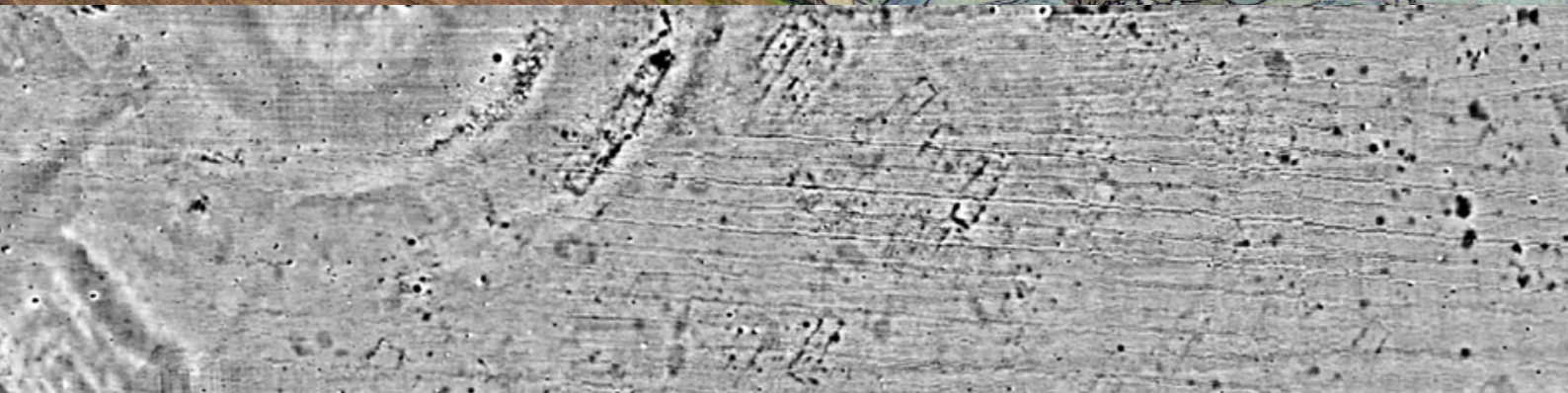
Bronze Age Tell Communities in Context

An exploration into culture, society, and the study of European prehistory – Part 2

Tobias L. Kienlin



Bronze Age Tell Communities in Context

An exploration into culture, society, and the study of European prehistory

Part 2: Practice

The Social, Space, and Materiality

Tobias L. Kienlin

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So geschieht es an Orten, die selten vom Blick eines Fremden, vom Auge eines Besuchers berührt werden. Blicke glätten die Dinge und Landschaften. Ebendaher kommen Zerstörung und Zerfall. Von zu vielen Blicken verbraucht sich die Welt, nutzt sich ab wie eine alte Karte.

(Andrzej Stasiuk, Unterwegs nach Babadag. Frankfurt a. M. 2005)

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Acknowledgements

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I dedicate this book to my wife Leonie C. Koch. She has been living with this for much too long.

Frankfurt – Cologne, June 2020 TLK

I. Introduction

I.1 Once More on Tells: Where and When ...

This is a book on tells. More precisely, this is the second part of a study, much delayed, on Bronze Age settlement mounds in the Carpathian Basin, and on our approaches towards an understanding of this fascinating way of life drawing on the material remains of long-term architectural stability and references back to ancestral place (fig. I-1). By way of example and focusing on a rather specific way of organising social space and a particular materiality as a medium of past social action, this is also a study with wider implications, or at least I hope so, both for the study of European prehistory and theoretical issues of archaeological interpretation in Bronze Age research in particular.

Fig. I-1: Aerial photograph of the tell site of Toboliu-Dâmbu Zănăcanului, Bihor county, north-western Romania (photo: Marian A. Lie).

Archaeologically, that is to say, we are concerned with the period *c.* 2400/2300 to 1500/1400 cal BC,[1] the Early Bronze Age of the Carpathian Basin in terms of wider supra-regional relative chronology, or the late Early and Middle Bronze Age in Hungarian terminology.[2] Within this period the majority of (future) tell sites was first occupied sometime during horizon 3 (*c.* 2300–1950 cal BC) as defined by F. Gogâltan (2005: 165–168; 2017: 32–34), and the sites in question belong to various different archaeologically defined groups or 'cultures' such as Vatya, Hatvan, (Otomani-)Füzesabony or Maros/Mureş (fig. I-2).[3] They were often successively occupied by people of different (material) culture groups, which accounts for some of the confusion in terms of migrations and supposed displacement of population in the older literature (*e.g.* Bóna 1975: 15–27; 1992a: 16–32). As far as our knowledge from excavations of typically limited extent goes, tell sites do not represent a uniform chronological horizon, nor are they identical in terms of basic structural features. The occupation of tells-to-be started at different points in time – both in the same micro-region, where there may be tell sites with a different lifespan, and in the wider comparison of different parts of the Carpathian Basin, where the occupation of tell sites may start in different chronological horizons. Individual tells developed at different rates and towards various heights and levels of 'impressiveness'. The same holds true, of course, for the end of individual tell sites and of this type of settlement in general. In Hungarian research, in particular, the end of tell settlement used to be interpreted as an historical event – namely the invasion of the Tumulus culture 'people' into the Carpathian Basin.[4] Slovakian research, by contrast, disagreed with this notion early on (see Furmánek/Veliačik/Vladár 1999: 59–66). It has increasingly been realised that such historical concepts stand in stark contrast to the actual quality of the archaeological data that is able to inform us on long-term processes and cultural aspects of prehistoric life (Szeverényi/Kulcsár 2012: 287–293; Vicze/Poroszlai/Sümegi 2013). With modern excavations and better knowledge of both relative and absolute chronology it is quite clear that tell settlement did not come to an abrupt end. Towards the end of the Middle Bronze Age (Hungarian terminology) at the latest, the earlier concern with continuity had lost its meaning and appeal, and new patterns of settlement and economic activity ensued in Late Bronze Age groups. However, individual tells, of course, were abandoned throughout the lifespan of Early to Middle Bronze Age tell-'building' communities.

As such Bronze Age tells were not the first settlement mounds that occurred during the prehistory of the Carpathian Basin, but there was an earlier horizon of tell settlement in the area that started – south of the Danube and along the Morava river – at the beginning of the Middle Neolithic Vinča culture (Vinča A, *c.* 5400/5300 to 5200 cal BC; Borić 2009: 234–236 fig. 47), and subsequently expanded north along the Tisza river and its eastern tributaries during the Late Neolithic Tisza culture, as well as in the neighbouring Herpály and Csőszhalom groups from broadly 5200/5000 to 4500 cal BC (Link 2006: 16

[1] See, for example, Vulpe (2001), Gogâltan (2005; 2015), Kiss (2011: 226; 2012b), Fischl (2012: 46–47), Jaeger/Kulcsár (2013: 302–313) and Fischl *et al.* (2013: 364) on the absolute chronology of the Early to Middle Bronze Age tell communities in the Carpathian Basin.

[2] *E.g.* Kalicz 1968; Bóna 1975; 1992a; Tasić 1984; David 1998: 231–240; 2002: 3–46.

[3] Local sequences are complex and opinions differ widely on questions of chronology and culture definition – all the more so, since there are different schools of archaeological research in the modern countries of this area; see, for example, the near endless Ottomány/Gyulavarsánd, Otomani I–III and Otomani-Füzesabony debate, with the substantial differences in approach and terminology in Romania, Hungary and Slovakia respectively (*cf.* Tasić 1984; Bader 1998; Furmánek/Veliačik/Vladár 1999; Thomas 2008; Németi/Molnár 2002; 2007; 2012).

[4] *E.g.* Mozsolics 1957; 1967; Bóna 1992a: 32–38; *cf.* David 1998: 240–244; 2002: 10–33.

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Fig. I-2: Relative and absolute chronology of the Bronze Age tell-'building' groups of the Carpathian Basin (after Gogâltan 2017: 32 fig. 3).

fig. 8; Parkinson 2006: 57 fig. 4.4).[5] Both horizons of tell settlement are separated by a more dispersed settlement pattern during the local 'Eneolithic' or 'Copper Age', *i.e.* the Tiszapolgár, Bodrogkeresztúr and Baden sequence, as well as during subsequent groups like Vučedol and Makó/Kosihy-Čaka (from *c.* 2800/2600 cal BC) which in local terminology constitute the beginnings of the Bronze Age.[6]

Generally speaking, the distribution of Bronze Age tells in the Carpathian Basin overlaps with that of previous Neolithic ones, but during the Bronze Age the territory of tell-'building' communities extended further north and north-west than previously was the case.[7] Thus Bronze Age tells are found in some numbers along the terraces accompanying the Danube south of Budapest and on the lower plains and banks along the Tisza river (fig. I-3). Only the latter area had previously been occupied by Neolithic tells as well. Sites in Hungarian Transdanubia as well as along the Hron and Ipeľ valleys in Slovakia mark the western and north-western boundaries of the Bronze Age tells which extended well beyond the territories of Late Neolithic ones. There is also a large number of sites in the north of the Carpathian Basin, where previously this type of settlement was unknown. These tells are located in the zone between the Danube and the Tisza rivers, in the hilly area east of Budapest, in the northern Tisza area along the Bükk mountains, as well as along the Tisza's northern and north-eastern confluents. Towards the south-east there is a large concentration of numerous Bronze Age tells known from the Körös/Criş and Berettyó river valleys, as well as along the lower course of the Maros in the Romanian Banat region and further south towards the Danube. Prior to the embankment of the major rivers, the Danube and the Tisza, and their tributaries in modern times, large parts of this region would have been prone to occasional flooding, and there were wide, marshy areas (fig. I-4; Hänsel 1998a: 16 fig. 1; O'Shea 2011; Gyucha/Duffy/Frolking 2011). Due to this topographic setting and natural background, Bronze Age (tell) sites of this area, like their Neolithic predecessors, often occupy elevated positions along river terraces or on small 'islands' in the surrounding swampy area.

For both the Neolithic and Bronze Age tells, it is important to bear in mind that none of these sites would have been founded by its first inhabitants with an impressive multi-layer settlement mound in mind, set apart from its surroundings by its height and qualitatively distinct from neighbouring single-layer horizontal settlements or intended to dominate the landscape (fig. I-5). Instead each site was the result of countless decisions taken through time and specific practices. These may relate to the environmental background and topographic setting, to subsistence strategies and the availability of different building materials as well as to specifically cultural notions of where and how to live which encouraged permanency in the choice of settlement location and accelerated the accumulation of settlement debris into a tell. An extended period of time would have been required for some of them to accumulate into a tell of notable or truly impressive height. Hence, at least initially there would not have been a marked difference between a tell-to-be and those 'normal' horizontal settlements also known in some areas in certain numbers. Similarly, it is important to recall that we are not talking about a uniform phenomenon in chronological terms, but broad horizons that were defined

[5] For temporal variation in the abandonment of the Late Neolithic tells, see Link (2006: 44–46 figs. 20–22).

[6] Maran 1998: 347–351, 354; Kulcsár 2009: 15; Heyd/Kulcsár/Szeverényi 2013; Gogâltan 2015: 53–54, 57–63, fig. 10.

[7] Compare Kovács 1988: 25 fig. 1; Meier-Arendt 1992: map inside front cover; Raczky 1995: 78 fig. 1; Link 2006: 12 fig. 6; Anders *et al.* 2010: 147–148 fig. 1; Gogâltan 2017: 30 map 1.

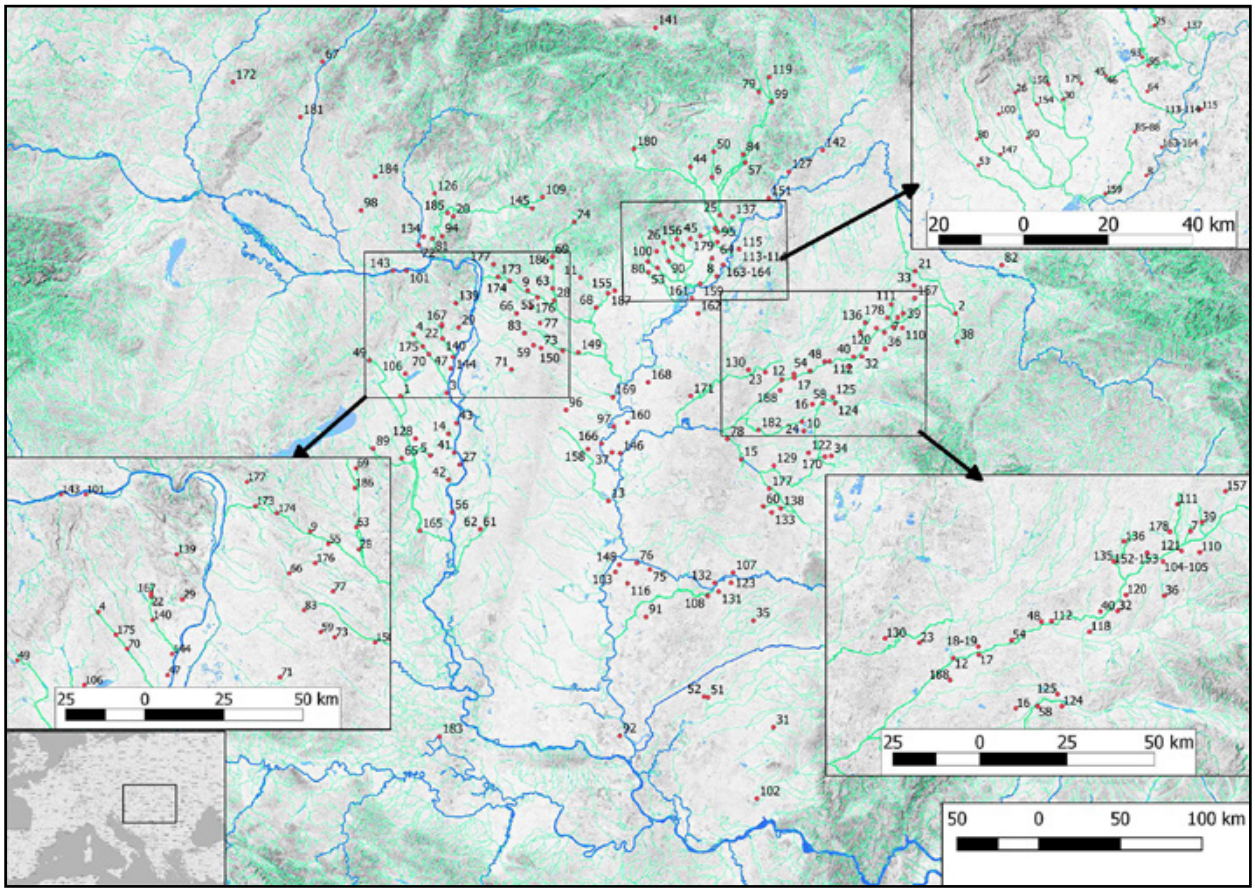

Fig. I-3: Distribution of Bronze Age tell and tell-like settlements in the Carpathian Basin (after Gogâltan 2017: 30 map 1).

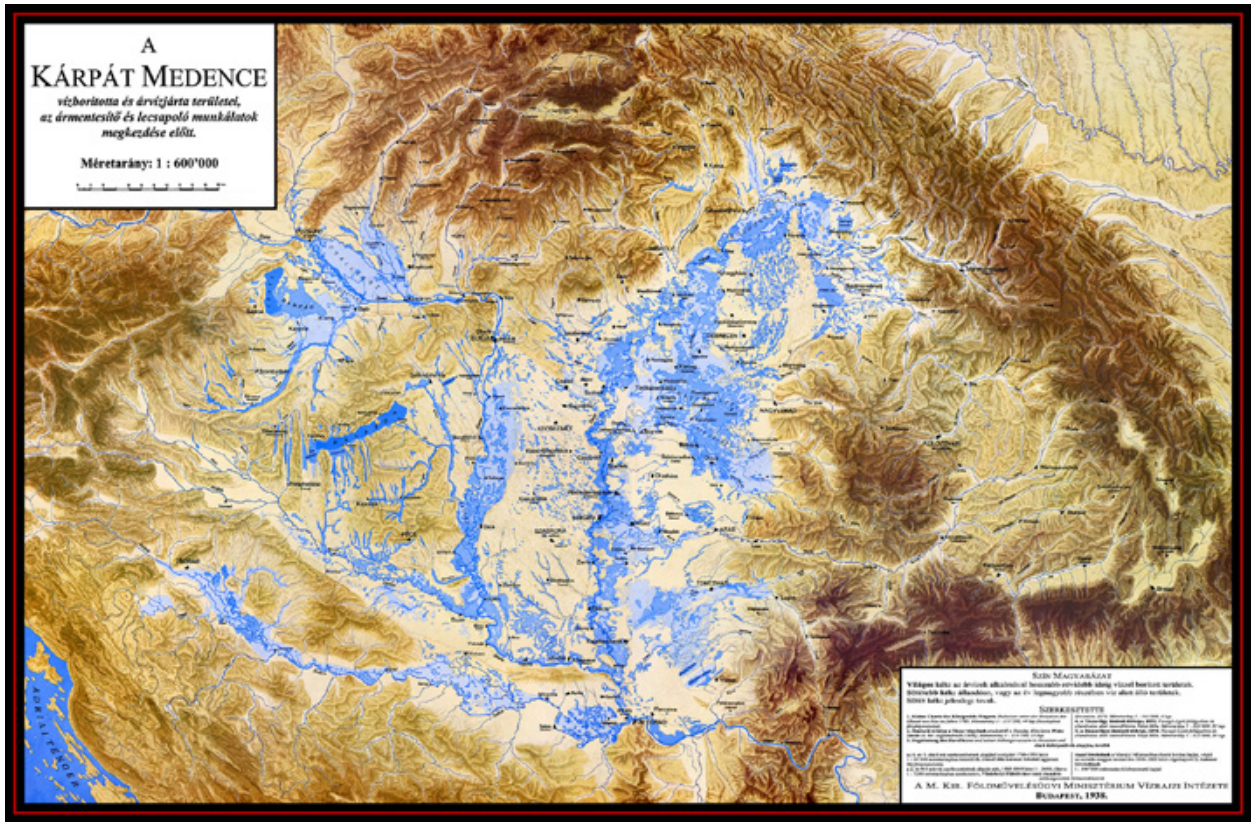

Fig. I-4: The pre-regulation landscape of the Carpathian Basin with its meandering watercourses and large seasonal flood zones according to the First Austrian-Hungarian Military Survey (after Kovács 2005: 8 fig. 2).

Fig. I-5: The tell site of Carei-Bobald, Satu Mare county, north-western Romania.

by archaeologists to describe the spread of Bronze Age tells, when in fact each settlement followed its own trajectory in terms of settlement layout, internal dynamics and the rate – if so – at which settlement debris eventually accumulated into a tell. Similarly, for both the Neolithic and the Bronze Age the reasons for the final decline of tell settlement are unclear. For both periods there are related discussions, and suggestions range from changes in climate, subsistence patterns and economy to perceived structural limits to 'proto-urban' life on tells.

I.2 ... How and Why?

In terms of theoretical approach and interpretation, in part 1 of this study (Kienlin 2015a), as well as elsewhere, it has been argued at some length that much Bronze Age research is dominated by a problematic top-down approach, *i.e.* by a rather narrow interest taken in the evolution of stratified society and the socio-political impact of metalworking.[8] In this context Bronze Age tell sites of the Carpathian Basin are routinely interpreted as 'proto-urban' settlements that more or less successfully drew upon agricultural and other resources from their surroundings and controlled the exchange of valuable objects and raw materials from abroad. They were home, supposedly, to some kind of functionally and politically differentiated population composed of peasants, craft specialists – and those in charge of all this.[9]

This particular modelling of Bronze Age society that is also evident in the current relapse into talk of Bronze Age 'castles' (*Burgen*), playing on the Medieval analogy (Hansen/Krause 2018), Bronze Age proto-states, 'standing armies' and large-scale 'warfare' in central Europe instead of mere conflict,[10] results in a distinctly 'political' Bronze Age, set apart from and conceptualised in different terms than the preceding Neolithic.[11] It perpetuates notions of an historically unique European Bronze Age that ultimately go back to the influential work of V. G. Childe (*e.g.* 1936; 1950; 1952; 1954), to his 'Urban Revolution' in the Near East and the supposed effects of metalworking, mobility and exchange on European societies of the Bronze Age. Childe's vision of a progressive Bronze Age Europe opposite a magic-ridden Orient, of the specifically European freedom and creativity of Bronze Age craftsmen leading right up to modern Western civilisation involved a strong worldview or ideology (*cf.* Gathercole 1971; Trigger 1980; 1986; Rowlands 1994). And much like in Childe's case this worldview helped him organise his profound knowledge into popular syntheses of European prehistory, what we see now is the return of grand narratives of 'The Rise of Bronze Age Society' (Kristiansen/Larsson 2005) and various brands of 'Neo-Diffusionism' that dominate Bronze Age research – irradiating from a strong school of Scandinavian Bronze Age archaeology across Central and South-eastern Europe.[12] Drawing on evidence of personal mobility (*e.g.* Frei *et al.* 2015; 2017), the exchange of amber and metal (*e.g.* Earle *et al.* 2015; Melheim *et al.* 2018; Radivojević *et al.* 2018) and an optimistic reconstruction of political hierarchies in likeness of Mediterranean palaces (*e.g.* Kristiansen/Larsson 2005), it is argued for the dependency of European societies of the Bronze Age on the Mediterranean. Ultimately, a convergence is postulated of what an unbiased observer may perceive as socially and culturally distinct societies, widely set apart in space and historical circumstance (*cf.* Harding 2013). The 'Bronze Age' that emerges is one qualitatively different from the preceding Neolithic and historically unique on a pan-European scale (*e.g.* Kristiansen 1998; Kristiansen/Larsson 2005; Kristiansen/Earle 2015).

Derived from either traditional diffusionist approaches or a reading of World System Theory and its modifications, in such studies regional variability in both the 'core' and the 'periphery' is ignored and subsumed by the grand narrative given without actually producing evidence to support far-reaching claims of dependency or convergence. The picture of the Bronze Age drawn is often sketchy with respect to the specific evidence on the ground, such as settlement patterns and architecture in 'Barbarian' Europe, and its assumed degree of similarity with the Mediterranean.[13] This kind of theorising falls short of more recent post-colonial thought and interaction studies in Mediterranean archaeology itself and beyond.[14] At no point is attention drawn to the differential outcomes of contact and exchange depending on local valuations, specific historical trajectories and peripheral choice or agency opposite outside 'influence' (*cf.* Kienlin 2017; 2018b).

Instead, a demonstration of broad contemporaneity is accepted as a meaningful statement on the relation of both areas, and the movement of objects between some group or site, say, in the Bronze Age Carpathian Basin and Mycenae is thought of as proof of structured interaction

[8] See Kienlin (2012a; 2012b; 2015a; 2015b; 2017; 2018b) versus Kristiansen/Larsson (2005), Kristiansen/Earle (2015), Earle *et al.* (2015) and Kristiansen/Suchowska-Ducke (2015) for the major points of dissent and the theoretical context of this debate. See also Blanco-González (2017).

[9] See, for example, Hänsel (1996: 244; 2002: 80–83), Németi/Molnár (2007: 55–69, 177–183, 486), Earle/Kristiansen (2010b: 25–26), Earle/Kolb (2010: 59), Falkenstein/Hänsel/Medović (2014: 112, 115–119; 2016: 19–20), Earle *et al.* (2015: 641–642) and Dani *et al.* (2019: 188–191). Compare also Jockenhövel (1990: 211–215), David (1998) and Gogâltan (2010).

[10] *E.g.* Jantzen *et al.* 2011; Lidke/Terberger/Jantzen 2015; Meller 2017; Horn/Kristiansen 2018; Terberger *et al.* 2018.

[11] For approaches more akin to the one advocated here and a more nuanced picture of life and death in the Bronze Age see, however, for example Sørensen/Rebay-Salisbury (2009), Budden/Sofaer (2009), Szeverényi (2011), Daróczi (2015) or papers in Sørensen/Rebay-Salisbury (2013) and Fokkens/Harding (2013).

[12] See, for example, papers in Meller/Bertemes (2010), Bergerbrant/Sabatini (2013) or Bergerbrant/Wessman (2017); see also Sherratt (1993), Hänsel (2002), Kristiansen/Larsson (2005), Kristiansen/Suchowska-Ducke (2015) and Vandkilde (2016).

[13] See, for example, the volume *Organizing Bronze Age Societies* (Earle/Kristiansen 2010a) and the sometimes bewildering discrepancy therein between the narrative style and contents of the 'Introduction' and 'Concluding Thoughts' (Earle/Kristiansen 2010b; 2010c) and the papers in between, plus the limited data actually made available from the projects discussed.

[14] *E.g.* Kohl 1987; 2011; Dietler 1997; 2010; Stein 1999; 2002; 2005; Knapp/van Dommelen 2014.

and dependency. Rarely, a systematic comparison is undertaken, and convergence is perceived of the European hinterland with a strangely condensed and essentialised Mediterranean (see also Nordquist/Whittaker 2007: 79–81; Whittaker 2017: 395–396), for example when 'proto-urban' sites of Bronze Age Europe are modelled on some generic Mediterranean 'palace' system – which palaces one wants to ask here, Minoan or Mycenaean, Knossos or Kato Zakros, Mycenae or Gla *etc.*? Similarly, chronology itself appears condensed, such as when 'Minoan-Mycenaean' influence (*e.g.* Schauer 1984) is discussed as if this were the same, or when the beginnings of Bronze Age tell settlement in the Carpathian Basin, so often thought to derive from Mycenaean models (*e.g.* Vladár 1973; 1977; 1981; Suchowska-Ducke 2016) actually predate the Late Bronze Age palaces of mainland Greece and even the shaft grave period (*e.g.* Fischl *et al.* 2013; Gogâltan 2015).

This modelling of Bronze Age society involves considerable extrapolation from the archaeological record, and, moreover, there is often a strange misfit between the prehistoric situation being studied and the anthropological model applied – such as when 'tell society' that is characterised in particular by its long-term stability and reference back to ancestral place instead of by rapid change is conceptualised in terms of ethnographically derived 'prestige goods economies', some of which, such as the *potlatch*, are quite uniquely competitive and the direct result of early modern colonial encounters between indigenous groups and the industrialised West. We are still thinking and analysing, then, in terms of the same supposedly universal categories that have – for the past decades – been applied to so many and entirely different prehistoric societies. There is a 'centralization bias' in our approaches (Blanton *et al.* 1996: 2) and 'complexity' is wrongly equated with hierarchy and executive power (*cf.* Wynne-Jones/Kohring 2007). Undue emphasis is placed on vertical political differentiation and the emergence of hierarchical systems. We end up, for example, with the 'chiefly courts' of the Bronze Age tell cultures in the Carpathian Basin (*e.g.* Kristiansen/Larsson 2005: 167) modelled in broadly the same terms as the later Mycenaean palaces – which they thus come to reflect albeit in a somewhat less perfect manner and on a smaller scale.

Instead, with reference to the repeated 'ups' and 'downs' from the Early Helladic corridor houses, via Mycenaean palaces, to post-palatial and Early Iron Age society, which set the Greek sequence apart from wider European developments, in part 1 of this study it has been argued that late 3rd to early 1st millennium Greece and the wider Mediterranean do not provide a blueprint for an understanding of European sequences beyond. Both areas are not profitably studied in terms of Bronze Age 'centres' and 'peripheries'. Bronze Age communities throughout Europe were following their own trajectories. There are differences in corresponding human experience and dispositions as well as in the logic of social and cultural configurations encountered, sometimes subtle, sometimes marked, which do not lend themselves to study in terms of dependency, socio-political 'types' and the overarching logic of social evolution towards the 'better', the more complex or hierarchically structured. In clinging to these terms we are essentialising from a rich and diverse range of evidence, however indirect, of past knowledge, action and intentionality. We are thus equating cultural manifestations that are historically unique and the material possibilities they provided, when instead we should be trying to develop an understanding of what is specific about each situation (Barrett 1994: 1–6). Archaeology is called on to study such historically specific constellations, instead of reducing them to supposedly timeless categories of social evolution which seemingly allow easy comparisons of quite different cultures and societies. It is certainly important to know, who (or what group of persons) was in charge of the Vatya period tell of Százhalombatta-Földvár on the Danube or Mycenae in Argolid respectively; which kind of authority and/or power he, she or they were in command of; and if it was derived from control over agricultural surplus, craft production and/or control of prestige goods *etc.* Yet, the application in this context of such supposedly timeless or universal concepts such as 'chiefs', 'redistribution', 'wealth finance' or 'prestige goods exchange' falls short of an appropriate understanding of the historically specific quality of each situation being studied. An understanding should be sought of this *specific* way of living and its material remains as a medium of social action by past human beings, and the social and cultural reality they created in this way.

In line with the above argument, this is certainly not to deny that, obviously, the Bronze Age was different from the Neolithic in many respects and that the historical background had changed. Yet, it is argued that our perceptions of these two epochs affect our understanding of the respective evidence at hand, and that it is unfortunate if we introduce a rigid Neolithic versus Bronze Age divide. The evidence from both periods is multi-faceted, and in many aspects there was continuity. We should not deliberately restrict ourselves to the study of Bronze Age communities in terms of 'political economy', supra-regional elite exchange and political hierarchisation, when rather than competition and the attempt to establish or reproduce political hierarchies in the Bronze Age, as in the previous Neolithic, we also see a concern with communal values. Traditional notions of the world, of the self *and* the community, were encouraged rather than setting a premium on the aggressive aggrandising behaviour of select 'alpha' males only, which so tend to fascinate archaeologists. On our tell sites, in particular, what we see is the long-term stability of a traditional way of life rather than Bronze Age communities fundamentally different from everything that had come before. There was continuity in the norms and values structuring the life of these communities and their social space in contrast to 'foreign' (*i.e.* Mediterranean) models of hierarchical society and their spatial correlates (*e.g.* palaces, central storage or workshops), if such were in fact known during a later phase in the existence of our tells. And there was, on the internal side of things, resistance in

the face of the ever-present individual ambition to become more equal than the others.

In the Carpathian Basin, that is to say, from the 5th millennium BC onwards we see a different kind of 'cycling' than in the Mediterranean with adjustments within the structural limits of broadly tribal societies (Parkinson 2002a; 2006), but with little 'progress' in terms of social differentiation and political hierarchisation far into the Bronze Age (see also Duffy 2014): from the Late Neolithic tell sites, via a dispersed Copper Age pattern and the reappearance of settlement mounds during the Early and Middle Bronze Age, and on to the quite differently organised fortified sites of the Late Bronze Age (Gáva, Urnfield, Kyjatice *etc.*), situated on the hilltops of the Carpathian ranges, as well as in the lowland marshes, some of them of truly impressive size but often occupied for a limited period of time only when compared to the previous tell sites of the area.[15] We see, here, culture and social or organisational change along different lines than in the Mediterranean. Change, it has been argued in part 1, that is only insufficiently understood if one follows the traditional top-down approach of Bronze Age archaeology, with its predominant interest in the evolution of stratified society and the socio-political impact of aspects such as metalworking.

In the meantime, in a publication of our joint fieldwork by the University of Miskolc, the University of Cologne and the Herman Ottó Museum at Miskolc on Bronze Age tell sites in the north-eastern Hungarian Borsod plain (Borsod Region Bronze Age Settlement [BORBAS]; Kienlin/Fischl/Pusztai 2018a) an alternative approach in terms of practice theory has been hinted at (Kienlin 2018a). This discussion took the form of a theoretically inspired attempt at deconstructing some persistent narratives in Bronze Age research by a close 'reading' of a specific set of data from recent fieldwork. In what follows, this approach that is felt to be more appropriate than a blanket discussion in terms of 'proto-urban' centres emerging somehow to dominate their surroundings will be taken up and refined to comprise aspects of sociality, materiality and practice in greater detail. Proceeding once more by way of example, it will be used to organise a discussion of our Borsod sites – from the foothills of the Bükk mountains to the Tisza river –, of their enclosure, inner tell or tell-like 'core'[16] and outer settlement between the poles of what one may refer to as 'structure' and 'agency'. Through this conceptual scheme we will address the fundamental tension seen between a strong normative conception of how social space should be organised and an explicit emphasis on the adherence to a traditional way of life, and the effect of 'agency' in the sense, for example, that we see adjustments going on in the allocation of households and the 'ambitions' of their members *etc.* The social, that is to say, is never static but is in permanent flux. Thus, even though 'conservative' in outward appearance, there is no such thing as ahistorical 'tell society' as such. We are always looking at the result of social life permanently unfolding anew in a specific way, and not another. Stability or the apparent lack of change on a macro scale always come about as the result of a specific way in which the social field is permanently reproduced on a micro level in such a way that tell life persisted – in a given region and for a specific period of time.

The approach advocated, furthermore, is broadly via architecture and the social use of space, since it is felt that it was their built environment that 'enabled and constrained' human perception and practices in our Bronze Age communities rather than the occasional foreign prestigious item of metal or amber circulating among unclearly defined 'elite' groups (*contra* Earle *et al.* 2015; Kristiansen/Earle 2015). The structuring potential of foreign derived (prestige) goods on Bronze and Iron Age social relations, in particular, has for much too long gone without critical revision (*cf.* Dietler 1998; 2010; Kienlin 1999; 2017; Kümmel 2001). In fact, it is entirely unclear why all such exchanges of valuables as gifts for extending alliances, for display and feasting *etc.* should carry an inherent asymmetry. The model falls short of a more complex ancient reality of valuation and exchange by collapsing all kinds of production (agriculture, subsistence, crafts) and consumption into ultimately just one system, the reproduction of political order and inequality. The entire rationale underlying this argument may be misguided (see also Brück/Fontijn 2013: 202), if rather than just acquiring value in asymmetrical exchange, objects were also perceived as the material manifestation of traditional values and spiritual forces 'given and manifestly inalienable' (Barrett 2012a: 14), and their circulation was not structuring the reproduction of political economy at all in the way we tend to expect. Rather than projecting our own logic of exchange, value and human motivations onto the past, we may be well advised to consider an ancient reality in which these were firmly embedded in and linked to wider notions of identity, the reproduction of community and cosmological order (Small 1995: 71–77; Barrett 2012a: 12–15; Brück/Fontijn 2013: 201–204). Arguably, therefore, rather than all-out competition and spiralling asymmetries in the Early to Middle Bronze Age, just like in the previous Neolithic, there was also a focus on communal values (Kienlin 2012b; 2015a). Traditional perceptions of the self *and* the community were fostered, rather than giving way to the aggrandising strategies of the notorious 'alpha' males, that are the common focus of Bronze Age research (see also Kienlin 2012a). Erroneously, this is often misunderstood as a claim that the prehistoric groups in question were egalitarian and in some way 'primitive'. We need to be very clear, therefore, that hierarchy is not the same as complexity. Even if we find a lack of institutionalised ranking a group might still be complex (Rowlands 1995; Wynne-Jones/Kohring 2007; Souvatzi 2007): rich in individual identities, in the manifold ways people interact, in the way kinship

[15] See Kienlin/Marta (2014), Harding (2017), Szeverényi *et al.* (2017) and Gogâltan/Sava (2018) for references.

[16] 'Core' or 'centre' in relation to the enclosed, inner section of the Borsod sites throughout this study denotes the spatial location and does not carry any social or political implications in terms of elites or political control over the surrounding outer settlement or so.

is expressed and integration takes place by reference to common ancestors and is lived out in ritual and feasting. Ownership or decision making may be communal and still allow the mobilising of people against a common enemy or direct a considerable workforce towards an effort that is agreed upon. Even if there is evidence of higher-order executive power or centrality we should still be trying to explore how this relates to principles of social organisation structuring the archaeological record from 'below'. We may ask, too, how volatile ties and obligations derived, for example, from the control of exchange or knowledge are stabilised and extended by 'corporate political strategies' to form larger entities which still emphasise shared power and corporate 'governance'.[17]

'Tribal' society is not static nor is there any compelling evolutionary trajectory towards either fission or fusion, towards relapse into even more decentralised structures or increasing complexity in political terms.[18] Tribes are not deficient in that there is no fixed political structure, but there is '[...] fluidity, conflict, fission and fusion and "push-pull" dialectical relationships between sectional (including individual) and communal interests.' (Chapman 2007: 15). We may draw upon this flexibility to '[...] break apart the essentialism of classic neoevolutionary types.' (Fowles 2002: 18). Political leadership, if any exists, in such systems may not be stable. The principles upon which it is based may oscillate between ascriptive and achieved, and the sources of power may be manifold, for instance wealth-based or knowledge-based. The same, of course, will also apply to the component parts of larger groupings. Lineages or clans may be egalitarian or ranked with regard to such different concepts as economic success or ritual knowledge. They cooperate or compete on various occasions and on diverse matters, and so will any other corporate groups that are present (Sahlins 1963: 287; 1968: 8–13; Blanton *et al.* 1996: 3–4; Roscoe 2009: 94–105). Segmentary systems, Roscoe (2009: 75, 89) argues, are not arranged into hierarchical levels of decision making with an increasingly smaller number of people involved and communicating decisions 'downwards' through their respective networks. Instead, they form a nested, modular structure with people involved and cooperating in various groupings of different scales adapted to and directed towards specific types of collective interests – such as the grouping into reproductive, subsistence and defence groups suggested for New Guinean society that may or may not correspond to society perceived in indigenous terms of (ideal) kinship (Roscoe 2009: 77–88; Carballo/Roscoe/Feinman 2014: 112–113).

What tends to be neglected is the group-oriented nature of any such activities and the wide range of potential 'participants' from individuals to subgroups or groups. Clans, moieties, villages, age groups or religious societies may be involved in conspicuous performance or construction, claiming and negotiating their strength in relation to rival groups of the same nature and size (Roscoe 2009: 95–99). 'Accumulators, aggrandizers, or achievers, managers, despots or reciprocators' (Roscoe 2009: 106), to name just some of the individuals potentially trying to become more equal than others, may also be involved. However, the overall 'incentive structure' may be such as to motivate '[...] individuals to contribute as much as they could to the strength of the reproductive, subsistence, and security groups and structures to which they belonged.' (Roscoe 2009: 102; see also Miller 1995: 68–75). Not all that is competitive is related to individual aggrandisement; nor is any system in which social signalling is employed to mediate cooperation dynamic in terms of political evolution.

What we see, therefore, on our tells is the long-term stability of a traditional way of life rather than Bronze Age communities fundamentally different from everything that had come before. There were strong traditions in the norms and values structuring the life of these communities, their architecture and social space, opposite both – potentially – 'foreign' derived notions of political hierarchies and their spatial correlates as well as opposite the ever-present individual ambition to become more equal than the others.[19] We are asking the wrong questions in focusing on the emergence of political hierarchies and expecting too close a match between different parts of Bronze Age Europe and the Mediterranean. Each prehistoric society we study followed a distinct trajectory of its own. Local actors were drawing upon specific understandings of social reality and the material possibilities at their disposal in pursuit of their specific interests. Local norms and knowledge of the past – what was recalled and what was made up, what was told and what remained in tangible material terms – would have influenced future perceptions, guiding actions and the future direction of history.

[17] Feinman 1995: 264–268; 2000a: 31–40; 2000b: 211–216; Blanton *et al.* 1996: 2–8; Carballo/Roscoe/Feinman 2014.

[18] See, for example, W. A. Parkinson's (2002a; 2002b; 2006) study of the Late Neolithic to Copper Age transition in the Carpathian Basin in terms of such 'tribal cycling'.

[19] For a powerful anthropology of tribal society's resistance to inequality and power differences, see P. Clastres (1989: 27–47, 189–218; 2008: 23–81; *cf.*, however, Moyn 2004). From a different historical context, see also Scott (2009), or, for example, Amborn (2016: 9–51) on non-hierarchical (*herrschaftsfreie*) society and 'ordered anarchy'.

II. The Social, Space and Materiality

II.1 Toward a Practice-oriented Approach

For an alternative approach to the mainstream modelling of Bronze Age society rejected above, it is suggested here that we turn to the field of practice theory. Among the commonalities of this body of approaches is the anti-essentialising stance of its adherents, who, one way or the other, argue that the social is in permanent flux, and 'society' or social 'structure' do not have independent or prior existence. In fact, however, the argument of practice theory is two-sided and takes aim at both the notion of social totalities being more than their parts, as well as at the 'individualist' attempt to build up the social directly from individual human actions (*e.g.* Schatzki 2001a: 1–4; Reckwitz 2008: 106–112; Schäfer 2016b: 10–14). In opposition to both these notions, it is argued instead, that sociality crucially depends on practices, that is on arrays or bundles of *organised* human activities linked by shared practical understandings. Apart from this anti-essentialising conception of the social as a field of practices as such, practice theory as it stands today is attractive, because of its emphasis that practices and understandings are *embodied*,[20] and because of the explicit interest taken in the importance of *materiality* in social life.[21] Thus, second generation practice theorists argue for a 'flat' ontology of social life and for an understanding of social phenomena as 'slices or aspects of nexuses of practices *and* material arrangements' (Schatzki 2010: 123; italics added, TLK) that all occupy the same level of reality.

In this latter aspect, of course, the 'flat' ontology of human and non-human material entities and their interactions that are argued for, current practice accounts are part of a broader 'material turn', and they share certain aspects, but – crucially – not others, with vaguely related so-called 'post-humanist' approaches (*cf.* Schatzki 2001a: 10–11; Reckwitz 2008: 128–129; 2016b: 38–40; 2016d; Hirschauer 2016: 51–53). In particular, from the perspective advocated here, it is of the outmost importance to avoid the latter's blurring of human and material 'agencies', and to retain – alongside central figures of current practice and wider social theory – the 'unique richness' and integrity of *human* agency (Schatzki 2002: 201). Furthermore, from an archaeological point of view, it is striking to see the wheel, or at least parts thereof, reinvented in part of the current material turn, in sections of practice theory concerned with materiality (*e.g.* Schäfer 2018: 42–49) and even among archaeologists who seem to be rediscovering under outside influence what their discipline has been concerned with all along. This, obviously, is down to the rapid succession of 'turn' upon 'turn' ('spatial', 'material', 'corporeal', 'ontological' *etc.*, *etc.*) and the perceived necessity of stressing the originality of one's approach.

So let it be quite clear right from the start, that the attempt made here to outline an approach to sociality, space and materiality informed by practice theory is *not* new, but stands in a tradition of archaeological readings of the first generation practice theorists A. Giddens (1979; 1984) and P. Bourdieu (*e.g.* 1977; 1990) that extends back well into the late 1980s and 1990s (*e.g.* Dobres/Robb 2000b; Dornan 2002; see also Ribeiro 2016a: 233). However, unlike phenomenology, the detour at that time to hermeneutics or the late effects of the linguistic turn with material culture perceived as 'text', these readings attracted much less attention than one should have wished for. It is for this reason, so it seems, that, for example, second generation practice theorist Th. Schatzki's reformulation of practice theory to fully acknowledge materiality – referred to at length below – between his 1996 *Social Practices* and *The Site of the Social* from 2002, stands strangely unrelated besides J. Barrett's *Fragments from Antiquity* (1994) and the broadly comparable archaeological interest initiated therein in past human actions organised into practices and invariably bound to practical understandings and manipulations of a material world.

The approach taken here is to go back to the 'classics', to Giddens and Bourdieu, first, in an attempt to recall to what extent space and materiality were already present in their arguments, and what possibly prevented the full recognition of the crucial materiality of all social life that we subsequently find in the work, for example, of Schatzki. His, arguably, is the most concise outline of materiality and social life in terms of practice theory available, which – combined with his disavowal of 'Actor-Network-Theory' (ANT) and similar non-human material 'agencies' – is why he features as a key informant of the approach taken in this study. Less extensive reference is subsequently made to M. Löw's (2001) 'sociology of space' as a detour to the social constructivist side of the so-called 'spatial turn', as well as to competing accounts such as H. Delitz' (2010) 'sociology of architecture' and assemblage theory (DeLanda 2006). The latter, drawing on a different philosophical tradition, the post-structuralism of G. Deleuze and F. Guattari (2013), have in common with current practice theory as outlined by Schatzki and others the general interest in corporeality, materiality, including space and architecture, and social life, but feature a problematic leaning towards 'macro' sociology

[20] On the affinities with phenomenological approaches in this respect, see Schatzki (2017b) as well as other papers in the 2017 issue of *Phänomenologische Forschungen* on phenomenology and practice theory, and Breyer/Dzwiza (2019).

[21] See, for example, papers in Schatzki/Knorr Cetina/v. Savigny (2001), Reckwitz (2016a), Schäfer (2016a), Spaargaren/Weenink/Lamers (2016), Hui/Schatzki/Shove (2017a), Jonas/Littig/Wroblewski (2017), Bedorf/Gerlek (2019) and Buch/Schatzki (2019a).

that is thought incompatible with their purportedly anti-essentialist stance. As so often, the approach taken is by way of example. The choice of authors and approaches discussed is far from comprehensive and could easily be conceived differently; but, hopefully, it carries home the point, and does provide the basis and guideline towards a fuller understanding of the archaeological sites that we are interested in and the specific way of living that unfolded on them in subsequent chapters.

II.2 Theory of Practice and 'Time-Space' (Giddens)

In order to start this section, there are two classic studies by Anthony Giddens that are particularly relevant in our context: his 1979 *Central Problems in Social Theory* and *The Constitution of Society* from 1984 – both widely acknowledged, alongside the work of Pierre Bourdieu, as paradigmatic for a first generation of practice theorists.[22] In both studies Giddens sought to overcome rigid structure/action dichotomies in traditional social thought, questioning both the existence of objectified social structures and their determinant role for human action in 'structural' or 'wholist' approaches, and, *vice versa*, the 'individualist' notion that social order somehow is built up directly from individual actions, understandings and interaction.[23]

In prehistoric archaeology, the consequent notion that 'the social is a field of embodied, materially interwoven practices centrally organized around shared practical understandings' (Schatzki 2001a: 3) became part of the post-processual critique of previous 'checklist'-type social archaeology, albeit combined with quite diverse and partly contradictory theoretical approaches.[24] This development is unfortunate since it detracts from the importance of practice theory for our understanding of the social. Therefore, the position taken here is that there is no way back behind the essential tenets first outlined by Giddens and Bourdieu *etc.*, even though social modelling in prehistoric archaeology is still heavily leaning on the structural side and reified social 'types' such as the notorious Hawaiian chiefdoms (Earle 2002) or, more recently, Bronze Age 'Vikings' (Ling/Earle/Kristiansen 2018) still hold sway.

Apart from our notion of the social as such, ultimately the current interest in 'embodiment', 'personhood', 'social space' and 'materiality' also draws on a tradition of thought that extends back to Giddens and Bourdieu, expanded, of course, by a second generation of (practice and related) theorists' attempts at breaking down yet another dichotomy (Kalthoff/Cress/Röhl 2016: 20–21; Reckwitz 2016e: 164–166), namely that of the social and the material world, or society and materiality.[25] This shift of interest is remarkable from the perspective of (prehistoric) archaeology and anthropology/ethnography with their somewhat longer tradition of theorising material culture or 'materiality'.[26] It is enriching and potentially brings both disciplines, and archaeology in particular, into closer contact and intellectual exchange with sociology and wider cultural studies.

However, we also see different strands of theorising 'materiality', sometimes ignorant of similar concerns elsewhere and drawing on different intellectual traditions to derive sometimes similar, sometimes quite incommensurate notions of the material (and spatial) context of the human condition and human action. Some of them are thought problematic here, such as an interest in materiality in the guise of 'Actor-Network-Theory' or the like. It is worthwhile, therefore, turning back to the 'classics' first, to reconstruct their concerns and arguments, before pursuing subsequent developments in practice theory and beyond and their specific dealings with issues of materiality. Starting with the above mentioned studies by A. Giddens we will try to retrace how a still rather abstract sociological interest in '[...] time-space intersections as essentially involved in all social existence' (Giddens 1979: 54) gradually developed into a fuller recognition of 'materiality' – including moveable objects ('artefacts' *etc.*), space and architecture – in the constitution of the self and society. It will further be asked what implications these approaches have for archaeological thought in general and our tells in particular.

Giddens' well-known 'theory of structuration' departs from central tenets of previous functionalism and structuralism in social analysis, which are subjected to a detailed critique by the author – even though the influence, in particular, of Claude Lévi-Strauss is still to be felt and eventually detracts from a full appraisal of materiality in Giddens' own dealing with the situatedness of human action and the social in time and space ('time-space'). In particular, Giddens argues against the existence of objectified social 'structure' or overarching, ahistoric societal totality as determining human perception and action, or the course of history: '[...] social systems have no purposes, reasons or needs whatsoever; only human individuals do so. Any explanation of social reproduction which imputes teleology to social systems must be declared invalid.' (Giddens 1979: 7). This critique of 'structural' approaches, drawing among others on the work of M. Heidegger (2006) and the later L. Wittgenstein (2017; see Giddens 1979: 4, 34–38, 41–42, 54, 58, 67–68),[27] clearly stands, and in the work

[22] *E.g.* Ortner 1984: 144–148; Schatzki 2001a: 1; Schäfer 2016b: 10–11; Reckwitz 2016c; 2016e: 165; Hui/Schatzki/Shove 2017b: 1.

[23] In this sense both Giddens and Bourdieu (see below) are not adherents of a flat ontology in practice theory as outlined by Schatzki (*e.g.* 2016b; see also 2019a: 32–33; 2019b: 51, 60); see Nicolini (2017a: 100): 'Not all practice theorists embrace a flat ontology. Two examples are Bourdieu and Giddens. Both authors believe that such things as structure, power and fields exist in their own right, although they need to be reproduced in and through practices.'

[24] See, for example, the pertinent discussions in Shanks/Tilley (1987: 57–78; 1992: 103–134), Dobres/Robb (2000a) and Dornan (2002).

[25] *E.g.* Schatzki 2002; 2010; Hillebrandt 2016; Shove 2017.

[26] *E.g.* Hodder 1982; 2012; Miller 1985; 2005; Appadurai 1986; Shanks/Tilley 1987; 1992; Kohl 2003; Veit *et al.* 2003; DeMarrais/Gosden/Renfrew 2004; Hahn 2005; Kienlin 2005a; Tilley *et al.* 2006; Preucel 2010.

[27] See also Schatzki (2017b) on the affinities between practice theory

of Giddens entails a series of perceptive discussions and categorial shifts.

Starting, for once, not with the oft-quoted 'duality of structure' itself, Giddens' anthropology or rather his 'theory of the acting subject' (Giddens 1979: 2) is of interest, since it is here that the famous 'knowledgeable' actor enters stage: '[...] every social actor knows a great deal about the conditions of reproduction of the society of which he or she is a member.' (Giddens 1979: 5).[28] This, clearly, is more flattering to the modern reader than the implications of P. Bourdieu's more deterministic *habitus* concept (see below), and it is certainly preferable that human action or the enactment of social life be distinguished by an informed or 'reflexive' monitoring on behalf of those human agents involved (Giddens 1979: 39–40, 71–73; 1984: 2–3, 5–6, 21–22). However, Giddens being a sociologist mainly concerned with broadly modern Western society this clearly begs the question of what knowledgeability exactly means in different historical and premodern culture contexts. His view of the positive role of knowledge and reflexivity in the reproduction of (modern) society and potentially in bringing about change clearly is an optimistic one (*cf.* Ortner 1984: 150–157; Löw 2016: 157–158). Having said that, we also owe Giddens in this context the important qualification that the knowledge involved in social reproduction often will not operate or normally be available on a discursive level, but we instead see what he calls practical consciousness drawing on tacit knowledge skilfully applied in the routines of daily social life.[29] Interestingly, in prehistoric archaeology this conception lives on in discussions of skill, tacit knowledge and embodiment in craft production (*e.g.* Dobres 2000; Sørensen/Rebay-Salisbury 2013; Kuijpers 2017), rather than in general social modelling that still tends to be fascinated by the role of aggressive aggrandising alpha males in supposedly upward bound social evolution. Giddens, clearly, is not a theorist of 'leapfrog' social change,[30] nor a vocal critic of social inequality, and his focus on the reproduction of situated practices mediating between structure and individual agency *etc.* may not recommend his approach to those advocates of 'macro' approaches interested in the targeted evolution of social 'structure' from 'simple' to more 'complex' or 'progressive'. Thus, too, while differences between actors in their respective 'discursive penetration' of the social world are explicitly acknowledged and linked to power differentials, control in collectivities and social strategies (Giddens 1979: 6, 69, 88–94; 1984: 14–16), Giddens' overall conception of power as 'transformative capacity' inextricably linked to agency[31] will fall short of the expectations of those interested in history unfolding as the struggle between abstract interest groups, organised in subsequent 'modes' of production or 'stages' of social evolution. His agents are also not people considered mere 'cultural dopes' (Giddens 1979: 71) fooled by an ideology masking the 'real' social world (*cf.* Shanks/Tilley 1987: 77).

Second, importantly, there is Giddens' (*e.g.* 1979: 2, 53–65, 198–210; 1984: 2, 25, 110–144) emphasis on the situatedness of all social life in time and space,[32] and his insistence that the social cannot be reasonably studied in terms of static snapshots trying to define the given 'nature' of social systems, institutions or social relations and interaction. From this anti-essentialist perspective society or the social is not a given entity exterior to or opposite the individual, but only comes into existence in its permanent (re-)production by individual agents 'organised' in social practices extending across space and time. The social, then, is a process, and it has to be studied as such; in Giddens' words it is 'recursive',[33] and as there is change to the specific practices involved, this also occurs to the respective social system(s). This clearly entails that all social activity, all social reproduction, practices and social systems are historically situated or culturally specific. Indeed, several chapters in Giddens (1979; 1984) are explicitly devoted to aspects of time and space, and 'contextuality' is listed among the basic concepts of structuration theory:

and both (post-)Heideggerian phenomenology and the work of (late) Wittgenstein.

[28] With 'action' correspondingly defined as follows: '"Action" or agency, as I use it, thus does not refer to a series of discrete acts combined together, but to *a continuous flow of conduct*. We may define action [...] as involving a "stream of actual or contemplated causal interventions of corporeal beings in the ongoing process of events-in-the-world".' (Giddens 1979: 55).

[29] See, for example, Giddens (1979: 40): 'The stocks of knowledge applied in the production and reproduction of social life as a skilled activity are largely "unconscious" in so far as social actors can normally only offer a fragmentary account of what they "know" if called upon to do so; but they are not unconscious in the sense given to that term by structuralist writers.' – or Giddens (1984: 21–22): '[...] we can say that awareness of social rules, expressed first and foremost in practical consciousness, is the very core of that "knowledgeability" which specifically characterizes human agents. As social actors, all human beings are highly "learned" in respect of knowledge which they possess, and apply, in the production and reproduction of day-to-day social encounters; the vast bulk of such knowledge is practical rather than theoretical in character.' See also Giddens (1979: 56–57, 73; 1984: 4, 6–8).

[30] See, in this context, Giddens (1979: 7): 'In analysing the conditions of social reproduction, and therefore of stability and change in society, I attempt to show the essential importance of tradition and routinisation in social life. We should not cede tradition to the conservatives! The sedimentation of institutional forms in long-term processes of social development is an inescapable feature of all types of society, however rapid the changes they may undergo.' – See also Schatzki (2002: 189–264) on 'Becoming and Change', and papers in Hui/Schatzki/Shove (2017a) on 'changing connections' and the locus of change.

[31] Giddens (1979: 88): 'Action involves intervention in events in the world, thus producing definite outcomes, with intended action being one category of an agent's doings or his refraining. Power as transformative capacity can then be taken to refer to agents' capabilities of reaching such outcomes.' – and Giddens (1984: 14–15): 'This presumes that to be an agent is to be able to deploy (chronically, in the flow of daily life) a range of causal powers, including that of influencing those deployed by others. Action depends upon the capability of the individual to "make a difference" to a pre-existing state of affairs or course of events. [...] Expressing these observations in another way, we can say that action logically involves power in the sense of transformative capacity.'

[32] 'Social activity is always constituted in three intersecting moments of difference: temporally, paradigmatically (invoking structure which is present only in its instantiation) and spatially. All social practices are *situated* activities in each of these senses.' (Giddens 1979: 54).

[33] For example, Giddens (1984: 2): 'Human social activities, like some self-reproducing items in nature, are recursive. That is to say, they are not brought into being by social actors but continually recreated by them via the very means whereby they express themselves *as* actors. In and through their activities agents reproduce the conditions that make these activities possible.'

> 'The study of context, or of the contextualities of interaction, is inherent in the investigation of social reproduction. "Context" involves the following: (a) the time-space boundaries (usually having symbolic or physical markers) around interaction strips; (b) the co-presence of actors, making possible the visibility of a diversity of facial expressions, bodily gestures, linguistic and other media of communication; (c) awareness and use of these phenomena reflexively to influence or control the flow of interaction.' (Giddens 1984: 282).

