Transported landscapes
Megaliths consist either of stone fragments or of complete stones that may be considered fragments of the earth. The task of the builders of a megalithic monument is to find the right stone material, work it to the right size (if necessary), transport it to the chosen location, and construct the megalith according to a desired design. I suggest that it was important for building a megalith that it consisted of several parts or fragments. These fragments could differ not only in substance, size and shape but also in place of origin. They were “pieces of places”, as Richard Bradley (2000: 88) called it. None of this may have been visible to the visitor of a completed monument, as an earthen mound would have covered most, if not all, of the stones. Nevertheless, the particular properties of the invisible stones mattered.

At Vale de Rodrigo, in southern Portugal, geological analyses were carried out at the stones used in four megalithic graves (Dehn et al. 1991; Kalb 1996). The result was surprising (Fig. 1). The stones had been brought to the site from different locations of up to 10km distance. Geological research established that this choice was probably predominantly motivated by functional and practical reasons. The different kinds of rock have different appearances and/or physical characteristics, so that one or the other may have influenced their uses. Fragments of different rocks were chosen in correspondence with a previously conceived design of the finished monument. But there is more to it than that. The locations of the sites of origin of the different materials represent main celestial directions from the megalith. This makes it likely that the monuments also represented certain symbolic values associated with the landscape and certain cosmologies. In short, the design of these megaliths included not only the use of different rock fragments as such, but also their previous fragmentation from natural rock formations at locations of presumably special cultural significance. Similar relationships between megaliths and their surrounding landscapes have been observed elsewhere (see especially Bradley 2000). In Brú na Bóinne on Ireland, the stone material used in the major passage tombs of Newgrange and Knowth comes from several sources, two of which are approximately 40 km south and 35 km North East from the tombs (Cooney 2000: 135-8). In these cases, megaliths became “a transported landscape in which structural elements were extracted, carried and re-assembled to link together physically places that had been distant” (Cooney 2000: 136). In effect, this may have constituted a physical expression of certain people’s...
Figure 2: A megalith at Rabuje near Monforte, Alentejo, Portugal. Some of the side-stones have been broken up at ground level and obviously found a use elsewhere. (Photograph: Cornelius Holtorf, 2001)
Figure 3: Stone re-use in Forst Prora (Hagen-Granitz) on Rügen, Germany. (Source: Hansen 1933: Fig. 14).

6 stones were used, representing the two types of stones (white granites and schists, red sandstone) that make up the natural topography of the island (Jones 1999). In relation to Neolithic Orkney, Colin Richards argued (1996) that the landscape and topography of the island is recreated in tombs and henge monuments, and Gillings and Pollard have made a similar claim for the henge at Avebury (1999: 185). In relation to the Gorsedd of Bards, Colin Richards argued (1996) that the landscape and topography of the island is recreated in tombs and henge monuments, and Gillings and Pollard have made a similar claim for the henge at Avebury (1999: 185).

Symbolic values of rocks associated with different places are also documented for another form of megaliths – the so-called Gorsedd Circles in Wales. These are stone circles which, since the early 19th century, were built for the annual ceremonies of The Gorsedd of Bards of the Isle of Britain which formed part of the annual Eisteddfod, the National Arts and Music Festival of Wales (see Holtorf 2000-3: 7.1). One account of the Eisteddfod held in 1914 in Aberystwyth states that the stones in and outside of the circle represented the Welsh counties, as well as the Welsh Abroad (Allcroft 1923: 121). Although the stones used in Gorsedd Circles were normally chosen from the mountains or in quarries according to size but not colour, some stones with interesting histories, pointing me to the relevant literature and generally sharing their thoughts with me. I would like to thank them all, but especially those that informed my understanding of the sites mentioned here: Serge Cassen, Martin Höck, Lars Holten, Dillwyn Miles and Philine Kalb. This paper originated in a session on Fragmentation, organised by John Chapman for the Fifth Annual Meeting of the European Association of Archaeologists (EAA) in Bournemouth, 1999. For critical comments, I am grateful to John Chapman, Gabriel Cooney as well as Andrew Jones, who also agreed to have some of his thoughts added in a final fragment of this paper.
Wars against memory
In early historic, historic and modern times, megaliths have been fragmented in numerous cases, mostly to do with removing or re-using the stone material they contained (see also Holtorf 1999). Some megaliths were completely destroyed after every individual stone had simply been taken away. There is evidence from Nobbin in north-east Germany that the process of gradual fragmentation of a megalith started already in the pre-Roman Iron Age, when the cap-stone of the burial chamber appears to have been missing already (Schuldt 1972a). In Medieval and early modern central Europe, cup-marked and other stones that could have come from fragmented megaliths were incorporated into prominent locations in church buildings or churchyard enclosures (Holtorf 2000-3: 7.3).

In the late 19th and early 20th centuries, stones were in great demand for the erection of war and other kinds of memorials in Germany and, as a result, many more megalithic monuments were fragmented (Holtorf 2000-3: 5.2.3). Ironically, one part of the past was to be remembered by subjecting another to oblivion. There is a considerable number of war memorials in which cupstones of megalithic tombs have found new uses. This is especially obvious when war memorials feature cup marks. As a consequence, several war memorials are now protected as prehistoric monuments, e.g. in Hamberge (Holtorf 2000-3: 8.3). Hansen drew attention to a single megalithic tomb in Hagen-Granitz on Rügen, the stones of which were reused in four different memorials (Fig. 3). Interestingly, this did not happen in a single event but over a time period of some 30 years!

