindale, C., 1994. *Stonehenge Complete*. London: Thames & Hudson.

Closmadeuc, G. de, 1882. Le Président de Robien, archéologue. *Bulletin de la Société Polymathique du Morbihan* 1882, 25-60.

Coursaget, J., P.-R. Giot & J. Le Run, 1962. A fresh series of radiocarbon dates from France. *Antiquity* 36, 139-41.

Daniel, G., 1941. The dual nature of the megalithic colonisation of prehistoric Europe. *Proceedings of the Prehistoric Society* 7, 1-49.

Deguilloux, M.-F., L. Soler, M.-H. Pemonge, C. Scarre, R. Joussaume & L. Laporte, 2011. News from the West: ancient DNA from a French megalithic burial chamber. *American Journal of Physical Anthropology* 144, 108-18.

Fábregas Valcarce, R., A. de Lombera Hermida & C. Rodríguez Rellán, 2012. Spain and Portugal: long chisels and perforated axes. Their context and distribution, in *Jade. Grandes Haches Alpines du Néolithique Européen. Ve et IVe millénaires av. J.-C*, eds. P. Pétrequin, S. Cassen, M. Errera, L. Klassen, A. Sheridan & A.-M. Pétrequin. Besançon: Presses Universitaires de Franche-Comté, 1108-35.

Fábregas Valcarce, R., C. Rodríguez Rellán & A. de Lombera Hermida, 2017. Des Alpes à la Péninsule Ibérique: une longue route sinueuse, in *Jade. Objets-signes et Interprétations Sociales des Jades Alpines dans l'Europe Néolithique*, eds. P. Pétrequin, E. Gauthier & A.-M. Pétrequin. Besançon: Presses Universitaires de Franche-Comté, 419-30.

Fergusson, J., 1872. *Rude Stone Monuments in All Countries; their Ages and Uses*. London: John Murray.

Forde, C. D., 1930. Early cultures of Atlantic Europe. *American Anthropologist* 32, 19-100.

Gauthier, E. & P. Pétrequin, 2017. Interprétations sociales des transferts de grandes lames polies en jades alpins dans l'Europe néolithique. Analyses spatiales dans le cadre du programme ANR JADE 2. *ArchéoSciences*.

Giot, P.-R., 1959. Une station du Néolithique Primaire Armoricain: Le Curnic en Guissény (Finistère). *Bulletin de la Société Préhistorique Française*, 292-3.

Hawkes, J., 1934. Aspects of the Neolithic and Chalcolithic periods in western Europe. *Antiquity* 7, 24-42.

Hofmanová, Z., S. Kreutzer, G. Hellenthal, C. Sell, Y. Diekmann, D. Díez-del-Molino, L. van Dorp, S. López, A. Kousathanas, V. Link, K. Kirsanow, L. M. Cassidy, R. Martiniano, M. Strobel, A. Scheu, K. Kotsakis, P. Halstead, S. Triantaphyllou, N. Kyparissi-Apostolika, K. Urem-Dushka, C. Ziota, F. Adaktylou, S. Gopalan, D. M. Bobo, L. Winkelbach, J. Blöcher, M. Unterländer, C. Leuenberger, Ç. Çilingiroğlu, B. Horejs, F. Gerritsen, S.J. Shennan, D.G. Bradley, M. Currat, K.R. Veeramah, D. Wegmann, M.G. Thomas, C. Papageorgopoulou & J. Burger, 2016. Early farmers from across Europe directly descended from Neolithic Aegeans. *Proceedings of the National Academy of Sciences* 113, 6886-91.

Hunt, R., 1865. *Popular Romances of the West of England*. London: J.C. Hotten.

Kossinna, G., 1912. *Die deutsche Vorgeschichte, eine hervorragend nationale Wissenschaft*. Leipzig: Curt Kabitzsch.

Le Roux, C.-T., 1992. The art of Gavrinis presented in its Armorican context and in comparison with Ireland. *Journal of the Royal Society of Antiquaries of Ireland* 122, 79-108.

Martin, J., 1727. *La Religion des Gaulois, tirée des plus pures sources de l'Antiquité. Tome II*. Paris: Saugrain.

Mérimée, P., 1836. *Notes de Voyage dans l'Ouest de la France*. Paris: Librairie du Fournier.

Monfaucon, B. de, 1719. *L'Antiquité expliquée, représentée en figures. Tome Cinquieme, Seconde Partie. Les Funerailles des Nations barbares, les Lampes, les Supplices, &c*. Paris.

Montelius, O., 1899. *Der Orient und Europa. Einfluss de orientalischen Cultur auf Europa bis zur Mitte des letzten Jahrtausends v. Chr*. Stockholm.