This interest in the 'time-space' dimension of social life clearly is one of the reasons of the interest in Giddens' work taken in subsequent cultural studies, history or the social sciences, for example in the so-called 'spatial' or 'material' turns (*e.g.* Löw 2001; 2016: 26–32; Dünne/Günzel 2006: 296; Schatzki 2010: 125–128), the general thrust of the argument then going via 'time' to the historical situatedness of practice and human action, and via 'space' to their grounding in a specific material world. For the same reason, obviously, Giddens is discussed here, though arguably his relevant passages and discussions are much weaker than his famed foundation of a theory of structuration as such. We will return to these shortcomings in greater detail below, because they are telling as regards the consequences of too narrow an 'interactionist' sociological approach to contextuality for a profound understanding of society and materiality.

Third, however, before engaging in a critique of his deficiencies in terms of theorising 'materiality', let us turn to the lasting merits of Giddens and his 'theory of structuration' (*e.g.* Giddens 1979: 2–7, 53–76; 1984: 1–37), that – alongside Bourdieu – was pioneering for subsequent practice theory approaches:

> 'The concept of structuration involves that of the *duality of structure*, which relates to the *fundamentally recursive character of social life, and expresses the mutual dependence of structure and agency*. By the duality of structure I mean that the structural properties of social systems are both the medium and the outcome of the practices that constitute those systems. [...] The identification of structure with constraint is also rejected: structure is both enabling and constraining [...].' (Giddens 1979: 69; see also 1984: 25).

What Giddens is essentially proposing here is a radical move away from previous dualisms in social theory by allowing that 'structure' is 'virtual' and 'outside' time and space,[34] but unlike structuralism's subconscious, timeless mental or linguistic templates (*i.e.* 'parole')[35] putting the emphasis not on the abstract status of 'structure',[36] but on the 'instantiations' through which it is realised in practice and 'translated' into the tangible reality of social systems[37] by the implementation of rules and resources: '"Structural analysis" in the social sciences involves examining the structuration of social systems. [...] with the crucial proviso that social systems are patterned in time as well as space, through continuities of social reproduction.' (Giddens 1979: 64). In this conception, 'structure'[38] is differentiated from 'system',[39] but both are bracketed and recursively linked by their reproduction in practice through knowledgeable actors:

> 'The concept of agency as I advocate it here, involving "intervention" in a potentially malleable object-world, relates directly to the more generalised notion of *Praxis*. I shall later treat regularised acts as *situated practices*, and shall regard this concept as expressing a major mode of connection between action theory and structural analysis. Second, it is a necessary feature of action that, at any point in time, the agent "could have acted otherwise" [...].' (Giddens 1979: 55–56).

As such the outcome of the social process is fundamentally open. It is framed by the actors taking recourse to rules and resources (= 'structure' or 'structural properties') in social reproduction, but it is not determined since all

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[34] 'According to the theory of structuration, an understanding of social systems as situated in time-space can be effected by regarding structure as non-temporal and non-spatial, as *a virtual order of differences* produced and reproduced in social interaction as its medium and outcome.' (Giddens 1979: 3).

[35] See, for example, Giddens (1979: 17) on the shortcomings of linguistic structuralism: 'Saussure did not show what mediates between the systematic, non-contingent, social character of *langue* on the one hand, and the specific, contingent and individual character of *parole* on the other. *What is missing is a theory of the competent speaker or language-user*. [...] Hence he was unable to grasp what Chomsky calls the "rule-governed creativity" of sentence formation in the day-to-day use of language.'

[36] See Giddens (1979: 64): 'To regard structure as involving a "virtual order" of differences [...] does not necessitate accepting Lévi-Strauss's view that structures are simply models posited by the observer. Rather, it implies recognising the existence of: (a) knowledge – as memory traces – of "how things are to be done" (said, written), on the part of social actors; (b) social practices organised through the recursive mobilisation of that knowledge; (c) capabilities that the production of those practices presupposes.'

[37] 'Structure, as recursively organized sets of rules and resources, is out of time and space, save in its instantiations and co-ordination as memory traces, and is marked by an "absence of the subject". The social systems in which structure is recursively implicated, on the contrary, comprise the situated activities of human agents, reproduced across time and space.' (Giddens 1984: 25).

[38] 'As I shall employ it, "structure" refers to "structural property", or more exactly, to "structuring property", structuring properties providing the "binding" of time and space in social systems. I argue that these properties can be understood as rules and resources, recursively implicated in the reproduction of social systems.' (Giddens 1979: 64); – and: 'The most important aspects of structure are rules and resources recursively involved in institutions. Institutions by definition are the more enduring features of social life. In speaking of the structural properties of social systems I mean their institutionalized features, giving "solidity" across time and space.' (Giddens 1984: 24; see also 1984: 17).

[39] For example, Giddens (1979: 65–66): 'Social systems involve regularised relations of interdependence between individuals or groups, that typically can be best analysed as *recurrent social practices*. Social systems are systems of social interaction; as such they involve the situated activities of human subjects, and exist syntagmatically in the flow of time. Systems, in this terminology, have structures, or more accurately, have structural properties; they are not structures in themselves. Structures are necessarily (logically) properties of systems or collectivities, and *are characterised by the "absence of a subject"*. To study the structuration of a social system is to study the ways in which that system, via the application of generative rules and resources, and in the context of unintended outcomes, is produced and reproduced in interaction.'

human knowledgeability is 'bounded' and the unintended consequences of action feed back into the (partly unacknowledged) conditions of future action (Giddens 1979: 7, 66, 70; 1984: 8).[40]

With all the benefit of hindsight, and from the perspective of archaeology which unlike sociology has a traditional focus on the material remains of (past) social life, we may now ask how Giddens' failure to fully appreciate materiality comes about, given that his emphasis on the situatedness of social life in time and space – sometimes explicitly understood to comprise '[...] the sum of the cultural products of past generations' (Giddens 1979: 204) – clearly implies a corresponding interest. Arguably, we see here the combined result of his being a sociologist,[41] with sociology from its beginnings conceptualising the social as normative order(s) arising from the interaction among individuals and collectives in spatial configurations thought given,[42] *i.e.* either face-to-face in the pristine condition, or within the nation states of the 19th to early 20th centuries;[43] the structuralist influence on his somewhat essentialising notion of 'traditional' versus 'modern' society; and his interest in the spatiality of the body derived from phenomenological approaches (see also Schroer 2006: 127, 130–131). The problem is best illustrated by way of example, while comparable passages may be found throughout the pertinent chapters on 'Time, Space, Social Change' and 'Time, Space and Regionalization' (Giddens 1979: 198–233; 1984: 110–144):

> 'In tribal societies or small oral cultures the dominant structural principle operates along an axis relating tradition and kinship, embedding themselves in time and space. In these societies the media of social and system integration are the same, depending overwhelmingly upon interaction in the settings of locales of high presence availability. [...] As Lévi-Strauss has done more than anyone else to make clear, tribal societies – in which humankind has lived out all but a small fraction of its history – are substantially divergent from 'civilizations', of whatever type. The invention of writing, so closely involved with the formation of states and classes, alters the character of time as lived experience, by the very means whereby it permits an expanding of time-space distanciation.' (Giddens 1984: 182).

Apart from the problematic duality of 'hot' and 'cold' societies alluded to (explicitly so, see also Giddens 1979: 199–200, 219–221; 1984: 182, 184, 194–196), we see here 'traditional' society characterised by face-to-face interaction,[44] *i.e.* the foundations of 'society' in sociology as such, plus 'tradition and kinship', which may fairly be read as discursive in the sense of the kinship terminologies studied by structural anthropology. Cities, by contrast, or 'modern society' is characterised above all by the possible 'delay' of communication in time and its expansion in space brought about by the introduction of writing. That is to say, both the 'stretching' of social systems across time and space as such (*e.g.* Giddens 1984: 162, 180–184), and the typology and succession of 'cold' and 'hot' societies, are closely tied to just one medium, *i.e.* speech and written language, used to define and differentiate them, when even a cursory glance at history shows that this focus on orality versus writing is reductionist. Thus, for example, from a historical perspective one might argue that an emphasis on architectural monumentality, read space and materiality, as a medium of the social (*e.g.* Delitz 2010), clearly runs right through from the earliest Neolithic (*e.g.* Göbekli Tepe), via historic to modern times, and across the divide postulated by reference to the introduction of writing (*e.g.* Arnold *et al.* 2012; Dally *et al.* 2012). Throughout history, too, from illiterate to literate society, from band to state so to speak, we see people 'relying' on the specific communicative potential of 'mundane' material culture, other than language and text (*e.g.* Miller 1985; 2005; Tilley *et al.* 2006), to express and negotiate their standing and identity *etc.* on a non-discursive level, and to provide permanence to otherwise intransient social life.

How exactly material culture 'works' in such different contexts, from more or less unknowingly shaping perception and guiding action to massive statements enforcing (bodily) compliance, is subject of an extensive discussion in anthropology and archaeology *etc.*, with concepts ranging from, say, 'external symbolic storage' in a processual tradition (*e.g.* Renfrew 1998) to late post-processual material 'entanglement' (*e.g.* Hodder 2012). This entire field – or at least what approaches were already available back in the late 1970s and early 1980s when

[40] 'The duality of structure is always the main grounding of continuities in social reproduction across time-space. It in turn presupposes the reflexive monitoring of agents in, and as constituting, the *durée* of daily social activity. But human knowledgeability is always bounded. The flow of action continually produces consequences which are unintended by actors, and these unintended consequences also may form unacknowledged conditions of action in a feedback fashion.' (Giddens 1984: 26–27).

[41] Here lies a difference, obviously, between A. Giddens and P. Bourdieu (1977), who was able to draw on his hands-on experience working as an anthropologist/ethnographer in Kabylia (Algeria) for his *Outline of a Theory of Practice*.

[42] See, for example, the explicit emphasis in Giddens (1979: 76–77): 'We can define social integration as concerned with *systemness on the level of face-to-face interaction*; system integration as concerned with *systemness on the level of relations between social systems or collectivities*. [...] "Face-to-face interaction" rather emphasises the significance of *space and presence* in social relations [...].' – And similarly: 'Social integration has to do with interaction in contexts of co-presence. The connections between social and system integration can be traced by examining the modes of regionalization which channel, and are channelled by, the time-space paths that the members of a community or society follow in their day-to-day activities.' (Giddens 1984: 142).

[43] On the *Raumvergessenheit* of traditional sociology, criticised by proponents of the so-called 'spatial turn', see for example Schroer (2006: 17–28) and Delitz (2009: 11–15).

[44] See, for example, Giddens (1984: 143–144, 181–185, 194–196). Explicitly against 'materiality', for example Giddens (1979: 209): 'Space and presence in small communities, or in collectivities involving only time-space separations of short distance, are primarily expressed through the physical characteristics and perceptual abilities of the human organism.' See also Giddens (1979: 204) on 'contact' in small-scale illiterate societies which is reduced to face-to-face contact to the neglect of the movement of all kinds of material goods and the 'information' they carry.

he was writing – goes unnoticed by Giddens,[45] focusing instead on how '[i]n face-to-face interaction, the presence of others is a major source of information utilised in the production of social encounters.' (Giddens 1979: 203; see also 1984: 132–144).[46] Furthermore, there is clearly more to '[...] organising the contextuality of action and the sustaining of ontological security' (Giddens 1984: 124) than just the corporeal modalities of face-to-face interaction, and this leads on to another point of contention, namely the status of the 'body' and phenomenological approaches in Giddens' argument (*e.g.* Giddens 1984: 65–66). While heralding an interest in 'embodiment' and the role of the body in the human perception of the world *etc.*, in Giddens, again, this unfortunately boils down to rather simplistic and reductionist universals, such as when drawing on the work of the geographer T. Hägerstrand (*e.g.* Giddens 1984: 110–126, 174–175) the 'indivisibility of the human body', the 'finitude of the life span of the human agent', his/her limited potential for multi-tasking ('turn-taking') or the 'limited "packing capacity" of time-space' are declared to '[...] express the material axes of human existence and underlie all contexts of association in conditions of co-presence.' (Giddens 1984: 111–112). Similarly, while corporeal front/back orientations and distinctions clearly are an important element of some phenomenological approaches, this not only applies to the organisation of face-to-face encounters,[47] but to a wider social and material world that the individual confronts. It is an understanding of this wider field of discourse, that we are aiming at – the physical/corporeal *and* the broader context of material possibilities as a medium of social action by past human beings and their social and cultural reality thus created (*e.g.* Barrett 1994; 2006).

[45] In a disturbing way, Giddens (*e.g.* 1984: 71 on chairs and tables in formalised arrangements) always seems close, but never quite gets to the point of interest here, full 'materiality', an example being his explicit reference to architecture (houses) in the following, without this having a follow-up: '"Activity bundles" occur at definite "stations" – buildings or other territorial units – where the paths of two or more individuals coincide; these encounters dissolve as actors move off in space and time to participate in other activity bundles.' (Giddens 1979: 205). Or his thoughts on class society, spatial division and the permanence ('sedimentation') that space, read architecture *etc.*, may offer in this context: 'In class society, spatial division is a major feature of class differentiation. [...] Thus one of the important features of the spatial differentiation of class is the sedimentation of divergent regional "class cultures" *over time* [...].' (Giddens 1979: 206).

[46] M. Löw (2016: 26–32) takes aim at a related point with her critique that Giddens' space is essentially what she calls a 'container' space, the external setting or frame in which social interaction happens or social practices are located, but neither itself being perceived as a result of practice, nor – *vice versa* – as drawn upon as the external condition of action (see below). – This problem can nicely be illustrated by the following passage, where Giddens (1979: 206–207) at first seems to be heading towards something like the recursiveness of space (here: 'locales'), but ultimately withdraws to the primate of face-to-face interaction: 'Virtually all collectives have a *locale* of operation, spatially distinct from that associated with others. "Locale" is in some respects a preferable term to that of "place", more commonly employed in social geography: for it carries something of the connotation of space used as a *setting* for interaction. A setting is not just a spatial parameter, and physical environment, in which interaction "occurs": it is these elements mobilised as part of the interaction. [*... just to conclude, TLK*] If the notion of locale is combined with the influence of physical presence/absence (this being understood as potentially both temporal and spatial), we can characterise the *small community* as one in which there is only short distance in time-space separations. [...] It is not just physical presence in immediate interaction which matters in "small-scale" interaction: it is the temporal and spatial *availability* of others in a locale.'

[47] See the passages on 'front regions' and 'back regions' based on E. Goffmann (*e.g.* Giddens 1979: 207–208; 1984: 36–37, 68–78, 122–126). – For example: '"Face" and "front" are related first of all to the positioning of the body in encounters. [...] Regionalization encloses zones of time-space, enclosure permitting the sustaining of distinctive relations between "front" and "back" regions, which actors employ in organising the contextuality of action and the sustaining of ontological security.' (Giddens 1984: 124).

II.3 Theory of Practice and Social Space (Löw)

A critique of Giddens' shortcomings in his dealings with 'space' is also offered by Martina Löw,[48] whose own 'sociology of space' (Löw 2001; translated into English 2016) otherwise relies heavily on Giddens' 'theory of structuration' in order to develop what she calls a 'relational' concept of space (Löw 2016: 51). Interestingly, however, apart from some rather erratic steps aside practice theory such as in her reference to 'atmospheres', the consequence of her criticism of Giddens is not an additional emphasis on the specific materiality of social space, but rather the opposite, namely – at least as far as key concepts of her theorising are concerned – to further deprive it of all grounding in the material world: 'Accordingly, space as a whole has no materiality in the sense of a physical substrate; rather, only the individual social goods and living beings display materiality.' (Löw 2016: 192).[49] Her work, thus, falls on the social constructivist side of the so-called 'spatial turn', and Löw accordingly has been criticised for her 'spatial voluntarism' (*e.g.* Dünne 2006: 302; see also Wagner 2010: 102). The question then is what, if any, benefit may come from such theorising, so overtly adverse, at first glance, to archaeology and the material remains of past life that we are dealing with.

Opposite to the so-called 'container' space of most traditional sociology (including, for that matter, Giddens) and the concomitant dualism of a given physical space and the social practices carried out therein by corporeal social actors, it is Löw's (2016: 5–7, 25, 48–51, 105–107) conviction that space, just like social 'structure' in traditional thought, should not be conceived as a given, but understood as the outcome of social process. This emphasis on the constitution of space is equivalent to Giddens' processual understanding of the social, and it also entails the notion of 'recursiveness' since the production of space is the outcome of action, and action is simultaneously understood to 'reproduce the conditions that make these activities possible' (Giddens 1984: 2), that is in Löw's modified reading 'space'.[50]

Social space, thus understood, from a 'bottom-up' perspective, from action to social structure (Löw 2016: 140), is a '[...] relational arrangement of living beings and social goods' (Löw 2016: 131) that is bound to human perception and activity, and that unfolds whenever (and only when) human beings link 'elements' to form spaces. Such 'elements' may be other humans insofar as they become arranged and temporarily integrated in social spaces, or broadly speaking any 'social goods' in the sense of items ('artefacts') with a material dimension to them apart from their symbolic aspect, with the latter clearly thought of superior importance for the suitability of 'objects' to become part of man-made 'relational arrangements': 'Hence, goods are arranged in accordance with their property as material goods, but these arrangements can only be understood when the symbolic properties of social goods are deciphered.' (Löw 2016: 130). This is as close as Löw gets to acknowledge anything like 'materiality', and she concedes that social goods have something like an '[...] external effectuality, for example in odors and sounds [...]' (Löw 2016: 132), and that these 'effectualities' may affect their appropriateness for specific spatial arrangements. Obviously, such 'space', as conceived by Löw, hardly conveys the notion that her human agents may hit their heads against a wall. It is a largely immaterial and potentially ephemeral relational arrangement only, but one with the important implication that there may be several different such 'spaces' constituted in any given place, either simultaneously or one after the other (*e.g.* Löw 2016: 49, 106).

Turning from *what* is linked by human agents to constitute space – social goods and other living beings – to *how* such arrangements come about, Löw (2016: 134–135) distinguishes two different processes, the first of which, 'spacing', is more on the material side since it involves '[...] the placing of social goods or living beings, or their self-placement, as well as building, deploying, or surveying, furthermore the positioning of markings that are primarily symbolic [...]' (Löw 2016: 189), while the second, 'synthesis', on the conceptual side refers to the manner in which '[...] goods and people are amalgamated to spaces by way of processes of perception, imagination, and memory.' (Löw 2016: 135).[51] In accordance with her

[48] See, for example, Löw (2016: 30, 31): 'Giddens conceives space as that which surrounds people as a matter of course and that which is let into locations. For Giddens, space becomes sociologically relevant in the social regionalization of specific places. [...] Hence, he cannot pursue the question as to how in action itself spaces are created whose match with institutionalized structures can be a question for research – for Giddens it is presupposed.'

[49] Given the overall thrust of Löw's (2001; 2016) argument one wonders how the English translation of her study made it into a series on 'Cultural Sociology', and why the series editors see here an important contribution to the 'materiality of meaning' (Series Editors' Preface) – unless, course, they are referring to the corresponding change of title: from simple *Raumsoziologie* to the somewhat more fancy *The Sociology of Space. Materiality, Social Structures, and Action* of the English edition after the so-called material turn.

[50] '[...] I shall develop a theoretical approach in the following discussion in which the constitution of space is immediately integrated into the process of action. Since action takes place in structured contexts and has a structuring effect, this approach implies that the structural dimension of the spatial must be placed in the center of the argumentation.' (Löw 2016: 106–107).

[51] Summing this up, see also Löw (2016: 189): 'Space is constituted by two processes that must be analytically separated: the operation of synthesis and spacing. The operation of synthesis makes it possible to combine ensembles of goods and people as one element. [...] Spaces are not naturally existent, but have to be actively (re-)produced through an operation of synthesis. Social goods and living beings are combined to

notion of social space as relational and immaterial, 'place' here becomes a kind of residual category that comprises what was lasting and material about Giddens 'container' space framing social interaction, while somewhat cryptically it also shares the construed character of Löw's own 'space', because materiality ultimately is only accorded to individual social goods (Löw 2016: 192):

> 'A *place* means a position, a site that can be specifically identified, geographically marked. Places are identified by the placement of social goods or people, but do not disappear with the goods or people, but rather are available to be otherwise occupied. Place is thus the goal and result of placement [...] The constitution of space systematically generates places, just as places make the emergence of space possible.' (Löw 2016: 188; see also 167–171).

Space or spaces, thus conceived, in what is Löw's (2016: 136–146, 188–193) most original move towards a 'duality of *space*', may become 'institutionalised arrangements' guiding future social action;[52] they are, on the other hand, (re-)produced in action (of spacing and synthesis) (*e.g.* Löw 2016: 140–141, 145), and – being devoid of materiality themself – they may thus be considered of the same kind as Giddens' social structure(s): '*Spatial structures*, like temporal structures, are forms of *social structures*.' (Löw 2016: 141; see also 150–151). Since with Giddens' 'structure' is 'virtual' and 'outside' time and space, for this move to come into effect, for Löw (2016: 142–143) structure is instead '[...] detached from *place* and *point in time*' (italics added, TLK), and consequently there is a 'duality of space' corresponding to, or actually an instance of Giddens' original 'duality of structure':

> '[...] we can speak of spatial structures when the constitution of space, that is, either the arrangement of goods or people, or the synthesis of goods or people to spaces (recognition, linking, and sensing arrangements) is inscribed into rules and secured by resources that are recursively incorporated in institutions independently of place and point in time. [...] Spatial structures, like every form of structure, have to be realized in action, but they also structure action. The duality of action and structure thus proves to be the *duality of space*.' (Löw 2016: 145).

Whether this approach is lauded or declined, depends very much on the professional and theoretical background of the reader, and a couple of words are required here on the somewhat ambiguous nature of the so-called 'spatial turn' to which Löw has been tacitly assigned above (see also Döring/Thielmann 2008; Günzel 2010: 77–119; Bachmann-Medick 2010: 284–328). First coined – with reference to M. Foucault – by the human geographer E. W. Soja in his *Postmodern Geographies* (Soja 1989: 10, 16–21), the 'spatial turn' is a strategic argument that aimed – in the most general sense – at reinstituting the importance of 'space' into social and cultural theory after what was perceived as a traditional obsession with 'time' and 'history' going back into the 19th century.[53] This concern, already superseded, of course, by subsequent 'turns' on the academic fair of vanities, among them 'materiality', is shared by authors of widely different backgrounds, drawing on different sources and media, and includes everything from (art) historians writing on 'space' in texts or pictorial representations (*e.g.* Schlögel 2003) to anthropologists and sociologists taking an explicit interest in physical alongside symbolic space and the materiality of architecture (*e.g.* Amerlinck 2001; Dafinger 2004; Delitz 2010). Soja (*e.g.* 1989: 45–51, 76–93, 120–131) himself did much to bring to the attention of an international audience the Marxist social philosopher Henri Lefebvre and his 1974 *La Production de l'Espace* (English translation 1991), with its explicit interest in practice and the social production of space (*e.g.* Lefebvre 1991: 68–168). Together Lefebvre and Soja stand at the beginning of the constructivist approach to space that Löw (2001; 2016) takes sides with, although this is less clearly acknowledged than the influence of Giddens.[54] Just take as an example the following passage from Soja (1989) which apart from the less differentiated terminology – 'space *per se*', 'space as a contextual given' and 'socially-based spatiality', where Löw distinguishes (social) 'space' and 'place' (somewhat unclearly bounded; see above) – has much the same thrust of a 'socio-spatial dialectic' (Soja 1989: 81, 129) as her general argument outlined above:

> 'It is necessary to begin by making as clear as possible the distinction between space *per se*, space as a contextual given, and socially-based spatiality, the created space of social organization and production. [...] Space in itself may be primordially given, but the organization, and meaning of space is a product of social translation, transformation, and experience. Socially-produced space is a created structure comparable to other social constructions resulting from the transformation of given conditions inherent to being alive, in much the same way that human history represents a social transformation of time.' (Soja 1989: 79–80; see also 91–93, 120–130).

In more recent geography, for example, B. Werlen (2008; 2009; 2010a; 2010b) is arguing in a similar vein for a practice approach to social space, that he conceives as a remedy for the traditional geographical determinism of his

yield spaces through *processes of imagination, perception, and memory*.'

[52] 'Institutionalized spaces are accordingly those in which the arrangement has effect beyond one's own action and results in conventional operations of synthesis and spacing.' (Löw 2016: 139).

[53] See, in this context, Foucault's (1980: 70) oft-quoted dictum: 'Space was treated as the dead, the fixed, the undialectical, the immobile. Time, on the contrary, was richness, fecundity, life, dialectic. For all those who confuse history with the old schemas of evolution, living continuity, organic development, the progress of consciousness or the project of existence, the use of spatial terms seems to have the air of an anti-history.' – See also Soja (1989: 1– 9).

[54] See, for example, Löw (2016: 87, 111–112, 125–126); see also Döring (2010: 97–98) with a similar observation as regards the influence of geographer B. Werlen (see below).

discipline (*e.g.* Werlen 2009: 142–147, 152–153; 2010b: 254–268).

We clearly have, then, different 'spatial', 'topographic' or whatever turns that – while for some just any interest in space is an enrichment for their given area of interest – roughly fall apart along the question of which status 'physical' space should have, if any, opposite socially constructed space, both within and cross-cutting traditional academic disciplines, and sometimes do so in an unexpected manner (see also Döring 2010: 90–93). Thus, for example, while some sociologists clearly feel that their discipline's traditional indifference towards space (Schroer 2006: 17–28) has to be overcome by an approach that (also) explicitly allows for a specific materiality of social space (*e.g.* Schroer 2006: 174–181; 2009: 362–366; Delitz 2009; 2010), others like Löw (2016) opt for constructionism instead, side by side with geographers (Werlen 2009) that an unbiased observer would expect to have a strong and appreciated legacy of broadly 'physical' space *etc.* Similarly, in prehistoric archaeology with its long-standing tradition of 'container' space in traditional culture historical archaeology, with archaeological cultures expanding and moving in space (and time) like historical actors would, and with its deeply entrenched environmental determinism trying to understand culture change as adaptation to changing climate and physical environment, the idea that space is not a given, but is permanently (re-)produced in social action has been eagerly accepted – at least in certain quarters. Thus, in some strands of post-processual archaeology the earlier processual claim that the material world – objects, artefacts *etc.* – is a mere reflection, for example, of static social 'structure', was countered early on by the notion that the meaning of material culture – and by expansion space or spatial arrangements – is constituted and drawn upon in social action, with social relations *etc.* not only expressed but negotiated and reproduced in this medium (*e.g.* Barrett 1994; 2006). And, of course, J. Maran (*e.g.* 2006b; 2012a) with his influential studies on Mycenaean palaces as performative social space has done a great deal to spread the kind of theorising outlined here derived from Giddens, Löw and Bourdieu in Aegean Bronze Age archaeology and beyond.

There is a problem, however, if the kind of theorising advocated by Löw loses sight of the underlying materiality of all social space and for that matter social practice in general, and the structuring potential of space in the 'duality of space' is dissolved into discourse, *i.e.* only transient notions are considered of social space structuring action that in return structures nothing else than ephemeral and immaterial social space that as such may have emerged in just any physical setting.[55] This is also seen by Löw when she acknowledges that '[...] spaces can only be produced out of what is available or what can be procured for acts of synthesis and spacing' (Löw 2016: 161), explicitly including the 'material component' of 'natural circumstances' (*i.e.* presumably the physical/environmental setting) and social goods in action situations that is said to 'pre-arrange' or 'pre-structure' the constitution of spaces (Löw 2016: 162–163). Somewhat out of line with her general argument outlined above, which would imply that since space as a whole has no materiality, any space can be constituted from any physical substrate (*e.g.* Löw 2016: 189, 192) this clearly introduces the notion, also advocated here, that there are limits set by the 'external effectuality' (Löw 2016: 132, 164) of what is arranged into a social space. There is even a short detour to phenomenology in order to allow for the fact that things thus arranged are perceived not only visually but also as we smell, hear or feel them[56] – with the important caveat by *sociologist* Löw (drawing on Bourdieu's *habitus* concept) that all such perception is socially and habitually pre-structured (Löw 2016: 164–166).

This clearly points into the right direction, but beyond what has just been summarised it goes largely unexplored, and Löw's certainly is not a theory of social space *and* materiality. This also applies to her concluding turn to 'atmospheres' in order to grasp some of the 'intrinsic materiality of the spatial' (Löw 2016: 171). She mainly relies on G. Böhme (2013) here, who in claiming that atmospheres exist in an intermediate position between subject and object, navigates somewhere between the poles of the – currently fashionable – notion of an intrinsic potentiality of things and places to arouse an affective response by humans, and the assumption that we see a mere projection of human feelings *etc.* onto inert matter. This touches upon ontological questions and the 'agency' of things (see below), but remains underdetermined in Böhme and not very useful in Löw (2016: 171–177) – except, again, for her specifically sociological reservations against a universal character of atmospheres as emanating from things and spaces, and her call that such phenomena be understood as mediated by socially pre-structured perception and *habitus* (Löw 2016: 175–176).

[55] See also, for example, Dünne (2006: 302): 'Löw plädiert für eine komplette Überwindung der Dualität von Naturraum und Sozialraum zugunsten des Monismus eines sozialen Interaktionsraums, der sich dynamisch aus den Beziehungen zwischen Akteuren und Gegenständen konstituiert. […] selbst wiederum in die Gefahr eines Voluntarismus gerät, wenn sie die Dauer und Stabilität bestehender Raumordnungen unterschätzt, die nicht nur naturräumlich, sondern auch durch mediale und politische Dispositive gestützt werden.'

[56] In sum, this reads as follows: 'The everyday constitution of space is bound to perceptual processes. In practical consciousness, social goods and people are linked with each other in perceiving them. These syntheses are not only pre-arranged by habitus and social structures [...] but also influenced by the external effectuality of social goods and people. Spacing is oriented on these syntheses formed in perceiving.' (Löw 2016: 165).

II.4 Habitus and Social Space (Bourdieu)

Unlike Giddens, Pierre Bourdieu's notion of space – and by extension of materiality and social life – is laid out more or less implicitly in sections of several of his numerous works.[57] At first sight, it is ambiguous, or at least it has been interpreted differently, from implying that social space is abstract symbolic space, which in a one-way move inscribes itself into physical space (*e.g.* Löw 2016: 154), to a recursive relation of the two, social and physical space, mediated via his concept of *habitus* (*e.g.* Schroer 2006: 88–89; Dünne 2006: 301–302). The problem, it seems, is in equal parts with the intentions and background of his readers, whether Bourdieu is an authority to be relied on, or seen as the exponent of previous sociological theory to be overcome, and with the different emphases put by the author himself in different contexts.

Furthermore, unlike Giddens, Bourdieu originally set out from an ethnographic context and his study of the Kabyle Berbers in Algeria. It is this background, arguably, that accounts for the importance of 'practical' sense or logic in his work, of corporeality, the movements and displacements of the body, of sensory impressions, and the overall importance of the non- or pre-discursive in the acquisition of individual and class *habitus* (*e.g.* Bourdieu 1977: 87–158; 1990: 66–97). However, for example his *The Kabyle House or the World Reversed* (reprinted in the appendix to Bourdieu 1990: 271–283), that initiates this development, in outline still takes a firmly structuralist stance,[58] and much of Bourdieu's subsequent work and practice oriented approach is the attempt to overcome the shortcomings of his former perspective and structuralism in general, such as ahistoric fixed meanings or oppositions manifesting themselves – unmediated by context, human practice and intentionality – on different levels of the social and in different media. In general accordance with Giddens' anti-essentialist perspective and his critique of objectified social 'structure', Bourdieu thus argues against overarching social totalities determining human action and perception – centrally through his concept of *habitus* that seeks to bridge the gap between 'structure' and 'agency', or 'society' and the 'individual', and introduces a recursive understanding of both sides instead of the dichotomies previously assumed (*e.g.* Bourdieu 1977: 78–87; 1990: 52–65):

> 'Through the habitus, the structure which has produced it governs practice, not by the processes of a mechanical determinism, but through the mediation of the orientations and limits it assigns to the habitus's operations of invention. As an acquired system of generative schemes objectively adjusted to the particular conditions in which it is constituted, the habitus engenders all the thoughts, all the perceptions, and all the actions consistent with those conditions, and no others. [...] Because the habitus is an endless capacity to engender products – thoughts, perceptions, expressions, actions – whose limits are set by the historically and socially situated conditions of its production, the conditioned and conditional freedom it secures is as remote from a creation of unpredictable novelty as it is from a simple mechanical reproduction of the initial conditionings.' (Bourdieu 1977: 95).

Habitus, that is to say, mediates between structure and agency, it brings about and orientates individual and collective practices by providing 'systems of durable, transposable dispositions' (Bourdieu 1990: 53) that guide action and make certain choices and proceedings appear more desirable and natural than others. It accounts for the evident consistency and orchestration of the social – without recourse required to abstract rules that determine the course of social life – by ensuring instead '[...] the active presence of past experiences, which, deposited in each organism in the form of schemes of perception, thought and action, tend to guarantee the "correctness" of practices and their constancy over time, more reliably than all formal rules and explicit norms.' (Bourdieu 1990: 54). *Habitus*, thus understood, is embodied or incorporated history (Bourdieu 1990: 56–57), or the internalisation of 'objective structures' (Bourdieu 1977: 81), that alone allows the '[...] production of a common sense world endowed with the *objectivity* secured by consensus on the meaning [...] of practices and the world, in other words the harmonization of agents' experiences and the continuous reinforcement that each of them receives from the expression, individual or collective [...], improvised or programmed [...], of similar or identical experiences.' (Bourdieu 1977: 80). As such, crucially, *habitus* is acquired largely in socialisation, by attention paid to gestures and postures, by imitation and getting a 'feel for the game' (Bourdieu 1990: 66), and 'without going through discourse or consciousness' (Bourdieu 1977: 87).

Bourdieu's examples of this process and the acquisition of *habitus* often come from his early fieldwork among the Kabyle (*e.g.* Bourdieu 1977: 87–95; 1990: 66–79), and the emphasis clearly is on embodiment, tacit knowledge and

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[57] See, for example, his *Outline of a Theory of Practice* (Bourdieu 1977) or *The Logic of Practice* (Bourdieu 1990); specifically on (social) space see also Bourdieu (1991; 1998).

[58] 'Thus, the house is organized in accordance with a set of homologous oppositions – high : low :: light : dark :: day : night :: male : female :: *nif* : *h'urma* :: fertilizing : able to be fertilized. But the same oppositions also exist between the house as a whole and the rest of the universe.' (Bourdieu 1990: 275; see also his retrospect in annotation 1 on pages 316–317).

the largely non-discursive assimilation into social life and the practices of a child's or youth's group:

> '[...] the essential part of the *modus operandi* which defines practical mastery is transmitted in practice, in its practical state, without attaining the level of discourse. The child imitates not "models" but other people's actions. Body *hexis* speaks directly to the motor function, in the form of a pattern of postures that is both individual and systematic [...] and charged with a host of social meanings and values [...].' (Bourdieu 1977: 87).

Even though it stands in permanent confrontation with reality, that is the ever changing social and material world around us, *habitus*, thus, systematically discourages deviance and tends to 'avoid' situations that might entail disclosure of its own naturalising effect and its fundamental arbitrariness (Bourdieu 1977: 163–164).[59] For this reason, the concept of *habitus* has been criticised for its more 'deterministic' or constraining connotations than Giddens' account of knowledgeable actors reflexively monitoring the enactment of social life.[60] It is surely important here to avoid essentialising distinctions between 'modern' society more on the Giddens' side of the positive role of knowledge and reflexivity in social reproduction and potentially in bringing about social change, and 'traditional' society on Bourdieu's side favouring reproduction over change and social actors caught in the routines implied by their traditional *habitus* – even though this may be what we are seeing in the case of the tell communities under consideration in this study: a measure of variability and agency that did not – over an extended period of time – erode the foundations of 'tell society' as such. Rather, both 'options' have to be understood as located on a continuum of potential trajectories open to societies on different levels of 'complexity' or 'integration', and they always have to be established by reference to the specific evidence at hand.

Turning to 'space', for Bourdieu this, on the one hand, clearly is abstract social space, or the field on which social actors or groups thereof such as professional groups or classes are arranged in accordance with the total amount of 'capital' held and with the different kinds of capital available to them, that is economic versus cultural or symbolic capital (*e.g.* Bourdieu 1991: 28–29; 1998: 3–9). Seen from this perspective, the social features a dynamic not obvious to the same degree when conceived via the concept of *habitus*, since we see social actors in permanent competition for the various kinds of capital potentially available to them, or – generally speaking – in pursuit of distinction, and potentially being mobile in social and corresponding physical space, even though the wrong *habitus* may impede the appropriate performance of practices essential for one's newly acquired position in the social field (Bourdieu 1991: 29–33) – both 'upward' and 'downward', such as when the rare professor with a working class background finds it more difficult to conform to academic ritual than his/her colleagues, or the impoverished business person finds it more difficult to get through the game of soccer with his/her new East End neighbours than the golf he/she was used to.

Setting aside the issue of possible mobility, social space or the social field thus conceived *will* tend to solidify. It will do so, first, because of the stabilising operation of *habitus*, and, second, because any distinctions present in the abstract social field will tend to be 'objectified' into the world of objects and physical space (Bourdieu 1991: 26–28),[61] such as when people from the same class or similar profession *etc.* will 'sort' themselves into distinct neighbourhoods according to the comparable amount of money available to them, their similar *habitus*-derived notions of what a 'nice' or 'appropriate' house and front garden look like, and their preferred wish not to mix – at least not 'downwards' – with people of a different *habitus* on a day-to-day basis: 'Kurzum, es ist der Habitus, der das Habitat macht, in dem Sinne, daß er bestimmte Präferenzen für einen mehr oder weniger adäquaten Gebrauch des Habitats ausbildet.' (Bourdieu 1991: 32). This is one way of causality referred to above, by which social space inscribes itself into physical space, and this process is both stabilising and naturalising (Bourdieu 1991: 26–27), since physical space, the allocation of people into distinct neighbourhoods, their characteristic architecture or material arrangements such as having the right cars standing in front, by virtue of their inertia, their longevity and apparent 'givenness' impede change and distract attention from the historicity of the social order encountered.[62] Bourdieu, from this perspective, is the theorist of social inequality studied through its impact on the material world and physical space (*cf.* Schroer 2006: 88–89), that is always already appropriated and drawn into the social field, such as when the Kabyle house is informative about social and cosmic order, power and gender relations *etc.* in much the same way that archaeologists often 'read' the architectural remains at their disposal as an expression of past social

[59] See, for example, Bourdieu (1990: 61): 'Through the systematic "choices" it makes among the places, events and people that might be frequented, the *habitus* tends to protect itself from crises and critical challenges by providing itself with a milieu to which it is as pre-adapted as possible [...].' – See also Bourdieu (1977: 85–87, 163–169) on 'doxa'.

[60] See, for example, Dobres/Robb (2000b: 3–6), Dornan (2002: 305–308), Dünne (2006: 301) or Schäfer (2016c: 139) with further literature; see also the related discussion of Bourdieu in Schatzki (1996: 136–144).

[61] See also Bourdieu (1998: 7–8): 'In a more general sense, the space of social positions is retranslated into a space of position-takings through the mediation of the space of dispositions (or habitus). In other words, the system of differential deviations which defines the different positions in the two major dimensions of social space corresponds to the system of differential deviations in agents' properties (or in the properties of constructed classes of agents), that is, in their practices and in the goods they possess. To each class of positions there corresponds a class of habitus (or *tastes*) produced by the social conditioning associated with the corresponding condition and, through the mediation of the habitus and its generative capability, a systematic set of goods and properties, which are united by an affinity of style.'

[62] 'Nebenbei sei auch angemerkt, daß die Trägkeit der für den sozialen Raum konstitutiven Strukturen unter anderem daraus resultiert, daß sie dem physischen Raum eingelagert sind und nur um den Preis zwangsläufig aufwendiger Umsetzungsarbeit verändert werden können [...]. Aus sozialer Logik geschaffene Unterschiede können dergestalt den Schein vermitteln, aus der Natur der Dinge hervorzugehen [...].' (Bourdieu 1991: 26–27).

'structure' (*cf.* Maran 2006a: 12). However, with Bourdieu this is distinctly not a one-way causality, since it is not only social space *inscribed* in physical space, but *vice versa* the world of objects and material arrangements has an important role to play in the embodiment of collective practices and the formation of *habitus* (*e.g.* Bourdieu 1977: 87–91; 1990: 66–79):

> 'The world of objects, a kind of book in which each thing speaks metaphorically of all others and from which children learn to read the world, is read with the whole body, in and through the movements and displacements which define the space of objects as much as they are defined by it. The structures that help to construct the world of objects are constructed in the practice of a world of objects constructed in accordance with the same structures.' (Bourdieu 1990: 76).[63]

That is to say, our ability to conform aptly to specific practices of the social field, our gestures and postures, our predispositions and preferences acquired as part of our *habitus*, all crucially depend on the material world that we were socialised in, that itself had been shaped and ordered according to the abstract order of the social field, where none – neither the material world or physical space, nor *habitus* and the social field – can be said to determine the other.[64]

[63] See also Bourdieu (1991: 27): 'Wir dürfen nun begründet annehmen, daß sich auf dem Wege ihrer Realisierungen in den Strukturen des angeeigneten physischen Raumes die unausgesprochenen Imperative der sozialen Ordnung und die verschwiegenen Ordnungsrufe der objektiven Hierarchie in Präferenzsysteme und mentale Strukturen umwandeln.'

[64] See also, for example, Bourdieu (1977: 89): 'In a social formation in which the absence of the symbolic-product-conserving techniques associated with literacy retards the objectification of symbolic and particularly cultural capital, inhabited space – and above all the house – is the principal locus for the objectification of the generative schemes; and, through the intermediary of the divisions and hierarchies it sets up between things, persons, and practices, this tangible classifying system continuously inculcates and reinforces the taxonomic principles underlying all the arbitrary provisions of this culture.'

II.5 'Flat Ontologies': Social Life and Materiality (Schatzki)

For a subsequent comprehensive reformulation of central tenets of practice theory with an explicit focus on the essential materiality of all social life we are indebted to the philosopher Theodore Schatzki. In his two consecutive major works *Social Practices* (1996) and *The Site of the Social* from 2002, drawing on insights of the later L. Wittgenstein and M. Heidegger, Schatzki outlines a 'flat' ontology of social life (see also Schatzki 2016b; 2017b; 2019a: 26–50), where the social, first, is understood as a dynamic field, as '[...] a nexus of practices and the sociality opened in this nexus as the basis, or "substance", of all sociality in human life' (Schatzki 1996: 169; see also the above quote from Schatzki 2001a: 3) – a notion that is subsequently refined and expanded to an understanding of social phenomena as '[...] slices or aspects of nexuses of practices *and* material arrangements' (Schatzki 2010: 123; italics added, TLK; see also Schatzki 2002: 123, 138–157; Jonas 2009: 18–19). In the tradition of practice theory, Schatzki (1996: 2–9) is critical here of both the older notion of social totalities being more than their constituent parts as well as of 'individualism' that builds up the social from the individual human subject. Instead he posits practice(s) – that is arrays or bundles of organised activities linked by shared practical understandings (Schatzki 1996: 89–110; 2001a: 2–3; 2002: 70–80) – as the central element in the constitution of sociality and social order. This approach may be said to involve a 'flat' ontology in a two-fold way: first, on the traditional 'sociological' side, in that fields or nexuses *etc.* of practices that constitute the social are all conceived to be laid out on just one level of reality – unlike, for example, higher-level 'macro' structure and the 'micro' level of human individuals in traditional thought *etc.*;[65] and second, in that Schatzki explicitly recognises that sociality, that is everything to do with the 'hanging-together of human lives' (Schatzki 2016b: 31; see also 1996: 169–173) is inextricably linked and not external to the material world: 'Social orders are thus the arrangements of people, artifacts, organisms, and things through and amid which social life transpires, in which these entities relate, occupy positions, and possess meanings.' (Schatzki 2002: 22; see also 1996: 114–115; 190–191; 2002: 18–25, 98–101; 2010: 123, 126–130; 2019a: 51–77). In this latter aspect, Schatzki (2002; 2010) is part of a broader 'material turn' in social and cultural studies, including various brands of 'post-humanism'. Importantly, however, his approach stands for the urgently needed attempt to retain the 'intactness and unique richness' of human agency (Schatzki 2002: XXII, 105–122, 190–210) instead of, for example, ANT's blurring of human and object 'agencies'. It is worthwhile, therefore, to outline the key concepts of Schatzki's reading of practice theory and trace their development towards a full appreciation of materiality in social life.

Starting with 'practice' itself, for Schatzki this concept combines two distinct 'aspects', namely its constituent 'parts' on the one hand, and notions of how these are linked or organised on the other. Thus, we are told, practice is:

> '[...] a temporally unfolding and spatially dispersed nexus of doings and sayings', where the individual doings and sayings (= actions) are linked and oriented '[...] (1) through understandings, for example, of what to say and do; (2) through explicit rules, principles, precepts, and instructions; and (3) through [...] "teleoaffective" structures embracing ends, projects, tasks, purposes, beliefs, emotions, and moods.' (Schatzki 1996: 89; see also 2002: 71, 77, 87).[66]

As to the 'constituents' of practices mentioned, the 'doings' here carry the notion of embodiment and the role of socially produced bodies in the constitution of practices (Schatzki 1996: 19–87), while the 'sayings' are more on the discursive side without being restricted to language, such as, for example, in the bodily act of shaking the head to signal disagreement (*e.g.* Schatzki 2002: 72). The 'linkages', on the other hand, thought to be involved in organising bundled sets or 'nexuses' of human actions – doings and sayings – into distinct practices, carry a relatively strong normative connotation (see also Schatzki 2019a: 34–35), in that apart from 'practical understandings' modelled on *habitus* (Bourdieu) and 'practical consciousness' (Giddens),[67] they explicitly comprise what Schatzki calls 'teleoaffective' structures, that is notions held and discursively formulated of the 'ougthness' or 'rightness' and the 'acceptability' of actions (Schatzki 1996: 100–102; 2002: 80–81). Schatzki's 'practice', then, 'governs how people act' (Schatzki 1996: 96) and 'establishes' orders (Schatzki 2002: 89–105, in particular 96–101)[68] – it is 'enabling and constraining'

[65] See, for example, Schatzki (2016b: 31): 'Practice ontologies are flat because (1) they treat practices as the central element in the constitution of social phenomena; and (2) practices are laid out on one level. [...] One mark of the flatness of these ontologies is that they analyse social phenomena as arrays of the components of fields, systems, bundles/complexes, or plenum and as lacking any substantive or distinct existence beyond this.'

[66] With the further distinction that 'dispersed' practices are the more general ones occurring throughout different domains of social life such as ordering or following rules (Schatzki 1996: 91), while 'integrative' ones are '[...] the more complex practices found in and constitutive of particular domains of social life' such as business practices or teaching (Schatzki 1996: 98–99).

[67] See Schatzki (2002: 79): 'Practical understanding, in my account, resembles habitus and practical consciousness in being a skill or capacity that underlies activity. It differs in almost never determining what makes sense to people to do, in almost never, therefore, governing what people do.'

[68] With a distinctly Wittgensteinian and Heideggerian twist, see Schatzki (2002: 100–101): 'Practices are not just the context, but also the site where the meanings of arranged entities are instituted. [...] In sum,

since it encompasses aspects of Giddens' 'virtual' structure (rules and resources = 'structure' or 'structural properties'). However, just like Giddens so Schatzki, too, explicitly grants knowledgeability to social actors;[69] and like both first generation practice theorists discussed above – Bourdieu and Giddens – his notion of practice is a processual and relational one devoid of the 'givenness' of structure or the like in other schools of social thought:

> 'Although practices [...] resemble macro phenomena in constraining individual activity and organizing the contexts in which people act, they never possess the *sui generis* existence and near omnipotence sometimes attributed to structural and wholist phenomena. [...] the attribution of order to practice nexuses differentiates practice thinking from both the individualist and traditional nonindividualist camps.' (Schatzki 2001a: 5).

The social process, that is to say, is indeterminate, with certain actions being 'signified' as the ones to perform at that moment, in the current situation (Schatzki 1996: 121–122), but ultimately '[u]ntil action occurs, it is never determinate which end a person will have acted for, what project he will have carried out for that end, what emotions will have affected this, and even whether he will have acted for any end at all.' (Schatzki 1996: 166; see also 2019a: 34–35; 2019b: 57–59).

Schatzki's (1996) account of practice theory, as we have already seen with regard to the 'proper' location of 'rules' and 'resources' delimiting possible action (part of *habitus*, 'structure' or the 'linkages' of doings and sayings), differs in detail from previous conceptions, *i.e.* mainly from Giddens' and Bourdieu's; and Schatzki (*e.g.* 1996: 133–167) goes to some length to detail the relative advantages of his account over 'rival' ones. Arguably, however, the most important shift pending already in his earlier study (Schatzki 1996) is a growing awareness of the importance of materiality as a part of social phenomena that goes back to his specific reading – and, for that matter, the more consequent one than Giddens' (*e.g.* 1979: 3–4, 34–38, 41) – of Wittgenstein and Heidegger (*e.g.* Schatzki 1996: 12–13; 2002: XII, 11–13).[70] This shift can be traced along two related avenues – namely 'world intelligibility' and the 'production' of meaning on the one hand, and how sociality is established in practices on the other. It is worthwhile to have a look at both aspects in the earlier version, before turning to the fully developed concept in Schatzki's (2002) subsequent *The Site of the Social*.

'World intelligibility', that is how things (the world, people, actions *etc.*) make sense and acquire meaning (Schatzki 1996: 111), in the context of his discussion of what informs and guides human action, is understood – drawing on Wittgenstein's (*e.g.* 2017: 40 §43) notion of language games – as situated in and depending on practice:

> 'Understanding is expressed and acquired in a tightly interwoven nexus of doings and sayings in which neither the doings nor the sayings have priority. How things make sense is articulated primarily within social practices, for it is within practices that what things are understood to be is established.' (Schatzki 1996: 112; see also 2002: 98–101).

As such, in the context of practice, intelligibility is not a linguistic or discursive phenomenon only, but '[...] understanding is acquired through exposure to and the performance of nonverbal as well as verbal behaviors.' (Schatzki 1996: 111).[71] That is to say, all meanings *qua* practice are also 'practical' meanings, and they are tied to bodily doings as well as sayings – where doings clearly are directed towards both a social and material outside world, and 'doing' is much more than mere putting things to a specific use: 'People also observe objects, examine them, measure them, admire them, draw them, and talk about them in numerous ways that do not pertain to use.' (Schatzki 1996: 114). Here, clearly, is an emphasis on the specific materiality of the world that humans perceive and encounter in their actions, that is mediated by and linked to practices. The 'worlds' thus constituted (Schatzki 1996: 115) are irreducible to mere discourse (Schatzki 1996: 114–115, 128–130); and in his discussion of the spaces opened by practices, that is spaces where practices are 'correctly and acceptably performed' (Schatzki 1996: 115, 189), these (social) spaces clearly have an indispensable material side to them that prefigures practices unfolding in specific settings – be it only, as the first step towards a more comprehensive appreciation, in physically excluding certain actions while allowing others (Schatzki 1996: 163).[72]

Partly overlapping with what has just been said, this tendency is also obvious in Schatzki's discussion of practices and sociality. Social life is understood here as a

social orders are largely established in practices. The relations among, meanings of, and, hence, positions of, the components of social orders are beholden, above all, to the doings and sayings that compose practices, in conjunction with practice organizations.' (see also, in this context, Schatzki 1996: 110–118; 2002: 61–63, 98–100).

[69] 'People, it is important to note, are almost always – though not necessarily – aware of and also have words for the integrative practices in which they participate. They are cognizant of such practices in part because with time the teleological structures and rules organizing them come to their attention.' (Schatzki 1996: 104). – Whereby general 'world intelligibility' or 'understanding' has a distinctly non-verbal and situated connotation (Schatzki 1996: 111–112; see also 122–123, 128–130).

[70] 'In Wittgenstein's hands, understanding and intelligibility structure not only the social realm, but also the domain of individual mind and action. [...] By virtue of the understandings and intelligibilities they carry, practices are where the realms of sociality and individual mentality/activity are at once organized and linked. Both social order and individuality, in other words, result from practices.' (Schatzki 1996: 12–13).

[71] '[...] language alone does not articulate intelligibility – bodily behavior and reactions also play an omnipresent and foundational role. Language is also unable to articulate fully the understandings and intelligibilities that permeate human life.' (Schatzki 1996: 13).

[72] 'Insofar, then, that the organizations of practices bestow normativized interrelated meanings upon entities, practices open spaces of interrelated places at which their constituent doings and sayings are correctly and acceptably performed. [...] Practices, consequently, transpire in an objective space that devolves from the material arrangements of objects, while also themselves opening a type of space (the space of places) that differs from and is irreducible to objective space.' (Schatzki 1996: 115).

'nexus of practices' (Schatzki 1996: 169), that is a potential multitude of practices each opening a field of sociality, or '[...] a tissue of coexistence among its participants that arranges them vis-à-vis one another and molds the progression of their lives (and identities) within the practice.' (Schatzki 1996: 172; see also 168–169, 186–192, 198). Other than this passage implies, among the specific forms of sociality subsequently discussed, 'commonality' (*i.e.* shared understandings and rules *etc.*), and its opposite, 'orchestration' (*i.e. different* understandings *etc.* '[...] nonindependently determining what different people do'; Schatzki 1996: 186–187), that govern interpersonal encounters or face-to-face interaction, are distinctly just one such medium of sociality that is considered (Schatzki 1996: 186–195). We also find here explicit consideration of the 'settings' of action, the 'spaces of places' where practices are 'correctly and acceptably performed' (Schatzki 1996: 115, 189), and their underlying (material) places and their physical connections: 'These places are anchored in objects, which are combined into settings. A setting is thus a particular (experientially circumscribed) configuration of objects that anchors a space of places.' (Schatzki 1996: 189; see also 190–191; 2002: 43). If this discussion is in part still reminiscent of Giddens' 'container' space framing social interaction, with his stronger affinity to broadly phenomenological approaches[73] Schatzki is already advancing here towards a much fuller understanding of the situatedness and dependency of practices on the specific materiality of the world in which they are unfolding.

The full step is taken then in his 2002 *The Site of the Social* and in subsequent works (*e.g.* Schatzki 2010; 2016a; 2016b; 2016c; 2019a), where social life, previously understood as a 'nexus of practices' only (Schatzki 1996: 169), is explicitly redefined as a nexus of practices – doings and sayings organised by understandings, rules and norms – *and* material 'arrangements' or 'orders' which are thereby accorded 'compositional significance' for human coexistence and sociality (Schatzki 2010: 132–133):

> 'Human coexistence is inherently tied, not just to practices, but also to material arrangements. Indeed, social life [...] always transpires as part of a *mesh* of practices and arrangements: practices are carried on amid and determinative of, while also dependent on and altered by, material arrangements. I call the practice-arrangement nexuses, as inherently part of which human coexistence transpires, sites of the social.' (Schatzki 2010: 130; see also 128–135).[74]

This clearly leaves behind traditional sociology which had it that social facts are explained by social facts (E. Durkheim), where social facts are norms and interaction *etc.* of human individuals. Instead, Schatzki moves towards a conception in which an adequate understanding of the social crucially depends on an understanding of the material side of the world in which practices transpire and human coexistence is constituted.

In a down-to-earth sense, 'material arrangements' are conceived here as 'interconnected material entities' that comprise humans, artefacts, organisms and things of nature (Schatzki 2010: 129; 2002: 22–23, 174–180). However, from the perspective of broadly Heideggerian and Wittgensteinian 'site approaches' or ontology that Schatzki (*e.g.* 2002: XI–XVI, 57–58, 98–101, 139–150) is referring to in this context, there is much more to such an arrangement than mere physical coexistence in time and space, since it is only in and through their arrangement that the meaning and the identity of what is arranged come into being:

> 'Social things organized in configurations, where they hang together, determine one another via their connections, as combined both exert effects on other configurations of things and are transformed through the action of other configurations, and therewith constitute the setting and medium of human action, interaction, and coexistence.' (Schatzki 2002: XIII).

