The core idea of this chapter is that people, places, and things are self-constituting in a material network symbolizing collective memory and reinforcing social relations. I address this idea by introducing the notion of fragmentation studies to the domain of landscape archaeology. I begin by defining two key, articulating concepts, fragmentation and enchainment, and then turn to the evidence for deliberate acts of fragmentation and enchainment in prehistory.

To Fragment or Not to Fragment?

One of the principal characteristics of material culture that archaeologists discover is that it is usually broken. We have become so accustomed to this state of affairs—either as excavators or when studying museum collections—that broken things do not appear to be abnormal, interesting, or curious (Chapman and Gaydarska 2006). Any concept that disturbs an idea that is so deeply rooted in our habitus—our unspoken set of assumptions about how our world operates—will inevitably provoke resistance, scorn, or worse. One such deeply rooted idea is the notion that broken things are nothing but the result of accidental breakage or taphonomic processes—in other words, processes unrelated to human intentionality. This idea persists in many archaeologists’ minds, despite the increasing acceptance of the active use of material culture, a notion that has been one of the main breakthroughs of postprocessualism (Hodder 1982). When it comes to broken things, agency and social practices are rapidly forgotten in favor of the old chestnut that “archaeology is concerned with the rubbish of past generations” (quoted in Thomas 1991: 56). Instead of using this outdated foundation myth, I have maintained that archaeology is, rather, the “science of deposition” (Chapman 2000) and that a vital part of the reorientation that follows from this reconceptualization of our discipline is that things that are broken are not necessarily just discarded, tossed away, or dumped. That “things are merely rubbish” may be treated as a null hypothesis, but it is one that is increasingly capable of falsification.

Fragmentation

In my first book on fragmentation, I listed and discussed five possible causes of breakage (Chapman 2000b: 23–27):

1. Accidental breakage;
2. Objects buried because they are broken (e.g., Garfinkel 1994);
3. Ritual “killing” of objects (e.g., Grinsell 1960; Hamilakis 1998);
4. Dispersion to ensure fertility (e.g., Bausch 1994);
5. Deliberate breakage for reuse in enchainment.

I would accept that all these causes operated in the past, as well as the obvious taphonomic processes that can and do break things. However, the key point that arises at a certain scale of spatial closure—a grave, a hoard, a burnt house assemblage, a pit, a bounded midden, and so forth—is that none of the first four processes or practices can explain the absence of parts of the broken thing. Hamilakis’s (1998) study of ritual killings of swords and spears in Minoan Crete describes complete, if broken, objects in graves and pits; the same is true for Garfinkel’s (1994) study of the breakage of objects to remove their diminishing ritual power. I would continue to maintain that, for closed contexts, the phenomenon of the missing part is a good indication of deliberate object breakage. For more open settlement contexts, the complications are far greater (cf. Hayden and Cannon 1983), and this is an important area of ongoing research.

**Enchainment**

The notion and significance of “enchainment” can be summarized in three main points:

1. Enchainment mobilizes the identity triad of persons, places, and things through presentencing;
2. Enchainment is the best, and sometimes the only, explanation for deliberate fragmentation;
3. Enchained relations subsume concepts such as curation, tokens, ancestral veneration, heirlooms, and relics.

In a recent discussion of the uses I have made of the concept of enchainment, Fowler (2004: 68) correctly observes one fundamental difference between Melanesian enchainment and fragment enchainment. In Melanesia, the object enchaished through gift exchange is not held by different persons at the same time, but its materiality creates a sequence of giving and counter-giving, while fragments are held coevally by different persons. This does not mean that whole-object enchainment does not exist in societies that practice fragment enchainment—merely that there are two different but related social practices embodied in the materiality of objects.

4. Dispersion to ensure fertility (e.g., Bausch 1994);
5. Deliberate breakage for reuse in enchainment.

I would accept that all these causes operated in the past, as well as the obvious taphonomic processes that can and do break things. However, the key point that arises at a certain scale of spatial closure—a grave, a hoard, a burnt house assemblage, a pit, a bounded midden, and so forth—is that none of the first four processes or practices can explain the absence of parts of the broken thing. Hamilakis’s (1998) study of ritual killings of swords and spears in Minoan Crete describes complete, if broken, objects in graves and pits; the same is true for Garfinkel’s (1994) study of the breakage of objects to remove their diminishing ritual power. I would continue to maintain that, for closed contexts, the phenomenon of the missing part is a good indication of deliberate object breakage. For more open settlement contexts, the complications are far greater (cf. Hayden and Cannon 1983), and this is an important area of ongoing research.