All this could be explained by the fact that large stones used in megaliths simply provided convenient building material for other purposes. But it may appear even more likely that (at least some of) these fragments, whether decorated or not, were deliberately integrated into later monuments because they had been used before and were associated with older sites.

References


(Holtorf, 2000-3: 5.2.3) As already observed after reading the prehistoric version of this paper in my attempt at deconstructing megaliths as single units I am treating all my examples (and by implication all megaliths) as unitary phenomena. It is, indeed, rather common to find more than one, or even more than a few things that megaliths of most if not all places and periods appear to share. In their continuous cycle of transformations and re-assembly, they may be different from each other or even come to resemble one another. This is especially obvious when war memorials feature cup marks. As a consequence, several war memorials are now protected as prehistoric monuments, e.g. in Hamberge (Holtorf 2000-3: 8.3). Hansen drew attention to a single megalithic tomb in Hagen-Granitz on Rügen, the stones of which were reused in four different memorials (Fig. 3). Interestingly, this did not happen in a single event but over a time period of some 30 years!

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Figure 4: Entrance gate to a farm opposite Herdada Peral de Cima, near Gafanhoeir, Alentejo, Portugal. (Photograph: Cornelius Holtorf, 2000).
Frankenstein-like reconstructions

Despite current world-wide trends of increasing fragmentation, megaliths have increasingly been re-assembled from several of their own fragments and/or additional rock fragments. For John Moreland, this amounts to bringing (dead) monuments “back to life, in a Frankenstein-like fashion” (1999: 209). In the perspective suggested in this paper, these new structures are not simply resurrections of older ones, or stone zombies. Instead they are — again! — stone fragments of different origin assembled for particular purposes. These purposes include educational, economic and psychological considerations. Moreland is right in stating (1999: 209) that “[t]he fragments were brought together, reinterpreted and re-assembled to create monuments which, although bearing little resemblance to the original, nevertheless took on a life of their own and began their biographies anew.”

The Gollenstein menhir in Blieskastel, for example, was assembled from its fragments as a symbol for the re-emerging town after the war (Holtorf 1994). Elsewhere, reconstructed megaliths such as the example at Lejre in Denmark (Ebbesen 1993: 48–51) serve both to attract paying visitors and as means to illustrate prehistoric realities. Illustrations on paper often re-assemble fragments too. Hansen’s depiction of the megalith of Hagen-Granitz is one such example (Fig. 3); Ewald Schuldt’s reconstruction drawing of the architecture of a passage grave at Jamel near Wismar is another. Here, the number of stones shown in the drawing is twice the number of those actually present at the site (Fig. 5).

Such re-assemblages of our day perpetuate the same circular process begun by the first megalith builders, who had assembled the first megaliths, and continued by later generations of people who fragmented these megaliths and reused their fragments for new purposes. The cycle of assembling fragments and fragmenting assemblages seems capable of going on for many centuries and millennia to come (Fig. 6). Only by fragmenting megaliths one last time, returning each fragment to its own place of origin, and reuniting it there with the natural rock, would a tradition be broken that has been with us ever since the Neolithic. How better could we respond to repetitive fragmentation and re-assembly than by breaking the pattern?

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**Figure 1.** Transportation routes and directions of the different kinds of rock used for construction at the four megalithic tombs of Vale de Rodrigo, Alentejo, Portugal (Source: Kalb 1996: Fig. 1).

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**Axing Menhirs**

It is now well established that some megaliths at Locmarioquer in Brittany were in fact built from the fragments of older decorated menhirs (L’Helgouach 1983; Cassen n.d.). Capstones of three different megaliths even turned out to be fragments of one and the same huge menhir (Le Roux 1985). Mark Patton (1993) listed eight different menhirs that had probably been fragmented in the
Neolithic, and re-uses of some of these fragments in up to seven different megalithic tombs, all in Brittany (Patton 1993: 56-7). In recent excavations near the site of Le Grand Menhir Brise, on the Locmariaquer peninsula, Brittany, archaeologists have discovered a place where menhirs were taken to be broken up into smaller pieces. The small chippings produced by the pecking of the stones have been found in profusion (John Chapman, pers. comm.). Given this emphasis on fragmentation and breaking up monuments, it may come as no surprise that the axe is a prominent element of the decorations on the menhirs (Thomas & Tilley 1993: 233). For Sardinia, Emma Blake established at least seven cases where menhirs were re-used in megalithic tombs, and she found another three such re-uses in Bronze Age nuraghi, although in all these cases the menhirs had remained complete (Blake 1999: 44-6). On the British Isles too, older standing stones, perhaps an entire stone circle, were recycled in the passage grave of Maeshowe on Orkney (Richards 1996: 197). By the same token, various decorated stones of Neolithic monuments were used during the Bronze and Iron Age in secondary contexts (Burgess 1989-90).

Figure 6: Schematic overview of the cycle of continuous fragmentation and (re-)assemblage of megaliths.