It is as such that arrangements of humans, artefacts, organisms and things are conceived as social orders '[...] through and amid which social life transpires, in which these entities relate, occupy positions, and possess meanings.' (Schatzki 2002: 22; see also 18–25). We should not, therefore, be expecting fixed uses and meanings of things, including objects, artefacts *etc.*, in such relational configurations – we are looking instead into the social process as unfolding in the interplay of human doings and sayings and the material world. Also, opposite to, for example, M. Löw (see above) there is no dichotomy between things (objects, settings, spaces *etc.*) socially construed, and things material or natural, since any material element of an arrangement in the above sense as such is inherently social (Schatzki 2010: 133).

If materiality – alongside practice(s) – is thus conceived as (co-)constitutive of human coexistence and sociality, the nature of the interrelationship of practices and material arrangements awaits closer scrutiny, and Schatzki (2010: 139–141; see also 2002: 41–47, 148–150, 210–233) offers a discussion of this matter centred on the possible relations of causality, prefiguration, constitution and intelligibility. Causality, in a straightforward sense, occurs, whenever human actions – doings (and sayings) – and practices intervene with the material world, '[...] altering, creating, or rearranging material entities [...].' (Schatzki 2010: 139). Such intervention involves specific forms of practical knowledge referring to the skilful and expedient manipulation of matter or objects (Schatzki 2010: 136). It

[73] For an intuitive illustration of this point, see, for example, Schatzki (1996: 111–112): 'A person's understanding of trees is acquired not only through exposure to uses of the word "tree" and to speech acts about trees, but also by observing and carrying out such activities as climbing trees, gazing at them, and felling them.'

[74] See also Schatzki (2002: 123): 'Social life transpires through human activity and is caught up in orders of people, artifacts, organisms, and things. As such, it is not just immersed in a mesh of practices and orders, but also exists only as so entangled. The mesh of practices and orders is the *site* where social life takes place.' (see also Schatzki 2002: 138–150).

is a feature of many practices, and, more fundamentally, such doings or interventions are (co-)constitutive of human practice and sociality as such. If this already seems trivial, one has to recall alternative 'traditional' understandings of the social that get along largely without reference to a material world beyond human norms and interaction *etc.* More importantly, however, causality as it is here understood is a distinctly recursive relation, because non-human material entities 'act' back – in the structured context of practices – on humans, as well as on other material entities: '[...] both the properties of material entities and the events that occur to them lead people to perform actions and practices to take certain courses.' (Schatzki 2010: 139; on matters of human and object agencies see below). This point is of utter importance, since it brings into clear focus what was largely missing in the conceptions of Giddens or Löw above, namely that the *material* world is both fundamentally the outcome of action, and *vice versa* that it structures that action in the context of organised practices. Thus, for example, the specific longevity of material arrangements, '[...] the decades that a house stands, the centuries that a rock fence perdures [...]' (Schatzki 2010: 137), or the lack thereof and the relative transience of other arrangements, clearly makes a difference for subsequent opportunities for action and social practices.

Material arrangements, therefore, clearly prefigure future practices, where 'prefiguration', Schatzki's second relation between practices and material arrangements, is '[...] the social present shaping/influencing/affecting the social future [...].' (Schatzki 2010: 140). Prefiguration here is distinctly understood not to involve the background operation of some abstract virtual entities or 'structure', but it is conceived as '[...] a product of the actual concrete state of the social site.' (Schatzki 2002: 222–223). This cautions us against any oversimplified and deterministic reconstruction of the social process based on an insufficient understanding of the current state of the social and teleological assumptions about where we are going to. Instead, we – the observer or the actual participant in social life – are confronted with or enmeshed in a complex nexus of practices *and* material arrangements that together constitute the current condition of the social site. We are consequently facing a complex array or field of possibilities for future action and how to proceed from where we stand, depending on ongoing practices *and* existing material arrangements (see also Schatzki 2019a: 42–44). This cannot be reduced – for the scholarly observer or the participant – to simple ends, rational choices or obvious options; and Schatzki makes it quite clear that we have to allow for:

> '[...] the multitudinous ways that the mesh of practices and orders makes courses of action easier, harder, simpler, more complicated, shorter, longer, ill-advised, promising of ruin, promising of gain, disruptive, facilitating, obligatory or proscribed, acceptable or unacceptable, more or less relevant [...]' *etc.* (Schatzki 2002: 225).

This, obviously, refers back, on the one hand, to the field of understandings, rules and teleoaffective structures that organise and guide the doings and sayings in social practices, while on the other hand pointing on towards 'constitution' and 'intelligibility', the last two sorts of relation that exist among practices and material arrangements: Constitution may be understood as an extreme form of causation and prefiguration in the down-to-earth sense that certain courses of action may be physically impossible or unfeasible, and that certain practices depend on the presence or availability of specific material arrangements (Schatzki 2010: 140; 2002: 226).[75] Intelligibility, on the other hand, in this context recalls that the meaning and the identity of all things arranged depend on their being arranged as such, and the specific modalities of their arrangements. Consequently, the perception of material entities, their meaning, the way they are drawn upon and their potential to guide future action crucially depend not only on their physical properties, but on their situatedness in specific material arrangements and corresponding social practices (Schatzki 2010: 141).

If the 'site of the social' is a mesh of practices and orders or arrangements (Schatzki 2002: XII–XIII, 123), where human activity is not '[...] a self-contained and self-sufficient impulse that moves through the world [...]', but rather is a '[...] dealing with the orders of entities that are always already there for a person [...]' (Schatzki 2002: 106), and where these entities comprise other humans, organisms as well as artefacts and things of nature to which action is causally and constitutively bound (Schatzki 2002: 22–23, 107–108; 2010: 129, 139–141), at first sight this bears some family resemblance with certain so-called 'post-humanist' approaches which have it that the social field be analysed in terms of networks where neither human agency nor non-human, 'material' agency can claim priority.[76] This, however, is a misconception that Schatzki (2002: 105–122, 189–210; 2019a: 36–40) goes to some length to discourage, calling for resistance against the post-humanist 'blackmail' in certain quarters of the 'ontological turn' that '[...] one is either a head-in-the-sand humanist or an up-to-date posthumanist.' (Schatzki 2002: 193–194). Since the position taken here is broadly the same, namely that anything along the lines of ANT or the like is a poor guide to past social life and materiality, and impoverishes our understanding of a more complex ancient reality, Schatzki's critique of post-humanism deserves explicit mention here.

[75] Where constitution, too, like causality above, is understood recursively: 'The reverse also holds: most arrangements through which human practices proceed would not exist or would assume different shapes were it not for the particular practices that are responsible for them and/or carried on amid them.' (Schatzki 2010: 140).

[76] This in itself from the perspective of Schatzki, and others, of course, is a shortcoming since it makes up for an incomplete account of the social only: 'The networks of actor-network theory closely resemble what I call "arrangements". Both are composed of interrelated material entities. Arrangements, however, are only one of the two principle sorts of phenomena that make up social phenomena. The second is practices, which have no pendent in actor-network theory. [...] Actor-network theory thereby fails to capture a key feature of human social life, namely, the practices that are tied to arrangements and help constitute social phenomena.' (Schatzki 2010: 134–135).

His argument takes two slightly different lines of approach, where the first one refers to the obvious fact, one should think, that everything we analyse as social or cultural phenomena – past or present – in fact bears witness to the '[...] special constitutional, causal, and prefigurational significance of human activity in both human life in general and social existence in particular.' (Schatzki 2002: 116). This point is nicely made by reference to the example of post-humanist case studies from science and technology studies (Schatzki 2002: 108–116, 119–122), in which, clearly, objects and arrangements have an enabling and constraining effect and as such 'deserve' to be analysed in terms of networks – or Schatzki's own nexuses of practices and orders –, but where objects have no capacity to institute ends and meanings, and '[...] things contribute to what happens in and through them because humans have set matters up that way.' (Schatzki 2002: 117; see also 114, 121). We are analysing, that is to say, nexuses of practices and (material) arrangements, where the setup of the arrangement side of the argument in the first instance depends on specifically human intentionality, and the ends and the meanings of actions and objects were constituted in practice – *human* doings and sayings linked and oriented through *human* understandings, rules and teleoaffective structures:

> 'What artifacts, organisms, things, and people qua components of arrangements do is enabled and constrained by other components and features of the arrangements into which human activity inserts them [...]. Conversely, these entities enable and constrain the activities humans perform, including what humans do with them. Even amid, however, such apparent symmetry, activities hold the edge. For [...] the enabling and constraining effects of objects and arrangements on activities are relative to actors' ends, projects, hopes, fears, and so on.' (Schatzki 2002: 117; see also Lindstrøm 2015: 216–217, 221–222).

Schatzki's second line of argument is centred on a related point, namely the 'unique richness' of human agency opposite 'material' agency, and the general necessity to allow for the existence of different 'types' of agency, instead of collapsing them into one, in a vain attempt to accord intentionality to things (Schatzki 2002: XXII, 192–193, 199–201). With agency simply understood as 'doing' (Schatzki 2002: 191), and objects and orders thought to exert a causal and prefigurational influence on activities and practices (*e.g.* Schatzki 2002: 107–108; 2010: 130, 132–135), for Schatzki, clearly, objects (material entities, artefacts, things of nature *etc.*) do have agency. They do so, however, expressly in a different way than humans do, whose doings and sayings are organised into practices by understandings, rules and teleoaffective structures, that is by specifically human '[...] ends, projects, tasks, purposes, beliefs, emotions, and moods.' (Schatzki 1996: 89).[77] Thus, geomagnetic storms, the example referred to by Schatzki (2002: 198) in this context, do have agency in the sense that they do bring about the breakdown or closure of electronic communication, but this amounts to hardly more than physical causality (see also Lindstrøm 2015: 221–222; Ribeiro 2016a: 230–231). They cannot be said to have done so on purpose, intentionally and in consequence of deliberate planning:

> 'Actor-network theory's proliferation of agency does not subvert the unique richness of the intentional, deliberate, planning, and self-conscious agency humans enjoy. Attributing agency to animals, machines, storms, and social phenomena such as day trading firms only, at best, corrects a misguided humanism that proclaims people the sole agents.' (Schatzki 2002: 201).

[77] 'In short, it is one thing to say on linguistic or other grounds that scallops, bonobos, humans, geomagnetic storms, and computer networks are all agents, that is to say, doers. It is quite another to attribute intentionality to them.' (Schatzki 2002: 200).

II.6 Architecture and Assemblages (Delitz, DeLanda)

Finally, in a similar vein to Schatzki, but drawing on a different tradition of broadly Bergsonian thought, and to a somewhat different outcome, sociologist Heike Delitz in her 'sociology of architecture'[78] also adheres to an anti-essentialist understanding of the social, which is conceived as being in permanent flux while 'society' or social 'structure' are denied independent or prior existence, and advocates a 'flat' ontology of social life as composed of assemblages of human and non-human material entities and their interactions, that all occupy one level of reality (Delitz 2010: 21–22, 31–32, 87–88, 92–98, 112–120, 126–129; 2018: 43–46; see also DeLanda 2006: 28; 2016: 19–21). The beauty of this approach, for Delitz, clearly lies in the fact that – via its assemblage aspect (*agencement* in the French original of Deleuze and Guattari, or in German *Gefüge*, see Delitz 2010: 126–127) – it allows for an explicit consideration of corporeality and materiality, including for that matter architecture, in social life: 'Es bedarf [...] nicht weniger als einer revidierten Ontologie des Sozialen, insbesondere einer nicht cartesianischen Ontologie, die im Theoriekonzept neben Sinn und Kommunikation auch den menschlichen Körper und die Artefakte gleichermaßen grundlegend zu berücksichtigen vermag.' (Delitz 2010: 21).[79] In consequence, then, architecture – including all buildings, architectural 'artefacts' and built environments (Delitz 2018: 38) – is not understood anymore as a mere reflection or representation of an *a priori* social reality, of the norms and values of a given society or its social 'structure', as some archaeological approaches would also still have it, but instead as actively involved in the constitution of social reality – as a '[...] symbolic medium and a cultural technique through which a particular society *constitutes* itself.' (Delitz 2018: 38; see also 2010: 26–27, 86–87, 121–126). Unlike Löw's sociology of space discussed above with its focus on the production of abstract social space(s), the emphasis here is on the constitution and reproduction of social reality and society by means of symbolic media such as, amongst others, architecture (*e.g.* Delitz 2010: 27, 67–68, 122–123, 191–194; 2018: 38–39). This involves a welcome interest in the specific materiality of architecture, in the various ways it constrains, enables or encourages movements, guides perception, attracts corporeal attendance and affective responses *etc.* (*e.g.* Delitz 2018: 43–53).[80]

As it stands, however, Delitz' argument, inspired by G. Deleuze and F. Guattari's *A Thousand Plateaus* (2013) and C. Castoriadis' *The Imaginary Institution of Society* (1987), has two slightly offset strands to it, and it shares with general 'assemblage theory' standing in the same tradition (DeLanda 2006; 2016) a problematic ambiguity between the anti-essentialising thrust of her argument and the 'flat' ontology of the social and material world postulated on the one hand, and the attempt to build up something like 'macro' sociology and a notion of 'society' as a whole on the same theoretical basis on the other. Thus, it is argued here, Delitz' conception of the constitution of 'society' *qua* architecture as a particularly powerful medium of the social, specifically drawing on Castoriadis' *The Imaginary Institution of Society* (1987; see Delitz 2010: 86–87, 111–126; 2018: 43–46), tends to undermine the parallel notion that all that the social actually comprises are arrangements of humans and non-human entities used to argue against traditional dichotomies in sociology and essentialising notions of 'society' (Delitz 2010: 21–22, 84–89, 126–129). Since Delitz is clearly aware of those two sides of her argument,[81] but like DeLanda (2006), whose reading of Deleuze and Guattari's *A Thousand Plateaus* (2013) features the same ambiguity of key concepts, does not conceive them as a problem, this charge of, say, incompatibility requires some justification which is best offered by way of comparison with the 'handling' of related problems by the practice theory accounts already discussed above.

For Delitz, crucially, what binds Deleuze and Guattari (2013) and Castoriadis (1987) together, and is a characteristic of the Bergsonian tradition they are working in, is their anti-essentialist perspective, their understanding of the social as being in permanent flux and tied to materiality, and their denial of preexisting collectivities or social structure *etc.* (*e.g.* Delitz 2010: 21–22, 29–32, 84–101; 2018: 43–46). This is akin to the 'flat' ontology of social life referred to above that is advocated by the proponents of practice theory (see also Schäfer 2016b: 12–13). In Castoriadis' (1987) formulation of this insight, specifically, it is argued that the '[...] social historical is perpetual flux of self-alteration – and can only exist by providing itself with "stable" figures by which it makes itself visible [...].' (Castoriadis 1987: 204). That is to say,

[78] See her two major studies *Architektursoziologie* (Delitz 2009) and *Gebaute Gesellschaft* (Delitz 2010), as well as the English summary of her argument in Delitz (2018).

[79] This is also an important concern of 'assemblage theory' drawing on Deleuze and Guattari as outlined by DeLanda (2016; see also below).

[80] 'Eine solche Denktradition erlaubt, die Architektur nicht nur hinsichtlich der visuellen Gestalt zu beobachten und interessant zu finden, sondern auch als Artefakt, nämlich als jenen Sozius, der Bewegungen, Aktionen, Blicke evoziert, ermöglicht oder verunmöglicht, Handlungs- und Interaktionsweisen stabilisiert oder aber Neues provoziert.' (Delitz 2010: 32).

[81] See, for example, Delitz (2010: 21): 'Wozu man gelangen müsste, wäre vielmehr, die Trennung zweier Seiten (auf der einen das Soziale respektive die Gesellschaft, auf der anderen die Architektur) *ganz aufzuheben* und je spezifische Architektur-Gesellschafts-Konstellationen zu durchdenken. Die hier vorgeschlagenen Denkfiguren der *Konstitution* der Gesellschaft (in der architektonischen Gestalt) und der *Assoziation* (im Gefüge von Artefakten, Körpern und Aussagen) versuchen genau dies.' (see also Delitz 2010: 29; 2018: 43–44).

since the social as such is ephemeral it has to institute itself or find visible expression, where this expression, society, is a 'magma' of significations or the central social 'imaginary':

> 'We are to think of the world of social significations as the primary, inaugural, irreducible positing of the social-historical and of the social imaginary as it manifests itself in each case in a given society; a positing which is presentified and figured in and through the institution, as the institution of the world and of society itself. It is this institution of significations [...] which, for each society, posits what is and what is not, what has worth and what does not, and *how*, in what way is or is not, does or does not have worth that which can actually be or have worth.' (Castoriadis 1987: 368).[82]

Society thus understood, on the one hand clearly conforms to the above mentioned anti-essentialising perspective that Delitz posits, it is '[...] the unceasing and essentially *undetermined* (social-historical and psychical) creation of figures/forms/images, on the basis of which alone there can ever be a question *of* "something".' (Castoriadis 1987: 3). On the other hand, however, society from this perspective tends to be thought of as exposing some reified 'existence' beyond mere unceasing creation, not least in its symbolic constitution and objectification in the medium of material culture or architecture that Delitz is interested in. It is here that the above mentioned problems reside.[83]

In Castoriadis' words the imaginary institution of society relies on both people and non-human material entities to obtain permanence and stability:

> 'Reciprocally, social imaginary significations exist in and through "things" – objects and individuals – which presentify and figure them, directly or indirectly, immediately or mediately. They can exist only through their "incarnation", their "inscription", their presentation and figuration in and through a network of individuals and objects, which they "inform" – these are at once concrete entities and instances or copies of types, of *eide* – individuals and objects which exist in general and are as they are only through these significations.' (Castoriadis 1987: 355–356).

It is in exactly this sense that for Delitz (2018: 39):

> 'Architecture is not considered as *secondary* in the representation of any given society or of any given social practice, but rather as an *integral part* of such. It is considered a "medium" of the social [...], through which each imaginary instituted society constitutes and transforms itself, using the visual, tactile, acoustic, and bodily presence of architectural artefacts and their (re-) construction of space.'[84]

Even though 'imaginary' only, and – following Castoriadis – thought to be located on its own 'plateau' rather than being considered an instance of 'structure',[85] 'society' here has some kind of existence, some materially supported essence, that it does not have in the above discussed accounts informed by practice theory. It is more than just metaphorical when architecture is thought to bring '[...] the collective, or a particular society, into view and thus into *existence* [...].' (Delitz 2018: 43; italics in the original). In this sense, it is more than just unfortunate wording, when the avowedly 'non-essentialist theory of society' proclaimed (*e.g.* Delitz 2010: 87, 112; 2018: 44) goes along with an account that reifies societies into distinct 'ideal types', such as in Delitz' case studies on urban, nomadic and settled, non-urban societies, or in her schematic confrontation of 'premodern' and 'modern' societies (*e.g.* Delitz 2018: 46–52; see also 2010: 129–130, 142–143, 159–161), and has them 'act' throughout like entities with a given ontological unity and endowed with a distinct agency of their own. We thus read, for example, the following:

> 'Each society *arranges* its individuals into classes, generations, and genders. [...] Every society also selectively *arranges* its own conception of time, creating particular relationships to the past and to the future. [...] Through historic preservation and reconstruction, societies *construct* selective pasts and collective memory. [...] A society's relationship to the earth is thus established through an *interaction* with architecture which *expresses* ideas of territoriality, positions individuals and creates social space. In

[82] See also Castoriadis (1987: 356): 'The institution of society is what it is and as it is to the extent that it "materializes" a magma of social imaginary significations, in reference to which individuals and objects alone can be grasped and even simply exist.'

[83] In the reading advocated here, passages like the following from Delitz (2010) are inherently contradictory: 'Man hat es, so Castoriadis, auf der grundlegenden ontologischen Ebene des *Sozialen* nämlich nicht mit Strukturen, Klassen oder Kollektiven zu tun. Vielmehr muss man auf dieser Ebene die stetige Fluktuität der Einzelnen ernst nehmen, eine ständige Bewegung. Die *Gesellschaft* ist demgegenüber eine imaginäre Größe: die imaginierte, stets vorläufige Herstellung einer übergreifenden Identität.' (Delitz 2010: 87) – where the 'unceasing creation' and transient character of society is emphasised, while in the following it obtains an added value of permanence and givenness: 'Die These, die Architektur verschaffe der Gesellschaft eine Gestalt, die ihr nicht äußerlich ist, in der sich diese vielmehr erst als je spezifische Gesellschaft erkennt, folgt vornehmlich der *Theorie der imaginären Institution der Gesellschaft* von Cornelius Castoriadis.' (Delitz 2010: 86–87) – and: '[...] es geschieht die Institution der Gesellschaft, mit allen realen Folgen für die Einzelnen. [...] Aber nur die Architektur schafft eine sicht- und greifbare, begehbare, allgegenwärtige, dauerhafte, sowohl räumliche als auch bildliche Gestalt. In ihr vermag sich die Gesellschaft erst als diese bestimmte Gesellschaft zu sehen: in ihr teilt sie die Individuen ein, klassifiziert sie, weist ihnen Wohnorte zu und hierarchisiert sie [...].' (Delitz 2010: 122–123).

[84] See also Delitz (2010: 121–126; and 2018: 44): 'Symbolically, societies have to give themselves identity through time, and despite social differences and contradictions. Because the social is permanently in flux (implicitly following an ontology of difference), and because the social is permanently antagonistic, societies have to *imagine* both fixed foundation and identity. Every society must construct itself as though time did not exist: it must give itself a stable symbolic and material shape.'

[85] 'Für Cornelius Castoriadis *ist* die Gesellschaft nun in all dem eine eigene Seins-Sphäre. Sozial-ontologisch gedacht, geht mit dem Gesellschaftlichen die Institution eines eigenen Plateaus einher, nämlich die Ebene der *Bedeutung*, welche sich weder auf die Individuen reduziert, noch als Struktur oder System anzusprechen wäre.' (Delitz 2010: 116–117).

> fixed societies, space is "striated" through immobile architectures; whereas nomadic societies *construct* "smooth space" for themselves, traversing the land lightly with their architecture almost "in hand" [...].' (Delitz 2018: 45; italics added, TLK).

The same is the case in DeLanda (2006: 37), when, for example, cities 'interact causally' and 'compete' for immigrants from their surroundings, and in his work it is explicitly stated that we witness a move to build up something equivalent to society 'as a whole' from the emergent properties of assemblages: 'Thus social assemblages larger than individual persons have an *objective existence* because they can causally affect the people that are their component parts, limiting them and enabling them, and because they can causally affect other assemblages at their own scale.' (DeLanda 2006: 38; italics added, TLK; see also the entire relevant passage in DeLanda 2006: 32–40). There is an added value, then, to emergent wholes in this tradition of thought, which are claimed not to be reified in a traditional sense, since they still depend on their components for their existence,[86] but at the same time are thought to exert a causal top-down influence on their component parts,[87] and thereby attain 'objective existence' without reference to 'reified generalities': 'This ontological manoeuvre allows us to assert that all these individual entities have an objective existence independently of our minds (or of our conceptions of them) without any commitment to essences or reified generalities. On the other hand, for the manoeuvre to work, the part-to-whole relation that replaces essences must be carefully elucidated.' (DeLanda 2006: 40). The idea is, or so it transpires, that as long as 'society' is studied as a *specific* emergent whole, where its components are self-subsistent and retain their 'relations of exteriority' thought to define such assemblages (DeLanda 2006: 18–19, 34, 40),[88] we will not fall for essentialist fallacies and will abstain from 'reified generalities' lacking a referent.[89]

This is an attempt to construe a notion of 'society' as a 'nested set of assemblages', where assemblages 'emerge from the interactions between their parts' (DeLanda 2016: 20–21), without a mediating notion of practice, that consequently stands in contrast to the conception that social orders are arrangements 'largely established in practices' posited by practice theory (*e.g.* Schatzki 2002: 18–25, 38).[90] Apart from the problematic essentialising tendencies noted, that directly relate to the lack of a notion of practice and the corresponding shift of 'causal' powers up right to the level of 'society' conceived as an entity with 'objective existence' (*e.g.* DeLanda 2006: 34–38; Delitz 2010: 122–123), the related question, what directs and contextualises the establishment of social orders and the specific forms that assemblages take, is another point of disagreement between both approaches. For DeLanda (2006: 30–31 with annotation 6), following Deleuze, this involves 'diagrams' and the operation of 'abstract machines', where a diagram is '[...] a set of universal singularities that would be the equivalent of body-plan, or more precisely, that would structure the space of possibilities associated with the assemblage.' (DeLanda 2006: 30). In other words, following Schatzki's (2002: 89–96, 203–205, 217–223) reading and his critique of Deleuze and Guattari (2013), what prefigures agency and is supposed to configure social assemblages in this conception is akin to abstract structure '[...] without being contained in some causal or governing factor or mechanism at work in social life.' (Schatzki 2002: 95). Their approach, therefore, and by extension DeLanda's as well,[91] he argues '[...] stands for a pervasive twentieth-century school of thought that explains the progress of social affairs by reference to abstract structures. [...] [*TLK*: *where*] assemblages are contextualized in abstract structures that considerably differ from the contexture in which arrangements, I claim, are immersed (i.e. practices).' (Schatzki 2002: 89–90). They fail, in other words, to account for the specific constitution of the social field observed, show why the 'space of possibilities associated with the assemblage' (DeLanda 2006: 30) is governed by exactly this diagram or 'abstract machine' and not by another, and how this 'governing' of social affairs goes about *etc.* (Schatzki 2002: 220–221).[92]

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[86] '[...] an assemblage's properties may be irreducible to its parts but that does not make them transcendent, since they would cease to exist if the parts stopped interacting with one another.' (DeLanda 2016: 21).

[87] With an example of the logic involved here, see DeLanda (2006: 36–37): 'But it is possible to accept that assemblages of people must interact by means of the activity of people and at the same time argue that these larger entities do have their own causal capacities. The device that allows such a compromise is the concept of *redundant causality*.' – where 'redundant causality' implies that explanation and causality on a macro level become admissible where on the micro level there are equivalent explanations and multiple micro causes that would have let to the same outcome (DeLanda 2006: 37). This, of course, is sophistry and implies, broadly, that when confronted with several human actors or groups thereof, who – for reasons that should be of interest and contextualised by reference to time-scale and spatial extension of this phenomenon – share certain ends, we do not have to bother about the bottom-up perspective.

[88] 'These relations imply, first of all, that a component part of an assemblage may be detached from it and plugged into a different assemblage in which interactions are different. In other words, the exteriority of relations implies a certain autonomy for the terms they relate, or as Deleuze puts it, it implies that "a relation may change without the terms changing".' (DeLanda 2006: 10–11).

[89] Interestingly, this reads somewhat differently and sounds more cautious in DeLanda (2016: 14, 18–19, 26, 37–41), where some of the reservations about 'society as an assemblage of assemblages' brought forward in what follows seem to be anticipated and a somewhat greater distance from Deleuze on these matters is discernible (compare specifically DeLanda 2016: 39 and Schatzki 2002: 93 on Deleuze and Foucault), for example: 'This admittedly simplified description of *society as an assemblage of assemblages* should serve as a reminder of how misleading it is to view human history as comprising a single temporal flow. Indeed, given that even at the largest scales (territorial states, world-economies) we never reach a point at which we may coherently speak of "society as a whole", the very term "society" should be regarded as a convenient expression lacking a referent.' (DeLanda 2016: 37–38).

[90] See also Schatzki (2002: 101): 'In sum, social orders are largely established in practices. The relations among, meanings of, and, hence, positions of, the components of social orders are beholden, above all, to the doings and sayings that compose practices, in conjunction with practice organizations.'

[91] See, for example, the following passage: '[...] the ontological status of assemblages is two-sided: as actual entities all the differently scaled social assemblages are individual singularities, but the possibilities open to them at any given time are constrained by a distribution of universal singularities, the diagram of the assemblage, which is not actual but virtual.' (DeLanda 2006: 40).

[92] This, unfortunately, is carried over into archaeological studies adhering to this kind of theorising, and results in largely meaningless statements reinstating the obvious, such as the following characterisation of Mesolithic and subsequent Neolithic societies in Britain: 'Thus, what

Since their attempt at 'macro' sociology discussed above is problematic, what remains from Delitz (2010; 2018) and 'assemblage theory' (DeLanda 2016), both ultimately invoking Deleuze and Guattari (2013), is the general interest in materiality, including space and architecture *etc.*, and social life, conceptualised – on the 'micro' scale – via the notion of assemblages that comprise human and non-human material entities. Thus, for Delitz a 'sociology of architecture' will conceive of buildings, architectural 'artefacts' and built environments (Delitz 2018: 38) as actively involved in the constitution of social reality. It is suggested that this process of the constitution and the reproduction of the social be studied in terms of emergent assemblages, that each have their specific expressive qualities, territoriality and modes of movement *etc.*, and that action be understood as distributed and referring to the human and material components of an assemblage (*e.g.* Delitz 2010: 126–129).[93] Much the same point is made by DeLanda (2016: 20), who argues that:

> 'To properly apply the concept of assemblage to real cases we need to include, in addition to persons, the material and symbolic artifacts that compose communities and organisations: the architecture of the buildings that house them; the myriad different tools and machines used in offices, factories, and kitchens; the various sources of food, water, and electricity; the many symbols and icons with which they express their identity.'

Both authors in this context make reference to (human) activity and 'practices' taking place in the locales constituted by such assemblages (*e.g.* Delitz 2010: 127; DeLanda 2016: 20, 32), but the focus in this tradition of thought is clearly on the network or assemblage side of things and on their components, not on organised practices inextricably linked to orders and material arrangements (see Schatzki and practice theory above). Despite this shortcoming, welcome emphasis is put on the specific properties of assemblages featuring broadly material – architectural, spatial *etc.* – components, compared to other media of the social such as language, text or images:

> 'The force of architecture's impact on the social, though, perhaps cannot be underestimated, operating as it does in a non-discursive way: physically, corporally, and visually. It is therefore necessary to analyse both architectural visibilities, *and* architectural artefacts. Architecture is an artificial body that surrounds all human and non-human beings. It brings social beings into contact with one another through specific posture, movement, sensation, and affect.' (Delitz 2018: 44; see also DeLanda 2016: 32–37).

Among the aspects thus brought into focus, is the specific longevity and permanence of some people-with-material entities assemblages, and not others – like Delitz' 'societies of cities' versus her 'tent societies' –, the contrasting perceptions and activities suggested or discouraged by such differently 'composed' assemblages, their specific reference to a given physical setting or landscape, and the various modes in which assemblages thereby attain permanence beyond their individual components (*e.g.* Delitz 2010: 129–136, 142–143; 2018: 44–51; DeLanda 2016: 20–21, 32–33). Specifically, attention is drawn to the fact that such architectural arrangements typically are not experienced on a discursive level, at least not in the first instance, but perception takes place via the body, movement, sense of touch and vision, and is guided, for example, by combinations of different materials, form, surface qualities, sound, the incidence of light and temperatures *etc.* (Delitz 2010: 132–134). For this reason, in a short passage on methodology, Delitz (2010: 211–213) champions phenomenology, but her own approach clearly is sociological in that the occurrence of territorialisations, distinctions or separations (inside/outside) and framings *etc.* accomplished by means of architectures (*e.g.* Delitz 2010: 132–134) are conceived as collective phenomena thought to be involved in the constitution of the social and potentially part of social strategies. How exactly in this context the 'intimacy' of some architectural arrangements comes about, while others are impressive or repelling *etc.*, is explored via the notion of affect, which unlike emotion is thought relational[94] and recursive in that affective architectures will act back on human subjects (Delitz 2010: 146–147). Here, finally, caution is required when it is claimed – on a related matter first – that certain materials have an intrinsic propensity towards specific forms and meanings (Delitz 2010: 138–139; see also DeLanda 2016: 142–143),[95] and, second, – in analogy or extension – that certain architectures, such as the Parthenon (according to Le Corbusier), 'affect' us irrespective of cultural context and shared understandings (Delitz 2010: 147–148).[96] This borders on fetishism, of course, positing 'magical signs' (Kienlin/Widura 2014: 37–38), and bars the way to a contextualised understanding of material culture

British Neolithic communities share is their emergence through a multi-scalar process shaped by this diagram. These create a whole host of ways in which the British Neolithic can be actualized [...].' (Harris 2017b: 135). – For this reason comes Schatzki's (2002: 222–223) request quoted above that prefiguration should be conceived as the consequence of the 'actual concrete state of the social site', and not by reference to some black-box like abstract structure; see also Lucas (2017: 189): '[...] what is it that makes the virtual actual?'.

[93] 'Es geht darum, eigengesetzliche, emergente Handlungsgefüge zu beobachten, die Aktivität der Gefüge zwischen menschlichen und nicht menschlichen, artifiziellen und organischen Elementen, Vorstellungen und Affekten, Subjektbildern und kategorischen Imperativen. Das differenztheoretische Denken geht [...] sozialontologisch von einer Immanenz aus: alle Elemente (Handeln, Intentionen, Affekte, Artefakte) liegen auf einer Ebene des sozialen Seins.' (Delitz 2010: 127).

[94] 'Und in der Tat hat Spinozas Definition den Vorteil, dass sie eher Relationen als Substanzen denkt. Der Affekt bezeichnet bei Spinoza die verschiedenen Arten, auf die ein Körper (und zwar jeder Körper, der tierische, vegetative, artifizielle ebenso wie der menschliche, wobei es Spinoza allerdings letztlich auf diesen ankommt) erregt werden kann; und die Arten, auf die er andere erregt, wobei die anderen Körper die "Wirkungsmacht" des eigenen Körpers vermehren oder vermindern.' (Delitz 2010: 145).

[95] 'Statt jede beliebige Form (und jeden Sinn) anzunehmen, haben bestimmte Materialien bestimmte Formenspielräume, ihnen wohnt eine Form-*Tendenz* inne.' (Delitz 2010: 139).

[96] See, for example, Delitz (2010: 147): 'An diese Architektur knüpfen sich "keine Symbole". Man braucht zu ihrem Verständnis also keinen Code [...]. Vielmehr "zermalmt und beherrscht", "dominiert" und "erregt" sie alles, schlicht durch ihre Form [...].'

or architecture of foreign cultures past or present. For neither is the 'body', in which all perception is grounded, universal, nor does – as argued by Schatzki (1996: 111–112; 2002: 98–101) – 'world intelligibility' come about in a void or meaning emerge detached from situated practices.

II.7 Implications and Outlook

Summing up the argument presented, what remains for subsequent theorising from our discussion that set out with A. Giddens, is the essential recursiveness of social life, its permanent reproduction in social practice by actors more or less competent or knowledgeable, and – as such – its fundamental situatedness in time and space. We must not, therefore, try to identify timeless structures or types of society governed by abstract norms, but rather trace social reproduction and specific practices through time and space as human agents reflexively draw upon rules and resources ('structure') accessible to them as they perpetuate the social world they live in. This process of social reproduction is grounded in time and space, as Giddens realised, but this grounding in space, in particular, has much more to it than the abstract framing of situations of face-to-face interaction that he allowed for.

In a similar vein, P. Bourdieu understood his concept of *habitus* to mediate between structure and agency by guiding action, providing enduring dispositions and ensuring the consistency and orchestration of the social field. *Habitus* is acquired by socialisation, and as the largely non-discursive assimilation into social life it draws attention to the role of embodiment and tacit knowledge in this process. In this way, it also implies an interest in materiality, including architecture and space, and social life, whereby, in principle, none of the two sides can be said to determine the other, even though Bourdieu's own prime emphasis is typically on the inscription of social inequality or distinctions into the material world and physical space. Possibly due to his ethnographic background, that is the 'traditional' Kabyle society where his theory of practice was first outlined, and the emphasis on the *incorporation* of history or 'objective structures' in *habitus*, Bourdieu's account potentially tends to favour the immutability of dispositions, routines and practices, and accentuates reproduction over change, with social actors constrained rather than enabled by their *habitus*.

From M. Löw, extending and modifying Giddens' insights in particular, comes the notion that 'space' is more than just the given three-dimensional setting or 'container' of social life; that there may be different such social spaces unfolding simultaneously or one after the other in the same setting; that space and architecture may be conceived as 'structure' – both 'enabling and constraining' –, and that such social space is 'recursively implicated in the reproduction of social systems' (Giddens 1979: 64), that is the constitution of space is the outcome of action while at the same time it structures that action. Löw's approach, thus, falls on the social constructivist side of the 'spatial turn'; and while the potential coexistence of several such ephemeral social spaces in any given place is an important insight (see Maran 2012b: 1–2), her argument tends to lose sight of the underlying materiality of social space and beyond that social life in general. The solution, as usual, is not a decision for either material 'container' space or the abstract 'discursive' space of hardcore constructivist approaches. We instead need both aspects seen together – which has been rightly called a conceptual 'doubling of space' (Wagner 2010: 102) to consider both its discursive aspects and its lasting material qualities (see also Schroer 2006; 2009).

A corresponding reformulation of practice theory, that covers both aspects mentioned and takes into account the essential materiality of all social life, was encountered in the work of T. Schatzki, who for this reason is a key informant of the approach taken in this study. The social, from this perspective, is a non-deterministic, dynamic field where practices – doings and sayings organised by understandings, rules and norms – are inextricably linked to orders and material arrangements; where practices intervene with the material world, and non-human material entities 'act' back – in the structured context of practices – on humans, other material entities, and their actions; where, in sum, materiality is accorded causal and prefigurational significance for human coexistence and sociality. An approach, that is to say, that refrains from the search of social totalities, that are more than their constituent parts, and instead takes an interest in the social process as it unfolds in the interplay of human action and the material world; an approach, too, where meaning and intelligibility are tied to bodily doings as well as sayings, and meaning and intelligibility are understood as situated in and depending on practice; an approach, consequently, that does not rely on identifying fixed understandings and meanings of things, including objects, artefacts *etc.*, where there are none, such as in the study of settlements or graves as the 'expression' of this social structure or that, when instead there are relational configurations in which social life and social relations are negotiated and reproduced in practice – in doings and sayings organised by understandings and norms, and recursively implicated in a material world.

A broadly comparable interest in materiality, including for that matter the built environment, and social life is evident in H. Delitz' 'sociology of architecture', although this is conceptualised differently – drawing on Deleuze and Guattari – in terms of assemblages that comprise human and non-human material entities. What is distinctly lacking here, compared to the work of Schatzki and other practice theorists, is a notion of organised practice

linking action and material arrangements. For the same reason the parallel attempt of 'assemblage theory' (M. DeLanda)[97] to construe a notion of 'society' as a 'nested set of assemblages', without a mediating notion of practice is rejected here.

Finally, the approach advocated in what follows, after Schatzki and others, explicitly disavows ANT and the likes' blurring of human and material 'agencies', as well as their deficient accounts of the social as mere networks.[98] Instead, it relies on an understanding of social phenomena as practices tied to arrangements, and the integrity of human agency, that is the constitutional and prefigurational importance of human activity for social life, and human doings depending on specifically *human* intentionality, understandings and ends.[99]

Remarkably, a comparable approach in archaeology has already been outlined in John Barrett's congenial *Fragments from Antiquity* (1994),[100] drawing his inspiration mainly from Giddens' 'theory of structuration' and to a lesser extent from Bourdieu. Underlying Barrett's approach was the endeavour to steer clear from both I. Hodder's (and others) attempt at that time to read back *meaning* into the minds and material culture of prehistoric people (*e.g.* Barrett 1987: 471) – a radical example being his *Domestication of Europe* (Hodder 1990) –, as well as from the 'personal empathy' with places (*cf.* Barrett 1994: 35) as perceived and experienced through a universal human body in phenomenological approaches,[101] a prominent example then being Ch. Tilley's *Phenomenology of Landscape* (1994). It is unfortunate, from the perspective advocated here, that the particular brand of post-processual archaeology proposed by Barrett did not receive similar attention (but, see, for example, explicitly so in Ribeiro 2016a: 232–233) like Hodder's fascinating but problematic mixture of structuralist and hermeneutic approaches,[102] or attract numerous followers and (only at a later stage: critical) reception as did the phenomenologically inspired landscape archaeology heralded by Tilley.[103] A notable exception is a loose school of thought in Aegean Bronze Age archaeology referred to below, more or less directly influenced by Barrett and drawing on the same sources. For even though Barrett's interpretation of specific aspects of the Neolithic to Bronze Age monuments and landscapes of southern Britain, namely the Avebury, Stonehenge and Mount Pleasant areas, that *Fragments from Antiquity* deals with, may be controversial – or subject to modification due to the emergence of new data –, the overall approach outlined and the objectives of archaeology formulated, clearly do stand and require due consideration in what follows.

Such differences in relative impact are always down to numerous factors, and one of them surely is the rapidly widening debate and increasing interdisciplinarity among those sharing the current interest in materiality. The downside of this development is the wealth of publications, schools of thought or sub-paradigms (the 'material', 'corporeal', 'ontological' turns *etc.*), where authors often have to opt for a specific approach at the neglect of others, the present study just being yet another example with its specific choice of authors discussed that could easily be conceived otherwise and potentially better as well. Similarly, for example, H. Delitz (2010; 2018) in her discussion of architecture as a medium of the social referred to above, gets along without explicit reference to M. DeLanda's (2006; 2016) assemblage theory that shares the same theoretical foundation; while on the other hand the community of English native speakers by and large tends not to read publications and take notice of debates in other languages, such as the interest in the social construction of space unfolding in parts of German sociology and geography *etc.* (*e.g.* Löw 2001; 2016; Werlen 2010a; 2010b). Furthermore, albeit this situation is steadily improving, archaeology is still not central to this debate, even though compared, for example, to sociology it has a rather longer history of explicitly theorising aspects of materiality, starting at least with the Anglo-American processual archaeology, via various post-processual approaches to the current interest in certain quarters in wider post-humanism. This is why, one suspects, for example, that the introduction to a recent volume on materiality (Kalthoff/Cress/Röhl 2016: 25–26) features an account of the archaeological debate reduced to little more than one page and with reference to less than a handful of handbooks or general readers, which by their title clearly indicate they might be central, such as Ch. Tilley *et al.'s* (2006) handbook or D. Miller's edited

[97] See also Hamilakis/Jones (2017) on the different variants of assemblage theory available, Deleuzian, DeLandanian *etc.*, their differences and their archaeological applications.

[98] See, for example, Lindstrøm's (2015) thorough critique of the various kinds of 'New Materialisms' – in archaeology and beyond – and their stance on 'symmetry' and object *etc.* 'agencies'; see also Ribeiro (2016a; 2016b; 2019a; 2019b) and Barrett (2016b), as well as Hodder/Lucas (2017: 119–123) for an outline of the various strands of post-humanism on the market (*e.g.* Witmore 2007; 2014).

[99] See Lindstrøm (2015: 221): '[...] we should confront the materialism of some sections of post-humanism by being bold enough to differentiate between *effects* and *acts*, *effectants* and *actants*. If a rock (an inanimate material thing) falls down and crushes a house, it is not the rock's "agency" that "did" it.' – See also Ribeiro (2016a: 230–231) on the problem of collapsing 'causation' and 'agency'. – Both authors also rightly stress the problematic ethical implications of post-humanism's decentring and its dispersal of agency throughout networks or the like: 'The fact that agents are free to choose otherwise implies *knowing* what action is being performed and what consequences can be expected. Accordingly, freedom to choose or act means that actions are more than just mechanical causes – actions are *responsibilities*.' (Ribeiro 2016a: 231; see also 2019a: 41–42); admittedly polemic, but surely right, see also Lindstrøm (2015: 222): 'It is absurd to say that the gas was *responsible* or *co-responsible* for killing people in Nazi concentration camps. Only people were.' – In a similar vein, see Meier (2016: 261–262) on ANT and Pollock *et al.* (2014: 156–157) on the potential dehumanising effect of Hodder's (2012) material 'entanglement'.

[100] See also, for example, Barrett (1987; 1989; 2006; 2012b; 2014; 2016a).

[101] '[...] although as a philosophy phenomenology starts by problematizing human subjectivity, in practice landscape archaeologists tend to assume just such an unproblematic subjectivity. [...] practitioners often tend toward a position of psychic human unity and away from an anthropological understanding of human experiences as being culturally different.' (Johnson 2012: 277).

[102] See, in particular, the comments by Gibbon (1993); see also Schweizer (2003: 323–327) and Kienlin (2005b: 12).

[103] For critical discussion see, for example, Brück (2005), Barrett/Ko (2009) or Johnson (2012).

Materiality (2005). Often, too, there may also be a chance element involved, such as when Schatzki (2017a: 68–97) in his study on Heidegger and space has a special section on Heidegger's 'legacies', where the phenomenological approaches of Ch. Tilley and J. Thomas are referred to, but in his practice theoretical accounts of social life and materiality here discussed, there is no such attempt at a broader contextualisation that may have let him come across the related practice approach of J. Barrett.

Beyond what has just been said, however, there are a couple of points that betray the origin or context of Barrett's argument in a specific post-processual discourse of the 1990s, and that potentially diminish its importance from the perspective of approaches currently *en vogue* in archaeology itself. Among them, there is surely the emphasis on bodily movement and visual perception – questions of access and approach, inclusion or exclusion, and visibility *etc.* – in his dealing with the megalithic landscapes of southern Britain (*e.g.* Barrett 1994: 9–37), that has a vague family resemblance with phenomenological approaches of his day, but does not live up to (modern) 'standards' of this school of thought. However, crucially, for Barrett this interest in people moving around sections of Megalithic landscapes or monuments, or being denied access to others *etc.*, was all conceived as part of and mediated by social practices. That is to say, his general interest is different from phenomenological approaches and not focused on the timeless individual's perception of the landscape, bodily experience or the affective capacity of monuments *etc.* Thus, it is mainly due to the neglect of differences in approach and interest taken, and with the benefit of hindsight, that we may find in Barrett's account something like a lack of a more comprehensive appreciation of the specific materiality and temporality of the settings that he was discussing. Nonetheless, this would be the general thrust of the first line of possible criticism, and proponents of more 'advanced' phenomenological perspectives, like O. Harris and T. F. Sørensen, would want us to develop a fuller understanding than Barrett's of human engagement with and emotional attachment to such monuments in terms of emotional agencies, affective fields, attunement and atmospheres.[104]

On the other hand, presumably more important and controversial right now, there is the question of agency: for Barrett's approach clearly adheres to central tenets of Giddens' version of practice theory that it was derived from, and *Fragments from Antiquity* throughout assumes a specifically human agency.[105] Ironically, it thereby shares the open flank towards current post-humanism with the phenomenological approach just mentioned, that still allows for *human* emotions and embodied *human* agents being attuned to the world. While the initial critique of phenomenology in archaeology rightly had it, that the body, senses and perception are all context specific and historically situated – thus posing a problem for archaeologists who claim access to past perception *etc.* (*cf.* Barrett 1994: 35–37, 53–54, 75–77; Brück 2005: 46–50, 54–56; Johnson 2012: 277–278) –, in certain quarters this is taken further to the unqualified dismantling of purportedly modern Western conceptions of personhood and the outright rejection of any subject-object divide or 'Cartesian' dualisms (*cf.* Lindstrøm 2015; Ribeiro 2016a; 2019a; 2019b). It is interesting, in this context, to see authors like O. Harris just mentioned, succumb to the post-humanist 'blackmail' (Schatzki 2002: 193–194) and turn to affect and assemblage to retain at least some of their original interest in (human) experience and emotion (*e.g.* Harris 2017a: 180–185; 2017b: 129; see also Harris/Cipolla 2017).[106] This move, it is argued here, is unnecessary. It is deplorable that the current interest in materiality should have been sparked by or at least developed alongside various brands of post-humanism or the so-called ontological turn. There is little gain, that is to say, for example, in seeing philologists attracted by animism and pondering what Beowulf's sword wants the hero to do next *etc.*[107] Quite decidedly, therefore, if Barrett sticks to human agency, this is not a shortcoming at all, nor some kind of 'deficiency' down to his writings starting back in the 1990s and 'old-fashioned' social theory. On the contrary, this is a concern that archaeological theory should always have fostered.

What Barrett proposes, then, is an archaeology that does not operate on a generalising level anymore, seeking to identify this or that social structure or 'type' of social organisation, and in doing so is treating the material remains of past social life as externalised traces or record of some preexisting, higher level of social reality (*e.g.* Barrett 1994: 1–6, 35–37). Historical, or for that matter archaeological knowledge, it is argued, does not involve the uncovering, by acts of methodological sophistication, of some 'transcendental truth' or fixed meanings laid out in material culture, subsequently distorted by formation processes and loss, but in principle still available to reconstruct an ancient, static reality (Barrett 1994: 32–33, 71–72; 2006: 201–207). Instead, we are always looking at a dynamic record of past human actions, organised into and oriented by practices,[108] and invariably bound to

[104] See, for example, Harris (2010), Harris/Sørensen (2010: 146–152) and Sørensen (2015).

[105] Reconceptualised, but in principle unchanged, see, for example, Barrett (2006; 2012b; 2014; 2016a). – Broadly the same concern is currently expressed by Ribeiro (2016a: 233): '[...] agency has to be perceived as those knowledgeable choices which actors are actually free to make. These choices can only exist within a *social context* in which an actor understands what choices can be made. It is only in this framework that the notions of both "agency" and "context" make sense.'

[106] For the same reason Delitz (2010: 144–147) decries emotion and turns to affect; see also, in this context, Koch/Kienlin (2017: 34–45).

[107] See, for example, Roscoe (2015) on the M. Strathern (1988) and A. Gell (1998) strand of the ontological turn, that also features prominently in archaeological debates on 'personhood' *etc.* (*e.g.* Fowler 2004). This, Roscoe argues, is a misrepresentation of a more down-to-earth ethnographic reality than the fashionable interest in 'fractal' personhood, 'dividuals' and the resultant blurring of subject-object 'divides' implies (Roscoe 2015: 64–75). See also the verdict by Gillison (2013: 118): '[...] Strathern's "dividual" is a travesty of life in New Guinea, now or in the past, and represents exactly the kind of projection of Western stereotype and "orientalist" fantasy it is supposed to replace. The "dividual's" outlandish success gives rise to the need [...] to question the state of anthropology [...].' – In a similar vein, see Lindstrøm (2015: 216–219).

[108] See, for example, Barrett (1994: 3): 'This requires that we recognize,

practical understandings and manipulations of a material world that was permanently constituted *and* drawn upon in the unfolding of social life and practices:

> 'The argument [...] moves us away from dealing with the material evidence as if it were some externalized and objective record of a past process, and leads to the recognition that the material was implicated in the creation of past human subjectivities. The object of archaeological analysis should be to understand how those subjectivities could have been constituted out of a human agency which worked upon the material conditions it inhabited. People know the world they inhabit, and they rework that knowledge through their active engagement with that world [...] This situates our analysis of the past in a frame of reference which is more local and particular than is normally employed, simply because we are now concerned with the day-to-day maintenance of traditional practice by people rather than with the long-term existence of some abstract "social system".' (Barrett 1994: 35–36; see also 2006: 203–205; 2016a: 134, 137).

This is, of course, the central message of all approaches inspired by practice theory as outlined above, with the important caveat that the interest in 'past human subjectivities' should not be mistaken as some kind of particularistic individualism (*cf.* Schatzki 1996: 6–9, 13; Schäfer 2016b: 12–13), but as the expression of the underlying anthropology that – now and in the past – allows for knowledgeable actors, or humans '[...] who had memories and expectations about themselves, others and the world which they inhabited [...].' (Barrett 1994: 66, see also 4–6). As such, however, their lives, their understandings and agencies, were historically, that is socially, situated. They were contextualised in practices and implicated in a preexisting material world structured – in part – by those same practices. What archaeologists should aspire to, from this perspective, is an understanding, referring to *specific* settings and materialities, '[...] of what the possibilities were of being human within those material and historical conditions.' (Barrett 1994: 5).[109] This is the call for a fine-grained reconstruction of the particular engagements with historically specific material conditions in social practices;[110] the study of how knowledges and understandings were produced and reworked in discourse and the material world; and how material culture as a structuring medium enabled and constrained the doings and sayings of those involved:

> '[...] archaeologists should seek to understand how people may once have lived out their lives, and not limit themselves to the more restricted quest of interpreting the archaeological record. These are not one and the same thing. Those lives were lived as routines which were built as people engaged with the empirical realities which they recognized as being available to them. Such engagements could only have arisen from positions of informed pre-understanding. This is an archaeology of memory and of practice [...]. Traditions are thus enabling and they are carried forward in the action and discourse of human agency.' (Barrett 1994: 95, see also 36; 2006: 204–205).

People in the past were confronted, then, with 'empirical realities', and it is this common materiality, which is not entirely malleable, that we draw upon in our 'readings' of the past as well (Barrett 1994: 6, 170), but we should not expect, on the other hand, any single and consistent meaning and understanding to emerge in the social process – neither in the past, nor in the archaeological endeavour:

> 'We have not uncovered what those monuments meant, and this does not matter for they were never the expression of a single truth. Instead, we have [*ideally; TLK*] understood how the logic of the known world could have been revealed and sustained, thought and acted through afresh, as various traditions of knowing were reworked upon the available physical resources.' (Barrett 1994: 71–72).[111]

Material culture, artefacts and their arrangements, architecture and space *etc.*, that is to say, do not have an intrinsic meaning, but only obtain meaning in specific social practices and interpretative frameworks. Such meanings are permanently reworked as the things of life are drawn upon in new contexts and social practices,

in the fleeting and the momentary occurrences of human action, the expectation that those actions were appropriate and would be effective, that they made sense according to some recognizable order and logic in the world which they addressed and to which they also contributed. Structures are both the means by which socially recognizable actions are achieved, and their consequences.' – See above, in this context, on the different conceptions of practice theory by Schatzki, whose 'practice' 'governs how people act' and 'establishes' orders (Schatzki 1996: 96; 2002: 96–101), and Giddens' (1979: 3) 'non-temporal' and 'non-spatial' structures (= rules and resources) produced and reproduced in social interaction. Barrett (1994), for obvious reasons, is following Giddens' theory of structuration (1979; 1984) then available, not the later Schatzki (1996; 2002) version. The resulting understanding of the social is much the same.

[109] Or, still in the same vein, in Barrett (2016a: 134): 'Archaeological analysis does not, therefore, conclude its labours by uncovering a single humanity as the outcome of our studies, but employs our understanding that humanness has always been other and diverse, and has been, and is, brought into being within a network of real historical conditions. Archaeology should therefore explore how particular materialities made certain forms of humanness possible whilst also precluding others.'

[110] In a slightly different wording, still reminiscent of the then prevalent material culture as text metaphor (see also Barrett 1994: 36–37), see already Barrett (1989: 305): 'Material culture represents the material universe which was partially available for humans to draw upon as a medium for action. It is thus both the conditions for action and the results of action. As such material culture is the medium of discourse (the code) by which social relations are negotiated and reproduced; it is meaningful. That meaning would have been known to the people involved in that discourse, although their subjective knowledge of the code will have varied. Archaeologists cannot recover that particular subjectivity. However an understanding of the code is archaeologically possible if we think through the specific contexts (i.e. relationships) which the material code structured in a particular discourse. Such an understanding constitutes historical knowledge and we are able to perceive the reproduction and transformation of the code.'

[111] See also Barrett (2006: 204): 'My plea is that we build an understanding of action that turns away from focusing upon a specific motivation and looks instead towards the context in which people worked, made choices and engaged with the materials to hand. Nothing is gained by asking what a certain action "meant".'

while at the same time contributing to the knowledges and understandings characteristically held in specific contexts and practices (*e.g.* Barrett 1994: 75–76, 95, 168–169).

This assertion, of course, is an imposition on the traditional perception of archaeologists that we are unearthing some kind of static truth or historical reality, even though this may be delimited by the material remains which are at our disposal only. In fact, however, the situation is not that much different from any other attempt to understand the 'other', since this will always involve an act of interpretation. We can never lay claim to have exposed fixed meanings or understandings existing out there in human collectivities or held by individuals, even if we were able to talk to them as ethnographers may.[112] However, even if it is always possible to create meaning, and in fact different meanings, from the archaeological remains (Barrett 1994: 169–170), Barrett's approach distinctly is not relativistic, but takes aim at a contextualised understanding of social practices and their material conditions that is clearly delimited by the 'empirical realities' and the specific materialities studied (see also, for example, Barrett 1994: 110) – by the particular settings of social practices, and the unique possibilities of perceptions and actions provided and reworked, and not others *etc.* His is an interest, that is to say, in how practices became orientated, how *dominant* or joint – not individual – understandings of the social world arose, were given material expression, *i.e.* stability, and how they were reproduced in social practices (*e.g.* Barrett 1994: 14, 18–19, 53–54, 76–77; 2016a: 137); an interest in these 'other interpretive regimes', past interpretations and the 'prejudices which are other than our own' (Barrett 1994: 170) that once operated upon the same material that is still available for archaeologists to study:

> 'This is a contextual archaeology which attempts to preserve the context of social reproduction over time and space but does not depend on discovering "ideas in people's heads" [...]. Instead of attempting to read back from modern archaeological remains to meanings in the past, a better proposal is to explore the implications of particular material conditions for the structuring of specified social relations.' (Barrett 1987: 471).