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**Fragmentation and the Landscape**

How do the concept and the social practice of deliberate object (and body) fragmentation map onto landscape archaeology—onto landscapes? Landscapes consist of a network of places—some natural, some culturally constituted, some created by human manipulation of the landscape. It is this network of places that gives human lives their meaning, through an identification of past activities and present embodiment. The key element of landscape archaeology is thus the relationships between different places. Whenever fragment dispersion is mapped onto places, the practice of fragmentation can be linked to landscape archaeology. This practice is but one of a series of practices constituting “inhabitation” (see Thomas, this volume).

According to John Barrett, inhabitation is not merely “occupying” a place but understanding the relevance of actions executed at that place by reference to other frames of reference, other time, other places (Barrett 1999: 258–60). Enchained social relations provide one such key frame of reference, because, following Mauss (1954), each gift carries within it the history of all previous gift exchanges. If enchainment presences absent people, fragments of things, and places, it is fundamental to the process of inhabitation as described by Barrett. The symbolism of *pars pro toto* sustains a form of fractal personhood that is dispersed across the landscape and that itself acts as a means of bringing that landscape into being. But how can the notion of enchainment dispersed across the landscape be demonstrated?

**Direct Evidence: Intersite Refitting**

At the methodological level, the key linking concept between fragmentation and landscape studies is that of *intersite refitting.* If enchainment disperses the general level of social practice—the challenge is to refine the links between persons and things for each specific cultural context. In the course of this chapter, I shall seek to exemplify each of these points. But, in general, it is the contention of much of my recent research that deliberate fragmentation is a fundamental feature of not only later Balkan prehistory but also of communities living in many other times/places (Chapman 2000b, 2000c, 2000d, 2000e). The evidence for deliberate fragmentation is increasing each year, both at the level of intersite data and intrasite data, such that the social practice can no longer be ignored by anyone seriously interested in material culture (Chapman and Gaydarska 2006).
that we should at least consider the possibility of trade and exchange based on fragmentary objects (for example, exotic sherds rather than complete exotic vessels) (Chapman 2000b: 63–65) is still valid, if difficult to prove, there are two important methods that implicate movement of fragments across the landscape—at spatial scales that are becoming increasingly possible to define. The first method is the intersite refitting of fragments from the same object (see below). Here, two places in the landscape are linked by the parts of a broken object in an enchained, dispersed relationship. It has also been found that, even after refitting, the object is still missing some parts, so the enchained dispersion can be assumed to go still further, linking a third or more places. A second method is to focus on completely excavated sites or phases with good to excellent recovery and to examine the Completeness Index of the objects. If there are no other practices that would destroy ceramics (for example, the use of grog temper) or removal from the site (for instance, manuring scatters), one can argue that the missing fragments were taken off the site and dispersed across the landscape. In practice, each of these methods depends on the completeness and the recovery standards of the excavations in question; therefore selection of potential study collections requires enormous care. But both methods have recently been shown to demonstrate fragment dispersion across the landscape, giving added precision to the generally accepted notions of exchange networks and/or mobility. In this way, we can begin to link fragmentation studies to the landscape concerns that form the focus of this research handbook.

The most convincing example of intersite fragmentation concerns objects larger than the usual artifacts, such as geometrically decorated stone slabs forming the most elaborately decorated parts of megalithic monuments in Brittany; these represent some of the earliest monumental remains in western Europe (Scarre 2002). Le Roux (1992) has demonstrated that some of the motifs on the decorated stones at Gavrinis were carved before the incorporation of the stones into the passage. Scarre (2005) suggests that these stones once stood elsewhere and were “re-erected” in the gallery of motifs that formed Gavrinis. Moreover, there are several examples of large stone slabs whose engraved patterns were broken across the image, with one part built into one monument and the other half used to construct a second tomb. The best-studied is the menhir decorated with a bovid, fragmented into three pieces, one of which was built into each of the megaliths of Gavrinis, Er-Grah, and La Table des Marchand, respectively, 3 kilometers apart (L’Helgouach and Le discussed stone slabs whose engraved patterns were broken across the landscape, giving added precision to the general acceptance of exchange networks and/or mobility. In this way, we can begin to link fragmentation studies to the landscape concerns that form the focus of this research handbook.