Mortillet, G. de, 1874. Sur la non-existence d'un peuple des dolmens. *Association Française pour l'Avancement des Sciences* 3, 530-4.

Mortillet, G. de, 1877. Races humaines et chirurgie religieuse de l'époque des dolmens. *Matériaux pour l'Histoire Primitive et Naturelle de l'Homme* 12, 153-66.

Much, M., 1902. *Die Heimat der Indogermanen im Lichte der urgeschichtlichen Forschung*. Berlin: Hermann Costenoble.

Neil, S., J. Evans, J. Montgomery & C. Scarre, 2016. Isotopic evidence for residential mobility of farming communities during the transition to agriculture in Britain, in *Royal Society Open Science* DOI 10.1098/rsos.150522

Neil, S., J. Montgomery, J. Evans, G.T. Cook & C. Scarre, 2017. Land use and mobility during the Neolithic in Wales explored using isotope analysis of tooth enamel. *American Journal of Physical Anthropology* 164, 371-93.

Nordman, C.A., 1935. *The Megalithic Culture of Northern Europe. The Rhind Lectures 1932*. Helsinki: Suomen Muinaismuistoyhdistyksen Aikakauskirja Finska Fornminnesforeningens Tidskrift 39.

O'Sullivan, M., 1997. Megalithic art in Ireland and Brittany: divergence or convergence?, in *Art et Symboles du Mégalithisme Européen. Actes du 2ème Colloque International sur l'Art Mégalithique, Nantes 1995*, eds. J.L'Helgouach, C.-T. Le Roux & J. Lecornec. Nantes: Revue Archéologique de l'Ouest, supplément no. 8, 81-96.

Pereira da Costa, F.A., 1868. *Noções sobre o Estado Prehistorico da Terra e do Homem seguidas da descripção de alguns dolmins ou antas de Portugal*. Lisboa: Typographia da Academia.

Pétrequin, P., S. Cassen, L. Klassen & R. Fábregas Valcarce, 2012. La circulation des haches carnacéennes en Europe occidentale, in *Jade. Grandes Haches Alpines du Néolithique Européen. Ve et IVe millénaires av. J.-C.*, eds. P. Pétrequin, S. Cassen, M. Errera, L. Klassen, A. Sheridan & A.-M. Pétrequin. Besançon: Presses Universitaires de Franche-Comté, 1015-45.

Reinach, S., 1893. Le mirage oriental. *L'Anthropologie* 4, 539-78.

Renfrew, C., 1976. Megaliths, territories and populations, in *Acculturation and Continuity in Atlantic Europe*, ed. S. J. De Laet. Brugge: De Tempel, 198-220.

Scarre, C., 2015. Parallel lives? Neolithic funerary monuments and the Channel divide, in *Continental Connections. Exploring Cross-Channel Relations from the Mesolithic to the Iron Age*, eds. H. Anderson-Whymark, D. Garrow & F. Sturt. Oxford: Oxbow Books, 78-98.

Schnapp, A., 1996. *The Discovery of the Past. The Origins of Archaeology*. London: British Museum.

Sherratt, A., 1990. The genesis of megaliths: monumentality, ethnicity and social complexity in Neolithic north-west Europe. *World Archaeology* 22, 147-67.

Simões, A.F., 1878. *Introducção á Archeologia da Peninsula Iberica. Parta Primeira: Antiguidades Prehistoricas*. Lisbon: Livraria Ferreira.

Sjögren, K.-G., T.D. Price & T. Ahlström, 2009. Megaliths and mobility in south-western Sweden. Investigating relationships between a local society and its neighbours using strontium isotopes. *Journal of Anthropological Archaeology* 28, 85-101.

Sprockhoff, E., 1938. *Die nordische Megalithkultur*. Berlin & Leipzig: Walter de Gruyter.

Villalobos García, R. & C.P. Odriozola, 2017. Circulación de hachas prehistóricas de jade alpino en el centro-occidente de la Península Ibérica. ¿Modelo "directional trade" o "down-the-line/prestige chain"? *Munibe* 68.

Westendorp, N., 1822. *Verhandeling ter beantwoording der Vrage: welke volkeren hebben de zoogenoemde hunebedden gesticht? In welke tijden kan man onderstellen, dat zij deze oorden hebben bewoond?* Groningen: Oomkens.

Whittle, E.H. & J.M. Arnaud, 1975. Thermoluminescent dating of Neolithic and Chalcolithic pottery from sites in Central Portugal. *Archaeometry* 17, 5-24.

Wilke, G., 1912. *Südwesteuropäische Megalithkultur und ihre Beziehungen zum Orient*. Würzburg: Curt Kabitzsch.