Interestingly, this programme, a specific way to do archaeology that emphasises careful contextual study, and that allows for regional variability, historicity and the specific characteristics of the (material) worlds under study, currently seems to have more followers in certain sections of Aegean Bronze Age archaeology than in Central and South-eastern Europe, where, under the influence of a strong school of Scandinavian archaeology, Bronze Age research is once more dominated by 'Neo-Diffusionism' and reductionist accounts of local societies on their perceived way of social 'evolution' towards the hierarchical and stratified 'proto-urban' (see introduction above). The studies alluded to, of course, that more or less explicitly claim descent from Barrett's approach and are informed by practice theory (*e.g.* Peperaki 2004: 219–222; Wolpert 2004: 127–128; Farmer/Lane 2016: 49–51), already featured in part 1 of this study in the context of the argument against centre and periphery models, against too close a match between different parts of Bronze Age Europe and the Mediterranean, and in favour of a differentiated understanding of local trajectories and the logic of social and cultural configurations encountered (Kienlin 2015a: 92–130).

Without going to greater lengths, it is nonetheless worth recalling here, for example, current approaches discussed regarding the Early Helladic II corridor houses, such as the House of the Tiles at Lerna, which move beyond notions of 'private' and 'public' space in a Bronze Age context, and introduce dynamic understandings of this unique architecture.[113] The focus is thereby set on the specific mutability of these buildings, and structures like the House of the Tiles are understood to have provided multiple, temporarily specific settings for social interaction (*e.g.* Peperaki 2004: 219–222, 226–227). Thus, elements such as the wooden jambs and doors on the ground floor level of the House of the Tiles would not just have served to establish static distinctions between 'private' and 'public' rooms and to restrict access. Rather, such architectural features which also include the wider doorway and raised threshold between room XII and inward room VII at Lerna (Wiencke 2000: 229) may have served to heighten awareness of transitions from one setting to another, of the movements of groups of people or individuals and of the temporal sequence of events (Peperaki 2004: 219–222). Attention, in this context, is also drawn to the ambiguity of this kind of architecture. On the one hand, social actors would have been able to draw upon this architectural setting in pursuit of their own ends, and multiple levels of distinctions could potentially be established between the participants in any activities taking place in the various rooms of the building itself and in its surroundings. On the other hand, such asymmetries would have been permanently balanced by a sense of community evoked by the relative openness of this architecture for most of the time. From this perspective, corridor houses bear many indications of general accessibility. Feasting, communal eating and drinking would all have strengthened collective memory too and may have reminded people of the joint effort involved in the construction or any gatherings that had previously taken place at this focal site of their settlement.[114] What matters here is not a claim to know exactly what actions would have taken place and what they would have meant to the people attending. Comprehensive knowledge of such aspects would not even have been available in the past, since a building like the House of

[112] 'Archaeology currently labours under the misapprehension that an understanding of other people is gained only through a close proximity which allows either for talk or for an available translation of the spoken and written word. However, as *all* knowledges of others involve interpretation, there can be no moment when anyone else is immediately revealed to us.' (Barrett 1994: 71). – See also Kienlin (2015c).

[113] See, in particular, Peperaki (2004; 2010; 2016); see also Weiberg (2007) and Pullen (2011; 2017).

[114] Weiberg 2007: 48–57; Pullen 2011: 220–225; Wiencke 2011: 350–352; Peperaki 2016: 14–21.

the Tiles may have 'invited' different sets of practices depending on the occasion and the people attending. Also, there would not have been any fixed meanings attached to what was taking place evident to all those involved. Rather, it is the unique quality of this architecture to frame various levels of social interaction and to allow for different strategies and understandings of events by those participating that this approach aims to underline (*e.g.* Peperaki 2004: 222).

This also applies, of course, to the open space maintained around corridor houses, particularly manifest in Lerna, where the outside benches or the 'storage' rooms I and XI opening to the exterior provide strong indications that people were meant to stay in the surroundings of the House of the Tiles for a while (Weiberg 2007: 46 fig. 12, 48–57; Pullen 2011: 221, 224). This may have been the case on an everyday basis as well as during more formal events and feasts. Architectural provisions were made to support such outside activities related to the building by supplying whatever objects or goods were required or by allowing people (and any things they carried) to move about unhindered between the exterior and the inside of the building. No doubt, any such activities or movement would have been subject to traditions and rules of conduct, and they may have been used to establish various distinctions between (groups of) people (Peperaki 2004: 220–221; 2016: 20–21). Again, it is no use asking precisely what norms and what distinctions, since we do not know what kinds of people were involved and exactly what kinds of activities were taking place. However, these are not simply static phenomena anyway (Peperaki 2004: 221–222, 226–227). In daily life as well as during any more formal events that may have involved the attendance of a larger and more diverse group of people than normally present, the building would have taken on different meanings, and it would have provided different avenues to social action. Rules of appropriate conduct as well as the ability of individuals to bend them and draw upon the architectural setting to their own advantage would have been subject to permanent negotiation and redefinition. Such processes at times may have involved angry debate and fighting. More often they may have remained below the threshold of conscious deliberation and have been governed 'simply' by routines shaped and acted out in permanent interplay with the architectural frame provided and any other individuals present – such as when we 'know' who ought to pass through this door first, or who ought to occupy that seat *etc.*

As argued above in connection with Barrett, even though specific readings of the corridor house evidence mentioned may remain controversial, or a different emphasis be favoured, in sum there is clearly progress here in our approaches to the past. This progress is because macro scale approaches to past social 'structure', with the archaeological record merely subsumed to such concepts, are replaced by more fine-grained contextual understandings of the material remains and an awareness of variability much closer to life as once lived and experienced by past people. The issue here is not so much whether or not the House of the Tiles was a redistributive centre in a chiefdom type society, as argued by C. Renfrew in his *Emergence of Civilisation* (Renfrew 1972: 363–364, 386–390), an important precursor to many other such 'checklist'-type, 'holistic' approaches to social evolution in Bronze Age archaeology. The problem is rather that it was and still is possible to set up such a debate at all, in terms of 'chiefs' and 'redistribution', with only passing mention of the actual evidence, let alone its very specifics. This happens precisely because these are 'types' of socio-political organisation and corresponding economic structures which invite the reader to abstract from a more complex finding or, conversely, to draw the broad picture from a few pieces of evidence available only. Thus, corridor houses are perceived as a whole rather than by considering in minute detail the different perceptions and actions which their complex architecture may have encouraged (Renfrew 1972: 390). As such their 'impressive' architecture is deemed reflective of a public function and a representation of chiefly authority; and, what is worse, since they come to foreshadow the Minoan and Mycenaean palaces, we end up with the corridor houses conceptualised in broadly the same terms of the representation of power, control of production and exchange, albeit in a somewhat less perfect manner and on a smaller scale than the later palaces.

In a similar vein, for the Mycenaean Late Bronze Age, beyond the evidence from Linear B tablets, which testify to the emergence of a heavily ranked society that comprised of a hierarchy of impersonal offices, it has been argued for some time that the palaces and citadels were not only 'impressive' in the sense of reflecting the resident ruler's power – which they obviously did as well – but in a much more complex way drew upon architectural means and sensory impressions in order to prescribe an adequate mode of approach upon visitors and shape their perception of political reality and their own place in the order of things. In a general sense, the layout of the palaces of Mycenae and Tiryns may thus be described, with the main passages, propyla and courts, as increasingly 'pulling' people in towards the central megaron complex. At the same time it potentially denied access and heightened an awareness – among those approaching – of their own inferiority in the face of the importance and meaning of whatever activities were going on in the central hearth room – hidden to most of those present for most of the time (Wright 2006b: 39–40; Maran 2006b: 79–80). The obvious occasions during which such notions could have been conveyed include processions and palace-sponsored feasting, that are widely accepted as important elements of Mycenaean ritual and the legitimation of social hierarchies and political power. Beyond such 'formal' events, however, which were clearly meant to be framed by the palatial architecture and to see people moving along the passageways and staying in their 'appropriate' courtyards (Maran 2006b: 80), the specific effect that palatial architecture sought to achieve would certainly have been felt to varying degrees and with different effects on more mundane occasions as well (Thaler 2015: 350). Depending on the kinds of people

present and their respective outlook this may have involved anything from the everyday perceptions of most non-elite persons from the surrounding areas, potentially never allowed there themselves, of an inaccessible complex of palatial buildings towering on top of the massive walls of the citadel and home to mysterious events and the secret workings of power, to the 'dwarfing' of the palace's own population upon their occasional dealings in the wider citadel or in impressing the envoys of foreign powers requesting an audience with the *wanax*.

Drawing on Giddens, Bourdieu and Löw also referred to above, J. Maran, in particular, and his collaborators through their analyses of the architectural remains and associated finds,[115] have much refined our understanding of the actual 'workings' of this palatial architecture.[116] Their work offers a fine-grained reconstruction of the way a visitor to Tiryns and Mycenae would have taken to the central megaron in terms of the performative quality of the architecture and the open spaces he or she would have had to pass and the deliberate use of architectural means to guide movement and evoke both a feeling of awe and the 'mysteries' of these sites (Maran 2006b: 81). Such framing of movement and perception is not a chance effect of defensive needs, unspecified elite representation or administrative functions located in this complex. Rather, it is plausibly argued that the repeated shift of axes, thresholds or 'liminal' points marked by conspicuously coloured conglomerate blocks, the succession of narrow passages and wide courts as well as the contrast of dark and light stretches were all deliberately employed to embody and heighten an awareness that one was moving into ever more exclusive zones of added ritual meaning and political importance.[117] Similarly, different levels of communication can be discerned with regard to the quality of the floors and the wall paintings restored to their original positions in the central part of the Tiryns palatial complex (*e.g.* Maran 2012a: 152–158). Upon entering the citadel, initially one would have been 'accompanied' by the massive Cyclopean stone blocks so important for the perception of the strength of Mycenaean palaces from the outside – a 'message' even, at least to later Greeks, of the supernatural powers required to build these walls. Passing on towards the central megaron, at some point there was a change in the medium applied (Maran 2006b: 83), and the colourful wall paintings may in general terms have been reminiscent of the architectural sophistication of previous Minoan palaces and have supported claims to comparable Mycenaean splendour. In line with the other elements of the building programme, the increasingly higher quality and more careful finish of the floors and wall-paintings as one moved towards the megaron and into its 'throne room' would have more or less subtly underlined the growing importance of the events taking place there and of those attending (Maran 2012a: 154). A more direct hint, on the other hand, of those allowed access, their attire and the kinds of activities they were taking part in, comes from the scenes depicted on the wall paintings themselves: At Tiryns the wall painting of the great women's procession has been attributed to the anteroom or vestibule of the great megaron (Maran 2012a: 156–158). In this position it would, for most of the year, have recalled the real processions passing into the megaron on formal occasions and religious festivals, as well as reminding the actual participants of the solemnity of such rituals and the need to comply to the established code of conduct.[118] Similarly, from the central megaron at Pylos there are the remains of wall paintings showing pairs of elite members drinking – a direct reflection perhaps of the real feasts taking place in the megaron and its surrounding courts as well as of the importance of palace-sponsored feasting for the reproduction of social and political order.[119] At Pylos it is even possible to demonstrate how social differentiation 'operated' through such events, and larger groups of people would have experienced exclusion, while others and increasingly select people were invited in and confirmed in their claims to privileged access and participation in the 'workings' of the inner spheres of the palace (Thaler 2006: 97–106; Wright 2006b: 39). There are thus pottery assemblages recovered *in situ* from storage rooms or pantries opening to the different courts and to the central megaron itself, which show a decrease in the number of pottery sets provided (*i.e.* in the anticipated number of people allowed access) and a corresponding increase in the quality of wares supplied (*i.e.* presumably reflecting the status of the participants feasting) as one moves in from the outer courts to the central megaron complex itself (Thaler 2006: 98, 105–106; Stockhammer 2010: 107–109).

What is emerging here, is a differentiated picture of Mycenaean society, somewhat different from earlier 'holistic' notions, focusing exclusively on the evident concern in citadels (and, of course, graves) with power, authority and their timeless representation by means of their elevated location on hilltops, or their imposing Cyclopean walls, which clearly sought to symbolise strength and superiority beyond their immediate defensive function to all who approached. The information thus obtained from a close 'reading' of the architectural remains combines with the textual record to highlight the complexity and the operation in practical as well as in symbolic terms of a truly hierarchical Bronze Age society, and its limits in terms of the ability to administer

[115] *E.g.* Maran 2006b; 2012a; 2015; 2016; Thaler 2006; 2015; Mühlenbruch 2010; Stockhammer 2010.

[116] For a comparable approach – drawing on the work of J. Barrett and analysing the Mycenaean megaron as a 'field of practices' – see Farmer/Lane (2016: 49–51, 67–69); they provide an exhaustive 'reading', mainly of the palace and central megaron at Pylos, in terms of knowledgeable actors approaching the palace and participating in the inauguration of an official as derived from the Linear B evidence of the inventory supplied for such an occasion, the architectural setting and symbolic communication by means of the wall paintings along the approach to the central megaron and therein (Farmer/Lane 2016: 51–65).

[117] Maran 2006b: 80–83; 2012a: 150–151; Wright 2006a: 60–62; Thaler 2006: 100–101; Mühlenbruch 2010: 97, 99.

[118] See also, of course, the wall paintings of tribute bearers and processions in the propylon providing access to the main court and in the central megaron at the palace of Pylos (*e.g.* Thaler 2006: 102–103; Farmer/Lane 2016: 56–58).

[119] *E.g.* Wright 2004: 155–167; Thaler 2006: 102–103, 107; Farmer/Lane 2016: 58–62.

the economy, the daily lives of its populace and eventually to ensure its survival in the face of potential pressure. In this system, Mycenaean palaces were clearly the centre – in practical and material terms as well as in ideological ones – of a 'polity' in the sense of a 'politically organised society' or a distinct social 'configuration of political and economic power' (Shelmerdine/Bennet 2008: 289–290), but their control was far from total, and there was a degree of 'freedom' for both elite group member's and 'commoner's' activities and aspirations both within and beyond the institutionalised palatial system of political economy (*e.g.* Dickinson 1994: 85–86; Nakassis/Galaty/Parkinson 2010: 246–247).[120] As such, the administrative and economic system of Mycenaean palaces was clearly drawing on Near Eastern predecessors. It was not, however, a simple copy but rather an adaptation to local Greek conditions – both broadly environmental ones such as the Mediterranean climate and the limited size of territories, and social ones insofar as these palaces were the specific result of long-term interaction among Mycenaean elites themselves, their knowledge and interpretation of foreign 'worlds' such as Minoan Crete that they may have been visiting, and the wider populace back home in the polities developing under their rule.

That is to say, referring back to Barrett and the above discussion, we should not be essentialising from a rich and diverse range of evidence however indirectly linked to past knowledge, action and intentionality. We should also not be equating cultural manifestations that are historically unique and the material possibilities they provided, when instead we should be trying to develop an understanding of what is specific about the groups or phenomena studied. Rather than subsuming the evidence at hand to some preconceived idea of the type of society encountered, it is suggested we allow for what is unique and seek to develop an understanding of the actual material remains of a historically specific social and cultural configuration that has come on us in the archaeological record. The result may be less captivating than the grand narratives still told much too often, but for exactly this reason it may also be more consonant with the lives we want to study as once lived in the more or less contingent course of events that unfolded as people carried forward their programmes of understandings and intentions in the organised field of practices and reworked the materialities at their disposal. Or, to give Schatzki the final say here:

> 'I believe that one noteworthy outcome of writing histories and analyzing contemporary phenomena with these experientially resonant concepts is that history and the contemporary world seem less systematic or ordered and more labyrinthine and contingent than they do when described and analyzed through the conceptual armature of many other theories.' (Schatzki 2010: 146).

[120] Farmer/Lane (2016: 41–42, 46, 68–69) argue that such social modelling is still reductionist in that it reproduces a top-down approach to Mycenaean society and, for example, reduces the specific quality of palatial architecture to the passive expression of a more or less universal type of society or early state. Instead, they stress the negotiated nature of Mycenaean political power and deny the 'automatic efficacy' of palatial ideological practice in conveying legitimacy to elite peers and commoners, and in the reproduction of the political order.

III. Space and Time on Bronze Age Tells

III.1 Space and Time: The Borsod Example

In this chapter, we turn back to Bronze Age tells (fig. III-1), focusing, by way of example, on a specific micro-region, the north-eastern Hungarian Borsod plain, where recent fieldwork permits a fascinating view of the organisation and development of social space in a distinct group of Early to Middle Bronze Age Hatvan and Füzesabony culture tell-'building' communities situated between the Bükk mountains and the Tisza river (figs. III-2 and III-3).

Unlike the reductionist macro perspective of mainstream social modelling and consequent talk of 'proto-urban' or 'chiefly' tells as centres somehow dominating the Bronze Age landscape, inspired by aspects of practice theory outlined in the previous chapter, the account given here seeks to allow for what is truly remarkable about these sites, and what we can infer from them about the way of life they once framed and enabled. For throughout the Borsod plain – and one may add, in other tell-'building' groups and landscapes as well – and the Early to Middle Bronze Age period under consideration we see, on the one hand, a strong normative conception of how the social and material world should be organised, and in terms of spatial layout most sites feature the 'classic' elements of a tell or tell-like core, a more or less massive ditch and an outer settlement beyond. Yet, on the other hand, the exact manifestation of these parts, their development through time and their relation vis-à-vis each other clearly was often different from site to site, and subject to change and to negotiation. There is a tension, then, between an explicit emphasis on the adherence to a traditional way of life, most prominent of course the fact of living on a mound that developed on top of previous generations of houses itself, and the effect of 'agency' on that 'structure' (= 'structural' or rather 'structuring' properties = rules and resources pace Giddens 1979; 1984) and social (and material!) space, *i.e.* spatial 'structures' – discursive and physical – realised in action, but also structuring that action (in extension to Löw 2001; 2016).

On the one hand, we are confronted with a somewhat 'conservative' attitude to community, social space and architecture that discouraged deviation and conflict, while on the other hand we see adjustments going on, for example, in the allocation and 'ambitions' of households to an 'on-tell' or 'off-tell' position *etc.*[121] Their 'status' in

Fig. III-1: Szakáld-Testhalom. General view of the tell site from the south-west with the old bed of the Kerengő stream to the left.

terms of settling down in different sections of the site and potentially their corresponding role in their community with all the consequences this may have entailed was partly fluid and under negotiation. Similarly, the relative size and possible importance of the various parts of the settlements can be seen to change through time and differ from site to site. Gradually different solutions, so to say, were found regarding the spatial arrangement of settlements and the organisation of society. However, this clearly took place within structural confines that did not – typically – allow risking the cohesion of the entire community. An overarching Borsod identity was maintained for quite some time that – among other aspects of social life and materiality – in its explicit emphasis on tell-living, on direct architectural continuity *etc.* differs markedly from social life as it had unfolded during the preceding Copper Age and the beginnings of the local Early Bronze Age (EBA I and II in Hungarian terminology), as well as subsequently during the local Late Bronze and Iron Ages.

In terms of the approach outlined in the previous section, it is important here to recall that the social is never a static given, but is in permanent flux. All social life is situated in space and time, where it constantly unfolds anew. The social, then, is a process, and the above contention of a 'conservative' attitude to community on our tells and to the organisation of space, stability and the absence of change in the sense that tell life persisted, must decidedly not be taken to imply that social reproduction had somehow come to an end, nor that there ever was anything in existence like

[121] For the sake of simplicity, 'on-tell' and 'off-tell' throughout this study refer to the central multi-layer part of the Borsod sites, irrespective of whether they actually qualify as proper tells or tell-like only (see discussion below). – Similarly, we do not yet have data to decide if the houses that we see in the magnetometry of our sites discussed below correspond to actual households in the sense of social units integrated by kinship, co-residence, cooperation, decision making, consumption and daily activities *etc.* (see, for example, Souvatzi 2008: 21–46; Ebersbach 2010; Sørensen 2010; Doppler *et al.* 2010; 2012; Doppler/Pollmann/Röder 2013; Madella *et al.* 2013; Sørensen/Vicze 2013). Hence the synonymous use of both terms throughout this text. Given the overall similarity of the houses observed it is easy to conclude that they were home to broadly similar, complementary 'families'. However, this is exactly what has to be proven or disproven by future work rather than being assumed (see also Netting/Wilk/Arnould 1984; Blanton 1994; Wilk 1997: 11–40; Fogle/Nyman/Beaudry 2015; Chapdelaine/Burke/Gernigon 2016).

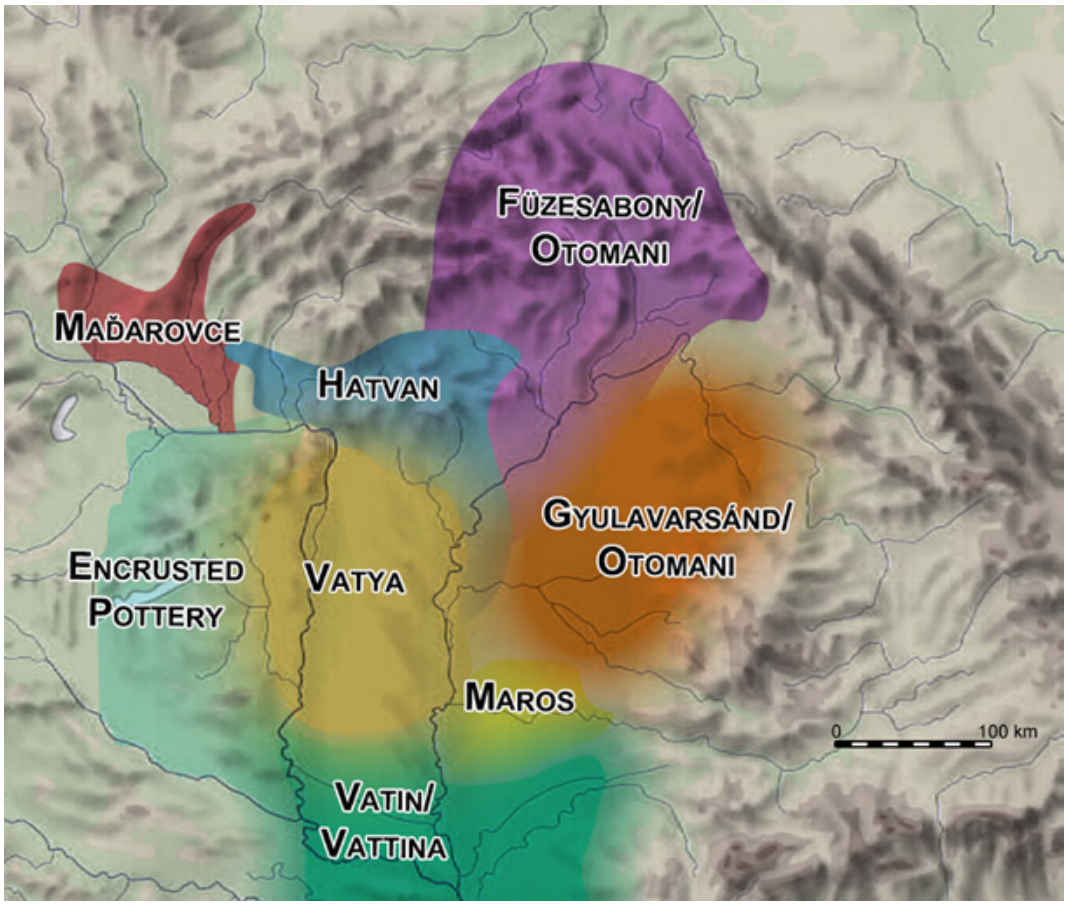


Fig. III-2: Distribution of Middle Bronze Age tell cultures in the Carpathian Basin (after Fischl *et al.* 2013: 357 fig. 2).

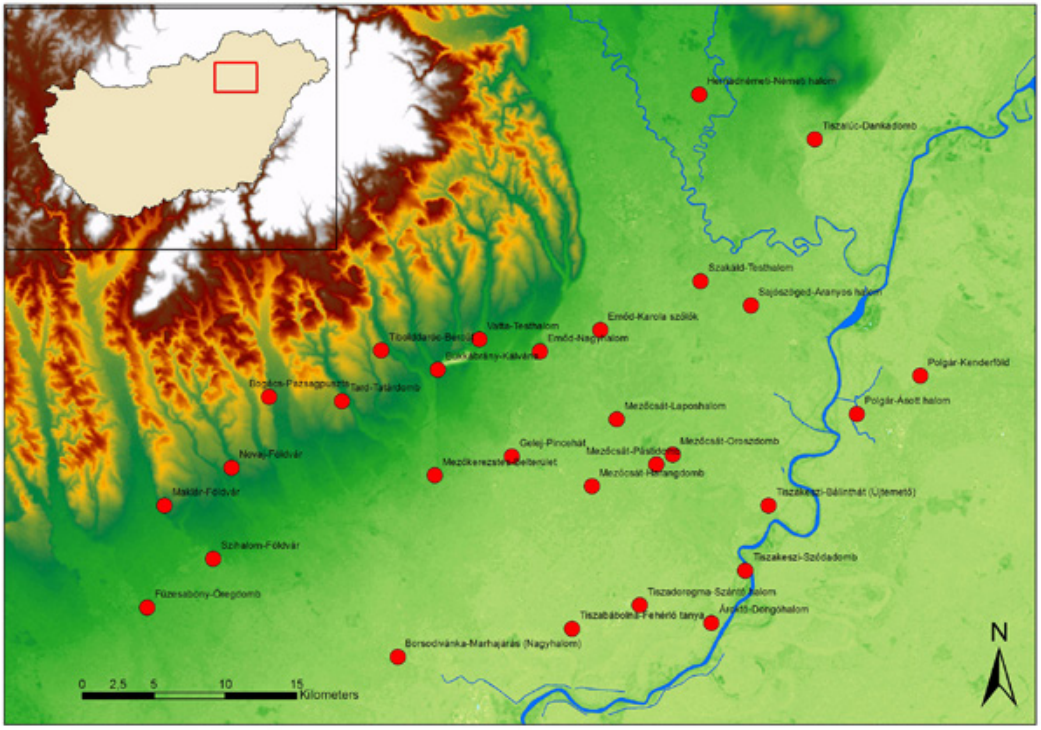


Fig. III-3: Distribution map of the Hatvan and Füzesabony period settlements on the Borsod plain and in the foothill zone of the Bükk mountains (illustration: Klára P. Fischl).

an ahistorical 'tell society' as such. Rather, stability and the apparent lack of change on a macro scale, are specific features of the social field, in a given region and for a specific period of time. They come about as the result of social life unfolding in a specific way, and not another, that leaves the total nexus of practices – *i.e.* the doings and sayings organised by understandings, norms and teleoaffective structures – *and* the material 'arrangements' that together make up human sociality (pace Schatzki 1996; 2002) seemingly unchanged in outward appearance.

In a community thus characterised, favouring tradition over change, norms and shared ends not only link and 'orient' actions into practices, as they always do, but may effectuate the broadly speaking 'unchanged' persistence of traditional practices and discourage 'deviation' by social actors, without ever reducing them, of course, to mere 'dummies'. Similarly, in such a situation, the *material* world which is always both the outcome of action and structures that action in the context of organised practices, by virtue of its longevity and apparent 'givenness' may come to prefigure the social future in likenesses of the past more consistently than is 'normally' the case. The social process, however, will always be fundamentally open and indeterminate, as social actors *do* have agency and intentionality in pursuit of their notion of a life well accomplished, because there are limits, on the other hand, to their discursive penetration and attempts at manipulating social reality, and because their knowledgeability is always 'bounded' while all kinds of unintended consequences feed back into future action (Giddens 1979). So both apparent stability and change always have to be understood as contingent upon specific historical contexts and as being '[...] a product of the actual concrete state of the social site' (Schatzki 2002: 222–223), including 'traditional' practices, their material setting and human intentionality. They are not an inherent, given property of this or that 'type' of society or social structure:

> 'Practices and fields are inherently open; they can always be perpetuated through further actions, even if they evolve in the process. Practices can also cease, of course; for example through elimination, as when their practitioners are murdered, or through fragmentation as when ends, projects, actions, and rules that organize them are absorbed into the organization of different practice complexes.' (Schatzki 2019b: 59; see also 2019a: 28–35, 43–44).

For our tells, it is argued here, the latter development, fragmentation and an end to their constitutive practices or rather bundles of practices, was delayed, by and large, until the onset of the local Late Bronze Age. However, underneath the specific identity or manifestation of sociality maintained there, we clearly do see social practices and corresponding material arrangements being negotiated and adjusted. Echoing the argument laid out above, it is suggested that archaeology should take an interest in such processes on the 'micro' scale, rather than succumb to the temptation of neat macro history and great narratives existing aloof from the material remains of past lives.

III.2 Introduction to a Bronze Age Landscape

The Borsod plain, in north-eastern Hungary in the county of Borsod-Abaúj-Zemplén, is part of the Great Hungarian Plain and stretches from the foothill zone of the Bükk mountains in the north-west to the Tisza river in the east. In the north it is less clearly bounded and turns into the valley of the Sajó and Hernád rivers, while in the west it extends into the neighbouring county of Heves where Füzesabony-Öregdomb, the eponymous site of the Middle Bronze Age Füzesabony culture, located between the Laskó and Eger rivers, is the westernmost tell site of our Borsod micro-region (fig. III-4).

The landscape of our study region is accordingly characterised by two different geomorphological formations, namely the foothill zone, where the sites are situated on terraces *c*. 20–50 m high above the present-day valley bottom of the small rivers extending southwards from the Bükk mountains (figs. III-5 and III-6), and the adjacent lowlands of the Borsod plain itself, where Bronze Age tells and tell-like sites occupy the banks of the Tisza and its tributaries (fig. III-7), or, just occasionally, peninsulae that were cut off from the meandering streams. Both the foothills and the lowlands of the Borsod plain are covered by more or less thick fertile Late Pleistocene loess, with stronger erosion, of course, affecting the flanks of the terraces in the foothill zone. There, the underlying geology that consists of reddish clay was already exposed and brought to the surface in the Bronze Age upon the digging of the sites' ditches. In the lowlands the loess cover in part was more stable, and the underlying geology is more complex, featuring all kinds of mixed eroded material at some stage carried from the mountains and foothill zone into the plain by the rivers and streams.

The lowlands in part are characterised by slightly curved surfaces that would have been flood-free, but along the meandering streams such as the Lator, Csincse and Rigós (Énekes), and along the Tisza itself in particular, in premodern times there would also have been wide expanses prone to occasional flooding. While in the Körös

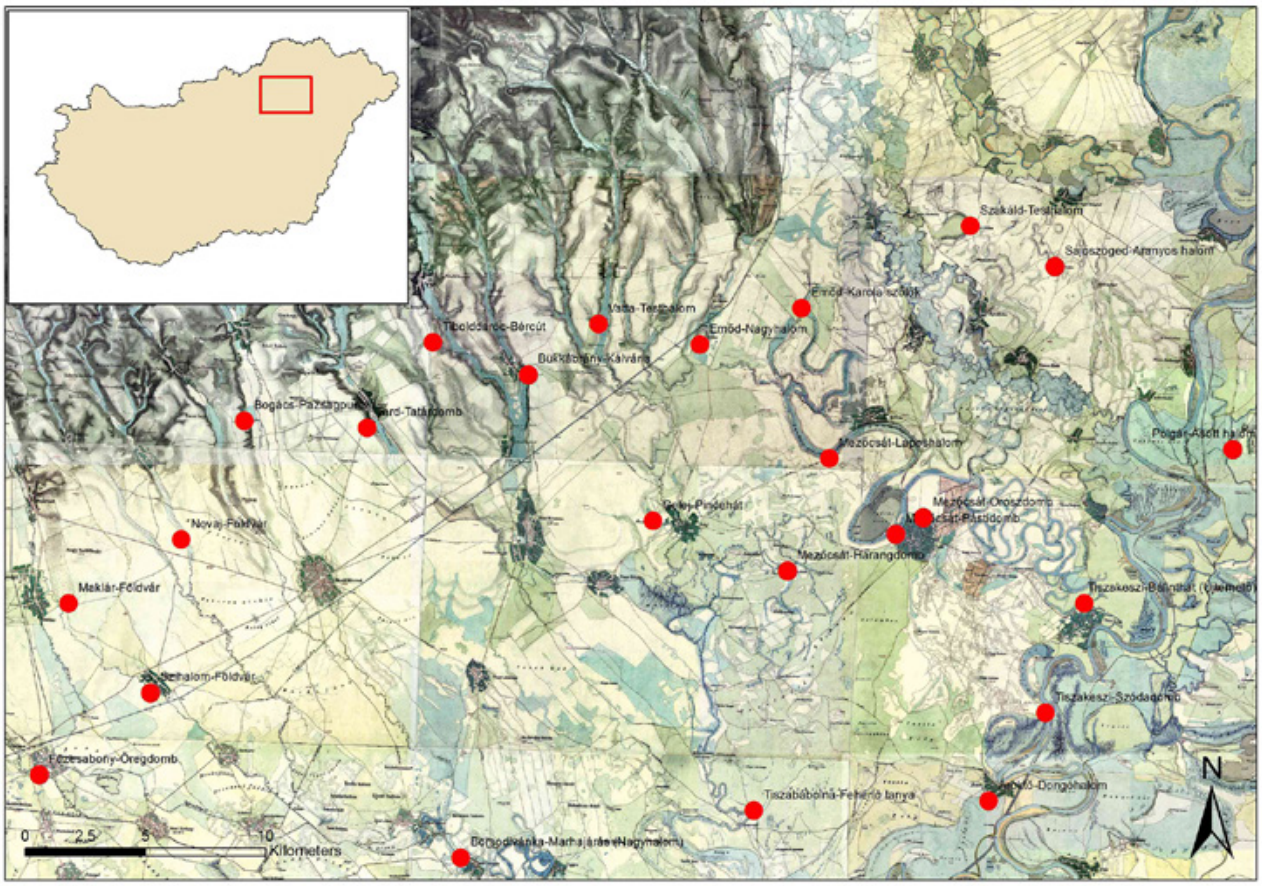


Fig. III-4: The distribution of Hatvan and Füzesabony period settlements on the Borsod plain and in the foothill zone of the Bükk mountains mapped on the Second Austrian-Hungarian Military Survey (illustration: Klára P. Fischl).

Fig. III-5: Aerial photograph of Tard-Tatárdomb situated on the western terrace along the valley of the Lator river; in the background the Bükk mountains.

Fig. III-6: View west across the valley of the Kácsi river in the foothill zone of the Bükk mountains towards the terrace with the site of Tibolddaróc-Bércút.

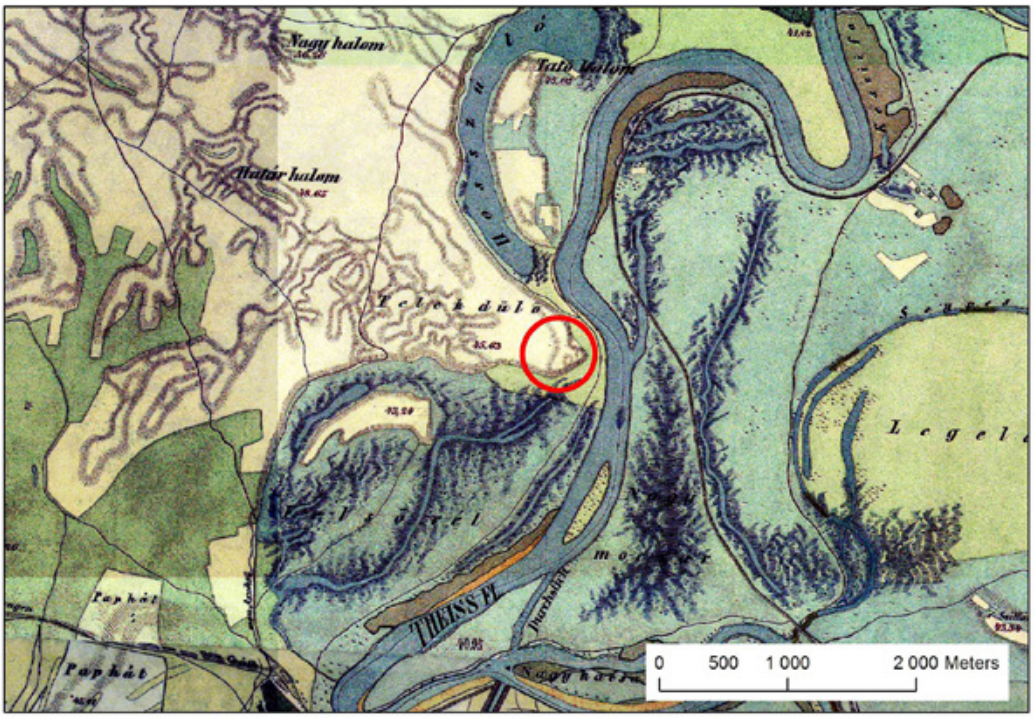


Fig. III-7: Tiszakeszi-Szódadomb in its premodern setting prior to the regulation of the Tisza as shown by the Second Austrian-Hungarian Military Survey.

region further south low rates of channel migration and overall stability of pre-regulation hydrology have been argued for (Gyucha/Duffy/Frolking 2011), it remains to be seen if the same applies to the somewhat higher energy environment of the Borsod plain with the Bükk mountains in the background. However, even if we cannot be sure yet precisely which of the numerous arms of the various streams that cross the plain running towards the Tisza was active in Early to Middle Bronze Age times, there is a clear pattern indicating that the inhabitants of our lowland sites sought the proximity of the main watercourses in the landscape. In this topographic situation, apparently even a small elevation of *c.* 1–2 m not indicated at all on many modern maps of the region, but generally sketched in the old Austrian-Hungarian ones, made a difference in terms of flood safety. We are clearly in a landscape here that discloses its essential features, its ups and downs, to the attentive beholder only.

Vegetation, of course, most likely characterised by a denser cover of woods and scrubs than today's man-made Puszta-type grassland ecosystem implies (fig. III-8), would also have had to play an important role in this context. This is a difficult question, however, that we will

Fig. III-8: A glimpse of a premodern landscape? View north from the site of Tiszabábolna-Fehérló tanya across the Csincse river.

have to return to, given the lack of pollen preservation due to extensive modern drainage work. Yet, the old Austrian-Hungarian maps, in particular those of the Second Military Survey (1806–1869), may at least provide a good general impression of the pre-regulation landscape of the study area with its frequent and meandering watercourses, slight but important elevations, and larger areas for seasonal use only, while remaining inaccessible due to flooding during other times of the year (figs. III-4 and III-7).

This is also a landscape, finally, that as such may imply the development of different traditions, networks and practices, so that the overall uniformity of a Borsod identity that we actually see at least in terms of settlement layout and other aspects of material culture is in fact a remarkable finding: Patterns of movement, access to water, farmland and riverine resources would all have been different in the foothill zone and in the lowlands; the general outlook on life may have differed, and basic landscape features such as the Bükk mountains in the 'background' and the plain 'in front' (or the reverse?) would have been perceived differently; and there would have been divergent and potentially conflicting patterns of communication and cooperation downhill along the streams towards the 'ultimate' route of communication, the Tisza, or rather laterally across the hills.

For the first systematic outline of Bronze Age occupation on the Borsod plain we are indebted to the classic monograph by N. Kalicz (1968) on the Early Bronze Age in north-eastern Hungary. His catalogue of sites was also the starting point for the BORBAS project (Borsod Region Bronze Age Settlement),[122] that focuses on the multi-layer settlement mounds of the Hatvan and Füzesabony periods along the foothills of the Bükk mountains and on the adjacent lowlands of the Borsod plain. Instead of applying covering models to Bronze Age tell communities throughout the Carpathian Basin and subsuming variability under abstract notions of 'social evolution' or 'political economy', the BORBAS project seeks to contribute to a more nuanced understanding of tell-living and the different regional traditions of tell communities by turning back to the evidence and allowing for variability in local manifestations and trajectories (see already Kienlin/Fischl/Pusztai 2018a). It seeks to explore the inner structure of these settlements, to establish the location and layout of households, to elucidate if there are settlement parts with specialised functions, and to compare the architecture and activity patterns of the various parts of these sites. On a macro level an attempt is made to define the factors that determined the choice of site location, and to understand the spatial organisation of the settlements in environmental, economic and social terms.

So far the BORBAS project was able to identify, gain access to and carry out fieldwork on 17 sites, 15 of them in the county of Borsod-Abaúj-Zemplén, plus another two in neighbouring Heves, which together represent the clear majority of Early to Middle Bronze Age sites known in the area. Most sites covered, alongside a couple of others that can no longer be identified, were already mentioned by N. Kalicz, although often with imprecise information that was restricted to their location, approximate size and date: Ároktő-Dongóhalom (Kalicz 1968: 118 no. 33), Bogács-Pazsagpuszta (Kalicz 1968: 119 no. 43), Borsodivánka-Marhajárás, Emőd-Karola szőlők, Emőd-Nagyhalom (Kalicz 1968: 118 no. 37), Gelej-Pincehát, Hernádnémeti-

[122] The BORBAS project was established in 2012 and is carried out in close cooperation with the Department of Prehistory and Archaeology, University of Miskolc, the Department of Prehistoric Archaeology, University of Cologne, and the Herman Ottó Museum at Miskolc.

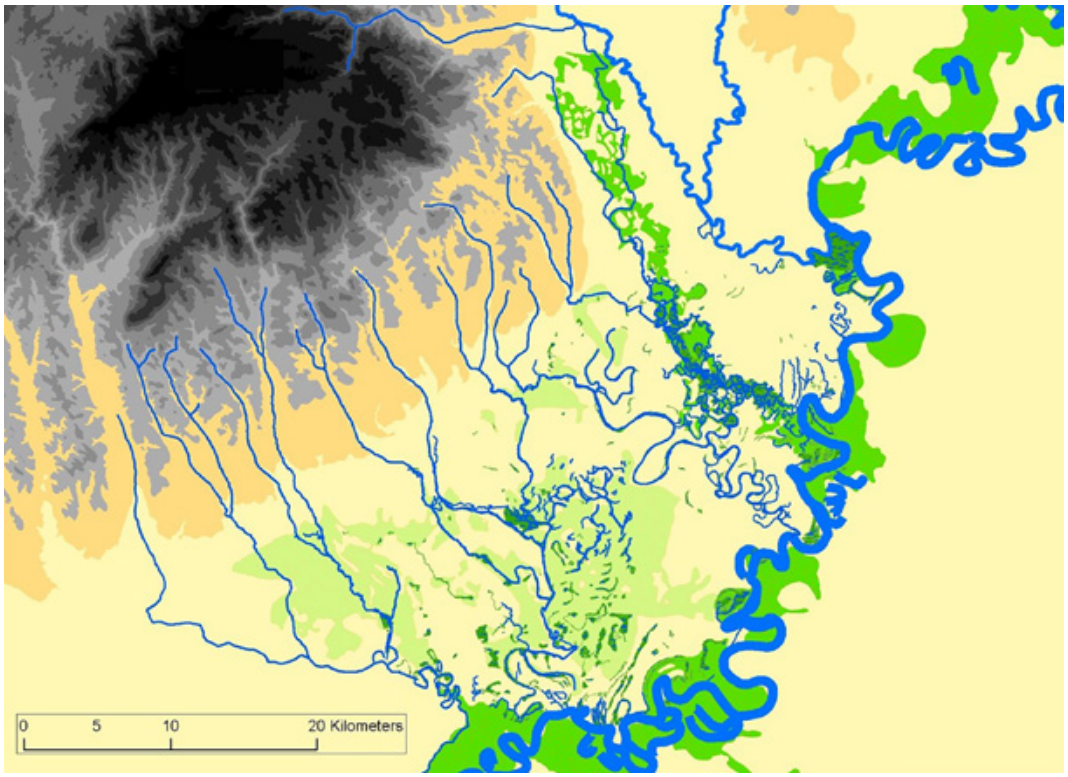


Fig. III-9: Premodern hydrology and potential communication on the Borsod plain (illustration: Klára P. Fischl).

Némethalom (Kalicz 1968: 116 no. 9; under the name of Bőcs-Nagyhalom), Maklár-Baglyashalom (Kalicz 1968: 119 no. 45), Mezőcsát-Laposhalom (Kalicz 1968: 117 no. 28), Novaj-Földvár (Kalicz 1968: 119 no. 44), Szakáld-Testhalom (Kalicz 1968: 117 no. 23a; under the name of Szakáld-Temetőhalom), Tard-Tatárdomb (Kalicz 1968: 119 no. 41), Tibolddaróc-Bércút (Kalicz 1968: 119 no. 40), Tiszabábolna-Fehérló tanya (Kalicz 1968: 118 no. 34), Tiszakeszi-Bálinthát Újtemető (Kalicz 1968: 118 no. 31), Tiszakeszi-Szódadomb (Kalicz 1968: 118 no. 32) and Vatta-Testhalom (Kalicz 1968: 119 no. 39; Fischl *et al.* 2019). Some sites listed in Kalicz' (1968) catalogue cannot be identified any more (*e.g.* Nagycsécs-Testhalom [Kalicz 1968: 117 no. 24] or Borsodharsány [Kalicz 1968: 118–119 no. 38]) or were erroneously included in his work on the basis of older site reports and inventory lists such as Muhi-Lapis-(Bába) halom (Kalicz 1968: 117 no. 25), which is identical with Szakáld-Testhalom, or Hejőbába-Magastető (Kalicz 1968: 117 no. 26), which features a mound but has no evidence of a Bronze Age date. Finally, a couple of sites have not yet been accessible, either because of their vegetation cover, their location underneath a current village or because no permission for fieldwork could be obtained (*e.g.* Füzesabony-Öregdomb [Kalicz 1968: 119–120 no. 47; see however Szathmári *et al.* 2019], Mezőcsát-Pástidomb [Kalicz 1968: 117 no. 27], Mezőcsát-Harangdomb [Kalicz 1968: 117 no. 29] and Mezőcsát-Oroszdomb [Kalicz 1968: 117–118 no. 30]).

As already mentioned above, these tell or tell-like sites in the lowlands are located on the banks close to small rivers or streams running towards the Tisza, while in the foothill zone they occupy the terraces at some height above the valley bottom. The pattern emerging may be 'read' in two directions that each imply somewhat different principles organising the Bronze Age landscape and integration of the wider Borsod region into a distinct micro-region with its own identity (figs. III-9 and III-4). Seen laterally, from west to east, we have three to four distinct lines of settlements that would each have featured a broadly comparable topographic situation. The northern one comprises sites all situated at some height above the valley bottom in the foothill zone, more often than not on the western terrace.[123] At distances of *c*. 3.8 to 5.4 km only, as the crow flies, all of these sites would have been within easy walking distance to their nearest neighbours just across the valley and the adjacent shallow rise. In the centre of the plain there is a couple of sites, arranged into one potential line in the west[124] and possibly two lines in the east[125] that very distinctly would have given the impression of living in the plain, furthest away from any distinct major landscape feature such as the mountains or the Tisza river. The social 'world' of these sites was potentially oriented

[123] From west to east the sites mentioned include Maklár-Baglyashalom (the only one situated on the eastern terrace), Novaj-Földvár, Bogács-Pazsagpuszta, Tard-Tatárdomb, Tibolddaróc-Bércút and, most likely, Bükkábrány-Kálvária that has only been identified tentatively (Kalicz 1968: 119 no. 42). Vatta-Testhalom, Emőd-Nagyhalom, Emőd-Karola szőlők and Szakáld-Testhalom seemingly continue this line towards the east, but are already situated in the lowlands towards the Sajó river, respectively on an isolated hill in the plain (Emőd-Nagyhalom).

[124] The sites of Füzesabony-Öregdomb and Szihalom-Földvár (Kalicz 1968: 119 no. 46).

[125] The potential site of Gelej-Pincehát (Kienlin/Fischl/Pusztai 2018b: 189–195) and Mezőcsát-Laposhalom a bit further north; and Mezőcsát-Harangdomb, just tentatively identified, Mezőcsát-Pástidomb and Mezőcsát-Oroszdomb in the south.

more into a broadly north-west to south-east direction along the small streams on which they are located than laterally across the plain. This may in particular apply on both sides of the gap opening in the centre of the plain between Szihalom in the west and Mezőcsát in the east that despite some unidentified remaining sites mentioned by N. Kalicz (1968) seems to reflect a true lack of ancient occupation. For due to unfavourable natural conditions, in particular permanently wet soils, waterlogging and saline grasslands in the present bird sanctuary of Borsodi-Mezőség, this whole area is sparsely settled even today. Unfortunately, it is this group of sites that we have the least information on, since Füzesabony-Öregdomb, Szihalom-Földvár, Mezőcsát-Pástidomb and -Oroszdomb are all in a modern settled area that precludes large-scale fieldwork including surface survey and geomagnetics *etc.* (despite the availability of some older, largely unpublished excavations, most notable, of course, at Füzesabony-Öregdomb itself; Szathmári *et al.* 2019), while Mezőcsát-Harangdomb has only been tentatively identified so far. Finally, in the south and east there is one line of sites clearly oriented along the Tisza river itself, the major watercourse in the landscape.[126] These sites would have had the highest risk of strong flooding, but are also, for example, the obvious participants in any exchange and communication potentially going on along the Tisza for most of the year. The same sites, however, are also situated on the confluences of the smaller rivers and streams running south down from the foothills and towards the Tisza. As such they may also point to the second, and alternative, organising scheme of the Bronze Age Borsod landscape alluded to above, namely communication in a broadly north-west to south-east direction along the small streams close to which all the sites were located one way or the other. In this direction, as well, the nearest neighbours would often have been living at a manageable walking distance of *c*. 6.2 to 7.5 km only as the crow flies, for example, along the line from Emőd-Karola szőlők via Mezőcsát-Laposhalom, -Harangdomb or Oroszdomb towards Tiszakeszi-Bálinthát Újtemető – though admittedly somewhat longer and potentially tiring if on foot along the meandering premodern Énekes/Rigós or Csincse rivers. This clearly introduces a strong alternative axis of potential interaction and identities emerging along the smaller watercourses rather than laterally across the hills, over the plain or just along the Tisza. Much more data from modern excavations is required, however, to trace the development of these networks of preferential contact and identities, one way or the other, than just the surface finds and material from a few old excavations that are currently available.

In terms of chronology, N. Kalicz (1968) and others originally thought that numerous sites on the Borsod plain and beyond had come to an end after Early Bronze Age Hatvan times, or that there was a hiatus prior to subsequent Middle Bronze Age Füzesabony period occupation if any was recognised. The interruption of settlement activity at Ároktő-Dongóhalom is a good example that T. Kemenczei thought he had uncovered in his 1966 excavation (Fischl 2006). In a way, this is a nice example of the lasting impact of 19th and early 20th centuries culture historical archaeology and its use of historical concepts in archaeological interpretation: For the Hatvan 'population' in our study region was thought until fairly recently to have been replaced at some stage during the local Middle Bronze Age by a Füzesabony culture 'people' expanding southwards from its area of origin somewhere in today's Slovakia (fig. III-10; *e.g.* Bóna 1992a: 26–29; see also the discussion in Mengyán 2019a: 256–258). This may also serve as a cautionary tale, for even the early maps published by the BORBAS team, based, initially, on a systematic survey of old site reports and the published literature, implicitly carried forward the notion of a hiatus between both 'cultures' and showed a less dense pattern of Füzesabony sites than for the earlier Hatvan period with its higher number of enclosed tell or tell-like settlements previously recognised (*e.g.* Fischl/Kienlin 2013: 7 fig. 1). In the meantime, systematic fieldwork and surface finds by the BORBAS project have shown that upon closer inspection all sites previously thought to have been abandoned at the end of the Hatvan period in fact show traces of Füzesabony occupation as well (Fischl/Pusztai 2018: 101–128). Increasingly, this is also confirmed by radiocarbon dating, and it is quite clear that the overall pattern of settlement and the distribution of sites was the same during both periods. There was general continuity, and the overall structure of the Borsod sites remained unchanged, even though there was variability in the details of their layout, of their individual development through time, and with respect to their absolute lifespan (see discussion below). Thus, as already mentioned, all sites feature a tell or tell-like core, a more or less massive ditch and an outer settlement beyond, and this conformity clearly points to shared traditions and notions of how to live that persisted from the Early to the Middle Bronze Age. In outline, this identity comprises the Hatvan and Füzesabony periods, during which at some point in time individual sites were established, and subsequently came to an end, that broadly complied with this Borsod way of living. In detail, however, we are still far from understanding each site's specifics, its individual dynamics and development. It is by no means given, for example, that all sites were continuously expanding throughout the Early to Middle Bronze Age, and upon closer examination examples of the opposite development, *i.e.* contraction and loss of population through time, may also become evident. We clearly have to reckon with discontinuity and ups and downs in the occupation of individual places throughout the Early and Middle Bronze Ages.

Finally, unlike some neighbouring groups, such as Vatya in the west (*e.g.* Poroszlai/Vicze 2000; 2005; Earle/Kolb 2010; Szeverényi/Kulcsár 2012), or the Otomani communities further east on the north-western Romanian Carei plain (Németi/Molnár 2002; 2007; 2012; Molnár/Nagy 2013), in the Hatvan to Füzesabony period Borsod

[126] Again, starting in the west the sites of Borsodivánka-Marhajárás, Tiszabábolna-Fehérló tanya, Ároktő-Dongóhalom, Tiszakeszi-Szóda-domb and Tiszakeszi-Bálinthát Újtemető.

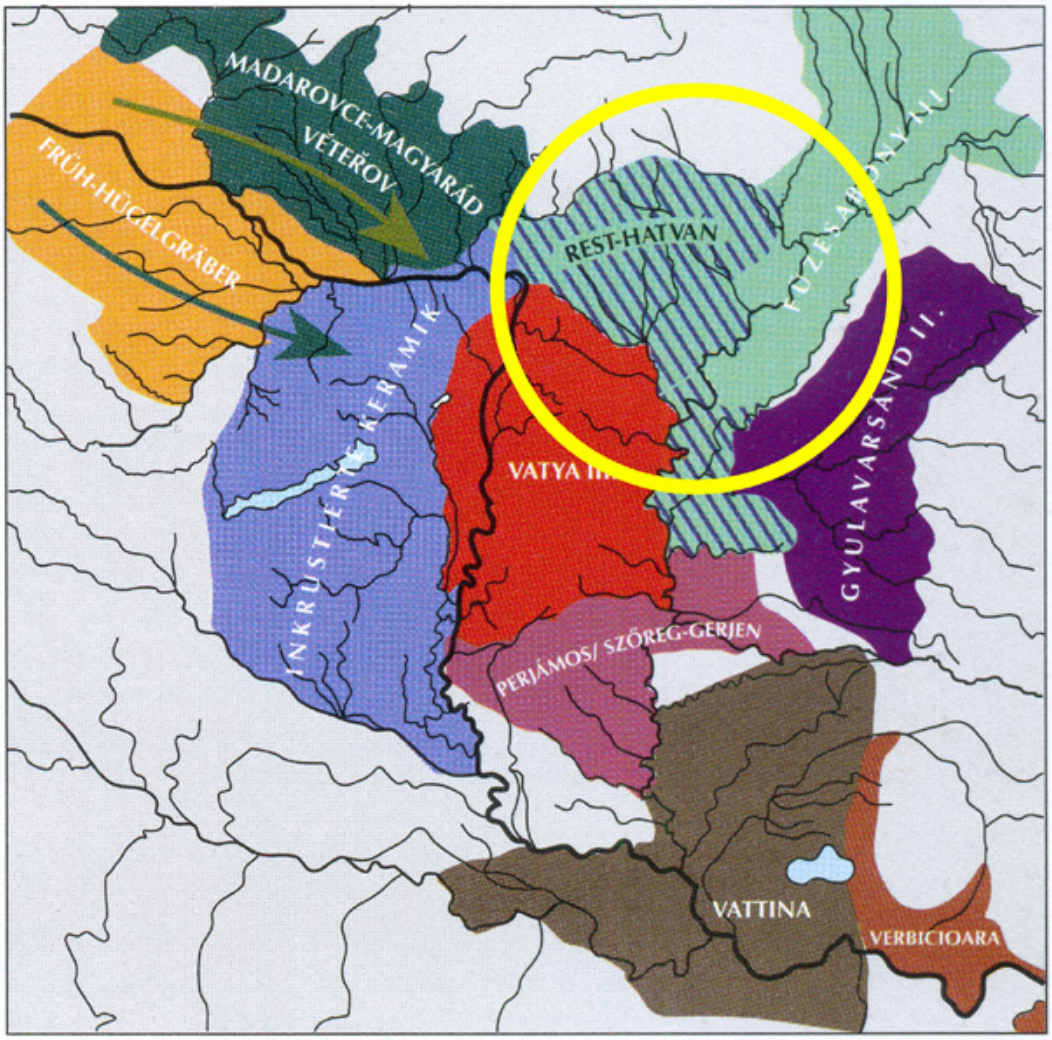


Fig. III-10: Presumed area of the Middle Bronze Age II period Füzesabony culture 'people's' expansion onto Hatvan 'territory' (after Bóna 1992a: fig. on p. 17).

area we have few indications that the enclosed tell or tell-like sites discussed plus their respective outer settlements were surrounded by a close-knit network of open, single-layer 'satellite' settlements. This point, clearly, awaits further verification by future fieldwork and an expansion of our survey activity, but since the landscape is relatively well covered by the local archaeological authorities we are fairly confident that the overall impression will stand (Kienlin/Fischl/Pusztai 2018a). Given the size and the almost 'regular' spacing of our sites at distances down to just 4 to 7 km, as well as the character of the landscape, where in the lowlands, in particular, potential flooding *etc.* may have inhibited the choice of settlement location, this finding and the arrangement of sites encountered may not be that surprising after all. The outer settlement, in particular, of some sites at some stage may have reached a substantial size and may also have accommodated a quite substantial population. Furthermore, we also have evidence of distinct settlement clusters on the opposite sides of rivers (*e.g.* Borsodivánka; see below), similar to the pattern proposed for the Bronze Age settlement in the Körös region (Duffy 2014). There, one larger village is thought to have comprised several such clusters, and the tell, ultimately, is just the one cluster of houses among several other neighbouring nuclei that for some unknown reason attained the greatest stability and on-site tradition.