The implications of these material links, the most monumental examples of enchainment yet discovered in Europe? We can integrate the three elements of people, places, and things by emphasizing the embodied nature of these practices. The first implication concerns the design of the paired megaliths. Since it is clear that not every stone block would have fitted into a place in the passage of these megaliths, an agreed-on design was required in advance for the part of the tombs incorporating the broken blocks. This meant several meetings and several trips between the pairs of megaliths for several builders to ensure the design would produce the desired effect and that the stones were broken to approximately the correct dimensions. Second, the transport of the stone blocks—perhaps from a third site, certainly from one megalith to the other and presumably to one more hitherto undiscovered megalithic monument (the missing third piece of the menhir). In the case of Gavrinis, Er-Grah, and La Table des Marchand, the blocks of stone each weighed several tons and required land and river transport over 3 kilometers (at the time, Gavrinis was not an island). This would have brought together numerous individuals—perhaps 20 to 30 people, likely mostly males—from several dispersed communities, with the task of bringing all team members together in a coordinated display of embodied skills. The enchained relations developed through these tasks were surely not a one-off practice but led to longer-term social relations cemented by the paired stones. The places with enchained links included not only the settlements of the team members but also the source of the rock, the places visited en route, and the final burial places of the decorated stones. The processions across the landscape, embodying the formal movement of the stones, linked other megaliths with their own ancestral place-values, as well as integrating stretches of other paths perhaps not related before in a single route. The people whose bones were later stored in the paired megaliths were also enchained to those who made the link between

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implied, therefore, by megalithic-scale enchainment is a complex network of social relations, practices, places, and things that had temporal and spatial scales and limits, while at the same time emphasizing specific ancestral and lineage connections (see also McFadyen, this volume). These monuments are the largest example yet known of

How widespread is this practice? It is not yet possible to give an adequate answer to this question, because no systematic investigations into fragmentation of stones have been made in places such as Val Camonica, Monte Bego, and other major rock art sites. However, new research by Emmanuel Mens (2008) has demonstrated the

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**Figure 17.1** The refitted menhir from Gavrinis, Er-Grah, and Le Table des Marchand.
alignments to the sequence of extraction from neighboring outcrops; surely, the next step is to make links between stones in a mega-refitting operation! Moreover, the incorporation of decorated, cup-and/or-ring-marked stones into Late Neolithic pits in henges and into Early Bronze Age cist graves in Britain has revealed a number of fragmented stones broken across the motif(s) (Bradley 2002; Waddington 1998: 43–45), indicating that the practice of megalithic fragmentation is by no means limited to Neolithic Brittany.

Turning to smaller objects, I next discuss five cases of artifact dispersion across landscapes: four prehistoric and one from the early historic period. The earliest case of intersite refitting is reported from the Gravettian of the Achtal, in Germany, where fragments of the same lithics refitted from four different cave sites, two of which—the Geissenklösterle and the Hohler Fels—are 3 kilometers apart (Gamble 1999: 326–27, fig. 6.18; Scheer 1990; see Figure 17.2). The excavators interpreted this practice as a way of characterizing the spatial dispersion of the chaine opératoire of Gravettian core reduction by mobile groups moving from cave to cave. What it also shows is that the enchained identity of these groups was materialized by discard in several linked places across the landscape.