In a wider perspective, then, just like the almost 'standardised' size and layout of their inner tell or tell-like part, the apparent concentration of people, too, in the 'tell or tell-like core plus outer settlement' sites discussed in what follows, may set our Borsod region apart from neighbouring tell-'building' communities and micro-regions with a more dispersed and multi-'tiered' settlement pattern. Such differences between groups must not be subsumed under Thiessen polygons or some reductionist narrative of Bronze Age tells as 'chiefly' centres in control of political territories and the like. They may be down to the environmental background and topographic setting, to subsistence strategies and other practical considerations, but they are also the result of specifically cultural notions where, how and with whom to live, corresponding practices reproduced over time, rather than others *etc.* As such, our Borsod communities are

notable for their relative conformity in terms of settlement layout, their relatively strong 'normative' emphasis, and our current model has it that the composite tell or tell-like sites discussed, most of them developing as part of a larger settled area, are the 'standard' type of settlement in this micro-region. There is potential variability in the size of both the outer settlement and the central part of these sites, as well as in the thickness of the latter's cultural layers, *i.e.* in the tradition 'achieved'. However, 'centrality' surely is not the right concept to account for such differences. For the Hatvan and Füzesabony period of the Borsod area, a settlement pattern of more or less equivalent sites in social and functional terms is much more conceivable than the evolution of centralisation and political control over larger territories. Instead, we see a network of fairly densely settled 'composite' villages with a multi-layer, tell or tell-like core and a surrounding open settlement – in a landscape apparently devoid of any marked ranking or competition among and within these sites themselves. There are no indications of control exercised by them over their surroundings, or surplus drawn towards them, because rather than any more numerous open, second-order sites, in every direction there would instead have been another such structurally equivalent settlement unit, its fields and pastures, – and a social landscape beyond, that may have been comprised of ritual features such as places that attracted deposits, as well as territories claimed by the respective communities, for example, through the location of their burial grounds.

III.3 The Tell or Tell-like Mound: Focus Shared or Community Divided?

All Borsod sites under consideration feature a tell or tell-like core area, often broadly roundish and set apart from its surroundings at some stage by the enclosure(s) discussed in the following section. 'Tells', of course, have been defined in widely different ways – from involving intense long-term occupation and the accumulation of habitation layers in excess of three to four metres (Kalicz/Raczky 1987: 15–16; *cf.* Anders *et al.* 2010: 151), down to just having at least three settlement phases with a height in excess of one metre (Gogâltan 2003: 224). Consequently, opinions will differ in purely technical terms of definition as to whether any specific site may legitimately be considered a tell. It is important here to note that no tell was established by its first inhabitants with a multi-layer settlement mound in mind, set apart from its surroundings by its height and qualitatively distinct from neighbouring single-layer horizontal settlements, if any are present. Rather it is the result of countless decisions taken through time and specific practices that resulted in the gradual accumulation of settlement remains. These may relate to the environmental background and topographic setting, to subsistence strategies and the availability of different building materials as well as to specifically cultural notions of where and how to live which encouraged permanency in the choice of settlement location and accelerated the accumulation of settlement debris into a tell. Thus, for an extended period of time there may not have been anything particularly special about a place in terms of being a 'tell'. It was only in its later phases that it had accumulated enough 'surplus' height and tradition to become a 'focal' site that attracted particular attention – be it in social, economic or symbolic terms – from both its own inhabitants and from those of surrounding sites.

Fig. III-11: Borsodivánka-Marhajárás. The tell part of the site seen from the south-east with surface survey in progress on the surrounding outer settlement.

Fig. III-12: Szakáld-Testhalom. View of the tell part of the site from the south-west.

Obviously, the sheer impressiveness of a site or its visible 'antiquity' is a very subjective criterion, and it also depends on the topographic setting, current vegetation and land use *etc.* Nonetheless we do not advocate a rigid definition of a 'tell' here, but instead follow an impressionistic approach for a number of reasons: First, while a couple of sites in the Borsod area clearly do stand out from their surroundings, for example Borsodivánka-Marhajárás (fig. III-11), Szakáld-Testhalom (fig. III-12) and, less impressive now than it used to be a couple of decades ago, Ároktő-Dongóhalom (Kienlin/Fischl/Pusztai 2018b: 149–154), it is really up to individual perception if they differ very much from a couple of sites classified as tell-like only. Any terminological distinction is largely heuristic anyway, and, second, it may reflect the current situation more than any prehistoric reality. Most notably, at Tibolddaróc-Bércút and Tard-Tatárdomb there is extensive evidence of erosion from gullies extending downhill and the infilling of the ditches after the abandonment of the settlement, but the same applies to most of our sites. Starting in Communist times and continued in Capitalist ones, they are subject to heavy ploughing and continued loss of substance – with only a couple of sites recently covered by environmental (*sic*!) protection legislation. On the other hand, it is striking that the few more substantial mounds that survive all have some kind of 'natural' protection. Thus, for example, Borsodivánka-Marhajárás is situated on a small, out of the way peninsula surrounded by old river arms or marshland, and in recent decades was protected by being part of a hospital park (Kienlin/Fischl/Pusztai 2018b: 163–169). Similarly, at Szakáld-Testhalom deterioration may have been delayed by the site's location between an old river arm (*i.e.* a swampy area) and a land boundary between two fields populated with trees

Fig. III-13: Borsodivánka-Marhajárás. Profile cleaned in 2015–2017 on the eastern margin of the mound where the construction of a shooting stand had previously exposed the cultural layers.

– a situation that made a difference to the intensity and strategy of ploughing, compared to an ideal flat and open field (Kienlin/Fischl/Pusztai 2018b: 229–235). This is not to inflate our tell-like sites to proper tells, but in premodern times both 'types' of site were most likely much closer in terms of their substance and height than is the case today. It is argued here that they certainly should not be kept apart in terms of their ancient perception, because they show structural similarities and reflect similar decisions taken, preferences and notions of how to organise social space by their past inhabitants.

Prior to the close of a systematic core drilling programme that is currently underway, the information we have concerning the layer thickness of the Borsod sites is often of limited quality and derived from different sources such as drillings by our current project or previous ones (*e.g.* Emőd-Nagyhalom, Mezőcsát-Laposhalom, Szakáld-Testhalom and Tard-Tatárdomb), older trenches or excavations (*e.g.* Ároktő-Dongóhalom, Tiszakeszi-Bálinthát, Tiszaluc-Dankadomb and Tiszakeszi-Szódadomb) as well as our current one at Borsodivanka, and surface data from the digital elevation models obtained (*e.g.* Vatta-Testhalom). We do not claim great precision nor do we attribute particular importance to this data, since post-depositional changes likely affected the thickness of cultural layers preserved on most of the sites anyway. While we are not considering some Bronze Age reality, the following may still provide an impression of the spectrum of elevation readings to be expected:[127] Starting with the group of 'proper' tells introduced above with the thickest cultural layers surviving into modern times, there are Borsodivánka-Marhajárás (*c.* 3 m; fig. III-13) and Ároktő-Dongóhalom (*c.* 3 m), closely followed by Tiszaluc-Dankadomb (*c.* 2.5–3 m), Tiszakeszi-Szódadomb (*c.* 2.7 m), Füzesabony-Öregdomb (*c.* 2.5 m; Szathmári *et al.* 2019: 299) and Mezőcsát-Pástidomb (*c.* 2.2 m; fig. III-14). This group is followed, in declining order, by Maklár-Baglyashalom (*c.* 2 m), Novaj-Földvár (possibly > 1.5–2 m), Tiszakeszi-Bálinthát (at least *c.* 1.7–1.9 m), Vatta-Testhalom (*c.* 1.5 m) and Emőd-Karola szőlők (*c.* 1–1.5 m). The list is concluded by Mezőcsát-Laposhalom (max. *c.* 1.15 m; fig. III-15), Emőd-Nagyhalom (max. *c.* 1 m; fig. III-16), Tard-Tatárdomb (*c.* 0.9–1.0 m from one core in 2013, or rather max. *c.* 0.6–0.7 m from systematic drilling in 2017; fig. III-17) and Tibolddaróc-Bércút (*c.* 0.7–0.8 m in 1904, max. *c.* 0.5 m in 2015) with the lowest thickness of cultural layers, and evidence that this finding is due to post-depositional deterioration.

At Hernádnémeti-Némethihalom recent fieldwork necessitates the most significant adjustment to previous work: Hitherto thought to be a substantial tell of Hatvan

[127] For details and discussion, see the catalogue of sites in Kienlin/Fischl/Pusztai (2018a; 2018b). In addition, reference is made here and in what follows to the results of our 2019 core drilling campaign that led to modifications in the layer thickness readings available for a couple of sites; beyond the information given here, these results will be published in full in the second volume of the BORBAS series.

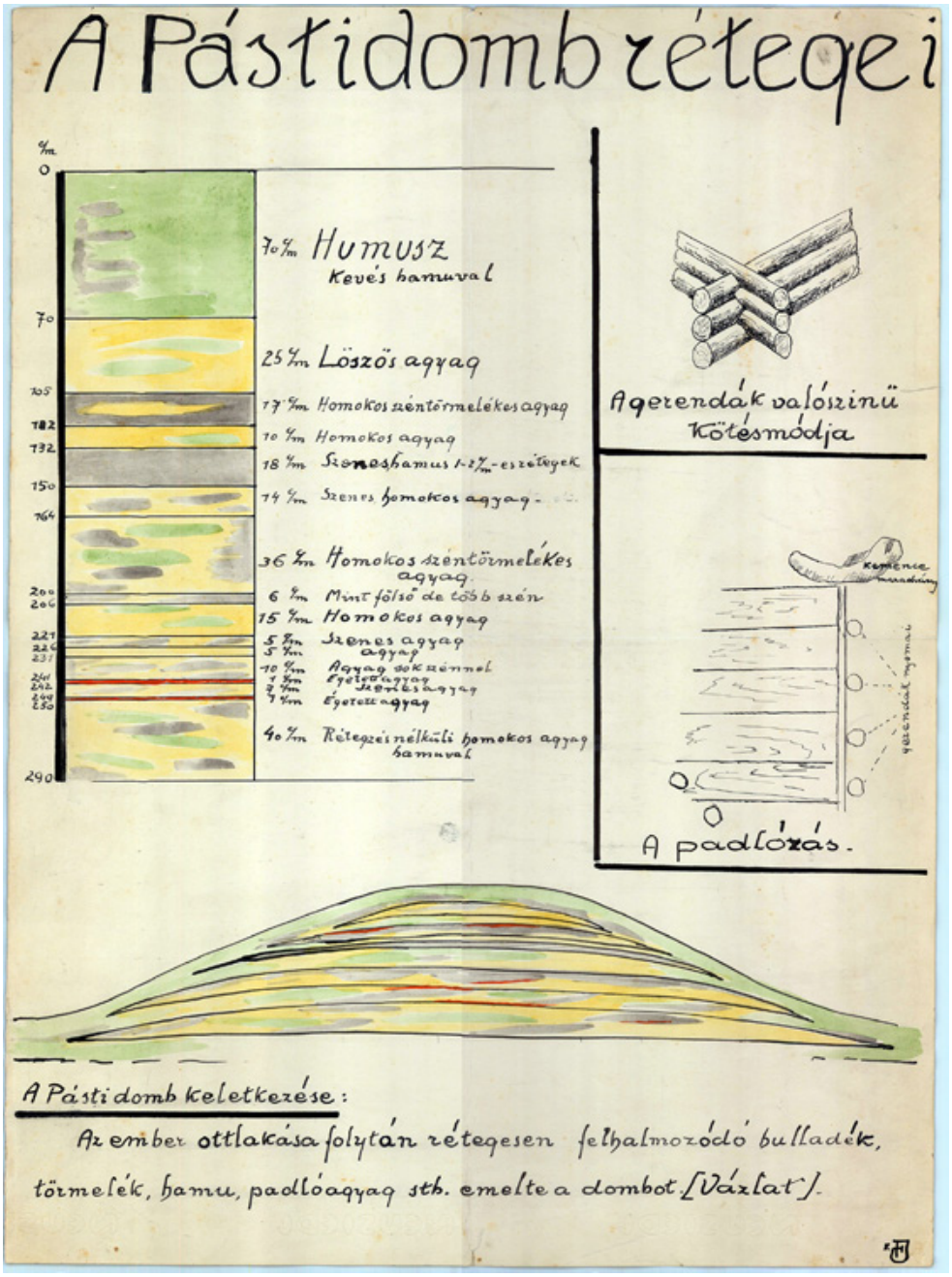


Fig. III-14: Mezőcsát-Pástidomb. Sketch of the site's profile from the 1930s excavations (after Fischl/Kienlin/Seres 2012: 33, 40 fig. 18; see also Kalicz 1968: 117 no. 27).

and Füzesabony period date (Kalicz 1968: 116 no. 9), with a layer thickness of *c*. 4 m as derived from the digital elevation model (Kienlin/Fischl/Pusztai 2018b: 197–199), Hernádnémeti-Némethihalom at its base in fact features a massive mound of more or less sterile sand more than 2 m high in the central section (fig. III-18). The actual cultural layers, only in part *in situ*, that remain on top of this deposit are of limited thickness only (up to max. *c*. 1.12 m in core 6), so that Hernádnémeti-Némethihalom now qualifies as tell-like at best. It is unlikely that the sand that makes up most of the mound was obtained from the surrounding ditch (no. 1; Kienlin/Fischl/Pusztai 2018b: 197), since there is clear evidence of an old surface or A horizon up to *c*. 80 cm thick that had formed on top of the sand prior to settlement activity (see cores 6 and 10), while at the bottom there is no evidence of an old surface separating the mound and the underlying geology of sand and gravel (especially core 14). It is likely, therefore, that the settlement was actually established on top of a sand dune of geological origin. This may also be the reason for the slightly irregular, not perfectly roundish outline of the enclosure, the existence of which as such is now confirmed by core drilling (fig. III-18). Pottery finds from the mound and its surroundings testify to general Early to Middle Bronze Age settlement activity. However, as the three radiocarbon dates indicate that could be obtained from the thin cultural layers – either *in situ* or eroded and mixed up – in cores 6, 10 and 14, this occupation may have

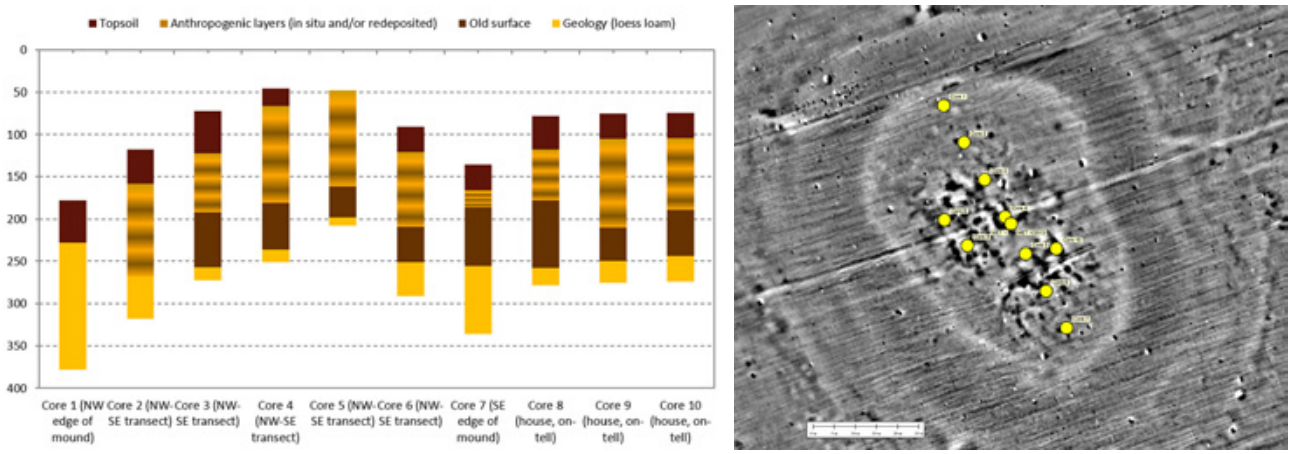


Fig. III-15: Mezőcsát-Laposhalom. A. Schematic representation of the core drilling profile indicating the thickness of the anthropogenic layers (in centimetres); B. The location of the cores in the inner tell-like part of the site.

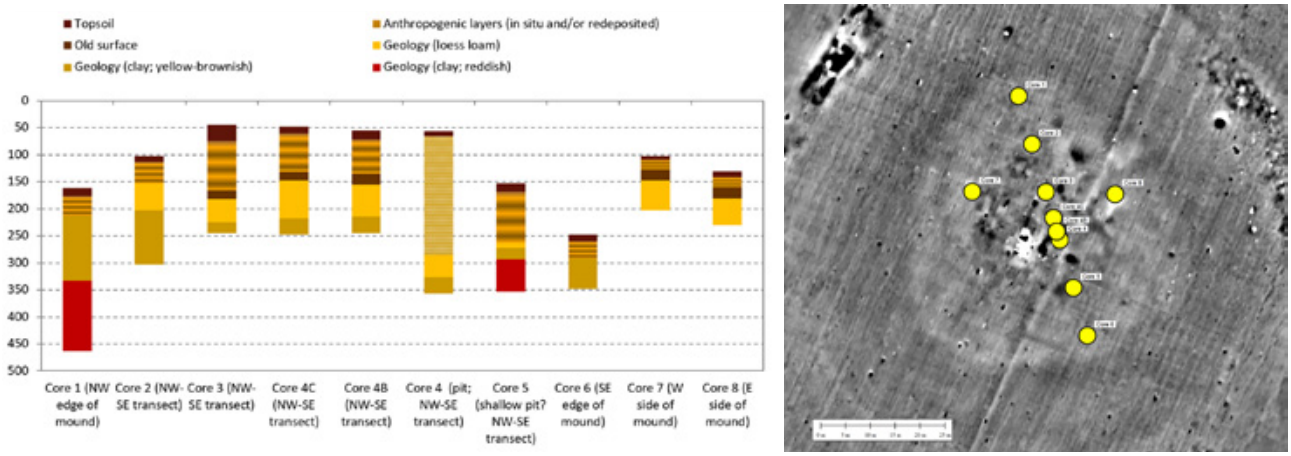


Fig. III-16: Emőd-Nagyhalom. A. Schematic representation of the core drilling profile indicating the thickness of the anthropogenic layers (in centimetres); B. The location of the cores in the inner tell-like part of the site.

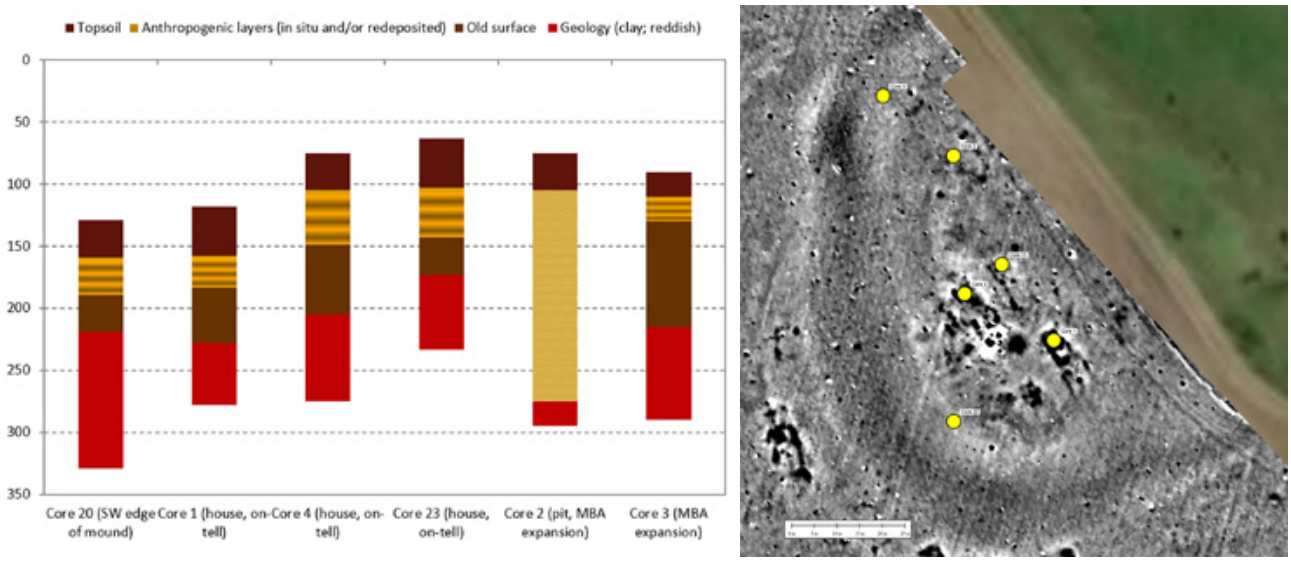


Fig. III-17: Tard-Tatárdomb. A. Schematic representation of the core drillings indicating the thickness of the anthropogenic layers (in centimetres); B. The location of the cores in the inner tell-like part of the site.

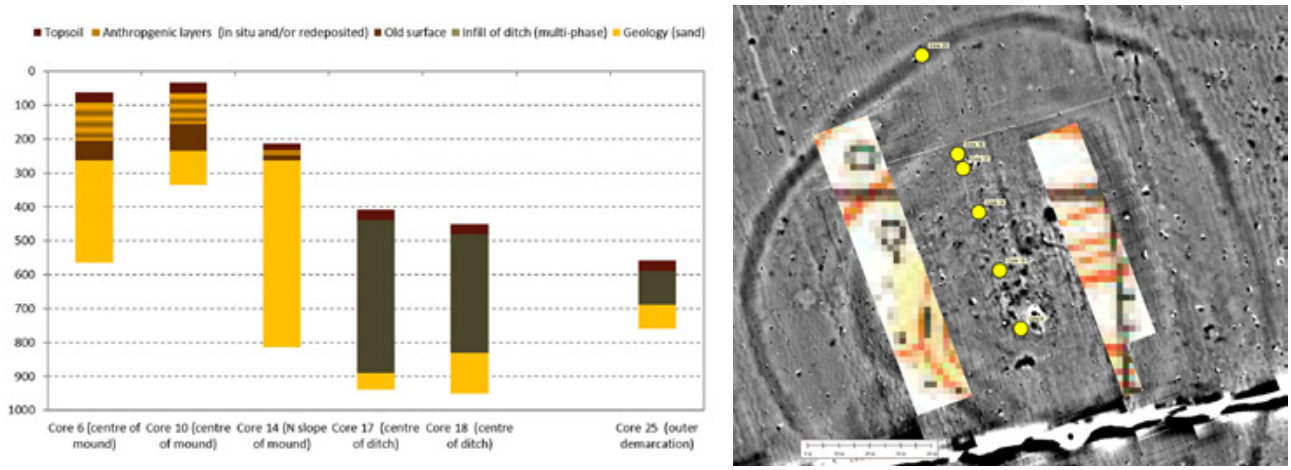


Fig. III-18: Hernádnémeti-Németihalom. A. Schematic representation of the core drilling profile indicating the thickness of the anthropogenic layers (in centimetres); B. The location of the cores in the inner tell-like part of the site and the enclosures.

been short-lived only. Apparently, it was established only rather late during the general lifespan of our Borsod sites (see below) – at some time during the late 18th or (early) 17th centuries cal BC, corresponding to the local Middle Bronze Age.[128] Unfortunately, no dateable material could be recovered from the two cores 17 and 18 in the infill of the main ditch, which in itself speaks for the limited intensity of on-site settlement activity because comparatively little settlement material had accumulated and subsequently eroded into the ditch. However, the depth of this enclosure and its general layout still argue for its affiliation with the Middle Bronze Age occupation on top of the preexisting dune that it was designed to enclose with a slightly irregular course and outline. This is less clear, unfortunately, for the smaller, shallow outer demarcation of the site as seen in magnetometry and coring (ditch no. 2; Kienlin/Fischl/Pusztai 2018b: 198): Here, too, from the respective core 25 no radiocarbon date could be obtained, and given the presence of Late Bronze Age/Iron Age material among the metal detector finds from Hernádnémeti-Németihalom, it cannot be excluded that this enclosure actually refers to some subsequent younger activity on the site.

The choice of an elevated situation for settlement is also evident, of course, at Emőd-Nagyhalom that was established on an isolated hill above the surrounding plain (Kienlin/Fischl/Pusztai 2018b: 179), but there is no direct equivalent so far among the Borsod sites in the plain itself for use of a preexisting hillock, dune or the like. Similarly, we do not have evidence from our core drillings of a massive artificial enhancement or levelling works prior to settling down, with the sole exception, so far, of the situation encountered at Szakáld-Testhalom. In the northern section of this site, in particular, at its base there is a massive darkish layer rich in humus of up to *c.* 2.7 m thickness in some cores (fig. III-19).[129] This layer features unambiguous human impact, mainly in the form of an occasional piece of pottery or daub, and it is thought unlikely in its entirety to represent a soil formation that took place *in situ*. At its bottom we clearly see an old A horizon washing down into the underlying geology or loess. However, on top of this original surface, and without a clearly discernible boundary throughout, additional material of a comparable composition and surface-near origin must have been deposited at some stage prior to the Early to Middle Bronze Age occupation.

Since Szakáld-Testhalom is located right on the low bank of an old riverbed, it is possible that this measure was a practical necessity to guard the nascent settlement against flooding. It is strange, however, to see that to this end use was made throughout of surface-near material only, *i.e.* of topsoil already with some human impact, instead of (also) using the underlying geology – near the surface loess down to clay and fluvial sandy sediments – that must have been uncovered upon digging the ditch that encloses the site. The fact that we do not have such a reverse stratigraphy in the levelling layer underneath the mound, makes the situation at Szakáld-Testhalom difficult to understand based on the evidence currently available: Sods, in particular, may provide a more stable ground for subsequent building than the subsoil encountered underneath, and it is possible that the topsoil layer from the future ditch already yielded enough material for the levelling required. Alternatively, additional sods and/or topsoil may have been brought to the (future) tell from a larger area of the (future or already extant) outer settlement, either because the enclosure had not yet been established when the levelling took place,

[128] The three dates mentioned from the thin cultural layers at Hernádnémeti-Németihalom fall to *c.* 1773–1627 cal BC (93.1 %; sample no. HER19/1 = Beta-545733 [bone]: 3410 BP +/-30; core 6, metre 2, 36–42 cm), *c.* 1751–1619 cal BC (95.4 %; sample no. HER19/2 = Beta-545734 [charcoal]: 3390 BP +/-30; core 10, metre 1, 87–98 cm) and *c.* 1746–1616 cal BC (95.4 %; sample no. HER19/3 = Beta-545735 [charcoal]: 3380 BP +/-30; core 14, metre 1, 28–39 cm).

[129] The layer thickness of *c.* 5.5 m previously recorded on the basis of their allegedly systematic drilling programme by Sümegi *et al.* (1996/97: 187 fig. 4) and Tóth *et al.* (2005; *cf.* Kienlin/Fischl/Pusztai 2018b: 229–230) cannot be verified in the field. After numerous cores obtained at Szakáld-Testhalom by the BORBAS team in 2019 it is entirely unclear how this information should possibly have been obtained and how this misrepresentation of the true stratigraphy at the site came about.

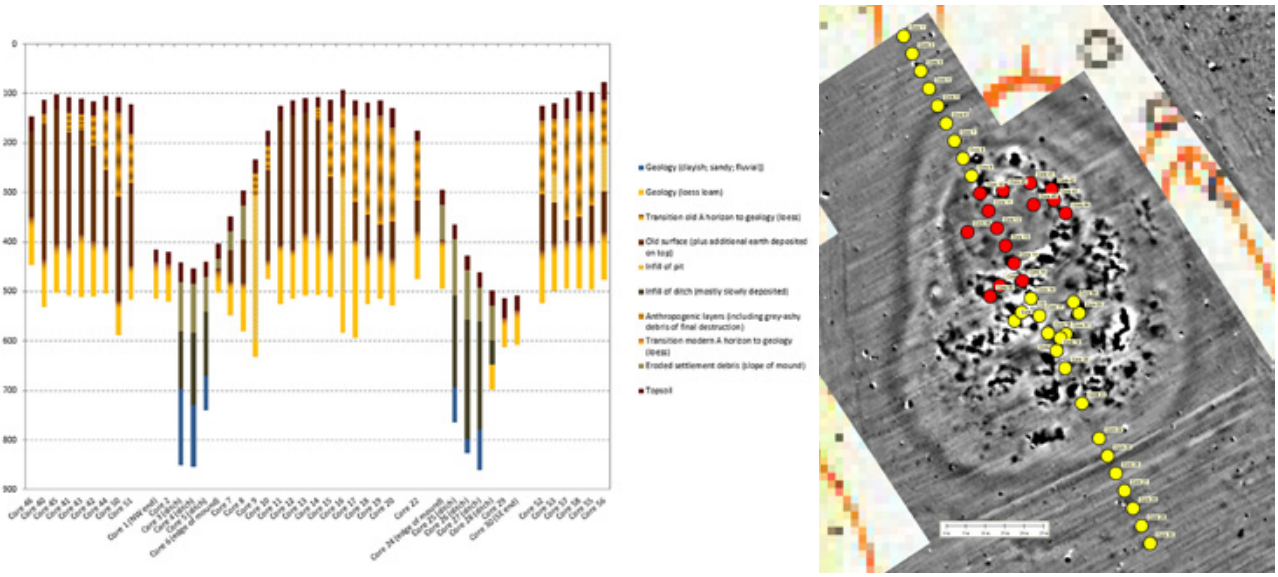


Fig. III-19: Szakáld-Testhalom. A. Schematic representation of the core drillings indicating the thickness of the anthropogenic layers (in centimetres); B. The location of the cores in the inner tell part of the site; the cores marked red have evidence of the levelling layer underneath the mound discussed.

or because for some other, unknown reason – practical or cultural – the material from the ditch was deemed inappropriate for the 'foundation' of the (future) tell. In the wider surroundings of Testhalom there are also Neolithic and Copper Age surface finds present (Alföld Linear Pottery and Baden; Kienlin/Fischl/Pusztai 2018b: 231), and the latter period is nicely matched by two radiocarbon dates obtained from the humus levelling that fall towards the end of the 4th millennium BC,[130] plus an additional one that may also point towards the beginning of the local Early Bronze Age I at *c*. 2880–2632 cal BC (95.4 %; sample no. SZA19/7 = Beta-545757 [charcoal]: 4160 BP +/-30; core 41, metre 1, 58–70 cm), prior to the emergence of tell settlement (Kulcsár 2009; Gogâltan 2017). So there is the distinct possibility that by mere chance with the topsoil used in the levelling at Testhalom the remains of an unrelated, preceding Copper Age and/or Early Bronze Age (I) occupation in the surroundings found their way into the levelling layers.

Until our core drilling programme is completed, it cannot be ruled out that there may be other sites, where material from the ditch or the wider surroundings was deposited on the inside, underneath the tell-to-be. However, neither from the systematic core drillings done so far at Emőd-Nagyhalom, Mezőcsát-Laposhalom and Tard-Tatárdomb, nor from the albeit limited evidence from excavations do we have evidence of such a procedure. In addition, aerial photography from other sites as well shows that the material excavated from the ditch was rather deposited on the outside (see below). In fact, either because of such a (possibly deliberate) increase in outside height or due to the original topography, we have a couple of sites where parts of the outer settlement stand out above the inner tell or tell-like core (*e.g.* Tard-Tatárdomb or Tiszakeszi-Szódadomb; Kienlin/Fischl/Pusztai 2018b: 243 fig. III-76, 273 fig. III-100). It is unlikely therefore, that a deliberate, initial heightening of their central part prior to occupation – be it for practical reasons or in terms of its symbolic impact – was a widespread practice among our Borsod sites. What visible 'ancestry' their central tell or tell-like part may have exposed at some later stage of their existence, in most cases had truly accumulated with time, and it referred to actual antiquity and culture layers slowly building up.

III.3.1 Size, Layout and Architecture ('Structure' I)

The absolute lifespan of individual sites, of course, will have differed, as no doubt did the thickness of their respective cultural layers that built up depending on various different physical parameters, decisions taken and notions held by their inhabitants of how to live. As such the central tell or tell-like part of our sites may clearly stand for both the 'structural' side of our review *and* variability in consequence of 'agency', even though – given the state of our mounds' preservation – there are clear limits to any attempt to reconstruct their 'ancestry' accumulated during the Bronze Age in terms of layer thickness. We will return to this problem below in conjunction with the results of radiocarbon dating, but some other line of evidence first has to be considered that is indicative of structural similarity before we turn back to diversity, change through time and comparisons of lifespan. For it is certainly remarkable how variability in terms of layer thickness (possibly both original and what is remaining) contrasts with what can be considered a fairly 'standardised' layout and size of the inner tell or tell-like part of the Borsod sites under consideration here.

[130] The two dates at *c*. 3331–2931 cal BC (95.5 %; sample no. SZA19/6 = Beta-545756 [charcoal]: 4440 BP +/-30; core 40, metre 3, 40–60 cm) and *c*. 3365–3104 cal BC (95.4 %; sample no. SZA19/13 = Beta-545763 [charcoal]: 4540 BP +/-30; core 15, metre 3, 40–70 cm).

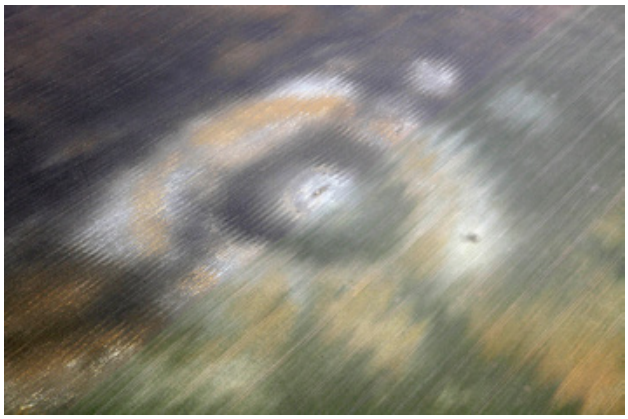


Fig. III-20: Emőd-Nagyhalom. Aerial photograph showing the roundish central part of the site, the course of the ditch discernible by the darker colour of its infill and the surrounding outer settlement.

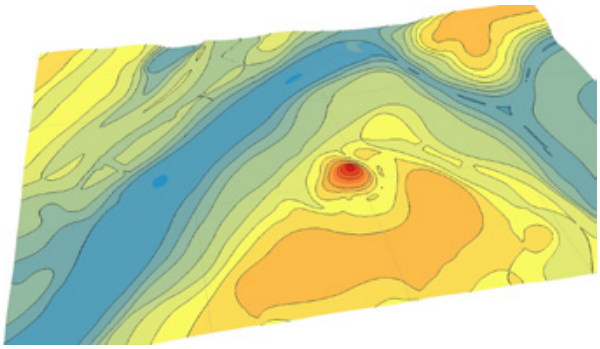


Fig. III-21: Tiszakeszi-Bálinthát Újtemető. Digital elevation model (oblique view) of the site and its immediate surroundings (illustration: Tamás Pusztai).

Depending on their topographic situation, their precise form is somewhat variable, but the clear majority of lowland sites situated on river banks in the Borsod plain itself are more or less roundish and were entirely surrounded by their ditch (figs. III-20 and III-21). The two exceptions to the general rule are Borsodivánka-Marhajárás (fig. III-22) and Tiszabábolna-Fehérló tanya (fig. III-23) located on peninsulae, where the ditches are actually a meander cut-off that connects to the river on both sides and creates an artificial 'island' (Kienlin/Fischl/Pusztai 2018b: 163–169, 251–257). Among the sites in the foothill zone situated on the terraces along the valleys extending southwards from the Bükk mountains the same layout seems to prevail (*e.g.* Maklár-Baglyashalom and Novaj-Földvár; Kienlin/Fischl/Pusztai 2018b: 205–211, 221–227). Sometimes, in this zone the enclosure may have been semi-circular only, or at least as at Tard-Tatárdomb it can now be seen to connect to the rather steep slopes of the terrace (fig. III-24), but erosion may have had a role to play in these cases and thus qualifies this impression.[131]

Similarly, setting aside for the moment the question of smaller forerunners (*e.g.* Ároktő-Dongóhalom and Bogács-Pazsagpuszta), the size of the central part of most of our sites seems rather uniform and falls broadly in the *c*. 0.2–0.6 ha range (fig. III-25): Vatta-Testhalom with *c*. 0.16 ha and Tiszakeszi-Szódadomb with (>) *c*. 0.18 ha provide two somewhat smaller examples; they are followed in close succession and ascending order by Emőd-Nagyhalom (*c*. 0.26 ha), Tiszakeszi Bálinthát-Újtemető (*c*. 0.29 ha), Borsodivánka-Marhajárás (*c*. 0.3 ha), Mezőcsát-Laposhalom (*c*. 0.32 ha), Hernádnémeti-Németihalom (*c*. 0.43 ha; but see above), Tard-Tatárdomb ([>] *c*. 0.44 ha; zone 1, phase B; see below), Ároktő-Dongóhalom ([>] *c*. 0.48 ha; zone 1, phase B; see below), Tiszabábolna Fehérló-tanya (*c*. 0.5 ha), Emőd-Karola szőlők (*c*. 0.52 ha), Szakáld-Testhalom (*c*. 0.56 ha; zone 1, phase B; see below) and Novaj-Földvár (*c*. 0.6 ha). The largest sites, then, are Tibolddaróc-Bércút at *c*. 0.63 ha and Maklár-Baglyashalom with at least *c*. 0.7 ha (for details and discussion Kienlin/Fischl/Pusztai 2018b).

At the extreme ends of the spectrum, obviously, this means that Maklár-Baglyashalom is about four times as large as Vatta-Testhalom. Yet, the majority of sites are much closer in size, and from the perspective of a neighbouring community, overall familiarity may well have prevailed such as the perception of similarity in layout – a major ditch, a couple of households on-tell and others beyond *etc.* – as well as features entirely beyond archaeological insight such as a new house here, another one still in bad repair there, or some extraordinary decoration bending the rules of public displays of individuality *etc.* Clearly, speculation is involved here, but in assuming that every outside visitor would always have counted and compared the number of on-tell houses the way we tend to do, and deliberated upon three as opposed to the expected two rows of on-tell houses, may be misleading. As a matter of fact, our imagined visitor may instead have been distracted by the outer settlement, which was entered first, and which may well have been the much larger, fluid and informative part of the site as regards indicating the well-being of the community encountered. We have to consider that the analytical categories which we apply, and that are often prone to interpretation in terms of economic success and power differentials, may miss the essential point. More often than not, the overall impression may have been one of communities obviously organised along the same familiar and traditional principles observed throughout the Borsod plain.

In a wider perspective, the almost 'standardised' size and layout of their inner tell or tell-like part tends to set our Borsod sites apart from neighbouring tell-'building' groups with greater internal variation. This finding, once more, highlights different trajectories taken and variability between micro-regions, that must not be subsumed under a uniform notion of Bronze Age tells dominating the landscape. Furthermore, it puts into sharp focus the relatively strong 'normative' emphasis in our Borsod

[131] See Bogács-Pazsagpuszta and, in particular, Tard-Tatárdomb, where at least the original enclosure was obviously roundish and did not connect to the slope of the terrace (see below; Kienlin/Fischl/Pusztai 2018b: 155–162, 237–243).

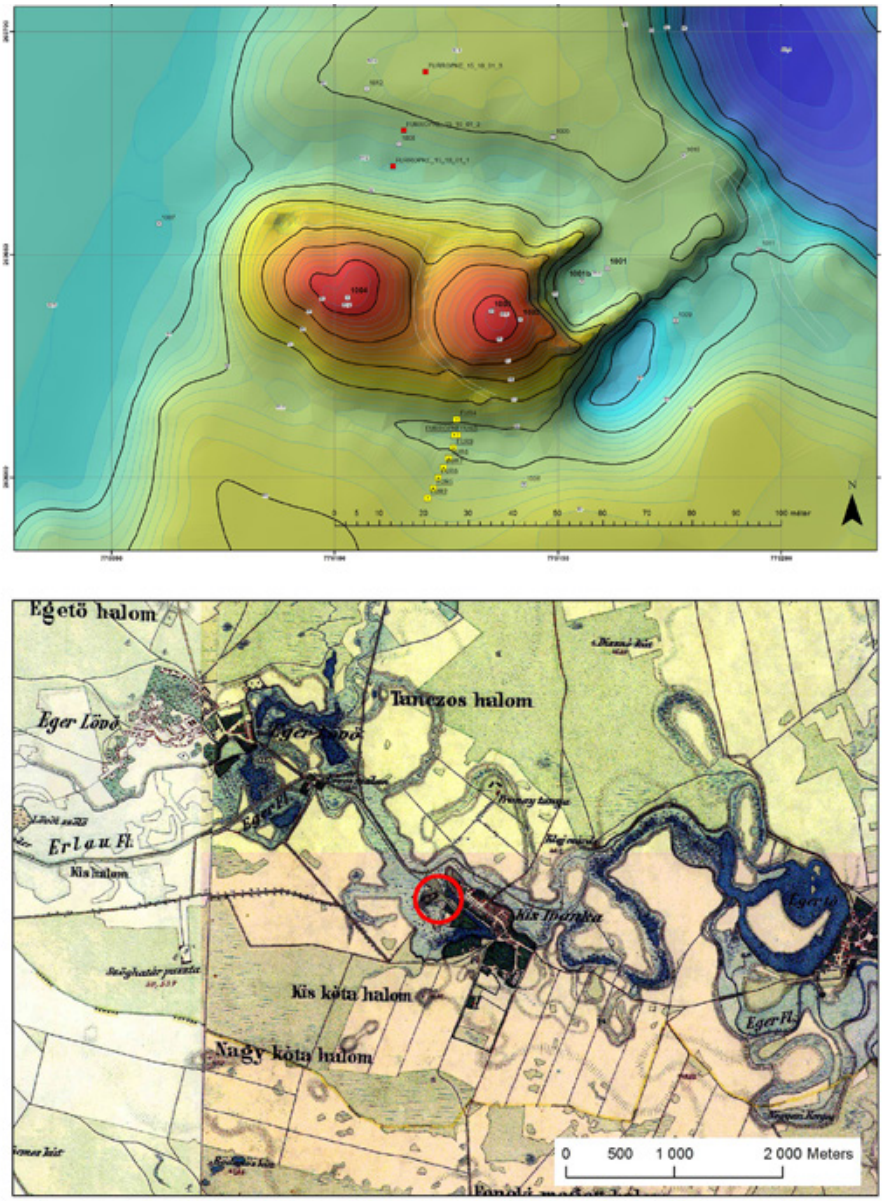


Fig. III-22: Borsodivánka-Marhajárás. Elevation model of the tell part of the site and the surrounding ditch (illustration: Klára P. Fischl) and the site in its premodern setting shown by the Second Austrian-Hungarian Military Survey.

Fig. III-23: Tiszabábolna-Fehérló tanya. Aerial photograph of the site situated on an artificial meander cut-off of the Csincse river.

Fig. III-24: Tard-Tatárdomb. Aerial photograph of the site showing the unusual U-shaped enclosure running into the steep slope on the north-eastern flank of the site that is thought to be due to erosion.

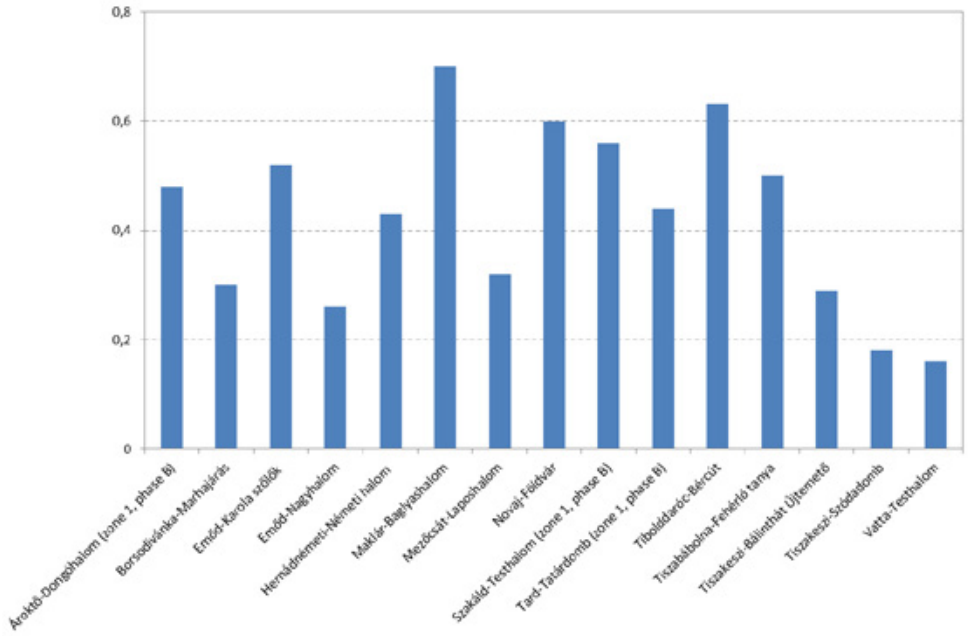


Fig. III-25: The size of the central tell or tell-like part of the Hatvan to Füzesabony period Borsod sites discussed (in hectares).

communities: Multi-layer Vatya sites further west, for example, range in size from (sometimes below) *c.* 1 ha to *c.* 5–6 ha and occasionally beyond – plus x, one should add, for possible settlement activity in their surroundings (Vicze 2000: 121 tab. 1; Szeverényi/Kulcsár 2012: 293–335) –, examples of different size and layout being Beloiannisz/Ercsi-Bolondvár (*c.* 1.4 ha; Szeverényi/Kulcsár 2012: 298–299), Vál-Pogányvár (*c.* 3 ha; Szeverényi/Kulcsár 2012: 300–301) or the fortified tell part of the famous Százhalombatta-Földvár on the Danube (*c.* 5.5 ha; Szeverényi/Kulcsár 2012: 294). A similar range is assumed for previous Nagyrév sites (Kalicz-Schreiber 1995: 136; David 1998: 232). The central tell or multi-layer part of Hatvan sites, among them the early phases of our Borsod tells, is typically rather small (below *c.* 1 ha), but is often located in a much larger settled area of up to 6 ha (Kalicz 1968: 131–134; David 1998: 234–235). Broadly the same still holds true for our Borsod sites during the subsequent Füzesabony period, while closely related Otomani settlements beyond, for example in neighbouring north-western Romania, may cover anything from below 1 ha up to occasionally some 7–9 ha (Horedt 1974: 208 fig. 2, 226–227; Bader 1978: 30–38, 1982: 66; Gogâltan/Cordoş/Ignat 2014) – many of them, again, plus an outer settlement at some stage or throughout the entire lifespan of their occupation. Such differences in size, for sure, partly depend on the given topographic situation that occupants had to cope with, or that they sought to take advantage of, especially when considering some of the multi-layer Vatya sites, that are fortified hillforts rather than 'normal' tells, and their internal subdivisions (fig. III-26), or the different types of multi-layer Otomani sites, some of which developed on islands in swampy lowland areas while others occupied the high terraces along rivers such as the Ier (figs. III-27 and III-28). However, such differences are also an expression of different regional traditions, of human choice and broadly cultural notions of where and how to live, in what kind of spatial constellation intra- and off-site, among how many fellow human beings *etc.*, that could always have been different. This is why, then, that we see variability – both on the macro level when different 'culture' groups such as Vatya or Otomani-Füzesabony are compared, and to varying degrees within them or in a given micro-region, with the Borsod identity apparently providing an example of comparatively little deviation tolerated.

This point clearly refers back to the attempt outlined above to characterise Bronze Age tell communities in terms of identity, adherence to traditional ways of life and a somewhat 'conservative' attitude to community, social space and architecture rather than aggrandisement and conflict. However, it is also important here to stress the tension between normativity or structure on the one hand and agency on the other, and the different emphasis put on either side by different societies: We will see below that there are adjustments being made in the allocation of households to an on-tell or off-tell position. Their 'status' in terms of settling down in different sections of the site and their corresponding role in the community was partly fluid and under negotiation. Similarly, there clearly is some variability in overall size, and the relative size and possible importance of the various parts of the settlements under consideration can be seen to change through time and differ from site to site. In detail, different solutions were found regarding the spatial arrangement of settlements and the organisation of society. Yet, this clearly took place within structural confines and did not put the cohesion of the entire community at risk – the Late Bronze Age and Early Iron Age in the region with its sometimes

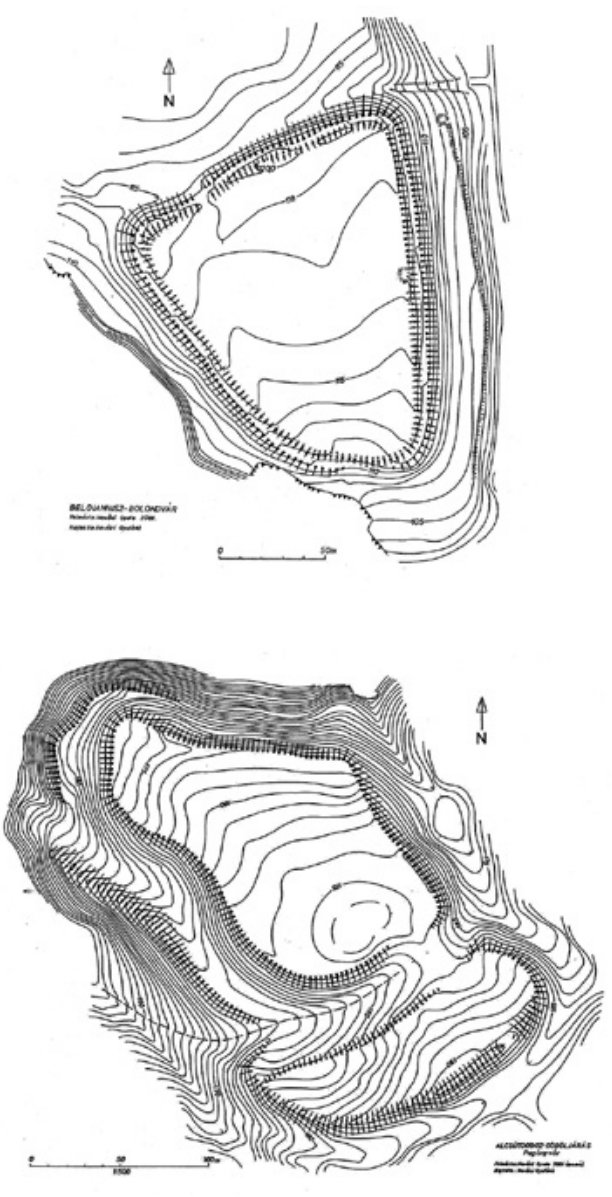


Fig. III-26: Alcsútdoboz-Göböljárás-Pogányvár (bottom) and Beloiannisz/Ercsi-Bolondvár (top); Vatya culture (after Szeverényi/Kulcsár 2012: 299 fig. 6, 302 fig. 9).

much more populous but short-lived sites offers a foil against which these historically specific characteristics of Early to Middle Bronze Age 'tell society' can be better appreciated.[132]

Having said all that, one has to admit that despite standing on a definite heap of settlement debris and Bronze Age house remains, it is often difficult by means of magnetometry to obtain a precise notion of settlement layout and house size *etc.* (see also Niebieszczánski *et al.* 2018: 50–57). Since in the plain, in particular, these mounds – even if tell-like only – were often important landmarks that offered some protection against frequent flooding in premodern times, they attracted reuse later. Interestingly, this does not apply

[132] *E.g.* Szeverényi/Priskin/Czukor 2014; Kienlin/Marta 2014; Gogâltan 2016; Harding 2017; Szeverényi *et al.* 2017; Gogâltan/Sava 2018; Heeb *et al.* 2018.

Fig. III-27: Săcueni-Cetatea Boului, Bihor county, north-western Romania; Otomani culture. Aerial photograph and magnetometer data of the site situated on a former island in the valley of the Ier river.

to the subsequent Late Bronze Age that instead seems to have avoided the old places, and developed different preferences in site location and the organisation of social space.[133] Gelej-Pincehát is a good example, as in this case there is some spatial overlap of what we think is the outer settlement of an Early to Middle Bronze Age tell or tell-like site and Late Bronze Age settlement activity at some distance south and south-east (Kemenczei 1979: 27, fig. 2). There is, however, some clear shift in focus, and towards the Early to Middle Bronze Age tell Late Bronze Age evidence is distinctly absent (Kienlin/Fischl/Pusztai 2018b: 189–195). Tiszakeszi-Szódadomb provides another one, where surface evidence suggests Late Bronze Age activity (settlement and graves) in the wider surroundings of the tell, but again avoiding the mound itself (Fischl/Kienlin 2015: 114–119; Kienlin/Fischl/Pusztai 2018b: 267–273). Both in the Borsod plain and beyond, tells often also attracted later graves, an example here being Ároktő-Dongóhalom which has Iron Age and Medieval inhumation graves on top of the mound (Fischl 2006: 9–13, 178).[134] At Ároktő, too, massive silo pits were dug right into the tell in

[133] A rare exception further afield is the site of Munar in the lower Mureș basin; see Gogâltan (2016: 90–94).

[134] Other examples, beyond the Borsod plain, include the Romanian sites Carei-Bobald, Satu Mare county, with a chapel and cemetery, or Toboliu, Bihor county, with the graves of a nearby farmstead.

Fig. III-28: The different topographic situations of multi-layer Otomani sites in north-western Romania compared (Bihor county); the sites of Otomani-Cetatea de Pământ situated on an island of the Ier valley (bottom) and Otomani-Cetățuie on a high terrace above the Ier river (middle and top).

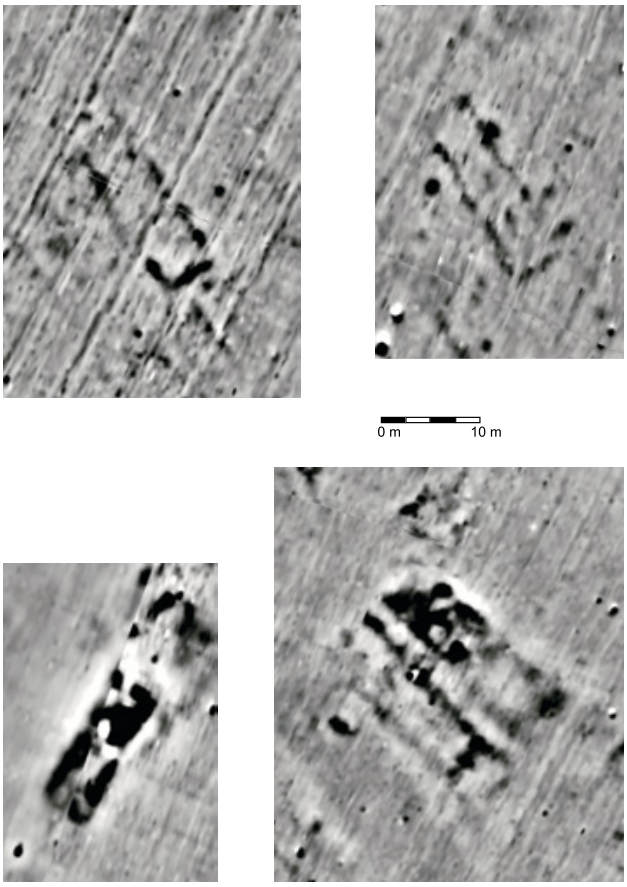


Fig. III-29: Examples of houses identified by magnetometry, their different magnetic visibility and/or preservation from various Borsod sites. Top: Emőd-Nagyhalom, two houses from the distinct rows of houses in the farther part of the outer settlement; bottom: Emőd-Nagyhalom, houses from the inner ring of houses arranged in concentric order along the outside of the ditch.

modern times. A similarly massive intervention is evident at Emőd-Karola szőlők, where a huge rectangular anomaly (*c.* 40 m long and 14 m wide) cuts right through the middle of the site and is thought related to either World War II activity in the area or, again, a silo (Kienlin/Fischl/Pusztai 2018b: 171–178). By comparison, a modern station point such as at Emőd-Nagyhalom may seem negligible but may still cause substantial interference with magnetometry due to its steel reinforcements. Finally, of course, quite a number of sites such as Bogács-Pazsagpuszta feature archaeological trenches, more or less well documented that further distort the image obtained.

However, thanks to the emphasis our Bronze Age adherents of the tell lifestyle put on genealogy and architectural continuity, there is at least on a couple of sites clear patterning. It is possible, then, to distinguish between the location of particular buildings and lines of houses even though there may have been some shift, typically along the longitudinal axis, from phase to phase. We should be wary, however, not to derive population estimates based on the number of houses or households identified, since there is the distinct possibility of individual lots not being occupied throughout and of not all the houses existing at the same time. On the positive side, we clearly see overall stability in spatial organisation and corresponding notions of social space that, in principle, required the stability of households and superimposition of houses during subsequent phases.

Evidence of individual houses, then, is of variable quality and comes from the tell, albeit fewer in number and often blurred by the superimposition of features *etc.*, and the outer settlement of a number of sites. The most obvious are rectangular structures made up of different kinds of features that can be identified as houses by their size and shape (figs. III-29 to III-31). In some cases there are right angles and lines of more or less strong continuous dark (positive)

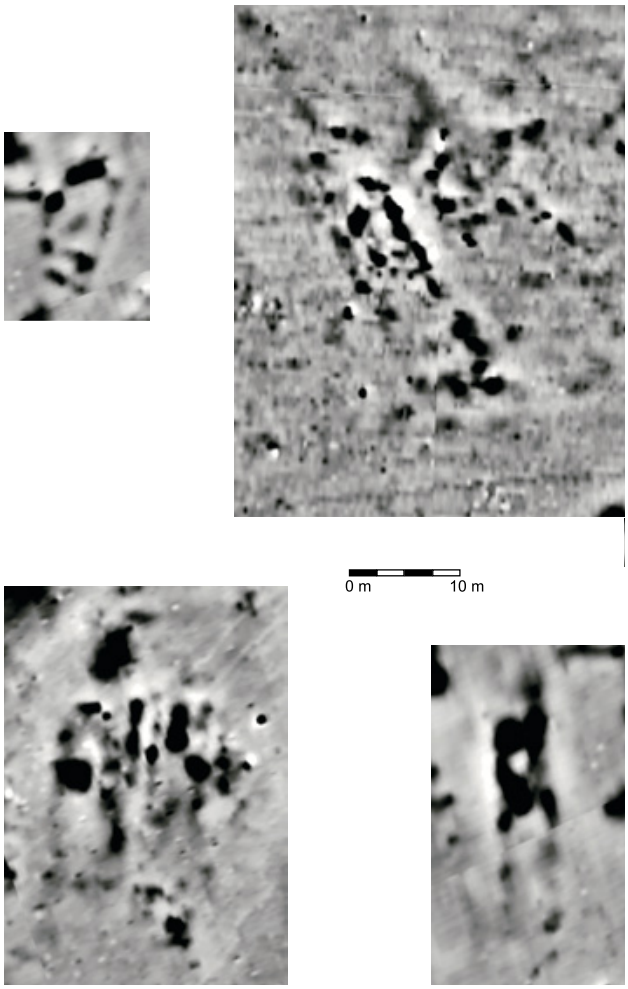


Fig. III-30: Examples of houses identified by magnetometry, their different magnetic visibility and/or preservation from various Borsod sites. Top left and bottom: Maklár-Baglyashalom, houses from the inner tell-like part of the site; top right: Vatta-Testhalom, houses from the outer settlement.

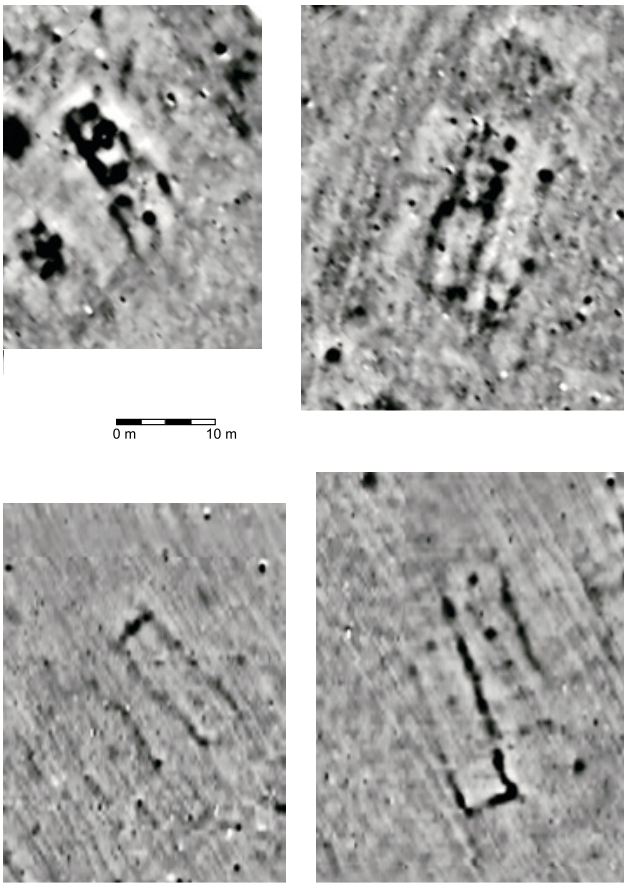


Fig. III-31: Examples of houses identified by magnetometry, their different magnetic visibility and/or preservation from various Borsod sites. Top left: Tard-Tatárdomb, house from the inner tell-like part of the site (zone 1, phase A); top right: Tard-Tatárdomb, house from the outer ring of houses arranged in concentric order along the outer enclosure; bottom: Tibolddaróc-Bércút, houses from the outer settlement.

anomalies indicative of house corners and straight walls. Alternatively we also see structures made up of discrete roundish anomalies aligned in rows, and it is tempting to interpret these as post holes. The values obtained from these structures differ widely from about 5 nT to 10 nT wherever they appear in lighter grey shades, to values in the 20 nT to 30 nT range for dark grey or black parts up to occasional values about 50 nT. A faintish white (negative) shadow (*c.* -2 nT to -5 nT) may run along the walls and/or 'cover' the interior of the houses. In general terms, these anomalies stem from the specific magnetic properties of the building materials used (*e.g.* clay and wood, such as in a wattle and daub construction), from changes in soil chemistry due to human impact (*i.e.* broadly speaking the presence of 'cultural layers'), and from their contrast in susceptibility from the surrounding soil. The differences in strength and corresponding magnetic visibility may be the combined result of various factors. Both (possibly partial) destruction by fire and construction details such as lighter or more massive walls and the decay of a greater amount of wood (used, for example, for different parts of houses or different house types) would have enhanced visibility by resulting in stronger positive anomalies (figs. III-32 and III-33). In the case of burning, bi-polar anomalies and accompanying whitish (negative) shadows alongside houses *etc.* may be due to the reorientation of iron oxide particles at higher temperatures; otherwise the faint negative anomalies inside and around houses may relate to the specific magnetic properties of either the different materials used to cover the floors (figs. III-34 and III-35) and/or of sediment trapped in the ruins after the abandonment of the site. Partial or total destruction of house remains, on the other hand, with less building material present would have reduced the strength of the positive (dark) signal given by the walls *etc.* Processes involved here may include anything from deliberate clearing of the site of a house after its destruction or abandonment, to more or less complete erosion of house remains already in prehistory or as a consequence of deep ploughing and modern agriculture.

Generally speaking, that is to say, our data are more reliable with regard to the overall size, layout and orientation of houses than to architectural details of individual buildings – let alone the date and function of individual pits. Thus, while it is tempting to interpret different types of anomalies

Fig. III-32: Tiszaug-Kéménytető; Nagyrév culture. Well preserved house from layer 2 with substantial architectural remains that would have given a strong signal in magnetometry (after Csányi/Stanczik 1992: 115 fig. 75).

in terms of different building techniques, materials used *etc.*, the potentially complex formation processes involved must always be considered. More or less continuous lines of anomalies *may* refer to more massive walls, while lines of discrete roundish 'pits' *could* point to postholes and wattle and daub construction. However, such differences may also relate to the preservation of individual houses and their magnetic visibility. Excavations, therefore, are required to be more precise about the construction details of houses such as potential lines of inner posts, suspected inside walls, hearths or ovens, and how these compare between the different sites.

Houses identified by magnetometry on our Borsod sites show some variation in size, typically *c.* 4–5 m broad and 10–16 m long, and are often of north/south to broadly north-west/south-east orientation (figs. III-29 to III-31; Krämer 2017; Kienlin/Fischl/Pusztai 2018b). With the larger ones it is sometimes difficult to tell truly elongated buildings apart from two overlying phases of somewhat shorter houses with some shift along the long axis, while some smaller ones may in fact be the result of incomplete burning or preservation *etc.* All things considered, this is in good accordance with what we know from other Bronze Age tell-'building' communities throughout the Carpathian Basin. Although a trend towards smaller houses and household units – compared to previous Neolithic tell sites – has been claimed as a characteristic of Bronze Age tell communities (*e.g.* Parkinson/Gyucha 2012b: 246; see also 2012a), there is, in fact, considerable variation.[135] Often at the same site there are houses of

Fig. III-33: Tiszaug-Kéménytető; Nagyrév culture. Less well preserved house from layer 5 with little architectural remains *in situ*, and correspondingly a poor magnetic visibility to be expected (after Csányi/Stanczik 1992: 117 fig. 77).

[135] See, for example, Gogâltan (2005: 167–168), Fischl (2006: 186), Sørensen (2010: 135), Csányi/Tárnoki (2013: 712–713), Fischl *et al.* (2013: 361), Gogâltan/Cordoș/Ignat (2014), Jaeger *et al.* (2018a) and Fischl/Kienlin (2019).

Fig. III-34: Toboliu-Dâmbu Zănăcanului, Bihor county, north-western Romania; Otomani culture. Wooden floor of a house structure in phase 3, trench 1 (after Lie *et al.* 2019: 360 fig. 8).

Fig. III-35: Toboliu-Dâmbu Zănăcanului, Bihor county, north-western Romania; Otomani culture. Clay floor of a house structure in phase 5, trench 1 (after Lie *et al.* 2019: 361 fig. 9).

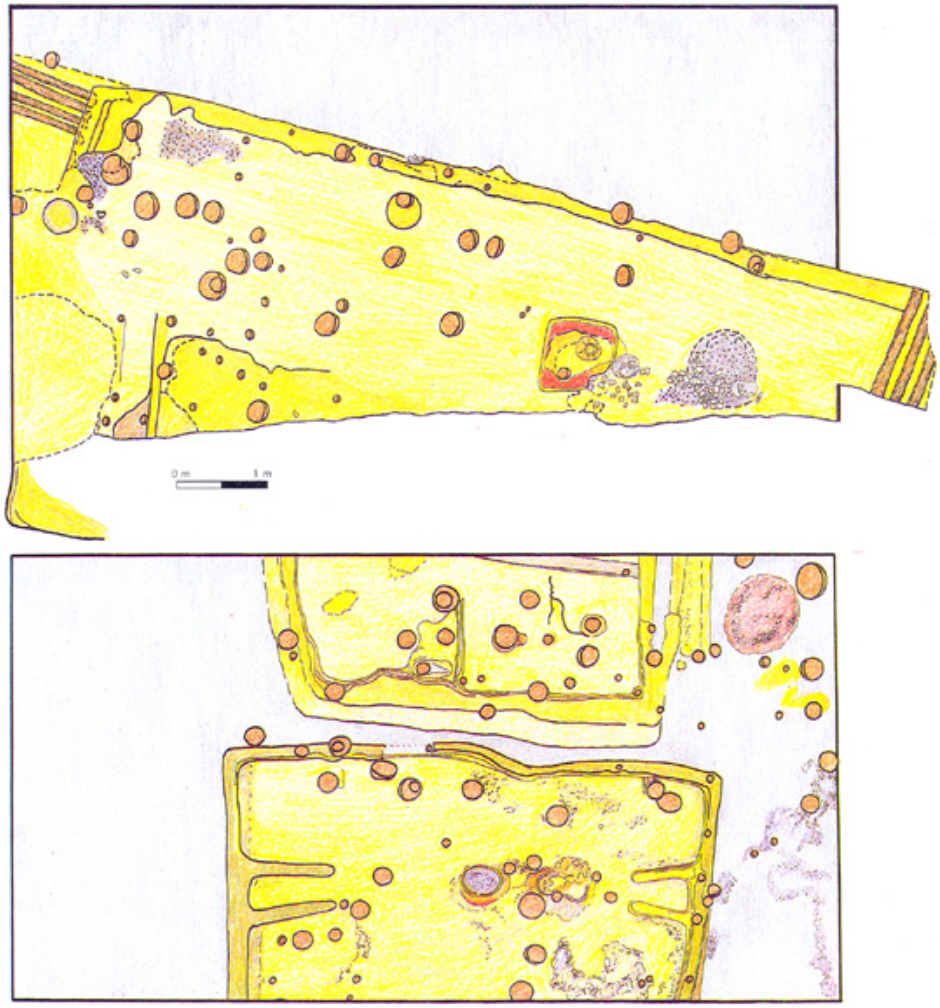


Fig. III-36: Tószeg-Laposhalom; Nagyrév culture. Houses of different size and internal structure (after Bóna 1992b: 111 figs. 72 and 73).

different size coexisting during the same phase and/or there is a change through subsequent (culture) phases (*e.g.* Békés-Várdomb; Banner 1974: 20–41; Bóna 1974: 136–146). At Vatya period Százhalombatta-Földvár there is evidence of the coexistence of two 'types' of houses: smaller houses of *c.* 5 m x 8–9 m in size with one room and one or more hearths; and larger two-room houses of *c.* 5 m x 10–11 m in size, where the hearth or hearths are situated in the larger room and the smaller one is thought to have been used for storage *etc.*[136] At Százhalombatta most of the two-room houses are taken to be the result of remodelling, *i.e.* an extension added during the life cycle of the house. Yet, there is also evidence of houses built with an internal division from the start. Importantly, the excavators note that such differences in house size, their internal layout and the possible addition of another room do not reflect social differentiation, but rather changing needs and/or broadly speaking different 'capacities' of households over time (Sørensen 2010: 140–141; Vicze 2013a: 760–761; see also Sørensen/Vicze 2013). A similar pattern with the juxtaposition of smaller houses and larger multi-room ones is found at Tószeg-Laposhalom (fig. III-36; Bóna 1992b: 107, 110–113) and at Füzesabony-Öregdomb where the smaller houses are some 4 m wide and *c.* 5–6 m long, while the larger ones are extended on the long axis and some 5 m x 12–14 m in size (Szathmári 1992: 135–136; Szathmári *et al.* 2019: 301–302). Evidence of change through time comes, for example, from Százhalombatta-Földvár (Vicze 2013b: 73–75), or from Jászdózsa-Kápolnahalom where throughout Hatvan layers there are rather large multi-room houses in excess of 12 m in length, with a subsequent reduction in house size to *c.* 5–6 m on 10–11 m in Middle Bronze Age times (Stanczik/Tárnoki 1992: 124–125). Finally, rather large elongated multi-room houses some 5–6 m wide and more than 10–12 m long are also known from the Otomani culture occupation at Túrkeve-Terehalom (fig. III-37; Csányi/Tárnoki 1992: 160–162; 2013: 709–713) and Berettyóújfalu-Herpály (Máthé 1992a: 171). Vatin period houses at Mošorin-Feudvar, Serbia, are some 5–6 m on 10–12 m in size (fig. III-38; Hänsel 2002: 80; Falkenstein/Hänsel/Medović 2014: 115–116; 2016: 12–21).

Construction techniques of houses are variable and include more massive wooden posts to frame houses with walls

[136] See Sørensen (2010: 138–139) and Vicze (2013a: 759–760; 2013b: 72–73); see also, for example, Jaeger *et al.* (2018b) on Kakucs-Turján.

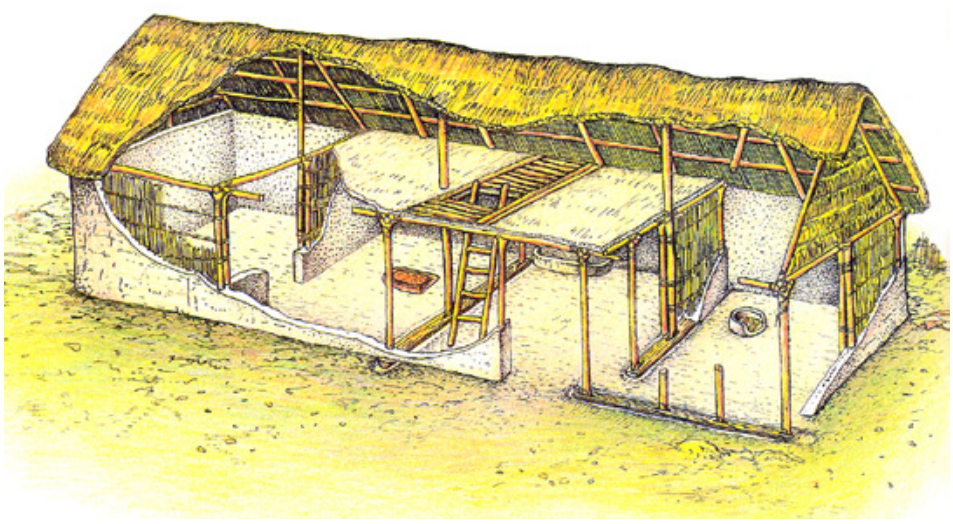


Fig. III-37: Túrkeve-Terehalom; Otomani culture. Reconstruction of an elongated multi-room house from layer 4 (after Csányi/Tárnoki 1992: 160 fig. 114).

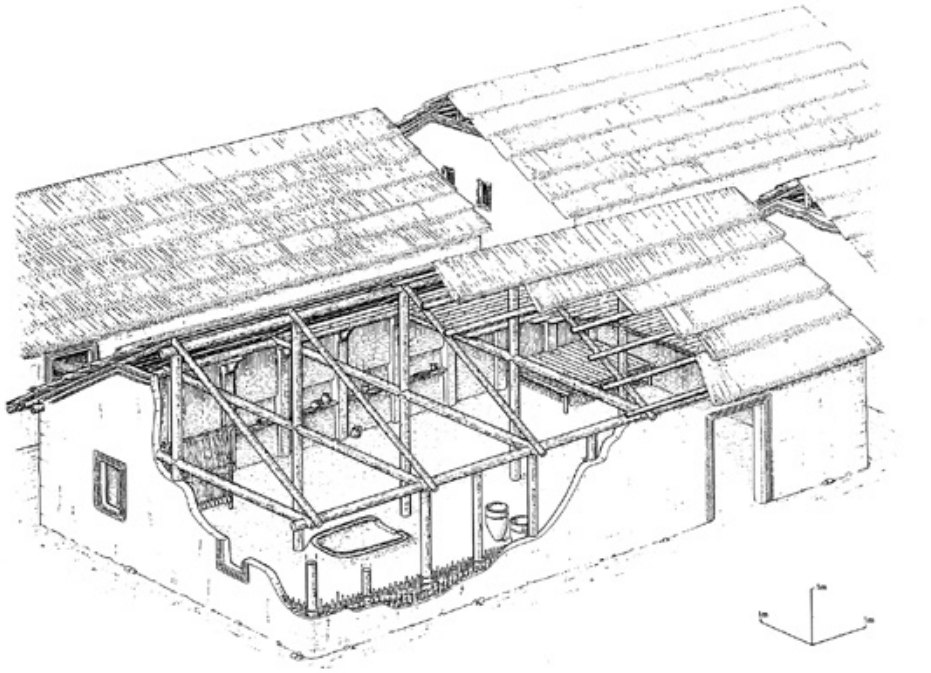


Fig. III-38: Mošorin-Feudvar, Vojvodina, Serbia; Vatin culture. Reconstruction of Middle Bronze Age houses (after Hänsel/Medović 1991: 77 fig. 11).

constructed using the wattle and daub technique, as well as thicker walls of clayey daub (*e.g.* figs. III-32 and III-33 above) or the *Blockbau* technique – sometimes used alongside each other during the same phase of a site or even on the same building (*e.g.* Békés or Bölcske-Vörösgyűrű).[137] Plaster was applied to walls to protect them from decay, and there is also some evidence at least of decorations applied to the (outside) walls (*e.g.* Tiszaug-Kéménytető; Csányi/Stanczik 1992: 116 fig. 76; see also Jaeger 2018: 202). The houses had more or less substantial substructures of clayish material and floors, repeatedly renewed, of fine clay layers or, occasionally, of carefully placed wooden planks (*e.g.* figs. III-34 and III-35 above). Fixed installations inside houses comprise hearths and/or ovens and storage pits *etc.* (figs. III-39 to III-41).[138] From the Borsod plain there is potential evidence of hearths, for example, in the magnetometer data from Tibolddaróc-Bércút, a large pit (possibly for storage) inside a house

[137] *E.g.* Banner 1974: 35–39; Bóna 1974: 143–146, 154–156; Poroszlai 1992a: 143; Sofaer 2010: 200–202; Csányi/Tárnoki 2013: 710–711; Vicze 2013a: 760–761; Jaeger 2018: 201–204; Skorna/Kalmbach/Bátora 2018: 106–107.

[138] See the various tell sites discussed in the contributions to Meier-Arendt (1992) and Gogâltan/Cordoș/Ignat (2014); for good examples from the more recent excavations at Százhalombatta-Földvár, see Sørensen (2010: 141–143) and Vicze (2013a).

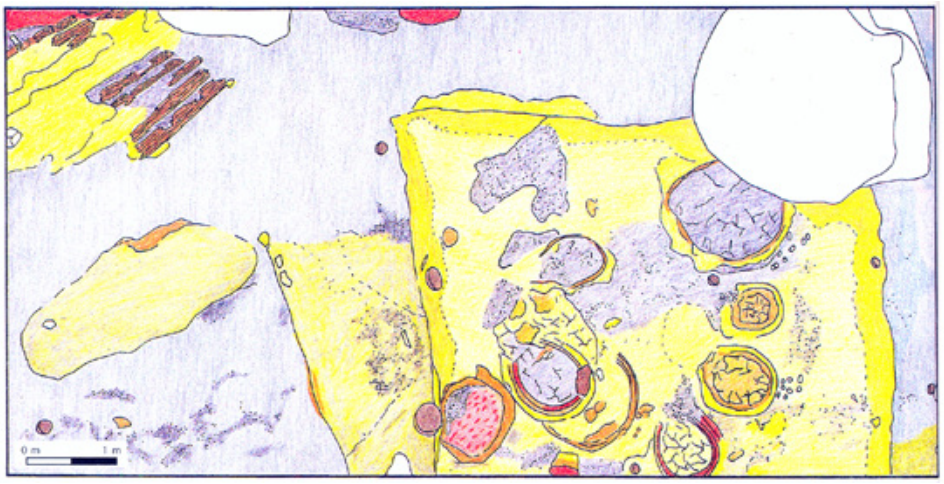


Fig. III-39: Füzesabony-Öregdomb; Füzesabony culture. Interior of a house from layer IV with multiple hearths (after Szathmári 1992: 136 fig. 93).

Fig. III-40: Százhalombatta-Földvár; Vatya culture. Oven feature typically found in Middle Bronze Age houses (after Sørensen 2010: pl. 5.2).

has recently been excavated in the tell at Borsodivánka-Marhajárás, while on other sites their existence is implied by core drilling and magnetometer data (fig. III-42). Grinding stones, pots for cooking and storage as well as various tools of chipped and ground stone, bone and antler point to the various different activities carried out inside and around houses.[139]

Along these lines relatively good evidence of the spatial layout of their tell or tell-like core comes from the sites of Maklár-Baglyashalom and Mezőcsát-Laposhalom, while for example at Szakáld-Testhalom and Tard-Tatárdomb an informed guess is feasible. The absence of discernible house structures, on the other hand, from sites such as Emőd-Karola szőlők, Emőd-Nagyhalom or Tibolddaróc-Bércút does not imply absence of occupation but may refer to either of the following factors: erosion, repeated rebuilding that obliterated all clear patterning in the remains of previous settlement and/or the lack of burned houses in the upper layers that show up in the magnetometer data.

[139] See, for example, Meier-Arendt (1992), Sørensen (2010: 143–145), Gogâltan/Cordoș/Ignat (2014) and Fischl/Kienlin (2019).

Fig. III-41: Százhalombatta-Földvár. Typical pits inside Vatya period Middle Bronze Age houses (after Vicze 2013a: 763 fig. 6).

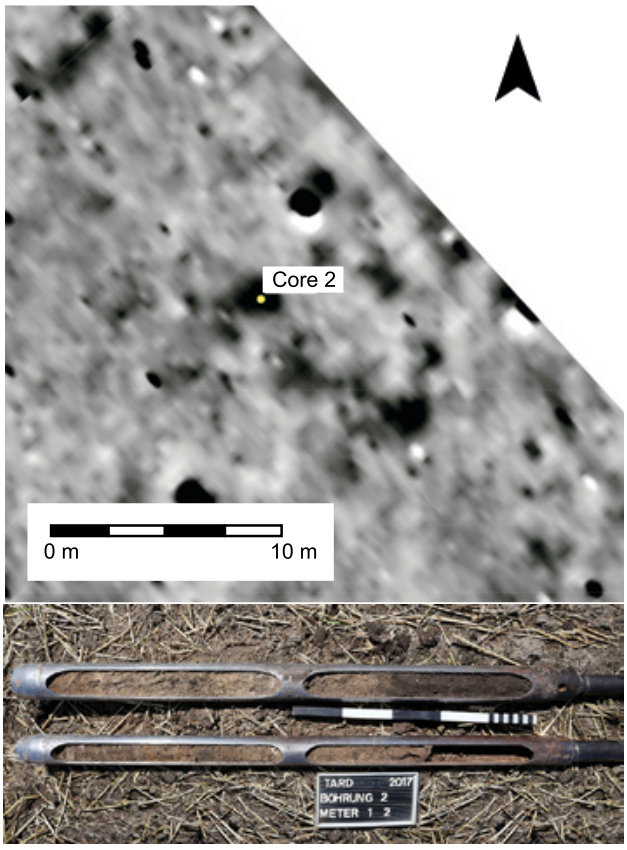


Fig. III-42: Tard-Tatárdomb. A. Positive (dark) anomalies identified as general settlement pits of various functions from the expanded Füzesabony period core area (zone 1, phase B) (greyscale plot; data range [black to white]: +/- 10 nT); B. Core 2 taken from one of these anomalies to verify their interpretation, showing a more or less homogeneous pit filling *c.* 1.7 m deep underneath the topsoil.

To start with, there is good evidence of the layout of its internal occupation from the tell-like settlement of Maklár-Baglyashalom, one of our larger sites with an inner diameter of *c.* 90–116 m and an inside area of *c.* 0.7–0.8 ha (fig. III-43).[140] There is evidence of numerous houses, most of them broadly orientated in a north-south direction, although they are not easily separated throughout and possibly stem from different occupation levels. Most likely we see various phases of up to three rows of *c*. 6 to 7 houses, two standing rather close-by in the middle and north (these are apparently rather stable, though potentially with some shift along the predominant north-south axis), plus a southern one separated by a small alley. One should note, however, a couple of weaker anomalies in this southern section, and slightly different orientations that occur among the houses. It is possible therefore that we see the condensed picture of several phases of a less dense occupation with more variable orientation in this part. Houses arranged in parallel order, often located at distances down to just some 2 m, have also been identified in the excavation at nearby Füzesabony-Öregdomb, that is also situated on the Borsod plain (fig. III-44; Szathmári 1992: 135–136; Szathmári *et al.* 2019: 301–302). A similar pattern may be evident from Mezőcsát-Laposhalom, which is also a tell-like site but somewhat smaller with an inner diameter of *c.* 47–76 m and a corresponding inside area of *c.* 0.32 ha (fig. III-45). It is possible that in this case there are three lines of houses, two standing close-by in the middle and north-west, plus a south-eastern one separated by a small alley. However, it is somewhat more likely that in the middle and

[140] Including the tentative reconstruction of the western section destroyed by a sand pit; see Kienlin/Fischl/Pusztai (2018b: 205–211).

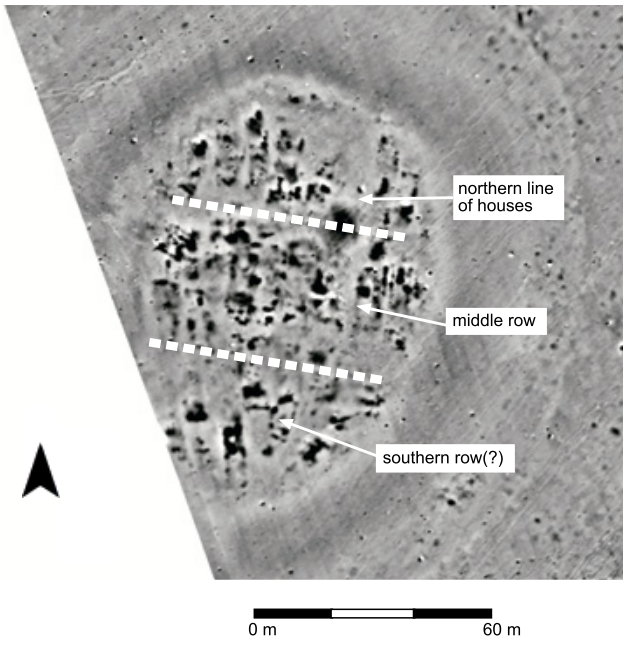


Fig. III-43: Maklár-Baglyashalom. Detail of the magnetometer data from the central part of the site illustrating the inferred layout of the settlement with various phases of most likely three rows of houses (greyscale plot; data range [black to white]: +/- 10 nT).

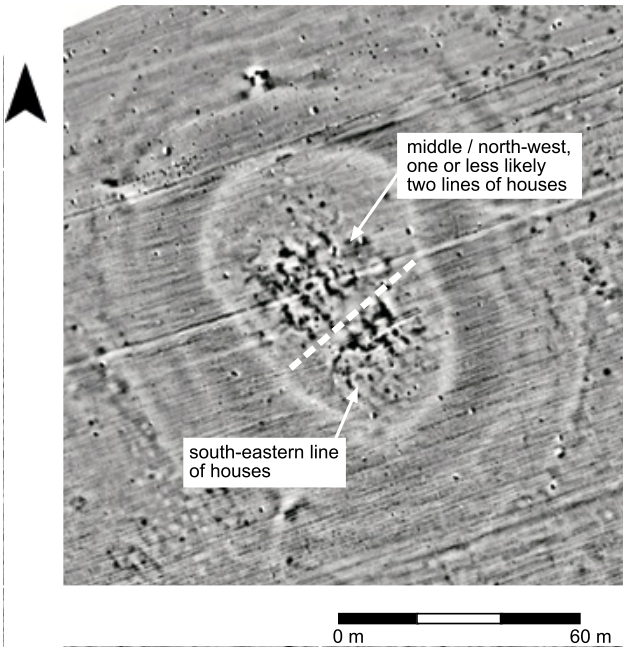


Fig. III-45: Mezőcsát-Laposhalom. Detail of the magnetometer data from the central part of the site illustrating the inferred layout of the settlement with various phases of perhaps three, or more likely just two rows of houses (greyscale plot; data range [black to white]: +/- 10 nT).

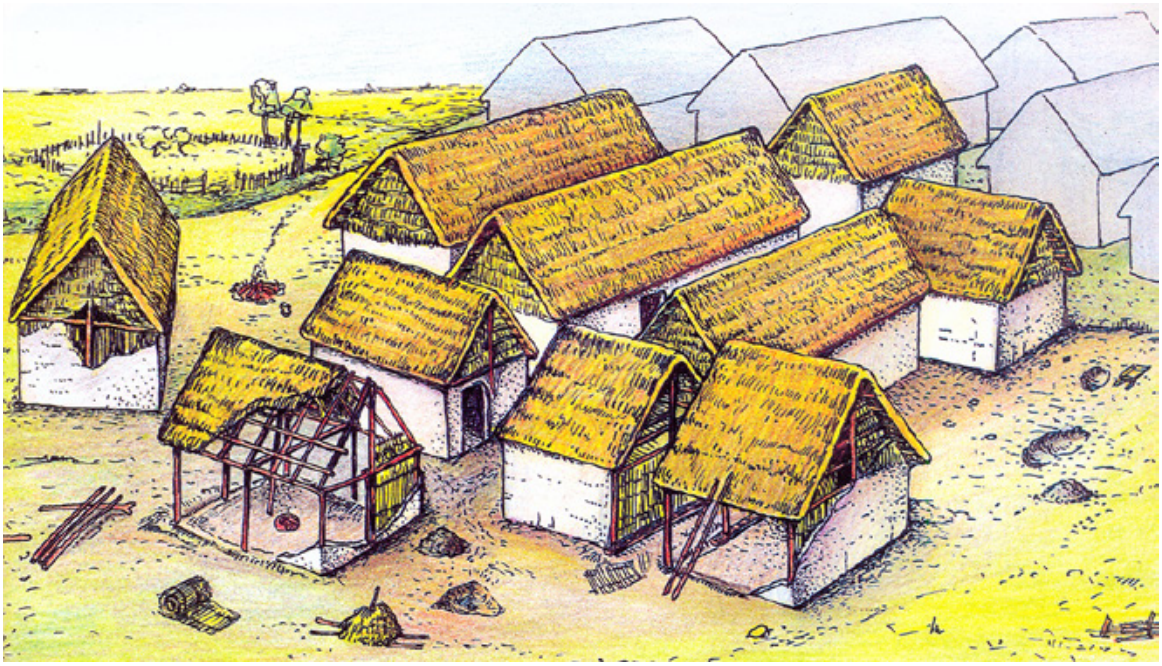


Fig. III-44: Füzesabony-Öregdomb. Tightly packed houses arranged in parallel order (after Szathmári 1992: 135 fig. 92).

north-west there are the remains of just one row of houses, but different overlying phases with a slight shift between them along the predominant north-west to south-east axis, or just one phase of somewhat longer houses of *c*. 16–18 m length (Kienlin/Fischl/Pusztai 2018b: 213–219).

While details clearly differ, such as the number of rows of houses (potentially two to three), their orientation (from broadly north/south to north-west/south-east), or possibly a larger open area devoid of anomalies in the northern section of Mezőcsát, it is just possible that there is some pattern emerging that is continued on other sites, though the evidence is increasingly poor. The older Hatvan period

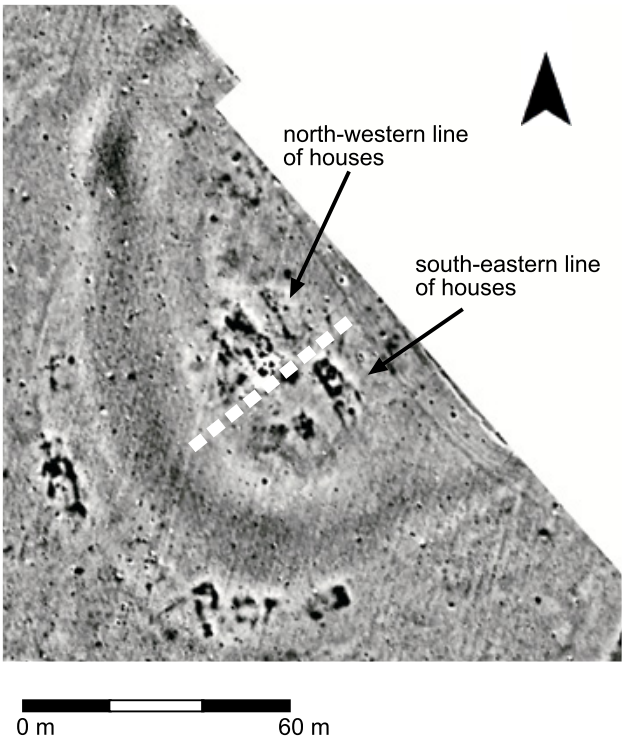


Fig. III-46: Tard-Tatárdomb. Detail of the magnetometer data from the central part of the site illustrating the inferred layout of the settlement with various phases of most likely two rows of houses in the area of the older Hatvan period core of the site (zone 1, phase A) (greyscale plot; data range [black to white]: +/- 10 nT).

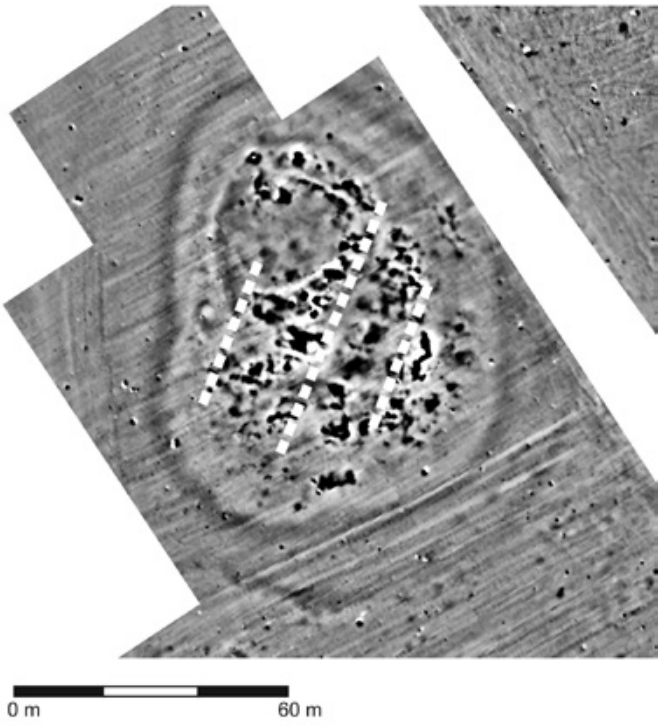


Fig. III-47: Szakáld-Testhalom. Detail of the magnetometer data from the central part of the site illustrating the inferred layout of the settlement with various phases of perhaps three rows of houses (greyscale plot; data range [black to white]: +/- 10 nT).

core of Tard-Tatárdomb with an inner diameter of *c.* 46–57 m and an inside area of *c.* 0.2 ha, possibly features two lines of north-west to south-east oriented houses, three in the north-west, one sure and two likely ones in a south-eastern row (fig. III-46).[141] The evidence from Szakáld-Testhalom may be partly disturbed and may also feature an enlargement to the central core (see also the discussion below). Eventually the site had an inner diameter of *c.* 73–95 m and an inside area of *c.* 0.56 ha, and it also seems to feature several rows of (north-)west to (south-) east oriented houses (fig. III-47; Kienlin/Fischl/Pusztai 2018b: 229–235). From other more poorly preserved sites the evidence is more circumstantial. This group includes Tiszakeszi-Szódadomb, where in the western part of the mound there may be two rows of houses with north(-west) to south(-east) orientation, and Vatta-Testhalom, where the overall pattern of strong, partly elongated anomalies in a broadly north-west to south-east direction is suggestive of the presence of house remains and a comparable arrangement (Kienlin/Fischl/Pusztai 2018b: 267–273, 275–280). Since a couple of sites such as Emőd-Karola szőlők and Tibolddaróc-Bércút have no clearly discernible houses preserved in their inner tell-like section, it is clear that no general rule can be established. Yet there is a distinct likelihood that on-tell houses arranged in parallel order were known throughout and possibly widely preferred by communities in the Borsod plain. Of course, a comparable pattern of houses arranged in parallel rows, and often located at distances down to just a couple of metres, is also known beyond the Borsod plain throughout the Early to Middle Bronze Age Carpathian Basin, prominent examples being Mošorin-Feudvar in Serbia (fig. III-48; Vatin group; Hänsel 2002: 80–81; Falkenstein/Hänsel/Medović 2016: 14–19), maybe Košice-Barca in Slovakia (fig. III-49; Otomani-Füzesabony; Furmánek/Veliačik/Vladár 1999: 115; see, however, Točik 1994) and perhaps Crestur-Cetățuie in north-western Romania, recently covered by magnetometry (Otomani; Ghemiș 2014).

Their adherence to a layout that features houses of broadly similar size and composition, arranged in parallel order, and that rather avoided deviation can obviously be associated with the 'normative' side of Borsod communities. This is all the more true, since there clearly was choice: An alternative layout of social space can be found, for example, at Tiszaug-Kéménytető, with at least two excavated house groups at a distance of 8–10 m (Nagyrév; Csányi/Stanczik 1992: 117–119); and Nitriansky Hrádok (Maďarovce; Furmánek/Veliačik/Vladár 1999: 115–116, fig. 53) and Százhalombatta-Földvár (late Vatya/Koszider period; Vicze 2013a: 758–759, fig. 1; 2013b: 72) also feature distinct clusters of houses, which are more or less clearly set apart. It is strange, then, to see this particular pattern of on-tell houses arranged in parallel order feature so prominently in debates on social differentiation on Bronze

[141] For details and discussion of the two-phase inner ditch and tell-like core at Tard, see below and Kienlin/Fischl/Pusztai (2018b: 237–243). Due to the limits of dating outlined above these house remains may, of course, also belong to the Füzesabony period occupation of this area.

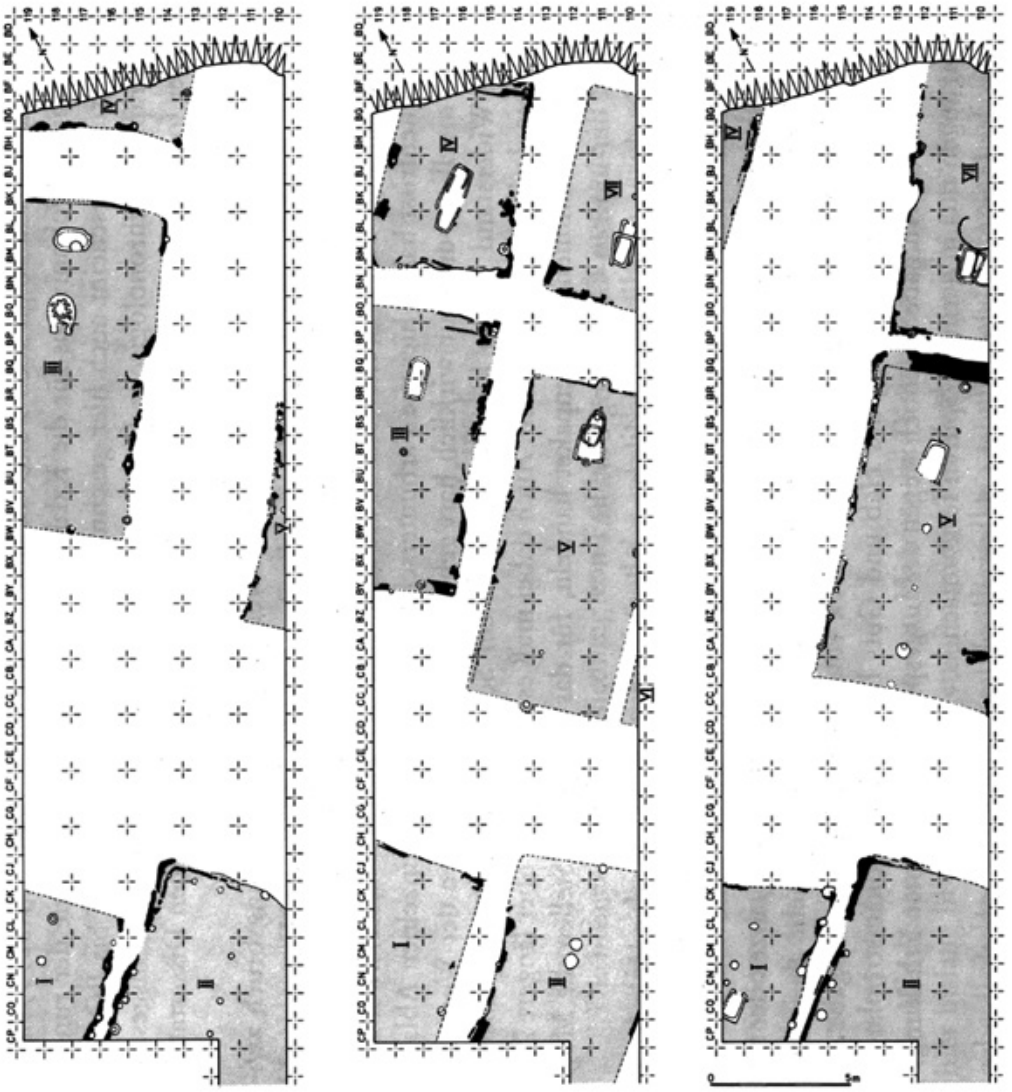


Fig. III-48: Mošorin-Feudvar, Vojvodina, Serbia; Vatin culture. Tightly packed houses arranged in parallel order (after Hänsel/Medović 1991: 69 fig. 7).

Age tells. A good example is the often quoted rectangular 'proto-urban' layout of the Otomani-Füzesabony site of Košice-Barca (fig. III-49).[142] In this argument more or less tightly packed houses arranged in neat order, alongside more or less massive fortifications are thought to indicate the widespread existence of organising authorities. Even a hierarchical division of labour and a distinctly political domain are proposed that are thought to parallel the Mediterranean situation,[143] though throughout the evidence of (central) 'communal' installations or places is poor,[144] and – depending on the density of occupation and general layout – we instead see open spaces for various daily activities that 'emerged' on plots of land not built upon during this specific phase between two successive house phases (*e.g.* Sørensen/Vicze 2013: 164–176; see also Borsodivánka-Marhajárás below). From this perspective, Bronze Age tells are perceived in terms of 'political economy', social differentiation and the emergence of political rule in 'proto-urban' societies of the Bronze Age. The question of the reason for their fortification (and in fact their status as a 'tell') is narrowed down to protection against Bronze Age warfare and the powerful statement of social and political inequality. This is most marked, of course, the deeper and wider the fortifications are – and

[142] Interestingly, this important example is not well documented at all and is probably the result of the combination of two distinct settlement phases in the published plan (Točik 1994; David 1998: 245–246).

[143] *E.g.* Hänsel 1996: 246; 2002: 80–83; Gogâltan 2010: 37–38; Earle/Kristiansen 2010c: 222–223; Falkenstein/Hänsel/Medović 2014: 112, 115–119; 2016: 19–20.

[144] See, for example, Túrkeve-Terehalom (Csányi/Tárnoki 1992: 162; *cf.*, however, Csányi/Tárnoki 2003: 160), Jászdózsa-Kápolnahalom (Tárnoki 2003: 146; *cf.*, however, Stanczik/Tárnoki 1992: 124–125) and Százhalombatta-Földvár (Sørensen 2010: 136; Vicze 2013b: 72). – For Pecica-Şanţul Mare in the Romanian Mureş region, in particular, it has repeatedly been claimed in preliminary reports that there is a large, multi-phase central square or 'plaza' (see most recently O'Shea/Nicodemus 2019: 68–76); from the published evidence the existence of this feature is incomprehensible, and, judging from the published size and layout of the excavation trenches, it remains unclear if the existence of such a feature could indeed be established from the work done so far (*e.g.* Nicodemus/Motta/O'Shea 2015: 106 fig. 1).

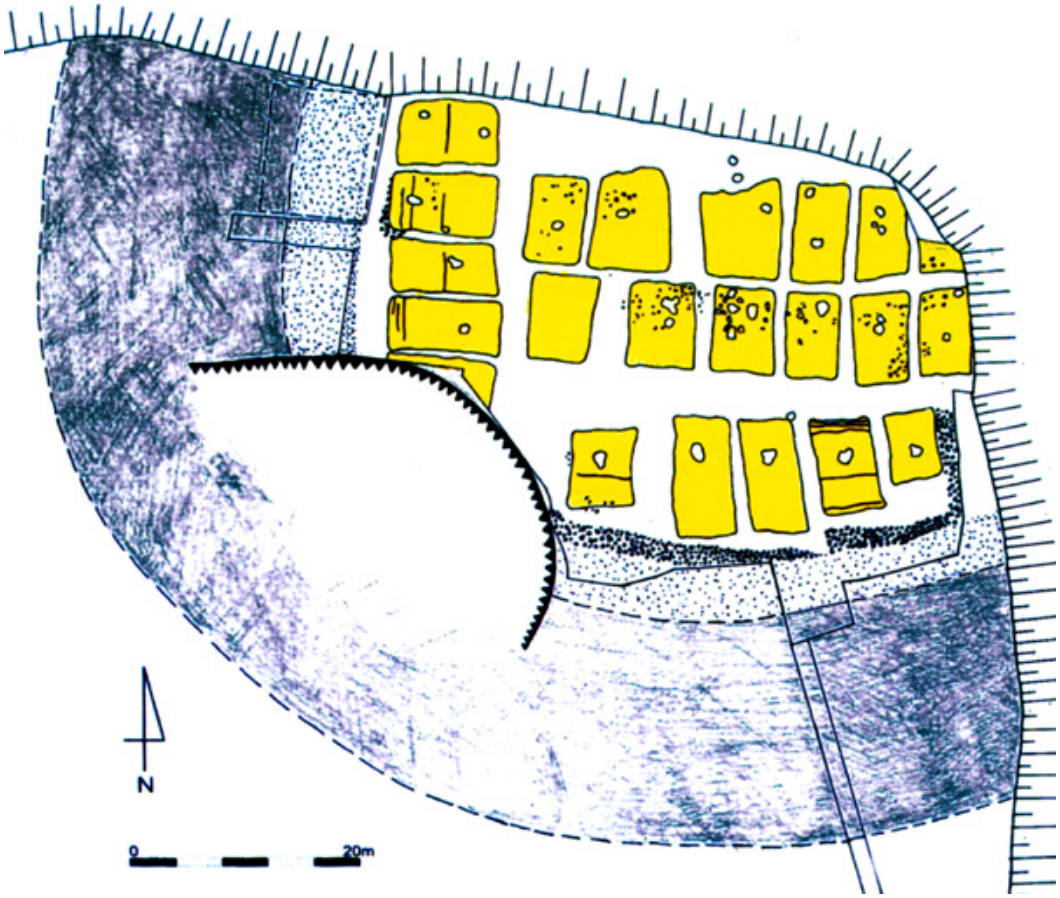


Fig. III-49: Košice-Barca, Slovakia; Otomani-Füzesabony culture. Tightly packed houses arranged in parallel order (after Gašaj 2002a: 20 fig. 3).

with the singular and problematic evidence of stone-built walls presumably derived from Mycenaean origins.[145]

This view is, of course, strongly objected to here, and it has repeatedly been argued that it is a worldview that blinds us to acknowledging continuity from the European Neolithic to the Bronze Age and instead has us believe in a Mediterranean style development (Kienlin 2012b; 2015a; 2018b). For how else can we accept the similarity of sites such as Mošorin-Feudvar, Košice-Barca, Nitriansky Hrádok, or the recent reconstruction of Százhalombatta-Földvár, which does not look significantly overcrowded and orderly (Earle/Kristiansen 2010a: plate 8.2), with the urban centres of the Near East or palace society of the Mycenaean Bronze Age, when the entire settlement layout suggests an emphasis on the likeness of households and does not show major differences (*e.g.* Mošorin-Feudvar and perhaps Košice-Barca)? Or when it points to segmentation and distinct clusters of houses, even in the most optimistic reconstruction (*e.g.* Nitriansky Hrádok), and where there is little or no indication of horizontal (*e.g.* specialised craft production) and vertical differentiation (*i.e.* social inequality and political leadership) in the settlement remains at all?

This is not to say that the Bronze Age tell communities of the Carpathian Basin were egalitarian. Also, it is not being suggested that we go back to a one-to-one reading of archaeological evidence, *i.e.* small houses and the absence of a palace means equality. However, the way these tell communities organised their social spaces is informative of concerns and practices other than competition among individuals or corporate groups and attempts to establish or to maintain political hierarchies. We do not know precisely when and where decisions were made in Bronze Age tell-'building' communities and what groups of people were involved at various levels of decision making. Yet, surely, given the lack of public spaces, communal installations or any substantial central storage *etc.*, the 'feel' of it, the options for action and the general outlook on the world was different from the deliberate architectural framing of political power and restriction of access evident in the (anyway: later) Mycenaean palaces. By contrast, besides obviously not featuring palaces *etc.*, the Bronze Age tells of the Carpathian Basin seek to include people, not just

[145] The classic example, of course, of such far-reached claims is Spišský Štvrtok and the postulated Mycenaean origins of its stone-built fortification; see, for example, Vladár (1973: 273–293; 1975; 1977: 186). This is often quoted and the corresponding figures reproduced (*e.g.* Jockenhövel 1990: 213–216, figs. 3 and 4; Gogâltan 2010: 36–37, fig. 18; Suchowska-Ducke 2016: 72), but the evidence is controversial and the wall most likely dates from the Iron Age (Jaeger 2014; 2016: 115–119; see also Alusik 2012: 13).

set them apart or regulate access. Their demarcation by massive ditches is often beyond mere functional necessity for defence and may be indicative of attempts at signalling the 'strength' of an (economically and socially) successful, well-ordered village community (Roscoe 2009). There is no difference between on-tell and off-tell households (see also below). Decision making had to take place, on various different occasions, in some rather unspectacular open space, inside or around some house of an average size, even if it belonged to the most economically successful (or otherwise influential) family or descent group of that phase, or at various locations outside the settlement. In any case it took place devoid of framing, but possibly in view of the focal point of the entire community, the tell, not just that of a particular individual or group. Also, the ever increasing height of the mound itself would have added to a sense of community and shared tradition vis-à-vis the outside world. Clearly, the widely visible ancestry of such places may also have provided the opportunity to draw on the symbolic capital accumulated. However, there were limits to such individual aggrandisement. Communal values were sanctioned and protected in the face of passing ambitions, which may have been negotiated every now and then, for example, in the off-tell burial grounds of these communities.

III.3.2 Smaller Beginnings, Relocation of Households and the Lifetime of Sites ('Agency' I)

Having focused so far on uniformity, our consideration of the central part – tell or tell-like – of our sites turns now to diversity in consequence of 'agency', since we obviously do have some variation in size and in absolute lifespan that has to be considered, and – more importantly – because we do have clear indications of change through time both in the stability of households and in their affiliation as on-tell or off-tell. This discussion will be resumed in the subsequent chapter since it entails the development of the enclosure of a couple of sites. However, some words are required here in advance so as to avoid the impression that the central multi-layer part of our sites should be conceived as somehow 'static' or 'conservative' only.

Turning to size first, Maklár-Baglyashalom and Vatta-Testhalom, as noted above, differ by a factor of four, even though these are the extreme ends and most Borsod sites are actually much closer in size (see fig. III-25 above). Such differences, rare as they are, will not have gone unnoticed and may have attracted comment in terms of the number of people an outside visitor was about to encounter, and their apparent strength or success as a cooperate group *etc.* It is also apparent that such differences in size and the potential number of people *etc.* will affect the structural relation of the various parts of a site, the patterns of interaction and notions held about the community and the outside world. We should not, however, subsume this to some abstract conception of 'centrality', for it is precisely the resulting diversity that is of interest – the different outcomes of the social process, the different terms in which community was conceived and incorporated, and the different ways of life agreed upon underneath a shared regional 'Borsod' identity (and the same applies, of course, in micro-regions beyond). In this sense, any attempt at straightforward quantification and a 'reading' of such evidence in terms of mere 'political economy', *i.e.* economic success and power differentials *etc.*, may fall short of the realities of ancient life as once lived. This is the case, above all, because we should never conceive of our evidence as a static snapshot of ancient social 'structure', but always see it as the result of an ongoing process – the negotiation and reproduction of social reality by means and by the manipulation of the material world that was available to draw upon. As such, compared to 'normal' non-tell-'building' communities beyond the Carpathian Basin, our sites are notable for their longevity and persistence, but explicitly this does not mean that the social process somehow came to a halt. From this perspective, rather than a comparison of seemingly static parameters like site size *etc.*, we should pay closer attention to what evidence we have in fact of change through time – or the apparent lack of it, not to be equated with social 'stasis' but as the 'interim' result of an always ongoing social process, where those involved consistently opted for 'traditional' practices. Given the data that we have at our disposal, an obvious starting point is the relative proportion of on-tell vis-à-vis broadly off-tell households, since it is here that the social strategies surface that were pursued in structuring and incorporating a larger village community through time.