![Figure 17.2 Refitting Gravettian flints in the Achtal (source: Scheer 1990: Abb. 9).](image)

A later lithic refitting study showed similar refits between sites occupied for short periods at the Mesolithic-Neolithic transition in the South Norwegian Highlands (Schaller-Åhrberg 1990). Total or almost complete excavation of six small sites located around the shore of Lake Gyrinos (lake dimensions: 5 x 2 kilometers) produced radiocarbon dates spanning the 7th–5th millen-
foci in the Trent Valley. But such coeval practices are not necessary to support the enchained links among people, places, and objects. There were significant differences in the life histories of the two fragments—the swordpoint was worn and the fracture was more rounded in the lower part than in the upper. This suggests that breakage had preceded deposition by a significant period of time—perhaps years—suggesting that sword fragments had an independent life of their own in the routine practices of the valley. An intriguing possibility is that Late Bronze Age swords may have acted as metaphors for people, indicating the parallels between deliberate fragmentation of things and of the human body (Williams 2001).

In a final example, the elaboration of pottery decoration offers the potential for different persons to recognize that “their” fragment, if broken across the motif, is linked to another piece of the same vessel. The refitting process has been used extensively in intrasite ceramic studies, most frequently for purposes of stratigraphic linkage (see Hoffman and Enloe 1992; Macfarlane 1985: Appendix B for a good example). But intersite refitting of decorated sherds is a rare discovery, requiring much time and effort. The only instance known to this author is the example of refitted Roman-period Bosman 1988). The two Early Roman forts established at Velsen were occupied for only a short time (Velsen I between A.D. 15 and 28; Velsen II between A.D. 40 and 50), before changes to the defense of the limes elsewhere (Brandt 1983: 132). Refits have been made at 80% probability between (1) decorated fragments of a Samian bowl (Dragendorff Type 27) found, respectively, at Velsen I and Hoogovens site 21 (Vons and Bosman 1988: figs. 2–4); (2) decorated fragments of a Samian bowl (Dragendorff Type 29) found at two sites—Velsen I, ’t Hain site 39 and Roman Nijmegen (Vons and Bosman 1988: figs. 5–8); and (3) decorated body sherds of another example of the Dragendorff 29 type found at Velsen I and on the Roman site beneath the Medieval castle of Brederode, on a sand ridge 4.5 kilometers southwest of Velsen (Bosman 1994). The refits between Velsen I and the three local sites indicate movement across some 3 to 8 kilometers.

The initial interpretation has been that the local population raided the abandoned fort for valuable materials and, in the process, also removed small pottery fragments to take back to their settlements as trophies—the “pick-up” explanation (Bogaers 1968). This notion would indicate the value placed on incomplete objects, perhaps for reuse. Research on ethnographic discard among the Maya has
scoops or spoons (cf. Hayden and Cannon 1983). But these highly decorated, distinctively colored Samian sherds were so different from the local pottery tradition that a symbolic element in the appropriation of the material culture of the “Other” is surely present. They were also too small for reuse as scoops.

A second explanation is that soldiers at the Velsen fort entered into enchained relations with local populations through exchange of things complete and incomplete (Brandt 1983). Brandt (1983: 137) lists the classes of Roman objects found on “local” sites: glass, fibulae, “scrap” metalwork, and pottery, including 350 decorated Samian sherds—all small and many eroded. Interestingly, each small Samian sherd came from a different vessel, as did the glass fragments. These observations prompted Brandt to discuss the possibility of deliberate fragmentation of Samian vessels, perhaps for use as primitive money (their wear suggests frequent use), as ritual objects (their red color and sheen) or for redistribution as fragments by local elites (1983: 140–42). The refitting demonstrates that at least some Samian vessels were broken at Velsen II but this does not rule out further redistribution of fragments in local communities. Bosman (1997) and Vons and Bosman (1988) return to the issue, criticizing Brandt’s explanations of primitive money and exchange by arguing that the dating evidence does not place the sherds on local sites at the same date as the occupation of the Velsen forts. The latter prefer a “pick-up” explanation for all the Roman finds found on what they claim to be later (that is, post-Velsen I and II) local sites, things that now also include amphora, mortaria, and grinding stone fragments. The chronological issue can be settled only by multiple AMS radiocarbon dating of the local sites.

In one sense, it does not matter whether the refitted Samian sherds were traded or picked up. Here is a well-documented case of intersite refitting across an “ethnic” division, by which the material identity of an invading population is valued sufficiently by the local Indigenous groups to promote the further use of fragments as trinkets or heirlooms after breakage. These refittings document links across this low-lying landscape that enable the closer identification of the mechanism of dispersal.

The most extensive interstice refit of all is the famous lithic refit from the Chuckwalla Valley, Southern California (Singer 1984). Detailed technological analysis of lithics from a series of surface sites characterizing the local prehistoric groups, without clear dating, revealed a refit between an...
and a decortification flake at a discard site 63 kilometers down the valley. To my knowledge, this is the longest intersite refit in the world. The implications include widespread movement of lithics by groups with enchained relations to both sites.

There are several important implications of intersite refitting. The first is that, because of the distance between sites, we can exclude accidental discard, the movement of objects through cleaning of structures, dumping, and children’s play. This means that we have a number of documented cases of deliberate fragmentation with subsequent discard in different places. Second, although the rationale behind the movement of fragments between sites is different (contrast Velsen I and the Achtal caves), there remains an important commonality of links among people, places, and broken things, by which the identity of each of the three elements is mutually constituted in relation to the other two elements. Third, in several cases (the Achtal caves, Shakado, Trent Valley), the notion of enchainment applies to the fragmentation practices, suggesting a certain kind of relationship between people and things that involves the objectification and fractality of personhood. This has major consequences for the way we view past material and social worlds. Fourth, and of particular relevance to this volume, intersite refitting means that fragmentation has a landscape dimension—a result leading to the theorization of materiality and movement across the landscape, not only at specific places in the landscape. Issues include the extent to which broken objects are enchained to places along the routes between starting-point and destination (for example, of a decorated megalithic panel). Finally, the broad time/place span of these practices suggests that, even if the examples are as yet few in number, this could be a significant practice over a much wider range of Eurasian prehistory than we currently have evidence for. Naturally, this cannot be documented at the present time but the questions raised set an archaeological agenda for future investigations.

It would be disingenuous to deny the problems any researcher faces in seeking intersite refitting: (a) a large, if not huge, labor input—with the potential for no results; (b) few examples of previous good practice; and (c) the potential obstacles placed in the way of the research by museum or other institutional directors not permitting collections to be moved to nearby locations for refitting tests. Nonetheless, none of these problems is insuperable; in any case, they are surely not much greater than those working in Eurasian archaeological face on an everyday basis. Of particular smaller nation-states (for instance, Slovenia, Eire, and Latvia), whose collections include the majority of archaeological finds from most of the key sites.

**Indirect (Intrasite) Evidence from Completely Excavated Sites**

The evidence for intersite refitting currently derives from a restricted number of cases—primarily because few archaeologists have looked for the material evidence indicating the practice of deliberate fragment dispersion. Since the complexities of research are somewhat reduced, there are more examples of intrasite investigations into object fragmentation than of intersite studies. In this chapter, only those examples detailing the results of complete or nearly complete excavations of sites or phases are discussed. If high levels of object recovery can be demonstrated, and this is not always possible, a case can be made for several fascinating social practices centered on the differential use of fragments and, indeed, fragment dispersion across the landscape.

There are three social arenas in which intrasite refitting has been attempted: the separate domestic domain, the separate mortuary arena, and conjoint studies of both domains. Study of the domestic domain is made particularly challenging by the combination of the diversity of contexts, few of which are “closed,” and the variety of taphonomic processes in operation. The assumption of intentional deposition in contexts such as megalithic tombs, barrows, cairns, and graves, where there can be a greater degree of closure, would appear to make refitting in the mortuary arena more straightforward. I present an example from each domain, beginning with a domestic settlement.