Second, with our focus on diversity as the outcome of 'agency' and consequent change through time, we may turn, then, to the evidence that we have from four sites, namely Ároktő-Dongóhalom, Bogács-Pazsagpuszta, Szakáld-Testhalom and Tard-Tatárdomb, of smaller beginnings prior to the final size of their central part referred to above. This evidence is of various quality, but in sum it clearly indicates that there were potential modifications to the central part of our sites through time that must have involved a renegotiation of the affiliation of groups of households to different parts of their settlement. Among these, at Bogács-Pazsagpuszta the existence of an original inner ditch that is not visible in magnetometry can only be deduced from core drilling and old sondages, although its exact course and width are unclear (Kienlin/Fischl/Pusztai 2018b: 155–162; Mengyán 2019a: 258–259). As is stands, core drilling data by E. Dobos, of the University of Miskolc, from 2016, as well as previous core drilling and old sondages point to the existence of a well stratified, anthropogenic infill of in some sections up to *c.* 4 m depth that seems to correspond to a smaller, original demarcation in existence during an early phase of the site and backfilled during its subsequent occupation (fig. III-50). This older enclosure may even have been two-phased, but from the data available it is unclear how its postulated phases relate in spatial terms, and if the older ditch was circular, enclosing the entire original core. The only firm evidence for the spatial layout of the enclosure at Bogács is a section of the outer (presumably: younger) semi-circular ditch shown by magnetometry that runs along the western perimeter of the site and possibly connected to

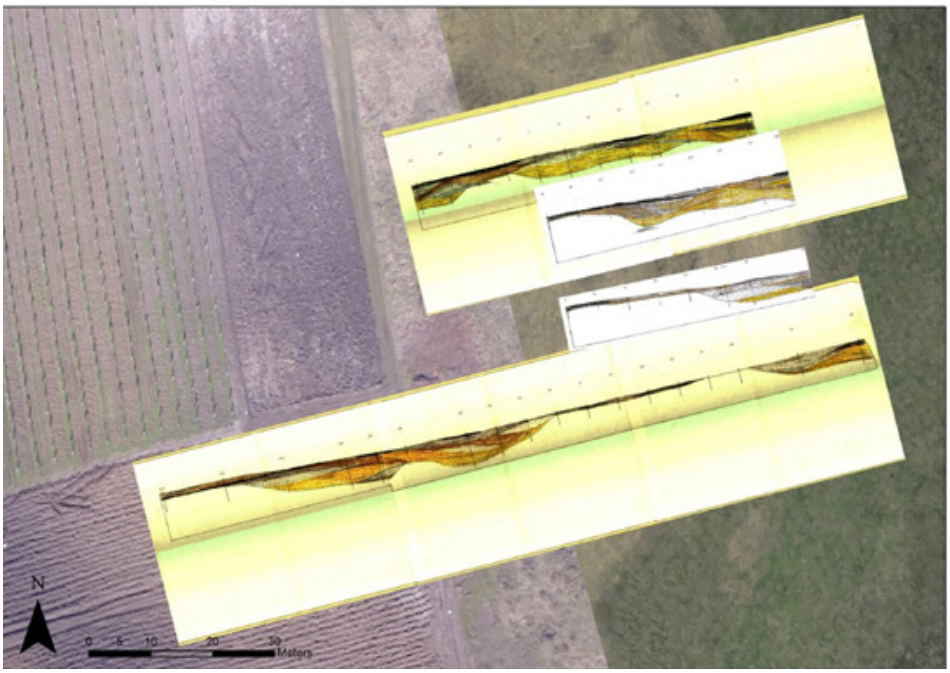


Fig. III-50: Bogács-Pazsagpuszta. Stratigraphy and suggested position of the two-phase enclosure as reconstructed from core drilling and old excavations (illustration: Klára P. Fischl; after Mengyán 2019a: 259 fig. 3).

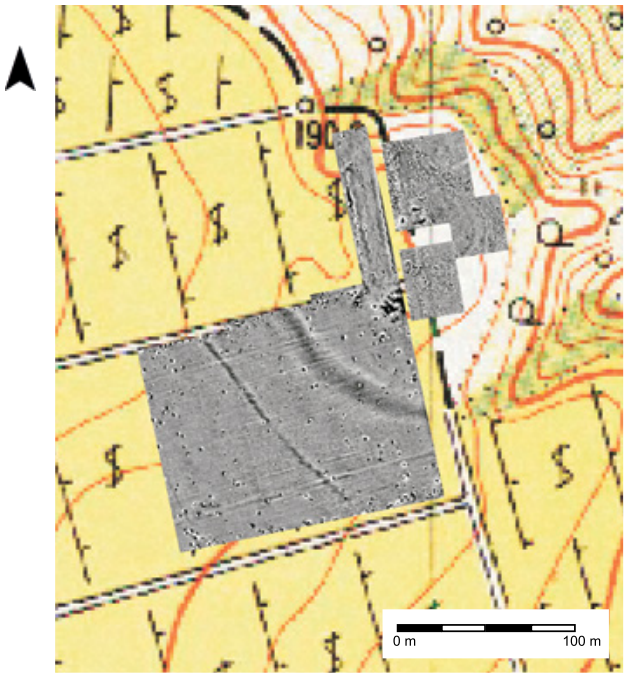


Fig. III-51: Bogács-Pazsagpuszta. Magnetometer data from the central part of the site showing a section of the outer (presumably: younger) semi-circular ditch running along the western perimeter of the site (greyscale plot; data range [black to white]: +/- 10 nT).

gullies running downhill from the terrace in the north and south (fig. III-51).

Similarly, our knowledge of an earlier enclosure at Ároktő-Dongóhalom largely rests on an archaeological examination carried out by T. Kemenczei in 1966 following substantial damage to the mound a couple of years earlier when the local cooperative had two silo pits dug right through the centre of the Bronze Age tell. Kemenczei had the opportunity to carry out an archaeological excavation inside and between these pits. He was able to document a profile of 43 m length along the southern wall of the southern silo. He also extended the excavated area with a couple of 4 x 4 m trenches along the southern silo's wall and in the area between both silos (fig. III-52). It is due to this profile and these trenches, which were re-analysed by K. P. Fischl (2006), that we have any information at all on the stratigraphic sequence and the development of Bronze Age settlement activity at Ároktő (see also Fischl/Kienlin 2017).

According to this data Early Bronze Age occupation on the site started with what may have been a Hatvan period single-layer settlement. Apparently this settlement was already surrounded by a rather deep and wide ditch. Kemenczei's excavation did not reach down to the bottom of this demarcation, but stopped at *c*. 4.4 m below surface level. Since between *c*. 2.45–2.75 m below the modern surface a brownish, undisturbed layer was identified, which he interpreted as the original surface, or *Urhumus*, cut by the ditch, its depth should have been at least *c*. 2 m or rather more. In the Kemenczei profile, this Hatvan period ditch can be seen at both ends of the profile. Beyond

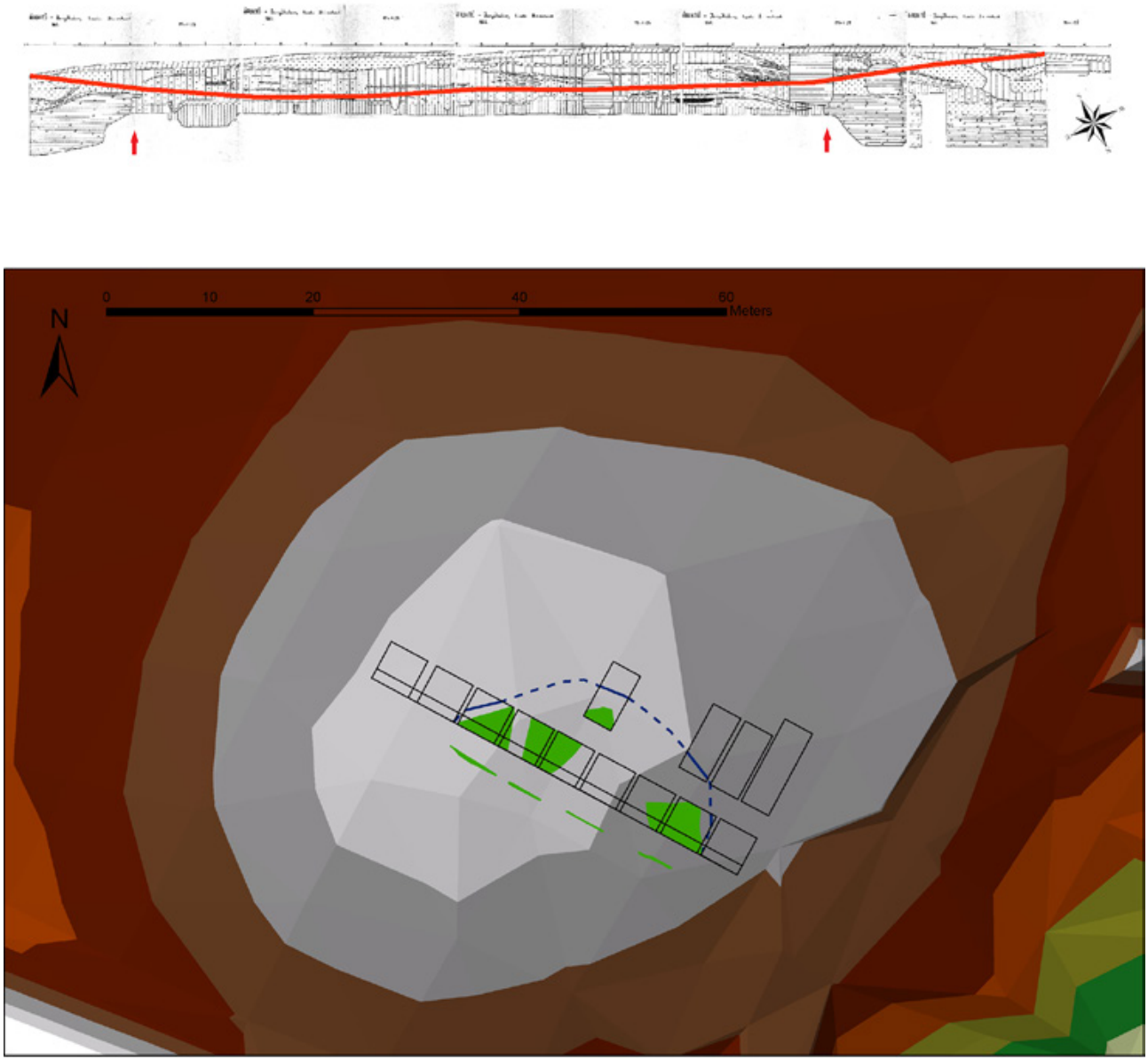


Fig. III-52: Ároktő-Dongóhalom. Profile and elevation model of the central part of the tell site with the reconstructed location of T. Kemenczei's trenches in 1966, Hatvan period houses and the postulated older ditch (1) enclosing the Hatvan period core of the settlement marked with arrows (illustration: Klára P. Fischl; after Fischl/Kienlin 2017: 504–505, figs. 8 and 9)

this, its course can be traced in the planum drawings of a couple of his trenches. Judging from these drawings, the enclosure was at least 8 m wide, although, of course, the quality of the available documentation is not up to modern standards. For this reason, too, the inner boundary of the ditch is not well documented throughout the trenches opened in 1966. However, judging from its more clearly discernible sections, the inner part of the Hatvan period settlement at Ároktő may have had an inner diameter of *c*. 27 m only, corresponding to 0.06 ha of settled area. Within this central part of the settlement from the 1966 data it is possible to tentatively identify a line of approximately north-south oriented houses, which were *c*. 4 m broad.

Since Kemenczei's excavation did not extend much beyond the central part of the mound and outside the Hatvan period ditch, it was unclear back then if in Hatvan times there was already an outer settlement. That this was in fact the case could only be established by a systematic surface survey in 2008 by which settlement activity in the outer part of the site during both Hatvan *and* Füzesabony times was proven (Fischl/Kienlin 2017: 509–510). As to the central part of the site, the excavator was convinced that the Hatvan period occupation was one-phase only and single-layered. According to his documentation, it was followed by a sterile layer *c*. 0.7 m thick, which he thought was potentially applied at a later stage to level the ground for a new Füzesabony period settlement, considerably enlarged and enclosed by a new ditch outside the older line. It is this younger Füzesabony period ditch that is still visible on the surface today by a marked depression running along the intact northern and western part of the

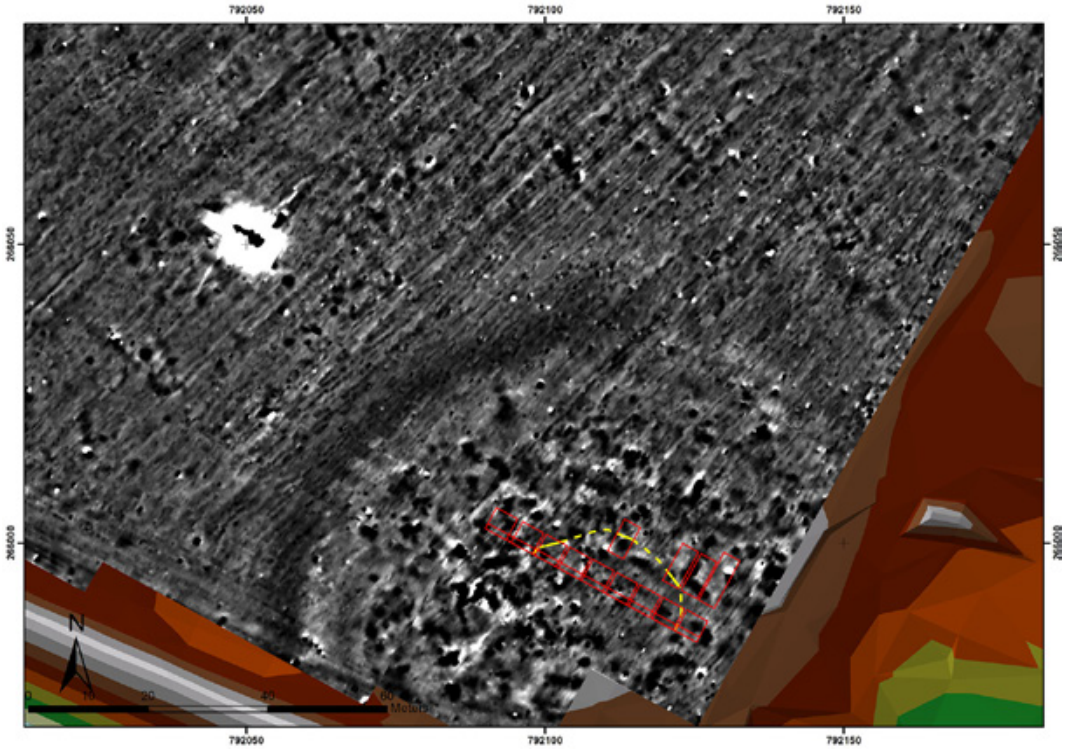


Fig. III-53: Ároktő-Dongóhalom. Magnetometer data of the tell and part of the outer settlement showing the course of the younger ditch (2) enclosing the enlarged Füzesabony period core of the site (greyscale plot; data range [black to white]: +/- 10 nT).

tell, and which also shows in our magnetometer data from Ároktő (fig. III-53).

This hiatus postulated between both settlement phases is interesting and potentially controversial since it conforms to older historical narratives in local Bronze Age research which had it that Early Bronze Age Hatvan communities in the area were subsequently conquered and displaced by a new people with Füzesabony material culture expanding from their original homeland further north and north-east (*e.g.* Bóna 1975; 1992a; *cf.* Kienlin 2015a: 34–36). From today's perspective, of course, material culture change such as that from Hatvan to Füzesabony no longer equals 'ethnic' change. Our current excavation at Borsodivánka-Marhajárás shows how difficult it can be – without micromorphology – to identify an untouched original surface, or *Urhumus*, or to tell apart a 'sterile' layer in the sense of a true lack of occupation from a shift in settlement activity to another area on the same site. Without radiocarbon dates it is anyway impossible to establish how long Kemenczei's 'levelling' layer took to accumulate, or when it was applied, and what that means in absolute terms for the relation of the Hatvan and Füzesabony periods on the site (did some time elapse in between, or was there in fact continuity?). We are left, then, with the possibility that at Ároktő-Dongóhalom there was a much smaller enclosed precursor to the current core of the site and its ditch that is discernible on the surface and in our magnetometer data. If there was continuity between both phases, which is certainly an option with regard to the clear majority of Borsod sites, we then see an increase in the potential number of on-tell households in the later Middle Bronze Age phase. Since in Hatvan times there was already an outer settlement that continued to exist into the Füzesabony period, this process would have involved some readjustment between the on-tell and off-tell members of the community involved. If, on the other hand, there was in fact some interruption of occupation (not, however, to be understood in the sense of ethnic replacement), we would see here an interesting reference back to a place that must have been known or at least recognisable, depending on the time that had passed, as a settlement of 'old'. In its place a very similar settlement layout would have been realised, pointing towards a broad stability of traditions and similar conceptions in terms of where and how to live, albeit on a somewhat larger scale.

The situation at Tard-Tatárdomb is different because we do not have old excavation data to establish the existence of an older core and ditch hidden underneath the later tell. Instead, in this case there is evidence from magnetometry, intensive surface survey, and – since 2019 – from core drilling,[146] that substantiate a more complex history of the site and its dynamics than just the 'standard' tell or tell-like core plus a massive one-phase ditch. The central part of Tard-Tatárdomb features a somewhat unusual U-shaped enclosure (fig. III-54),[147] and it is now proven

[146] For the evidence hitherto available, see Fischl/Kienlin/Seres (2012: 27–29), Fischl/Kienlin (2013: 18–27), Fischl *et al.* (2014) and Kienlin/Fischl/Pusztai (2018b: 237–243).

[147] However, see the younger, also presumably semi-circular ditch at Bogács-Pazsagpuszta above.

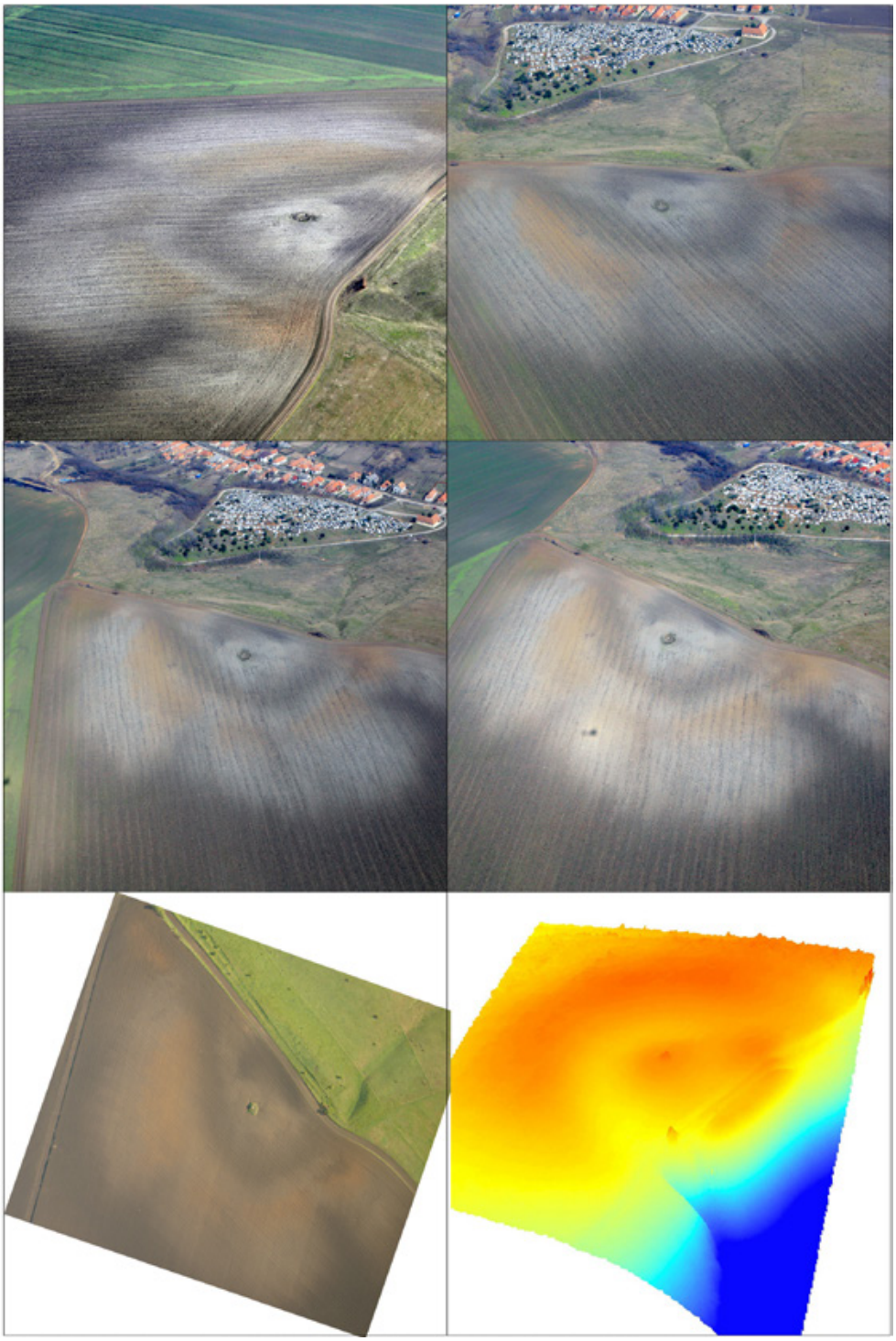


Fig. III-54: Tard-Tatárdomb. Aerial photography, orthophoto and digital elevation model combined (after Fischl/Pusztai 2018: 97 fig. II-9).

that this layout is the result of an expansion of the central part of the settlement (for a full discussion see the next chapter). Previously, there was an older (presumably: Hatvan period) core that was entirely enclosed by a roundish ditch. At some later stage, corresponding to the subsequent Füzesabony occupation of the site, it seems that the northern section of this enclosure was at least in part filled in, since in some sections in magnetometry it is superimposed by (pit) anomalies and has the same slightly negative background readings as the adjacent cultural layers on the mound. Possibly during broadly the same younger phase, an extension to the old ditch was dug instead towards the north in order to enclose a somewhat larger core area. Surface finds confirm this interpretation, since from the northern 'extension' of the central area there is mainly pottery attributable to the Füzesabony period,

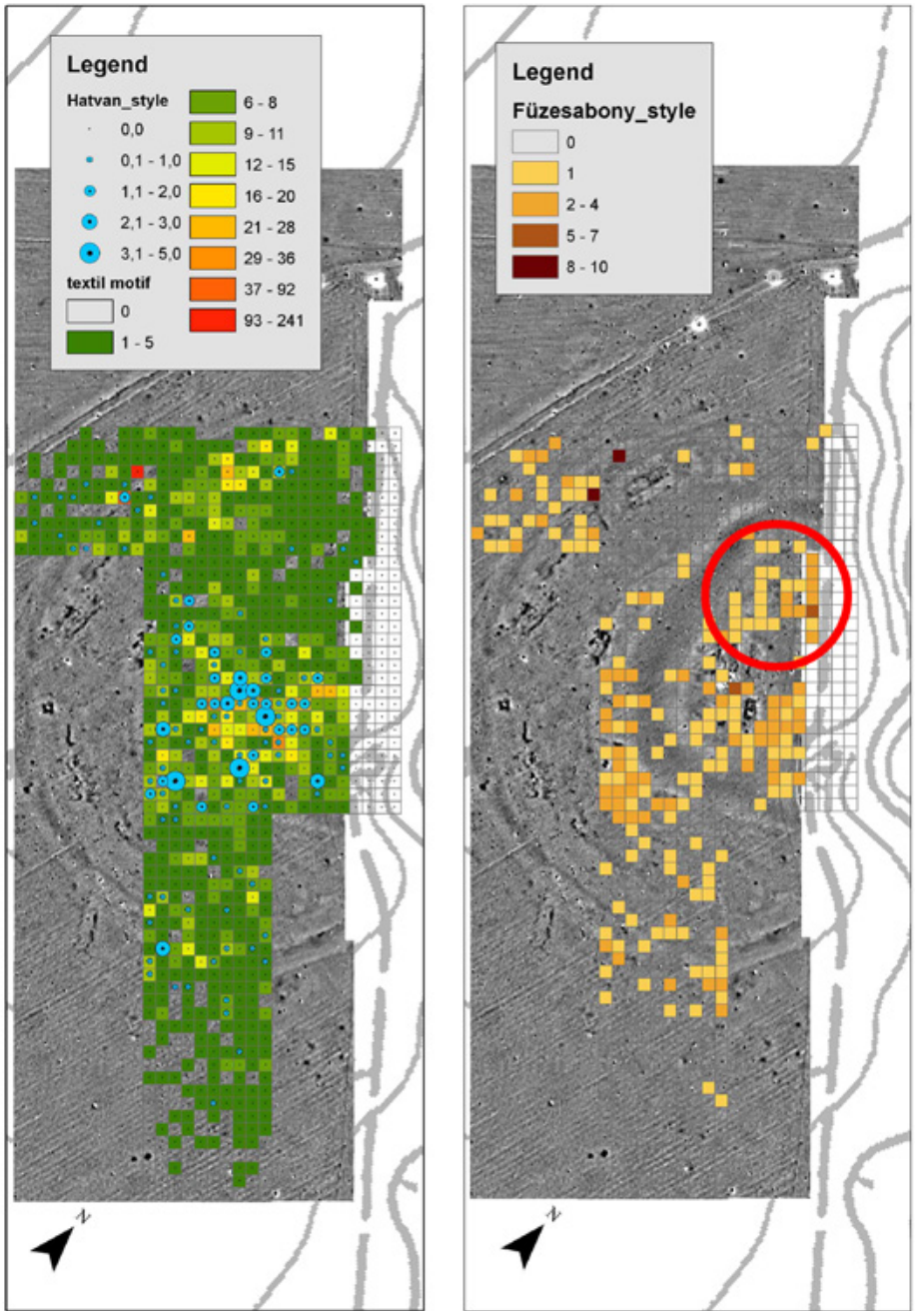


Fig. III-55: Tard-Tatárdomb. Distribution of surface finds attributed to the Hatvan and Füzesabony period respectively; marked in red: the northern 'extension' to the smaller original core area in Füzesabony times (after Fischl/Pusztai 2018: 105 fig. II-16).

while the smaller 'original' core yields material from both Hatvan and Füzesabony times (fig. III-55).[148]

The initial Hatvan period core at Tard-Tatárdomb is much larger than the one at Ároktő-Dongóhalom (*c*. 0.2 ha compared to a mere 0.06 ha). In its younger phase (our Füzesabony period 'expansion'), if the northern section of the old ditch was in fact largely backfilled, the size of the central part of Tard would have more than doubled (up to at least *c*. 0.44 ha, depending on the degree of erosion along the north-eastern slope), but already the original Hatvan period core clearly falls at the lower end of the size range widely attested on other sites throughout the Borsod plain. By comparison, Ároktő appears exceptionally small. This may indicate problems with the reconstruction of the original ditch at Ároktő based on the old excavation data and requires further confirmation. On the other hand, if confirmed this difference in size would point to significant variation in terms of the potential number of households involved in the initial process of enclosure and the setting apart of future tells-to-be from their wider surroundings. From the evidence at hand, however, something about the initial size of Tard-Tatárdomb appears to be the more realistic and widely documented starting point of this process.

[148] For a full discussion, see Fischl/Kienlin/Seres (2012: 27–29), Fischl/Kienlin (2013: 18–27) and Fischl *et al.* (2014).

In any case, since at Tard-Tatárdomb as well we know for sure that the outer settlement was already occupied in Hatvan times (see fig. III-55 and discussion below), this is unambiguous evidence that the relative standing of on-tell and off-tell households vis-à-vis each other did not solidify. Adjustment in terms of the size and population numbers of both the inner and outer parts of our sites remained an option throughout their existence. Since the younger U-shaped enclosure at Tard (fig. III-54) is so far potentially paralleled by Bogács-Pazsagpuszta alone (fig. III-51),[149] this raises the interesting question why this deviation should have occurred from what otherwise seems a fairly stable conception of how such sites should look, *i.e.* round or at least broadly roundish. All neighbouring sites examined in a similar topographic situation on the terrace along small river valleys in the foothill zone of the Bükk mountains, notably Maklár-Baglyashalom, Novaj-Földvár and Tibolddaróc-Bércút, have a complete, broadly roundish enclosure, and the same holds true in the Borsod plain itself, with the exception of Borsodivánka-Marhajárás and Tiszabábolna-Fehérló tanya situated on peninsulae. Hence at Tard and Bogács we may see an exception from the general rule, contingent upon the specific topographic situation and – for sure at Tard – the unusual method chosen to expand by incorporating sections of the older ditch. Alternatively, at Tard not only was the older ditch complete and roundish, which we are fairly sure of, but also the younger one broadly maintained that shape, with large parts of it having been subsequently destroyed by erosion and the overall layout distorted.

Finally, among this group of sites yet another situation and kind of dynamics of its central part is evident at Szakáld-Testhalom, where, as we have seen above, underneath the northern section of the mound there is a thick layer rich in humus that represents a massive artificial enhancement or levelling works prior to Bronze Age (tell period) occupation. The occurrence of such levelling – potentially to protect against flooding from the nearby river – only on a part of the site requires explanation. Unfortunately, interpretation is hampered by both the fragmented impression of the actual stratigraphy that can be obtained by core drilling, and by apparent modern damage to the site.

In its south, unlike the north, Testhalom features cultural layers of Early to Middle Bronze Age[150] date of up to *c.* 2.2 m thickness, but right on top of the most massive levelling there are no preserved cultural layers, and in some cores the humus reaches right to the modern surface (fig. III-19 above; cores 11–13). This 'empty' space in the northern part of the mound, devoid of the heavily burned houses seen in the vicinity, has already been noted in magnetometry. Since in this area there is a slight depression on the surface with evidence of damage done by agriculture and the construction of a station point, rather than some kind of public space surrounded by buildings, it is thought most likely that we see the result of modern land use that affected the heavily burned uppermost layers still preserved and seen in the surroundings (Kienlin/Fischl/Pusztai 2018b: 230).

In fact, both along the transect of cores across the mound and towards the north-east we do have unambiguous evidence from magnetometry, core drilling and radiocarbon dating of *Middle* Bronze Age houses overlying the humus levelling (fig. III-19; cores 10, 40–44, 50 and 51), so the levelling as such certainly predates at least some of the Füzesabony or Middle Bronze Age occupation of Testhalom. It is unclear, however, if this also applies for the beginnings of occupation during *Early* Bronze Age Hatvan times: The thickest cultural layers are preserved in the south, and the oldest, Early Bronze Age radiocarbon dates so far available all come from the lower levels of this southern section of the mound. This leaves us with either of the following two possibilities: It is conceivable that the initial *Early* Bronze Age occupation developed besides or was 'leaning' against an artificial humus mound previously raised, before occupation actually spread across it at some stage. In this case, the humus levelling with topsoil material from the wider surroundings actually would have taken place at about the time and in conjunction with the establishment of Early Bronze Age occupation at Testhalom – even though this would mean that somewhat counter-intuitively the elevation prepared with some effort was not immediately occupied, but rather its vicinity. Alternatively, the humus 'levelling' itself was raised against preexisting Early Bronze Age settlement layers at some later *Middle* Bronze Age stage only, so as to provide additional space for building and allow growth of the central part of the site on an already elevated level. If this version applies, at some stage one should expect uncovering tell period Bronze Age material from the humus layer that hitherto has Copper Age and pre-tell Early Bronze Age I dates only, which is certainly possible, given that so far there are only three radiocarbon dates available from this layer.

Either way, we are left with a complex and interesting situation that defies simplistic interpretation and echoes the negotiation of space and social life as such on the Testhalom mound. If indeed there was an 'expansion' of the mound itself, *i.e.* the second version above, this not only affected community-wide the number and relation of on-tell versus off-tell people (*i.e.* the inhabitants of the tell and outer settlement beyond), but we see an enlargement of the mound that had already visibly obtained a lot of ancestry specifically concerned with regulating the relation of old and new households in terms asserting relative 'equality' by providing elevated building ground for the 'newcomers'. Thus, any new households established at some later stage on the levelling in the northern part of the mound right from the start would have found themselves at eye level with those that had 'always' been there.

[149] Further north in the Hernád valley, see also Hernádbüd-Várdomb (Fischl/Horváth 2010: 79–81).

[150] See below throughout on the radiocarbon evidence referred to in this paragraph and discussion.

Based on the evidence from magnetometry, it has previously been considered that the northern part of the tell at Szakáld-Testhalom still retains the outline of an older roundish structure or an original core of the site, presumably entrenched, and only enlarged later on towards the south (Kienlin/Fischl/Pusztai 2018b: 229–230). Now, with the evidence from core drilling and with absolute dates available, as it stands the opposite direction of expansion seems more likely. Furthermore, the slightly irregular, not exactly roundish outline of the ditch at Testhalom may in fact be an indication that the enclosure seen in magnetometry (fig. III-19) was only established after the central part of the site had been enlarged and obtained its final shape including its northern expansion. Alternatively, of course, both the humus 'mound' or artificial elevation in the north, the actual initial settlement at his feet plus the ditch that encloses both sections, may have been part of an original design. In this case we are in need of an explanation for an empty elevated space purposefully raised and only later on released for settlement – an explanation, preferably, somewhere below the wild speculation on central tell 'plazas' that lack convincing evidence in the published data (*e.g.* O'Shea/Nicodemus 2019: 68–76). In practical terms, for sure, as already mentioned it would seem counter-intuitive to find the oldest settlement layers besides rather than on top of an artificial elevation if protection against flooding were indeed the prime motivation for this endeavour. Just like the sand dune underneath Hernádnémeti-Németihalom, the humus mound underneath Szakáld-Testhalom illustrates the potential for continued fieldwork to significantly alter our picture of individual sites. It also highlights variability and change through time, instead of static 'tell-society' caught up in tradition. However, as already outlined above, we may also be fairly sure that both sites do not provide evidence of the widespread practice of deliberate 'monumentalisation' of the site prior to Bronze Age tell settlement on the Borsod plain.

Third, even though the overall layout and spatial arrangement of households may fall on the 'structural' side of our Borsod sites, and one would not expect a total reorganisation during their lifespan, one always has to be aware of potential variability and 'agency' in terms of differences in the longevity and the stability of individual households, both on-tell and off-tell. The magnetometer system used, depending on soil conditions *etc.*, collects data from a depth down to *c.* 1–2 m below the surface. The information obtained is biased towards burned structures (here: typically houses) or more generally speaking towards features that contrast strongly in terms of susceptibility to their surroundings, be it settlement layers or underlying geology. Furthermore, such magnetometer data does not, of course, provide chronological information on the features seen. Hence, since we are concerned with multi-layer settlement mounds even if there are no later disturbances distorting Bronze Age layers, we will always potentially be looking at structures from different surface-near layers or phases of occupation. If preservation is poor or the impact of fire differed in the various parts of a house it may be difficult to tell true architectural remains apart; and short of an excavation it is impossible to tell if all the houses or other anomalies visible are actually contemporaneous. There is the distinct possibility, then, that there was an occasional gap opening in what appears as a regular layout of houses on our sites, as one household or the other was relocated, or a kinship group became extinct so that their plot(s) of land and house(s) fell derelict.

Such relocation of open areas and the activity zones of houses/households has been demonstrated, for example, at Százhalombatta-Földvár (*e.g.* Sørensen/Vicze 2013: 164–176), and exactly this kind of evidence also comes from our current excavation at Borsodivánka-Marhajárás, where we have a complex sequence of occupation phases on the margin of the tell, separated by use of the plot in question as a midden during an interval in between (fig. III-56). Phytolith-rich layers with evidence of trampling and the use of – mostly – reed and calcareous sediments to seal the refuse deposited on a regular basis, point to some kind of waste management while the plot was abandoned. Judging by the diversity of waste encountered and the concomitant subsistence strategies deduced, during this phase more than just one adjacent household 'contributed' to the building-up of this heap of waste. Interestingly, corresponding distinctions are also evident in architecture, for in the floor sequence of houses standing in this place before and after, we also have evidence of distinct differences – *e.g.* from well prepared calcareous floors with vegetal temper below, to less well prepared earthen floors with no intentional tempering and reed used for matting above (Röpke *et al.* 2016; 2018). Taken together the evidence already available from the early stages of our excavation clearly points to the presence on the site of households with different traditions. There was variability in household practices, and so was there in terms of their relative 'success' and longevity. At some stage some plot may have become abandoned and only re-occupied later on by some family or household of different 'origin' and with other ways of doing things, be it from the tell or outer settlement at Borsodivánka itself or from its surroundings.

It is a pity that at Tard-Tatárdomb, our best example of a somewhat smaller core area expanded later on by partly infilling the original ditch and digging an extension, we cannot be sure, how this affected the spatial layout of houses (fig. III-46). Since the original core of the site is preserved as tell-like only (*i.e.* layer thickness is limited and *in situ* evidence of the youngest occupation phases may have been lost), it is unclear if the pattern identified above with two potential rows of north-west to south-east oriented houses belongs to the Hatvan and/or Füzesabony occupation in this section as indicated by the presence of the respective surface finds of both periods (fig. III-55). Given the total evidence from our Borsod sites, one would suspect overall stability in settlement layout during both phases (see also below on the evidence of core drillings and radiocarbon dates). However, obviously at Tard this cannot be proven anymore, and due to bad preservation on top of the infilled ditch and in the northern Füzesabony period extension

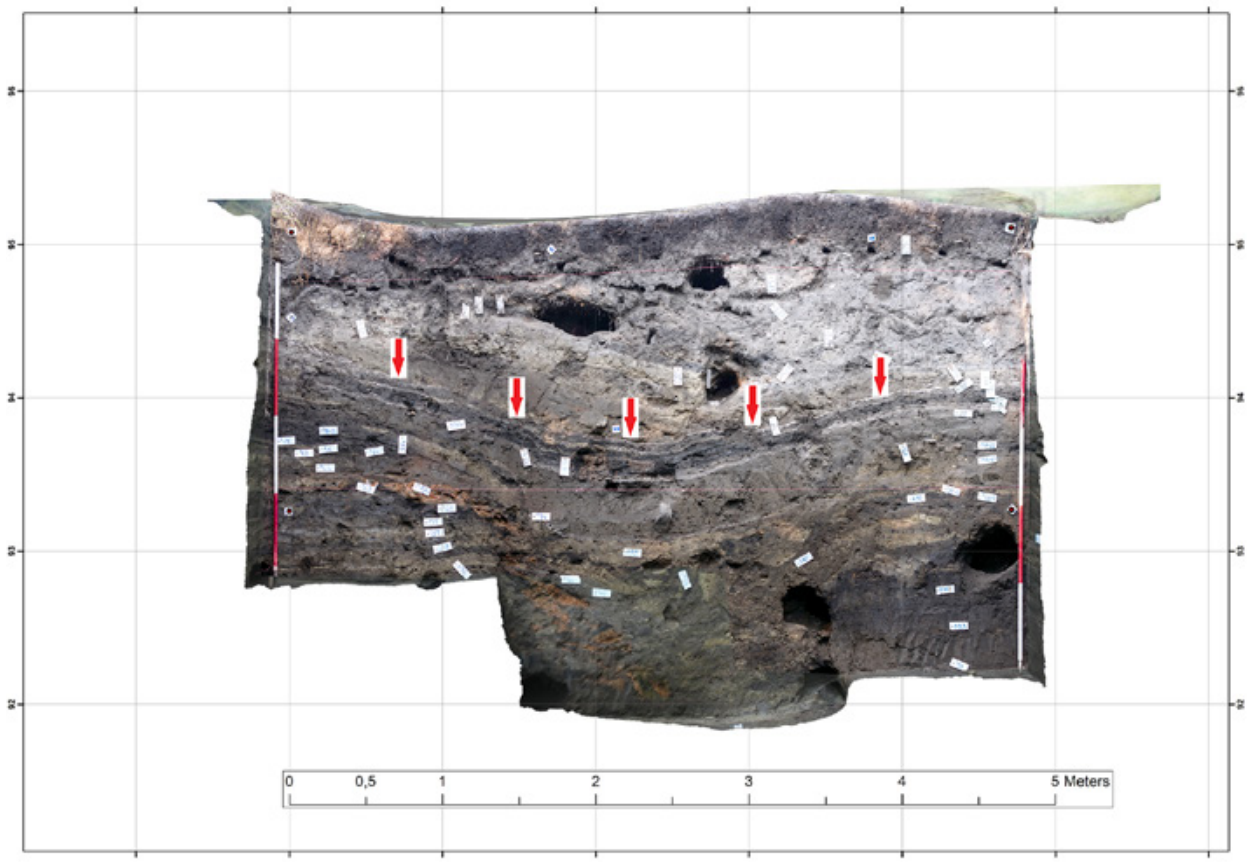


Fig. III-56: Borsodivánka-Marhajárás. Profile cleaned in 2015–2017 on the eastern margin of the mound (illustration: Klára P. Fischl); marked in red: the upper end of the phytolith-rich layers with evidence of trampling and use of the plot for waste management while it was temporarily abandoned.

there are only more or less clearly bounded general 'pit' anomalies, some of which are roundish, others elongated (possibly with structural remains of badly preserved houses). We cannot say, therefore, if the pattern observed in fact extended onto the newly added part of the tell-like core area as well. Alternatively, there may have been some slight shift in orientation, and the small group of new houses that is feasible here only may have been situated in a slightly off-set position in a lateral direction. We see, for this reason, an adjustment in terms of the number of on-tell versus off-tell households, but without, unfortunately, being able to be more precise about how this affected the layout of houses, and if some distinction for instance in the orientation or grouping of on-tell households was made.

The situation at Szakáld-Testhalom is somewhat different, since in this case there is a relatively clear pattern of several rows of (burned) houses predominantly oriented in (north-) west to (south-)east direction (fig. III-47), and it has been argued above that the 'empty' space seen in the northern part of the mound most likely is down to modern destruction and land use. From the core drilling and radiocarbon dates it is reasonably clear that with this pattern we are actually looking at a late, *i.e.* surface-near occupation of the site, even if we cannot be sure that we actually have evidence of *one* event only, *i.e.* the final destruction horizon, since magnetometry will always condense information from various depths into the image that we see. Eventually, that is to say, Middle Bronze Age occupation seems to have spread in distinct, more or less continuous rows across both the deep layers that remained from previous habitation in the south *and* the humus 'mound' or artificial elevation in the north only available or released for settlement at some later stage. These rows would have been of different length, *i.e.* laterally they featured an unequal number of houses in the south, the centre and the north of the mound respectively, but as far as we can still judge an off-set position of the 'newcomer' households in the north is unlikely. We do not know, of course, if this was the case right from the beginning, or if initially a difference in terms of architecture, orientation, distance *etc.* would have been made, that was only obliterated at a somewhat later stage. But from the emphasis, right from the start, on relative 'equality' and establishing these households at eye level with previous occupants, it seems more likely that no such systematic difference would have been made. From the pattern observed, it is even conceivable that settlement on the humus 'mound' in the north – previously empty, or only just raised itself – went along with a reorganisation of the entire settlement into the distinct rows that we see in magnetometry – a pattern rather discouraging the assertion of differences between households *etc.* in movement, perception and daily life. It is for this reason, above all, that with the 'expansion' of the central part of Testhalom

we may actually see a renegotiation of affiliation of on-tell versus off-tell households or occupants, without further subdivisions stressed on either side.

Finally, then, focusing on diversity and the outcomes of 'agency', let us turn to absolute chronology, claims to tradition and what we actually know about the persistence of our Borsod sites. We see, throughout our Borsod example, how the social world, that is always in flux and potentially controversial, is negotiated on different levels, regarding for example the total number of households or individuals involved, and how change or dynamics may have occurred along different axes, such as in the relation of tell to outer settlement, or among different parts of a heterogeneous 'composite' outer settlement. We also witness, on the other hand, parallel attempts to maintain these communities' overall integrity and different strategies that were relied upon to stabilise a communal identity.

We may envisage, therefore, a landscape of diversity perceived through and held together in everyday perception by fairly regularly spaced, structurally similar tell or tell-like sites plus an outer settlement; communities that were also bound together by other elements of material culture such as their pottery, more or less visible on different occasions, and the broadly similar way they drew upon this material universe in social practice. Differences in site size, both of the entire settlement and of its central part, and their implications in terms of group size and organisation, of what could be achieved by corporate action and the possible outcome of conflict *etc.* would have been assessed when broadly 'political' situations arose both involving entire communities or social groups and individuals within them. Similarly, the antiquity or tradition of sites in terms of their tell or tell-like core most of the time may have gone largely unnoticed, similar in this respect to mundane material culture in general, contributing to a sense of identity or belonging by all members of the community. On other occasions traditions may have been more consciously reflected and drawn upon by individuals, households or other cooperate groups as a strategic argument, although such strategies did not erode the foundations and cohesion of these communities.

Such claims to tradition – either shared or conflicting – clearly are not dependent on absolute age and calendar years, they refer to the time depth and modes of memory in oral society.[151] Hence we do not feel that this argument is weakened by recent claims that some Bronze Age tell sites may have accumulated in a shorter time span than previously expected.[152] Clearly, we are not in the Near East here, with tell sites like Tell es-Sultan in Jericho or Çatal Höyük being occupied for millennia and accumulating a stratigraphy of dozens of metres. However, we still see a very characteristic emphasis on genealogy, on traditional ways of life and direct architectural continuity by superimposing abandoned houses, that at least to some degree also 'translates' into absolute dates. It is quite another matter, of course, that irrespective of their relative lifespan one would not reasonably expect all Borsod sites to have been founded at exactly the same point in Early Bronze Age Hatvan times, nor that they were abandoned at the exact end of Middle Bronze Age Füzesabony times, whatever that may mean. Instead, we may have to reckon with a somewhat more fluid pattern than developed in the introduction to the Borsod plain above, and maybe even an occasional gap in what we have so far considered to be a closely knit net of broadly comparable and largely contemporaneous sites throughout the Borsod landscape.[153] Hence, as already pointed out above, the central part of our sites may stand for both the 'structural' side *and* variability flowing from 'agency'. It is under these auspices that we finally turn here to the evidence of radiocarbon dating and our current knowledge of the absolute date of the Borsod sites derived from it.

The only radiocarbon dates available so far on the Borsod plain from a modern excavation come from Borsodivánka-Marhajárás, where prior to the ongoing larger-scale excavation in 2015–2017 a profile was cleaned on the eastern margin of the mound (figs. III-13 and III-56) that had previously been affected by the construction of a shooting stand. From this profile and corresponding layers we have evidence of *c.* 3 m of Füzesabony period stratigraphy building up over possibly *c*. 300 years during the 19th to 17th centuries cal BC (figs. III-57 and III-58).[154] In the central part of the site we can expect an even longer tradition, since what was previously thought to be the underlying original topsoil or *Urhumus* at the bottom of our profile, in the meantime has been shown by Early Bronze Age pottery finds, micromorphology[155] and a corresponding radiocarbon date at *c*. 2141–1942 cal BC (95.4 %; sample no. BOR-S53-2016 = Poz-104957 [charcoal]: 3665 BP +/-35) to feature the impact of the beginnings of Hatvan period occupation in the nearby centre of the mound, maybe as early as before 2000 cal BC (fig. III-58). Such permanence, that is also evident from other Borsod mounds,[156] clearly sets these sites apart

[151] See, for example, papers in Souvatzi/Hadji (2014) and Souvatzi/Baysal/Baysal (2019); from a different historical context and debate see also Scodel (2002) and Elmer (2013).

[152] Personal communication Florin Gogâltan; see also Gogâltan/Fazecaş (2018: 56, 60) and Fazecaş/Gogâltan (2019: 328–330).

[153] See also below on the potential role of the outer settlement parts in such processes.

[154] In declining stratigraphic order, from the higher part of the profile down to the first occupation, the following samples correlated with the Middle Bronze Age Füzesabony period occupation at Borsodivánka are included in fig. III-58: sample no. BOR-S7-2015 = DeA-11820 [*Trifolium medium/pratense*]: 3384 BP +/-30; sample no. BOR-S10-2015 = DeA-11819 [*Sambucus ebulus, Hordeum vulgare*]: 3385 BP +/-28; sample no. BOR-S35-2016 = DeA-11804 [bone]: 3359 BP +/-27; sample no. BOR-S39-2016 = DeA-11602 [*Sambucus ebulus, Rumex spec., Triticum monococcum*]: 3446 BP +/-25; sample no. BOR-S40-2016 = DeA-11816 [*Galium spurium*]: 3501 BP +/-30. Compared to the previous publication of our first radiocarbon dates from Borsodivánka in Kienlin (2018a: 66–67, fig. I-41) after the continuation of our excavation, sample no. BOR-S36-2016 = DeA-11826 [Triticum monococcum]: 3346 BP +/-31 is now considered intrusive and to stem from a younger pit. It was shown in the wrong stratigraphic position and is omitted here due to its unclear stratigraphic status.

[155] Personal communication Astrid Röpke.

[156] See below as well as the publication of a couple of radiocarbon dates recently obtained from bone material from the 1976 excavation at

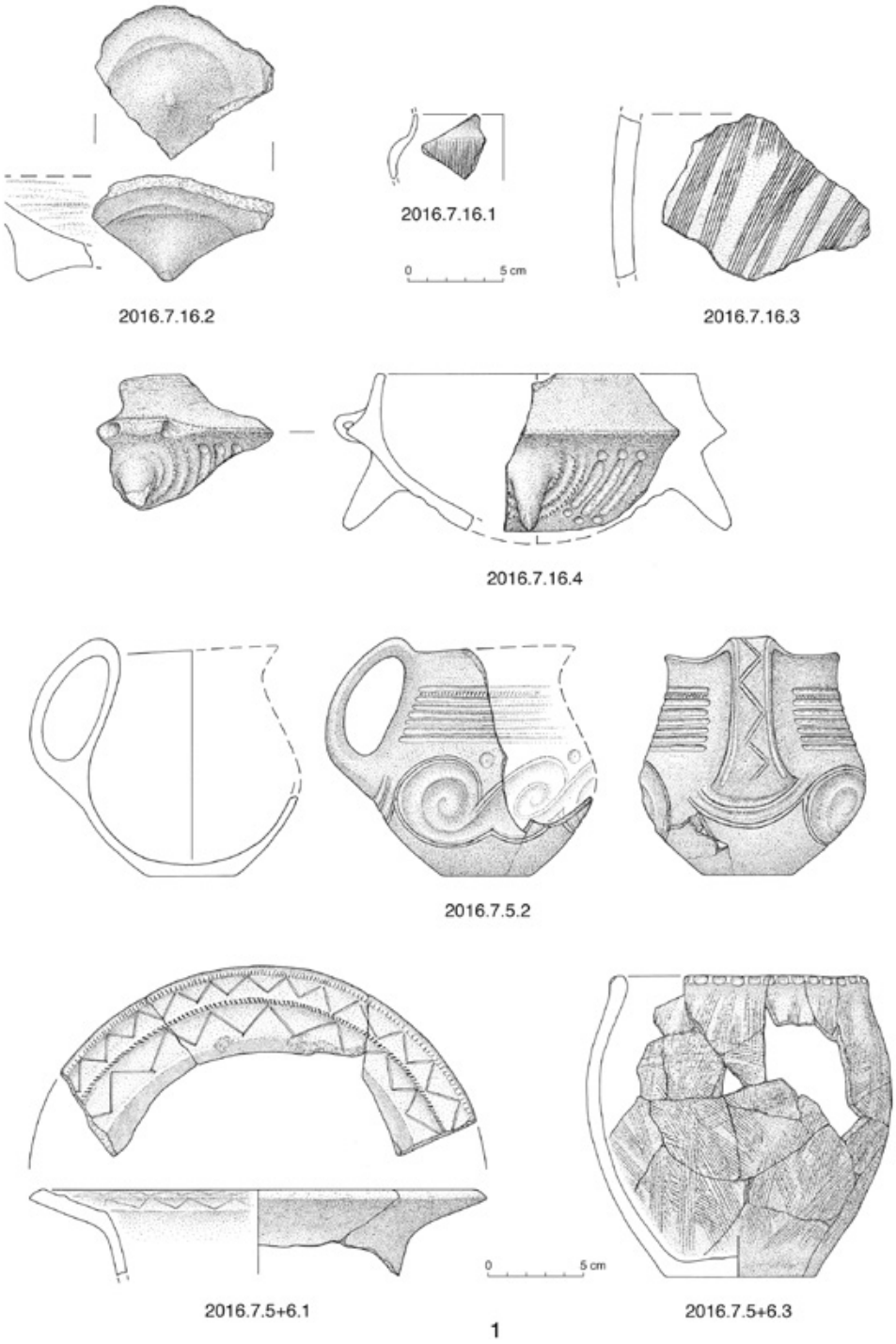


Fig. III-57: Borsodivánka-Marhajárás. Füzesabony period pottery from the cultural layers exposed on the eastern margin of the mound (drawings: Anja Rüschmann).

from all the lateral relocation of houses and entire sites so common both in wider central and western European prehistory, that never practised such a conscious reference back to the material outcome of past life, and from the Bronze Age periods before and after the tell societies of the Carpathian Basin itself.

Among our better dated sites so far, using sample material from our systematic core drilling programme that has been underway since 2018, there is Emőd-Nagyhalom. Unfortunately, like other sites on the Borsod plain, its central part is nowadays tell-like only and is rather badly preserved due to erosion and continued loss of substance by heavy agricultural use. The layer thickness is currently down to hardly more than *c.* 1 m (core drilling data 2018; see fig. III-16 above), even less than the 1.5–2 m previously estimated on the basis of the digital elevation model (Kienlin/Fischl/Pusztai 2018b: 180). From systematic core drilling in this section of the site, we have five dates,

Füzesabony-Öregdomb (Szathmári *et al.* 2019: 311–313, tab. 1).