**Dolnoslav.** The Dolnoslav is a tell located in the Maritsa Valley, in the southern part of the Thracian plain. There are two main prehistoric horizons—the earlier, dating to the Early Neolithic, has not been investigated at all, whereas the Final Eneolithic horizon has been almost totally excavated by A. Raduntcheva and B. Koleva in the 1980s (Koleva 2001, 2002; Raduntcheva 1996, 2002). Hand excavation was used, but no sieving or flotation was carried out; the size of the recovered figurine fragments leads us to believe that only small fragments (< 2 cm in size) may have been missed. The vast majority of anthropomorphic fired clay figurines (over 480 out of 500) were deposited in the final process of burning the 28 structures and the creation of four large middens. Most of the finds represent deliberate collection of objects for deposition in abandonment contexts (see Chapman
The vast majority of figurines at Dolnoslav had been deposited in a broken condition. A refitting experiment on all of the anthropomorphic figurines produced an increase in conjoined figurine fragments of 25 cases, most refits leading to complete or nearly complete bodies but with four figurines still incomplete, even after refitting (Figure 17.5). These included 25 complete figurines (5% of the total), including 3 refitted from 8 fragments on the dig; 422 “orphan” fragments (84%); 53 fragments refitted in 2004 (11%) to make 25 more refitted cases; 21 refits with a Completeness Index of 90–100%; 1 refit with a Completeness Index of 80%; and 3 refits with a Completeness Index of 50–60%. Many of the figurine fragments, including some refitted examples, show signs of life “after the break,” indicating that figurine fragmentation was not the end of a figurine’s life but one stage in the total figurine biography (Gaydarska et al. 2007).

The depositional contexts of the refitted figurines indicate a significant degree of fragment dispersion after breakage. It could be maintained that the figurine fragments were moved around the site by various processes of attrition, or through children’s play, but the relatively “closed” and special character of the depositional contexts of the figurine fragments—burnt structures and middens—suggests that the fragments were too significant to be considered simply as “rubbish.” It is more probable that figurine fragments at Dolnoslav embodied enchainable relations between people and objects, acting as tokens in the same way as fragments refitted between sites.

The significance of the Dolnoslav refitting study is that it demonstrates that over 10% of all figurine
fragments have been refitted on-site but that a much higher proportion of fragments are, pace Schiffer (1976), "orphan" fragments. Where are the missing fragments?

Given the good, if not complete recovery rate of figurines at Dolnoslav, and the total excavation of the final phase of structured deposits, one could conclude that the missing fragments were used and deposited somewhere off the tell. Although deposits of figurine parts have been found in arable land near a settlement (Chapman 2000b: 64), the spatial scale of the fragment dispersion remains one of the hardest points to establish. In particular, it is difficult to distinguish between two possible scenarios to the issue of missing parts at Dolnoslav: (1) figurines were made and used whole at another settlement, fragmented there, and one of the fragments was brought to Dolnoslav for deposition; or (2) the figurine was made and used whole at Dolnoslav, and, following fragmentation, one or more parts were removed for deposition on another settlement. This issue can, indeed, be generalized to all cases of parts missing from deliberately fragmented objects. Whatever the direction of movement, the Dolnoslav example provides further support for fragment dispersion across the landscape, potentially connecting several settlements over a distance of several kilometers. In other words, this case resembles the movement of decorated megalithic panels in Neolithic Brittany.

The lower frequency of sites that combine both the domestic and the mortuary domains (in contrast to one or other arena: cf. Chapman 1992) means that relatively few studies have focused on possible refits between these two domains. I present one indisputable example from the Balkan Chalcolithic and refer to another example from the British Bronze Age. Durankulak. The Durankulak complex, on the Northern part of the Bulgarian Black Sea coast, comprises a long-lived cemetery with both Neolithic (Early Hamangia) and Chalcolithic (Middle-Late Hamangia and Varna groups) burials in the largest-known cemetery in the Balkans, lying on the shores of a lagoon (Todorova 2002). The Neolithic settlement lies near the cemetery on the lagoon shore (Todorova and Dimov 1989); the Chalcolithic settlement was moved onto an island in the lagoon in the early 5th millennium B.C. (Todorova 1997; for new AMS radiocarbon dates for Durankulak, see Honch et al. In press).

A single example of conjoined pottery has been published, concerning half of a decorated vessel from the Varna group Grave 584, that refits to a large decorated sherd deposited in a house in horizon VII of the tell on the island (Todorova et al. 2002: 59–60, tab. 99/11; see Figure 17.6). The use of an elaborate visual importance of fragmentation practices—that those insiders who know the story will recognize the whole from which the part has been separated and reconstruct it in their mind’s eye as the part symbolizing the whole. The refitting of vessel fragments from both the mortuary and the domestic domains underlines the importance of maintaining enchained links between the dead and the living, even though the spatial scale is no more than 200 meters. Once again, it should be emphasized that the Durankulak example is an unequivocal case of deliberate fragmentation followed by fragment dispersion. As with some Dolnoslav anthropomorphic figurines, the conjoined vessel is still missing a substantial fragment possibly deposited on the Tell in an as yet unexcavated area or, yet again, on another settlement or cemetery. A comparable case of conjoined vessel parts—one in a grave, the other in a house—has been recognized for the Middle Bronze Age of Southern Britain at the Itford Hill complex (Burstow and Holleyman 1957; Holden et al. 1972; for details, see Chapman and Gaydarska 2006).

Figure 17.6 Refitted Late Copper Age vessel, Durankulak complex, northeast Bulgaria (source: Todorova et al. 2002, tab. 99/11): the upper part was deposited in Grave 584, the lower part in a house in Level VII on the “Big Island” tell.

The frequently closed nature of individual burial contexts provides fragmentation studies with an opportunity to identify object fragments whose missing parts have not been placed in the grave and that can therefore establish enchained relations between different domains. Nevertheless, care must be taken to document the closed nature of the context, especially since the work of Buko has demonstrated the ease with which more recent deposits can be trapped in middle and upper grave fill (Buko 1998). Tiszapolgár-Basatanya. A good example of a collection of published graves that shows a clear pattern of deliberate fragmentation is the Copper Age cemetery of Tiszapolgár-Basatanya, in Eastern Hungary (Bognár-Kutzian 1963, 1972). Individual
were dated to the Early and Middle phases of the Copper Age, ca. 4500–3600 B.C. (Chapman 2000f). In both phases, ceramic grave goods were common, varying with the life-stage of both sexes (Sofaer Derevenski 1997). The vessels could be classified in three groups according to their Completeness Index: (1) fully complete vessels (termed “C”); (2) vessels that had been restored to a complete profile but with minor or substantial parts missing (termed “R”); and (3) orphan sherds (termed “S”).

In the Early Copper Age graves, only 6% of the graves with ceramic grave goods contained complete vessels without any restored pots or orphan sherds (Figure 17.7a). The remaining graves showed a complex pattern of vessels, dominated by graves with complete and restored vessels. Most of the pots had missing fragments that must have been deposited elsewhere—most probably in the domain of the living. In the Middle Copper Age, the percentage of graves with no restored vessels or orphan sherds had dropped to 4% (Figure 17.7b), with the graves dominated by assemblages with all ceramic classes—complete, restored and orphan sherds. In both phases, there was a complex relationship between the completeness of the vessels deposited as grave goods and the age/sex category of the person buried (Chapman 2000b: 51–53, tab. 3.2).

Although incomplete, the fragmentation study of the Tiszapolgár-Basatanya cemetery provides an example of the intensity of enchained relations connecting those buried in a single cemetery and settlements dispersed across the landscape. Only four graves in the entire cemetery did not rely on enchained relations to those outside the graves. In the Copper Age in Eastern Hungary, the dominant settlement form is the dispersed farm or homestead.
Part III: Thinking through Landscapes

There are several important implications of intrasite refitting. Each of them depends on a good understanding of the taphonomic processes affecting the site in question (that is, children’s play, off-site disposal in manuring scatters, weathering and other forms of attrition, and reuse of fragments), and a good to excellent recovery rate. First, it has been possible to isolate practices of deliberate fragmentation through the demonstration of missing parts of objects. The missing parts indicate enchainment relations between persons on the site and persons off the site, in other parts of the landscape. Second, enchainment is practiced with many types and jet ornaments, and so forth. Initial results indicate the likelihood of different types of enchainment practices with each kind of raw material. Third, one of the hardest things to tell is whether a fragment has been broken away from the site and then brought onto the site or a whole object on the site was broken and parts of that object removed off the site. This question is just as problematic in the domestic as in the mortuary context. Fourth, the spatial scale of enchainment was much greater. Hence the exchange of sherds over long distances should not be ruled out at this stage of research and understanding. Fifth, the concepts of heirlooms and commemorative pieces—both with ancestral significance—could with advantage be integrated into the interpretative framework of fragmentation studies as subsets of enchainment relations.

Discussion

While all parts of the landscape can, and often do, take on cultural significance (Bradley 2000), the places of inhabitation known as settlements and locales of commemoration known as cemeteries can often express a sociocultural identity through what Richard Bradley has called “special attention markers”—elaborately decorated structures or naturally distinctive features—or through what I term “timemarks”—the association of a place with a significant event that took place there at a specific time. Often in a more concentrated way than natural places, inhabited places are sites of accumulation, with the accumulated things bringing with them associations, experiences, and histories, creating memory and place-value.

Some of the things that are particularly effective in the creation and the maintenance of cultural memory and place-value are those objects embodying enchainment relations between kinsfolk or non-kin across the landscape. Of the many aspects of enchainment, the one most relevant here is its ability to enable people to presence absent people, objects, and places. What this chapter has sought to demonstrate is that the objects embodying enchainment relations across the landscape were often broken objects that could have been refitted to fragments from the same once-complete object that were deposited in another place. This claim is supported by two kinds of evidence: (1) the deposition in two different places...
(2) the dispersion of fragments of objects from one place to (an)other(s), documented on completely excavated sites with good to excellent recovery rates and containing many orphan fragments. In both cases, it is hard to resist the conclusion that fragment dispersion across the landscape was one of the important social practices through which enchained relations were maintained at the local and sometimes wider level. There is currently an increasing acceptance, based on isotopic evidence for the sourcing of people, of greater mobility among prehistoric individuals. If for persons, then why not for things and fragments of things?

We are now in a position to identify a variety of forms of enchained relations, some of which are more relevant to specific cultural contexts than others. Here, it is worth emphasizing the important point that fragment dispersion implicates temporal as well as landscape distance (see also McFadyen, this volume, for implications of temporal spacing in construction). The fragmentation of objects for use as tokens implies a temporal distance until validation occurs through the re-presentation of the token. On perhaps a longer time scale, local curation strategies can ensure the availability of fragments for exchange or deposition at significant events, such as keeping sherds broken from vessel fragments buried with a household leader for a later burial of a cherished relative. The circulation of items of ancestral veneration is closely related to such a practice. Moreover, longstanding curation of vessel or necklace fragments can convert enchained items into heirlooms, whereas relics would have a more distant social relationship to the person and a closer relationship to a generalized past. A final case concerns the collection of items from the abandoned site of another ethnic group—a case with implications for temporal as well as ethnic distance bridged by enchained object relations. It is important to develop ways of distinguishing between these forms of enchainment in future case studies supporting deliberate fragmentation.

The documentation of fragment dispersion raises certain interesting issues and problems. First, intersite refitting is beginning to give us an idea of the spatial scale of this practice: several studies indicate refitting within up to a 5-kilometer radius of a site, though much longer enchained networks have been documented. Second, even after inter- or intrasite refitting, the conjoint object is still often incomplete—suggesting an even more complex object biography than we can currently document. Third, there are tantalizing hints that, after the break, fragments follow separate biographical pathways before they are reunited, often in a burial. Fourth, with the exception of lichic the fragment dispersion is still resolutely resistant to analysis, both for the domestic and the mortuary domains. Each of these issues merits greater attention in future research.

Conclusions

The increasing emphasis on dwelling practices in landscape archaeology (see chapters by Fowler, McFadyen, and Thomas) foregrounds the contribution of fragmentation studies to landscape archaeology. To the extent that the dispersion of fragments across past landscapes concurrently disperses memories, persons, and places, landscape-oriented fragmentation is a vital tool for the recognition of past identities. The creation of person- or place-identities from accepted elements, rejected elements, and absent but presenced elements cannot but rely on enchained social relations, especially for that elusive third category. There is a growing body of theory relating to enchained relations of various kinds and an emerging suite of methods for the identification of fragment refits at both the intersite and the intrasite level. Although site-based taphonomic issues are the starting point for any landscape-oriented analysis of fragmentation, they should no longer be considered as the end point. The evidence for deliberate object (and body) fragmentation across past landscapes can no longer be overlooked or dismissed as an irrelevant and time-consuming curiosity. The future horizons for fragmentation and refitting studies are as broad and as open as the landscapes presented in this book.

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References


Chapter 17: Object Fragmentation and Past Landscapes