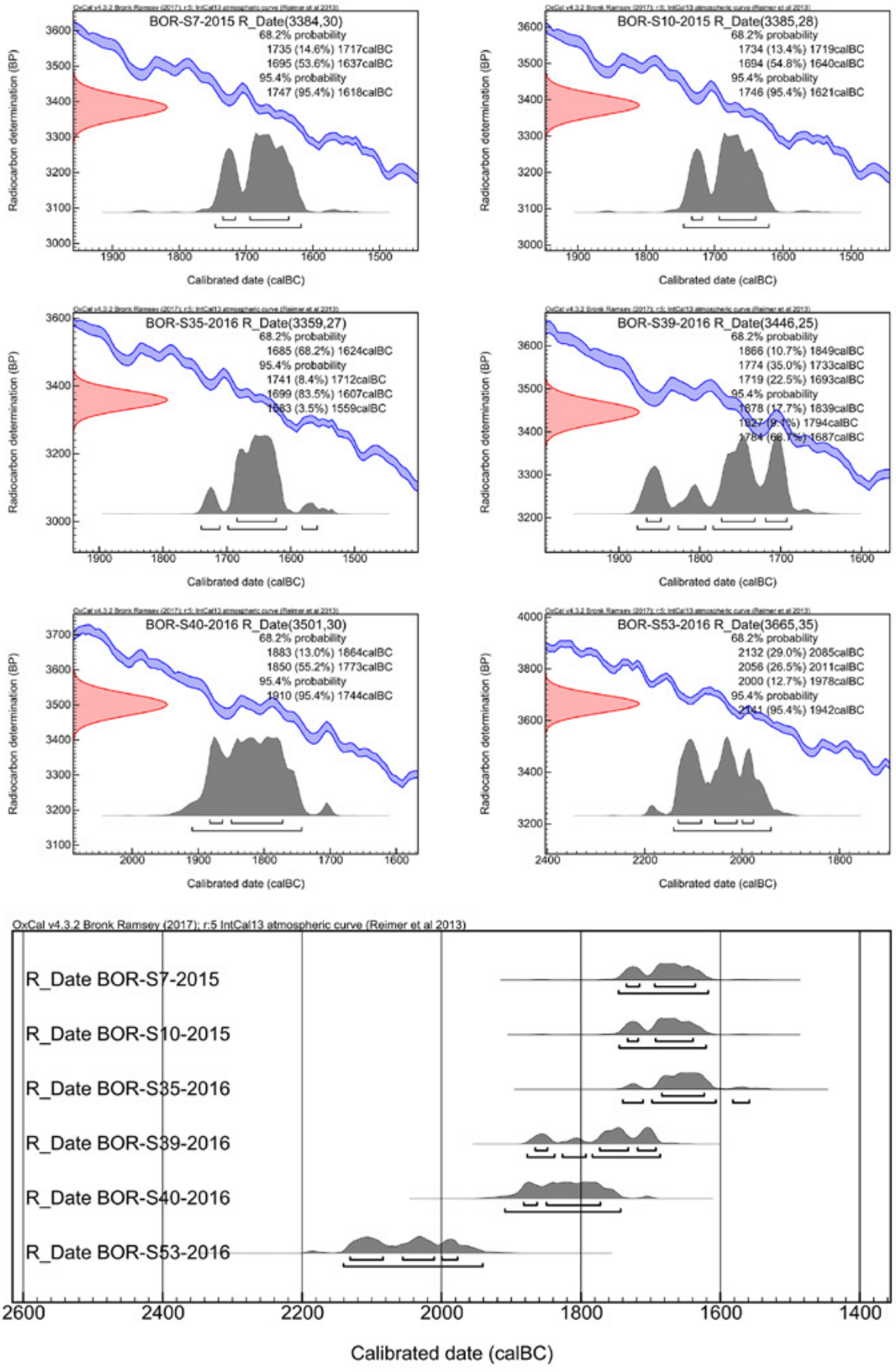


FIG. III-58: BORSODIVÁNKA-MARHAJÁRÁS. RADIOCARBON DATES FROM THE CULTURAL LAYERS EXPOSED ON THE EASTERN MARGIN OF THE MOUND; IN DECLINING STRATIGRAPHIC ORDER FROM THE HIGHER PART OF THE PROFILE DOWN TO THE EARLY OCCUPATION LAYERS IN THIS PART OF THE MOUND; THE OLDEST DATE FROM THE BOTTOM OF THE PROFILE IS THOUGHT TO REFLECT THE IMPACT OF THE BEGINNINGS OF HATVAN PERIOD OCCUPATION IN THE NEARBY CENTRE OF THE MOUND.

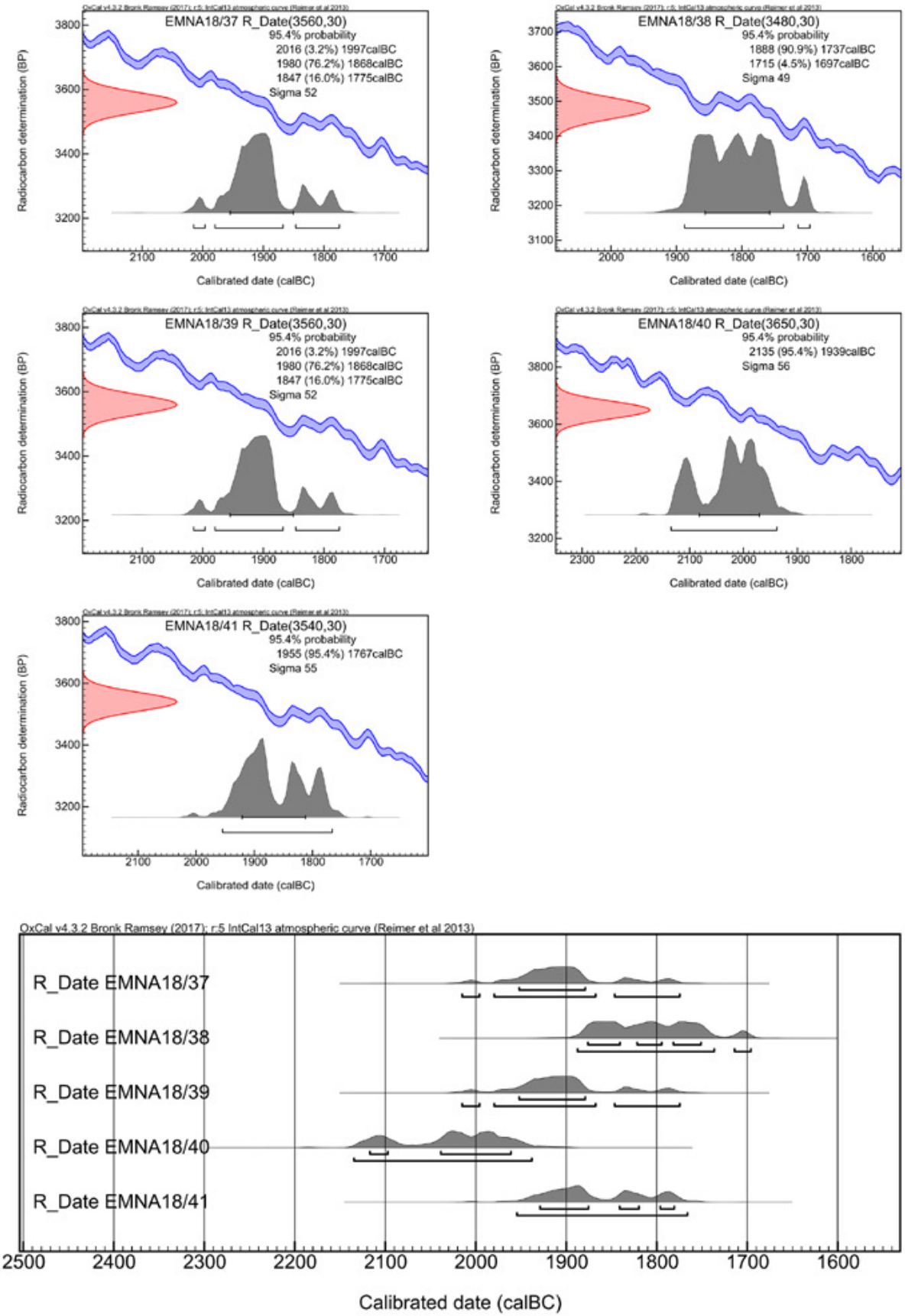


Fig. III-59: Emőd-Nagyhalom. Four radiocarbon dates from the earliest *in situ* layers preserved at the bottom of the remaining mound, plus one from a pit of potentially somewhat younger date.

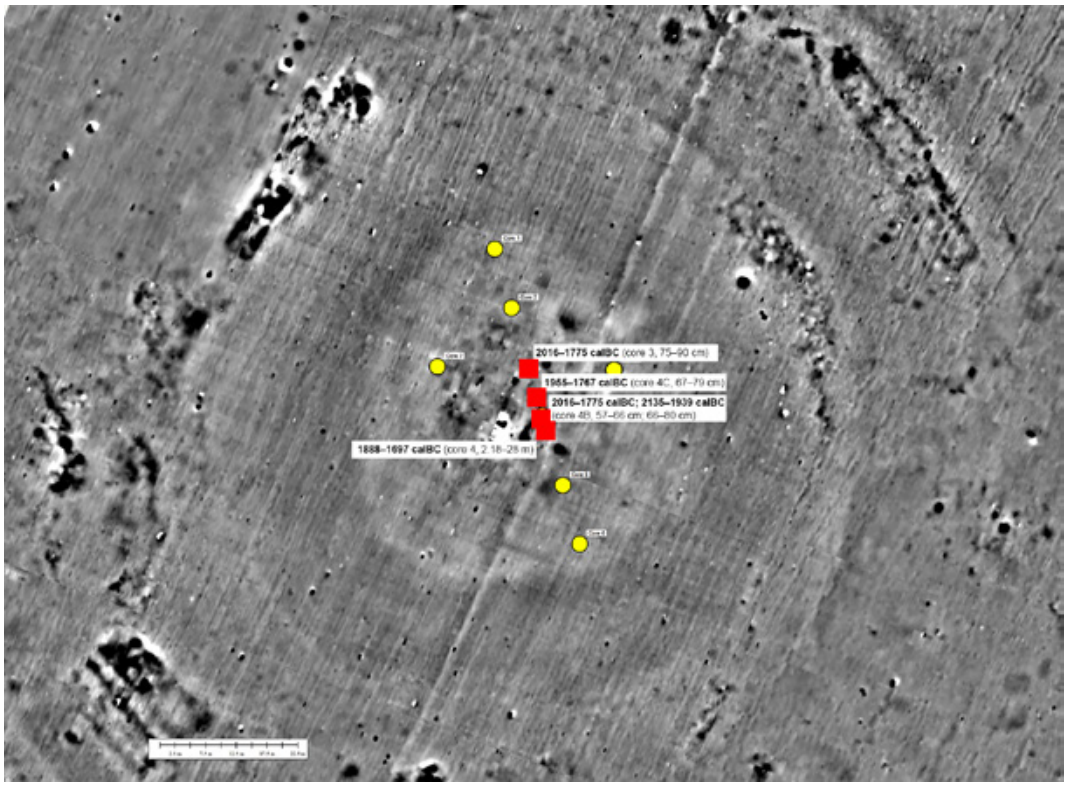


Fig. III-60: Emőd-Nagyhalom. Five radiocarbon dates from the earliest *in situ* layers and a pit mapped on the magnetometry of the central part of the site.

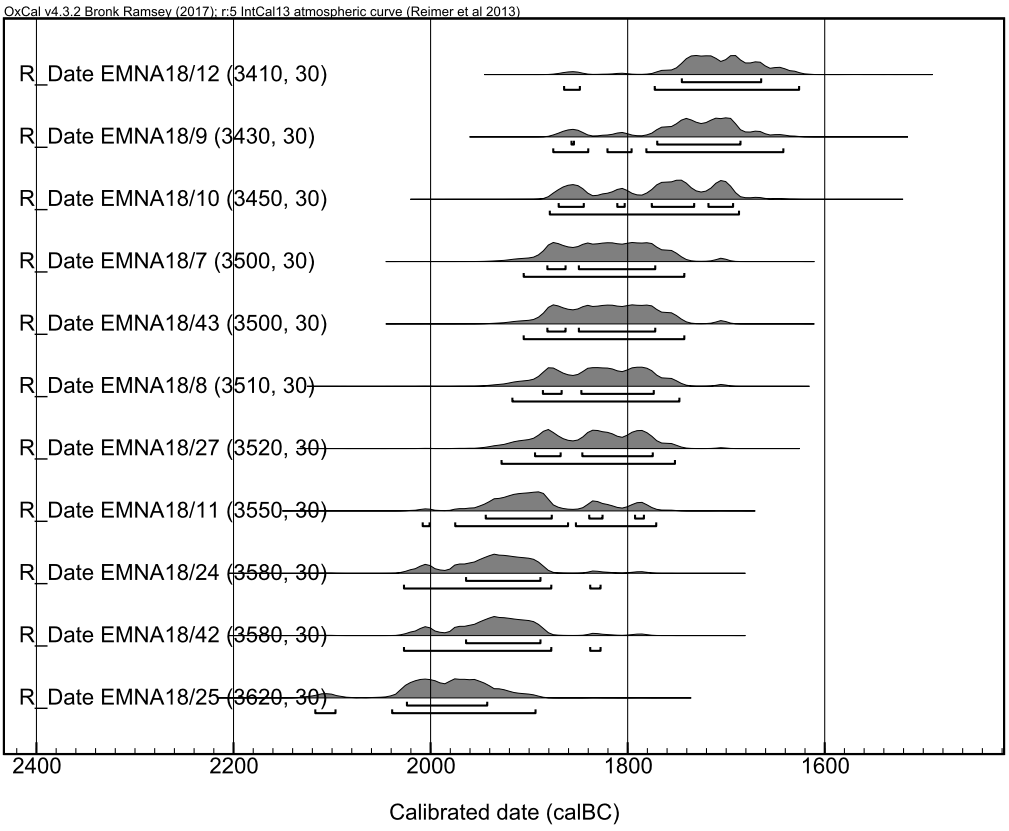


Fig. III-61: Emőd-Nagyhalom. Radiocarbon dates from the multi-phase infill of the ditch sorted by date.

four of them from the lowest, *i.e.* the earliest, *in situ* layers preserved at the bottom of the remaining mound and one from a pit that started right underneath the plough horizon and cut through the enduring layers, *i.e.* of potentially somewhat younger date (figs. III-59 and III-60). The oldest date obtained comes from the platform of a house at a depth of 66–80 cm in core 4B, and at *c*. 2135–1939 cal BC (95.4 %; sample no. EMNA18/40 = Beta-530480 [bone]: 3650 BP +/-30) may indicate that the occupation of the site started already well before 2000 cal BC. Such an early date may also be implied by a couple of dates from the ditch and the outer settlement (see below), while the remaining samples from *in situ* layers on-tell give somewhat younger dates at *c*. 2016–1775 cal BC (95.4 %), 2016–1775 cal BC (95.4 %) and 1955–1767 cal BC (95.4 %) respectively.[157] Since from the eight cores in line that we have from the central part of Emőd-Nagyhalom, situated at distances of 10 m down to *c*. 2.5 m respectively (fig. III-16), it is impossible to reconstruct a detailed stratigraphy, these dates just broadly refer to a somewhat younger horizon of the activity in this part of the site, with the youngest date appropriately coming from the bottom of the above mentioned pit at *c*. 1888–1697 cal BC (95.4 %; sample no. EMNA18/38 = Beta-530478 [macro remains/cereals]: 3480 BP +/-30; core 4, metre 3, 18–28 cm).

Since the upper layers of the mound have been destroyed, none of these dates offers a hint at the entire lifespan of the site and its potential abandonment. To this end, instead, one may turn to a couple of dates obtained from the infill of the ditch. This infill is actually multi-phase, and we will return to a detailed discussion of its stratigraphy and the related radiocarbon dates in the subsequent chapter. Here, for the time being, the pertinent dates are just sorted chronologically (fig. III-61). As such they indicate that the ditch was presumably established, functional and saw the first sediments deposited at its bottom early in the 20th century cal BC, and that there were various phases of infill well towards the end of the 18th century cal BC or even beyond. The former boundary and an oldest date from the infill at *c*. 2118–1894 cal BC (95.4 %; sample no. EMNA18/25 = Beta-530465 [charred wood]: 3620 BP +/-30; core 15, metre 4, 60–80 cm) is in good accordance with the evidence from the mound itself discussed above. At the other end, the youngest date hitherto obtained from the ditch at *c*. 1865–1627 cal BC (95.4%; sample no. EMNA18/12 = Beta-523093 [bone]: 3410 BP +/-30; core 35, metre 5, 32–42 cm) points towards an apparent decline in settlement activity around broadly 1700 cal BC that is nicely matched by the dates from the outer settlement discussed below. In sum, then, from Emőd-Nagyhalom there is evidence of occupation for at least *c*. 300 years, and a putative end of settlement activity, at least as far as we can see, rather early during the local Middle Bronze Age.

[157] Sample no. EMNA18/37 = Beta-530477 [charred wood]: 3560 BP +/-30 (core 3, metre 1, 75–90 cm); sample no. EMNA18/39 = Beta-530479 [charred wood]: 3560 BP +/-30 (core 4B, metre 1, 57–66 cm); sample no. EMNA18/41 = Beta-530481 [charred wood]: 3540 BP +/-30 (core 4C, metre 1, 67–79 cm).

Unlike Emőd-Nagyhalom, Szakáld-Testhalom at least in the southern section of the site still features substantial cultural layers, and there are radiocarbon dates from various depths both along a transect of drill holes across the mound and such targeted at specific anomalies beyond that line (see fig. III-19 above). In sum these dates indicate that settlement activity was underway *c*. 2000 cal BC, if not before, and lasted well into the 16th century cal BC (fig. III-62) – with the usual reservation that we do not know how many cultural layers were lost by erosion. However, both in magnetometry and the core drillings there is in this case a strong destruction horizon or horizons on top of large parts of the site. We may in fact be looking at the actual end of Middle Bronze Age occupation after around 450 to 500 years of continuous habitation, even if we cannot be sure if this comprised one distinct event or a couple of minor related ones close in time. This 'end' seems to have occurred sometime during the 16th century cal BC and may be evident in a couple of dates from surface-near samples such as SZA19/5 dated to *c*. 1683–1521 cal BC (95.4 %; Beta-545755 [macro remains]: 3320 BP +/-30 [core 40, metre 1, 33–44 cm]), SZA19/10 at *c*. 1643–1504 cal BC (95.4 %; Beta-545760 [macro remains]: 3300 BP +/-30 [core 42, metre 1, 83–91 cm]) or SZA19/17 at *c*. 1616–1454 cal BC (95.4 %; Beta-545767 [macro remains]: 3260 BP +/-30 [core 18, metre 1, 50–65 cm]).

These dates come from cores all over the mound, *i.e.* both from the comparatively thin cultural layers overlying the humic 'levelling' in the north discussed above (*e.g.* cores 40 and 42), and from the southern section where they are overlying substantial cultural layers from previous phases of occupation (*e.g.* core 18; fig. III-19). In terms of magnetometry we are surely talking here about a majority of the anomalies seen that stem from features in surface-near layers and that bring about the relatively clear pattern discussed above of several rows of (burned) houses oriented in broadly (north-)west to (south-)east direction (fig. III-47 above). Irrespective of whether the 'end' of the Middle Bronze Age settlement came about as a distinct event, or took some time, both the core drillings and the radiocarbon dates imply that this 'final' pattern actually reflects a certain length of time and stability of occupation (compare, for example, the dates given above to the somewhat older sample no. SZA19/11 from a depth of 90–94 cm in core 15 at 1871–1636 cal BC [95.4 %]; Beta-545761 [macro remains]: 3420 BP +/-30).

Underneath these remains of younger phases of the settlement, in the northern section of the site there is the artificial enhancement or levelling works discussed above for which topsoil from the surroundings was used that introduced older settlement debris to the mound of Copper Age (Baden) and Early Bronze Age I date, even though it cannot be ruled out that the levelling as such only took place well into the Middle Bronze Age and was raised against preexisting settlement layers further south (see detailed discussion above). What we do know for sure, however, is that in the said southern section of the Testhalom mound surface-near 'final' occupation is

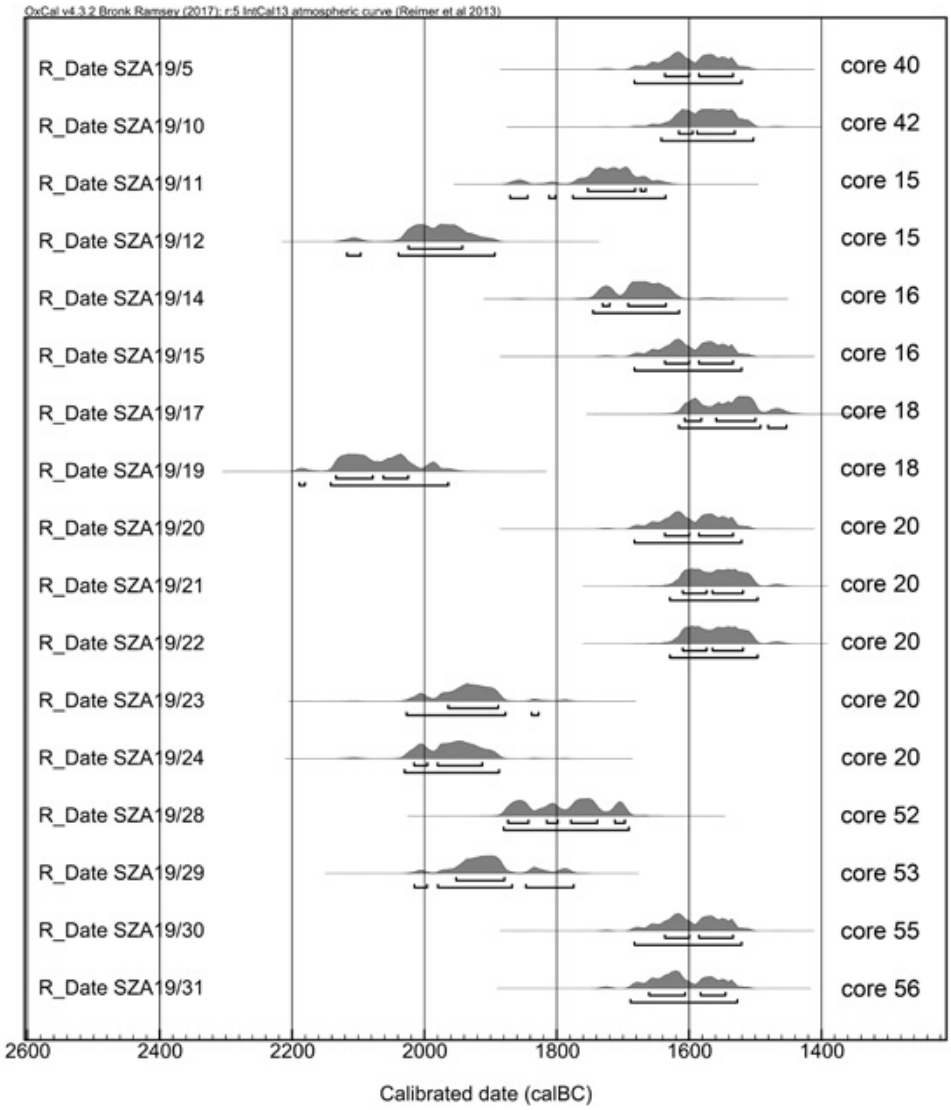


Fig. III-62: Szakáld-Testhalom. Radiocarbon dates from various drill holes across the tell.

overlying previous phases of up to 2 m thickness (fig. III-19), and this long history of previous occupation is nicely reflected in the radiocarbon dates obtained from a couple of cores: For example, in core 15 underneath SZA19/11 already mentioned from a depth of 90–94 cm and dated to *c*. 1871–1636 cal BC, sample no. SZA19/12 from the debris of a destruction horizon close to the lower end of the cultural layers in metre 2 yielded a date at *c*. 2118–1894 cal BC (95.4 %; Beta-545762 [macro remains]: 3620 BP +/-30 [core 15, metre 2, 34–52 cm]) that is among the oldest hitherto obtained from Szakáld-Testhalom (fig. III-63). Similarly, from core 18 underneath SZA19/17 mentioned above at *c*. 1616–1454 cal BC from a depth of 50–65 cm, from a well-defined floor level with trampling shortly above the bottom of the archaeological sequence and the old topsoil (metre 2, 81–85 cm) there comes the rather old date of *c*. 2190–1965 cal BC (95.4 %; sample no. SZA19/19 = Beta-545769 [macro remains]: 3680 BP +/-30) from indeterminate charred material so that some kind of old-wood effect cannot be entirely ruled out (fig. III-64). Finally, from cultural layers in the upper part of core 20 we have three radiocarbon dates that fall nicely towards the postulated end of occupation at Testhalom well into the 16th century cal BC,[158] while from further down the same core we have the two much older dates from sample no. SZA19/23 at *c*. 2028–1828 cal BC (95.4 %; Beta-545773 [macro remains]: 3580 BP +/-30 [core 20, metre 2, 75–85 cm]) and sample no. SZA19/24 at *c*. 2031–1888 cal BC (95.4 %; Beta-545774 [macro remains]: 3600 BP +/-30 [core 20, metre 3, 5–20 cm]), the latter of which apparently from trampling on top of the old surface or A horizon underneath the mound, *i.e.* marking the beginning of occupation on the site (fig. III-65).

Given the limited quality of the stratigraphic information obtained from the cores that we have and the corresponding problems to combine various cores to something like a

[158] Sample no. SZA19/20 at *c*. 1683–1521 cal BC (95.4 %; Beta-545770 [charcoal]: 3320 BP +/-30 [core 20, metre 1, 75–88 cm]), sample no. SZA19/21 at *c*. 1630–1497 cal BC (95.4 %; Beta-545771 [macro remains]: 3280 BP +/-30 [core 20, metre 1, 88–100 cm]) and sample no. SZA19/22 at *c*. 1630–1497 cal BC (95.4 %; Beta-545772 [charcoal]: 3280 BP +/-30 [core 20, metre 2, 20–30 cm]).

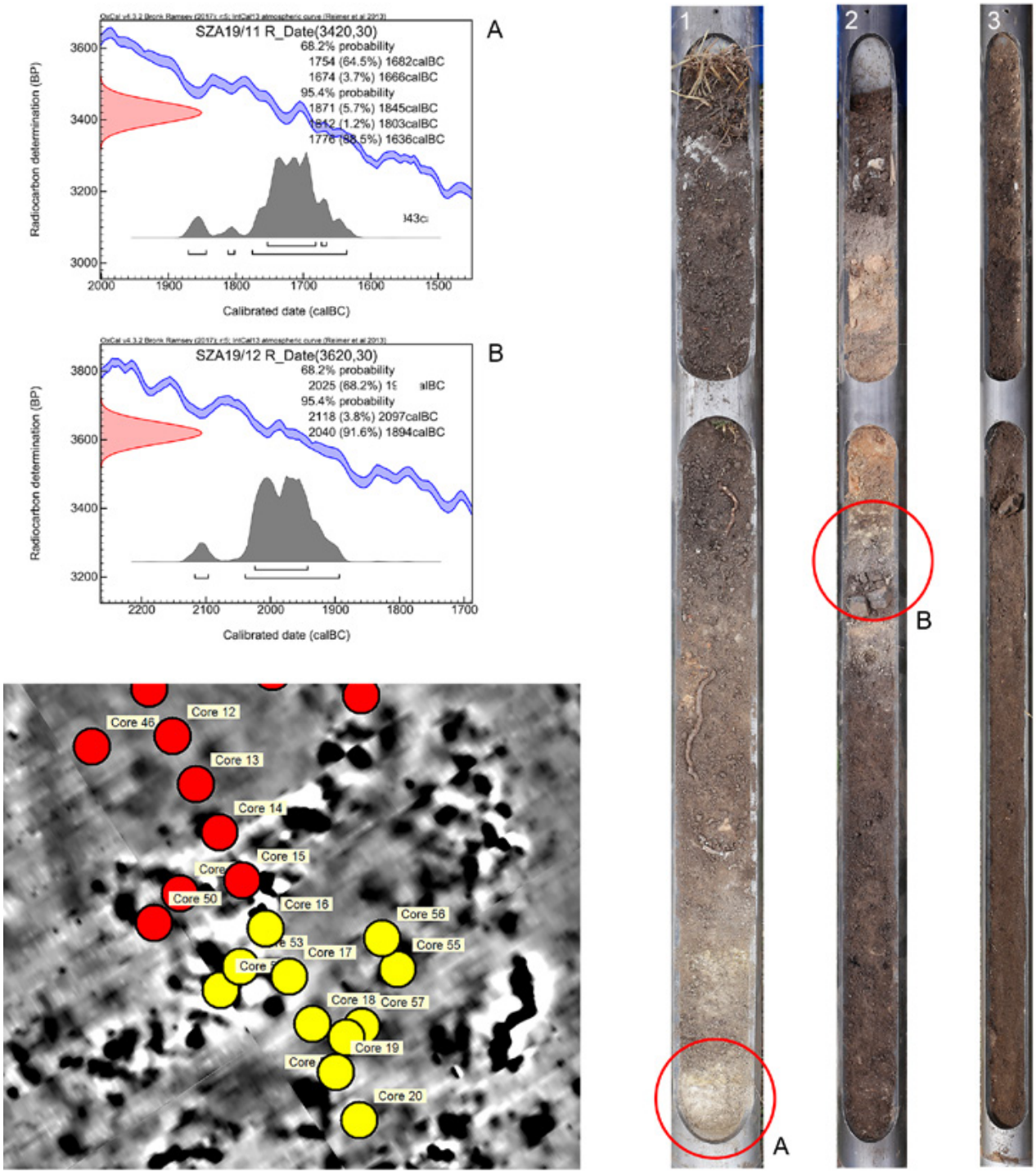


Fig. III-63: Szakáld-Testhalom. Two radiocarbon dates from various depths of core 15 (sample no. SZA19/11: metre 1, 90–94 cm; sample no. SZA19/12: metre 2, 34–52 cm).

continuous 'stratigraphy' of the site, it is no use talking here about distinct 'horizons', or well defined older and younger 'phases' of the settlement. However, we do have indisputable *in situ* evidence of more or less well preserved, superimposed settlement layers including floor levels, partly renewed and with evidence of trampling, and the debris left by destructions and repeated rebuilding, that taken together represent the time span given above of *c*. 450 to 500 years of continuous habitation on one of our surviving proper tell sites.

Turning back to the group of sites which are less well preserved, where for an approximation of their lifespan we have to resort to dates from the lowermost, earliest layers that alone survived and from the infill of their ditches, there is Mezőcsát-Laposhalom. Nowadays tell-like only (fig. III-15), from the *in situ* layers preserved at the bottom of the remaining mound there are four radiocarbon dates that consistently point to an early beginning of settlement activity in Hatvan times (figs. III-66 and III-67). Among these, sample nos. MET17/2 dated to *c*. 2196–1960 cal BC

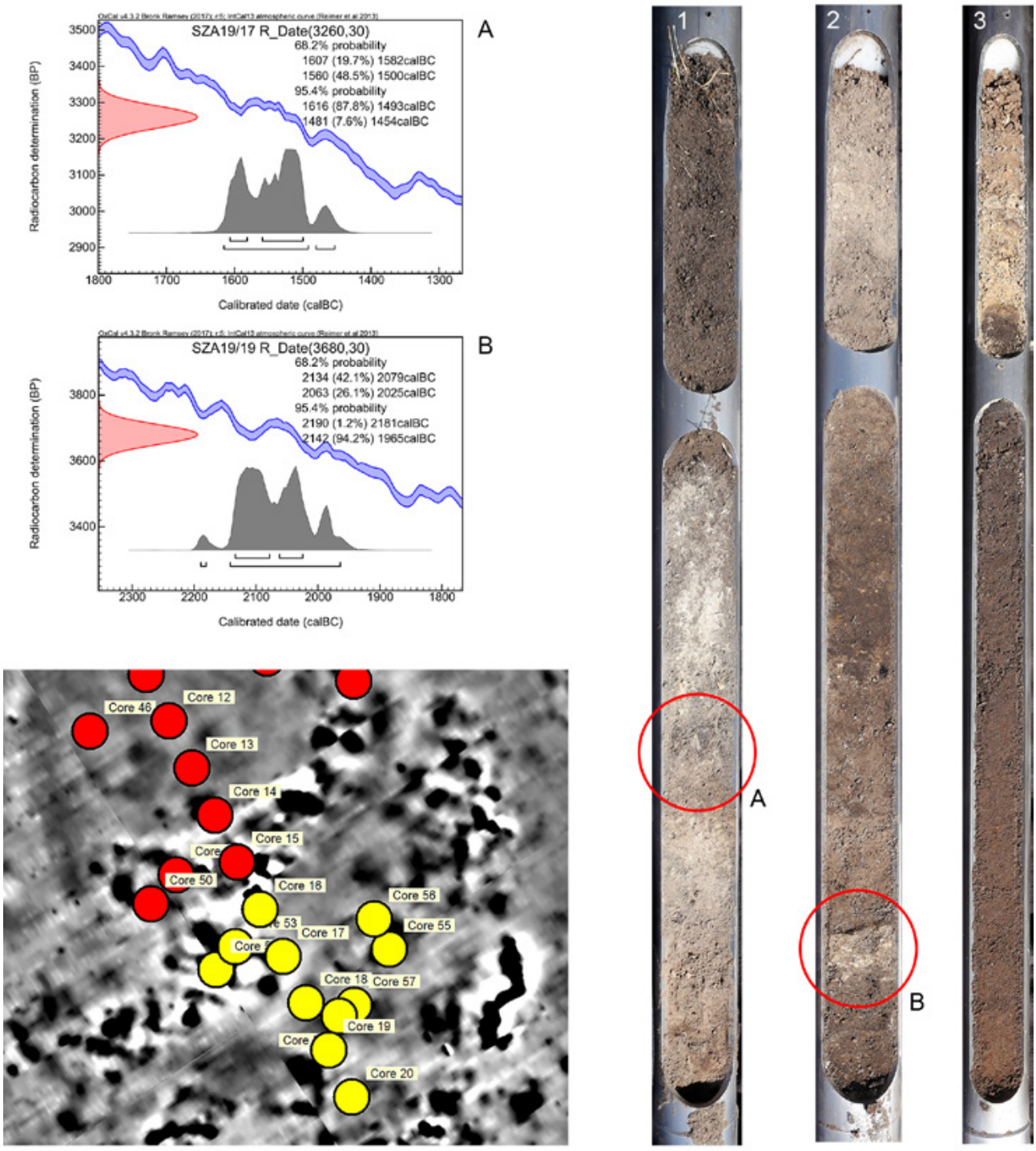


Fig. III-64: Szakáld-Testhalom. Two radiocarbon dates from various depths of core 18 (sample no. SZA19/17: metre 1, 50–65 cm; sample no. SZA19/19: metre 2, 81–85 cm).

(95.4 %; Poz-104959 [charcoal]: 3685 BP +/-35 [core 8, metre 1, 90–95 cm) and MET17/3 at *c*. 2139–1938 cal BC (95.4 %; Poz-104960 [charcoal]: 3655 BP +/-35 [core 9, metre 1, 80–100 cm) may indicate that the site had been occupied well before 2000 cal BC. Sample nos. MET17/4 at *c*. 2133–1903 cal BC (95.4 %; Poz-104962 [charcoal]: 3635 BP +/-35 [core 10, metre 1, 80–100 cm) and even more so MET17/1 dated to *c*. 2034–1782 cal BC (95.5 %; Poz-104958 [charcoal]: 3585 BP +/-35 [core 5, metre 2, 34–50 cm) apparently represent a somewhat younger horizon or rather horizons of settlement activity on the central tell-like part of the site. However, they do not bring us anywhere close to the end of occupation at Mezőcsát-Laposhalom, since there must have been substantial loss that affected the upper, younger settlement layers. Indeed the radiocarbon dates obtained from the infill of the ditch speak for a considerably longer lifespan of the site than is evident from the remains of its central part alone.

Just like Emőd-Nagyhalom discussed above, at Mezőcsát the infill of the ditch also features more than just one final phase related to the abandonment of the site, and we will

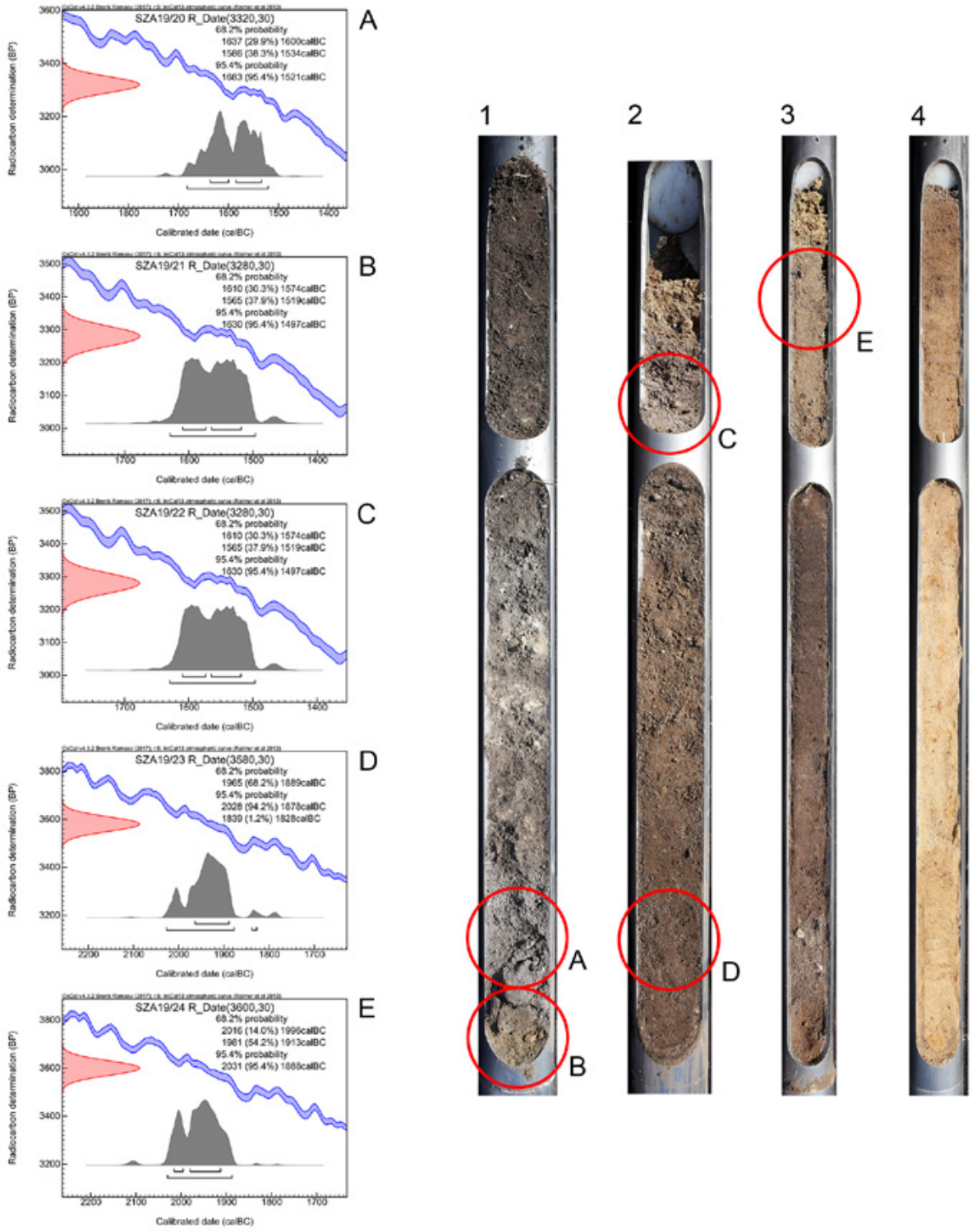


Fig. III-65: Szakáld-Testhalom. Five radiocarbon dates from various depths of core 20 (sample no. SZA19/20: metre 1, 75–88 cm; sample no. SZA19/21: metre 1, 88–100 cm; sample no. SZA19/22: metre 2, 20–30 cm; sample no. SZA19/23: metre 2, 75–85 cm; sample no. SZA19/24: metre 3, 5–20 cm).

return to this evidence below. However, for the time being it is interesting to see that the start date suggested above at before or around 2000 cal BC is also reflected in the ditch, where the sediments featuring the oldest samples dated seem to have been deposited early in the 20th century cal BC if not before (fig. III-68). So at this stage the ditch enclosing the central part of the site had already been established, was open and functional, and at its bottom along its fringes had started accumulating the first sediments that escaped subsequent cleaning if such ever took place on a regular and comprehensive basis at all. Following this, we see a near continuous sequence of dates from the infill that bring us right down to the end of the 16th century cal BC or somewhat beyond, when we may

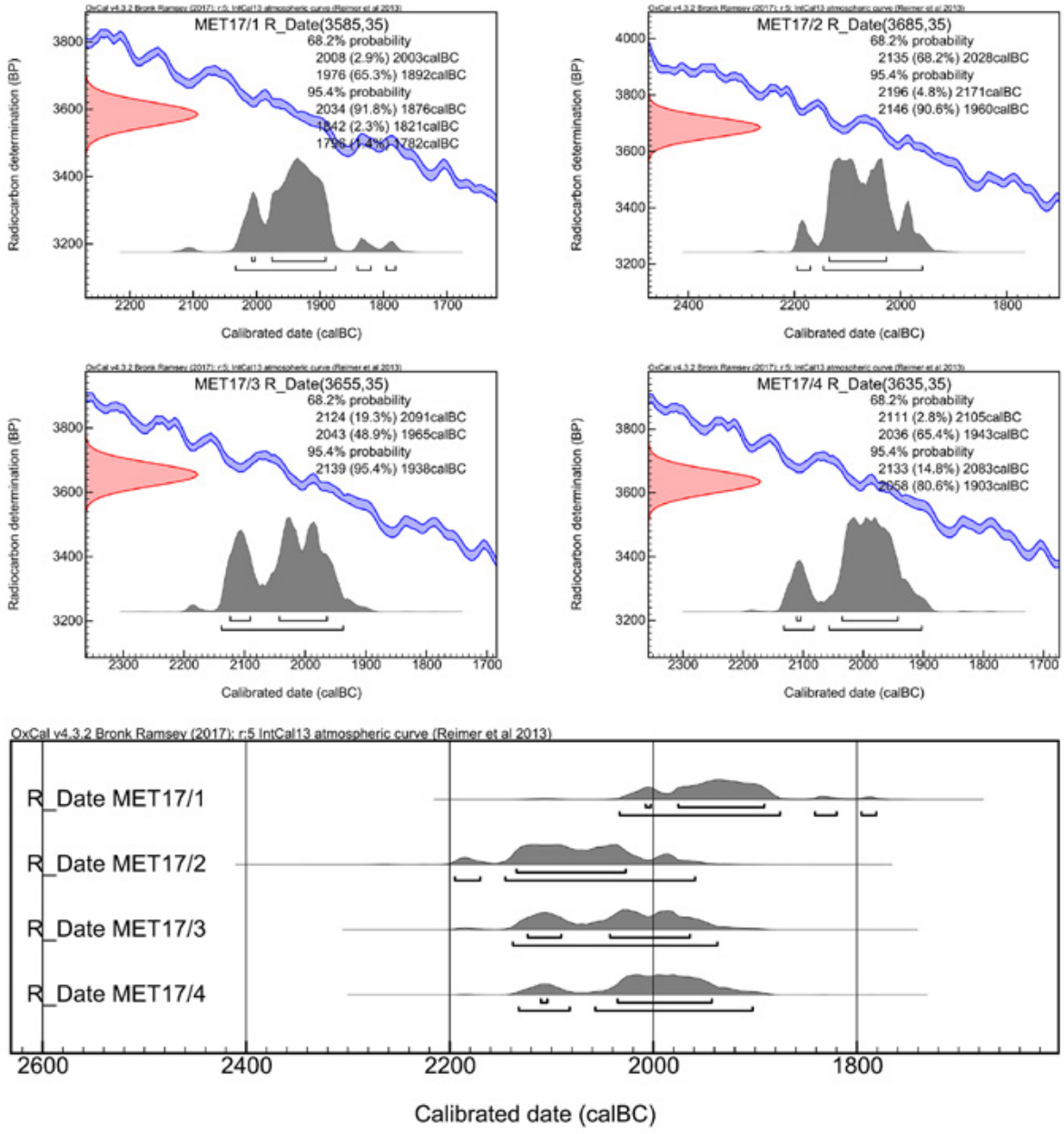


Fig. III-66: Mezőcsát-Laposhalom. Four radiocarbon dates from the earliest *in situ* layers preserved at the bottom of the remaining mound.

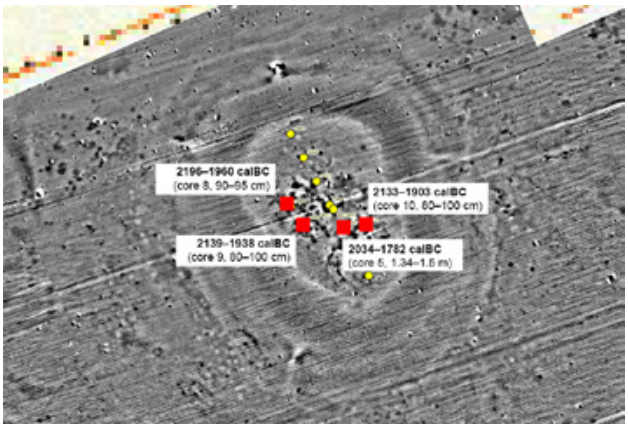


Fig. III-67: Mezőcsát-Laposhalom. Four radiocarbon dates from the earliest *in situ* layers mapped on the magnetometry of the central part of the site.

tentatively suggest that settlement activity in the central part of Mezőcsát-Laposhalom was in decline. This is not to say, however, that the infill of the ditch would have been continuous throughout, nor that the abandonment of the site must have taken the form of a distinct event. Rather, since MET 2/16, the youngest date that we have at *c*. 1629–1440 cal BC (95.4 %; UBA-24823 [bone]: 3262 BP +/-43), comes from just above the bottom of the ditch right in its centre (Kienlin 2018a: 36 with fig. I-20), it is more likely that we actually see the beginnings of a process, whereby the remains of the ditch, already partly backfilled from its margins before, were increasingly neglected and fell out of use. This need not be identical with the end of actual settlement activity in the central part of Laposhalom. Most likely it was not, and this is just the youngest date that by mere chance we have so far, approximately marking

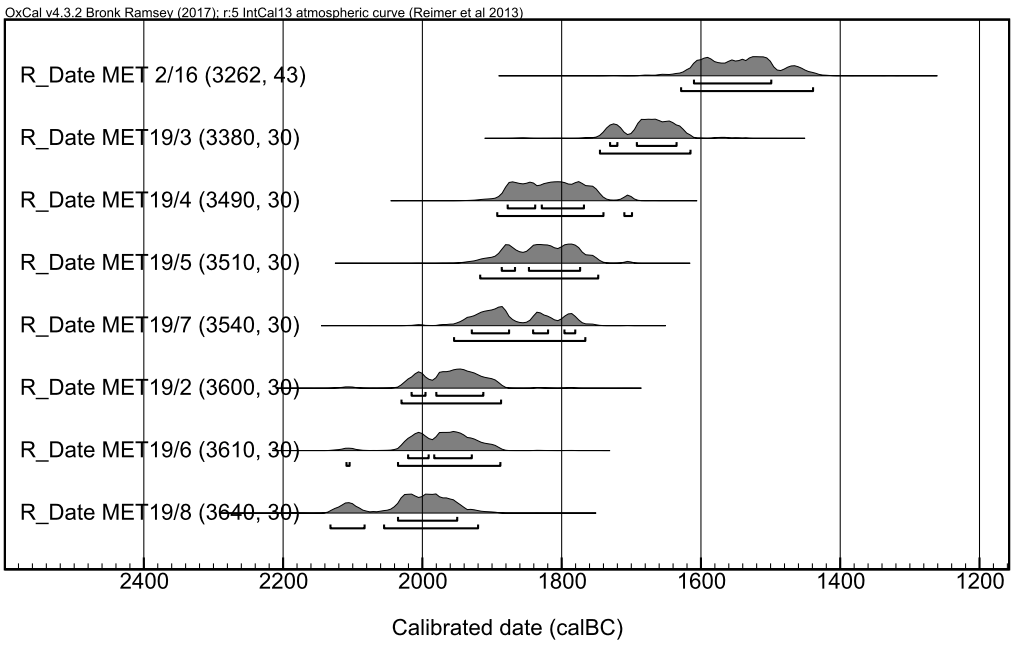
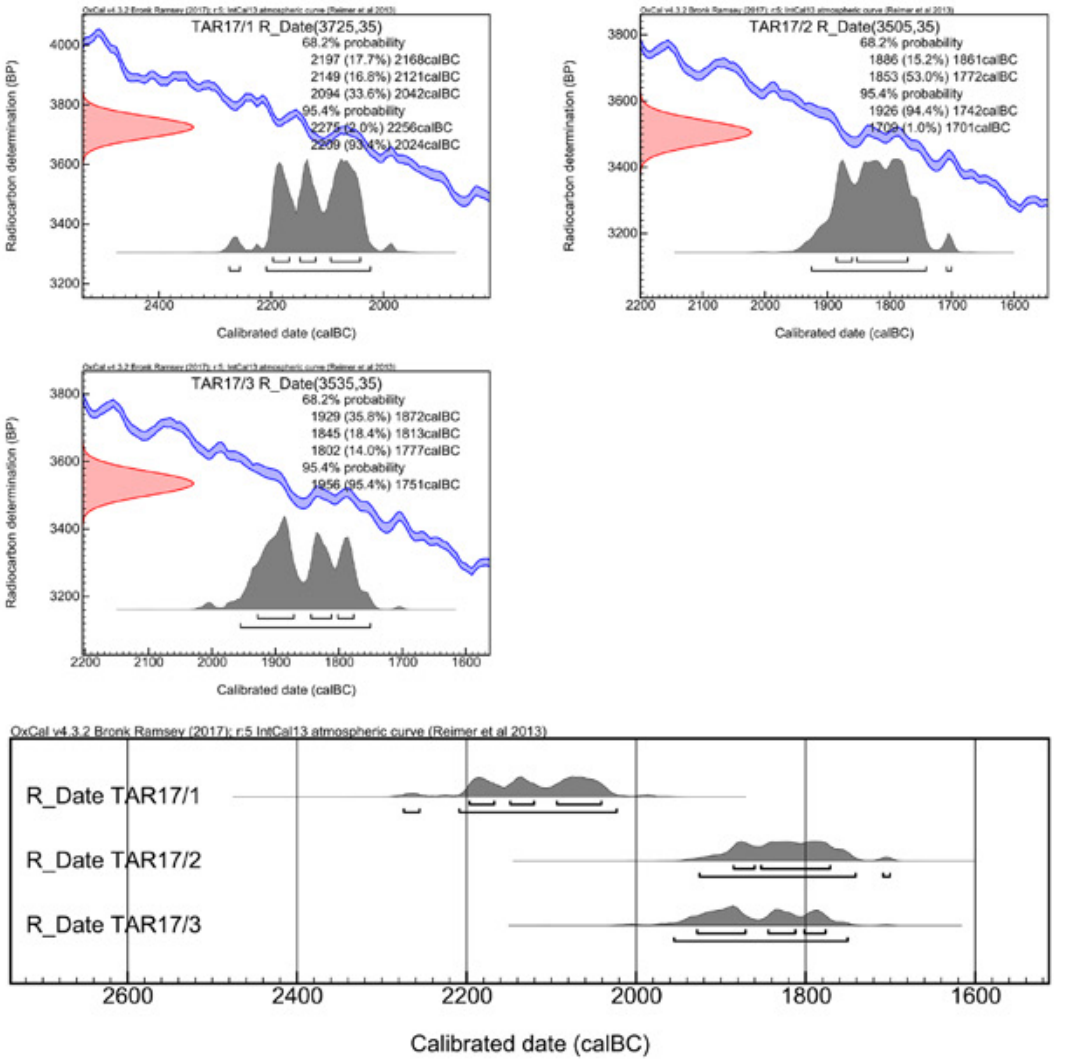


Fig. III-68: Mezőcsát-Laposhalom. Radiocarbon dates from the multi-phase infill of the ditch sorted by date.

the beginning of a process of disrepair and decline that eventually saw the abandonment of the site. Furthermore, since we do not yet have dates from the outer settlement surrounding Laposhalom, we cannot say if the approximate lifespan suggested here for the mound and its enclosure is matched by the development and decline of their wider outer community.

Similarly, for the dating of the tell-like central part of Tard-Tatárdomb, which is currently down to a layer thickness of a mere *c.* 0.6–0.7 m (fig. III-17 above) there are only three radiocarbon dates available from *in situ* layers or features that remain, and we also have to turn to the larger series of dates obtained from two transects through the two-phase ditch and its complex, multi-phase infill (see discussion below). From the initial Hatvan period core itself sample no. TAR17/1 at *c*. 2275–2024 cal BC (95.4 %; Poz-104963 [charcoal]: 3725 BP +/-35 [core 1, metre 1, 65–85 cm]) is rather old in terms of our Borsod tells in general (fig. III-69). In fact, it comes from an old surface underneath the floor levels with trampling and a final destruction horizon of the house seen in magnetometry in this place and targeted by core 1. So TAR17/1, which consists of unspecified charcoal, may actually predate the tell period occupation of Tard-Tatárdomb by an unknown period of time (*e.g.* some forest fire prior to and unrelated to the subsequent settlement activity). Alternatively, of course, it may be associated with the clearing of the site for settlement or something similar, which would put the establishment of Tatárdomb well before 2000 cal BC. However, there is uncertainty, and in any case the house whose remains are preserved on top of the old surface from which TAR17/1 originates would have been younger by an unknown period of time, even though judging from its stratigraphic position at the bottom of the mound one would expect it to belong to the initial stages of the Early Bronze Age Hatvan period occupation of the site. By comparison, sample no. TAR17/3 which comes from the upper part of the debris left by the multi-phase house targeted by core 4 (fig. III-69) is younger, and at *c*. 1956–1751 cal BC (95.4 %; Poz-105059 [macro remains]: 3535 BP +/-35 [core 4, metre 1, 45–57 cm]) may also reflect the Middle Bronze Age occupation on this part of the site. This is certainly the case for our third and youngest sample no. TAR17/2 from the central part of Tard-Tatárdomb, which comes from the bottom of a pit in its northern Füzesabony period 'expansion' (fig. III-69). At *c*. 1926–1701 cal BC (95.4 %; Poz-104964 [charcoal]: 3505 BP +/-35 [core 2, metre 2, 72–100 cm]) this date is well in accordance with the Middle Bronze Age date suggested above on the basis of surface finds (fig. III-55) for the modification of the initial Hatvan period enclosure and enlargement of the central part of the settlement. However, it may imply that this step was taken rather early in Füzesabony times and certainly not only towards the end of settlement at Tard-Tatárdomb.

Clearly, from the few cores only and just three absolute dates that we have so far from the central part of Tard-Tatárdomb, it is impossible to reconstruct a detailed stratigraphy and shed sufficient light on the complex development of the mound and its phases. For the time being we can only turn here to the infill of the site's multi-phase ditch(es) for a hint at the total duration of settlement activity (fig. III-70). Somewhat more in line with the other Borsod sites hitherto dated than the early date from sample no. TAR17/1 discussed above, we see here that around 2000 cal BC or early during the 20th century the first sediments were deposited in the ditch, and hence the original enclosure and core of the site had been established for sure. An accumulation of relatively consistent dates covering the 19th and early 18th centuries cal BC are by



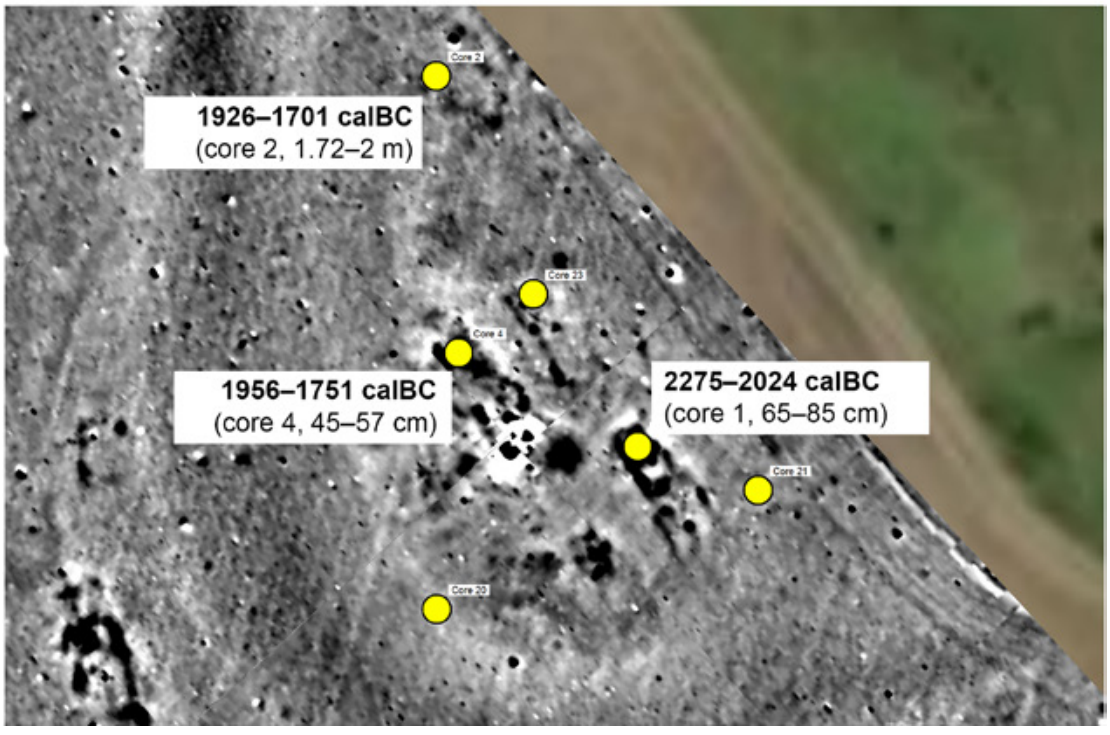


FIG. III-69: TARD-TATÁRDOMB. THREE RADIOCARBON DATES FROM THE EARLIEST *IN SITU* LAYERS AND FEATURES PRESERVED AT THE BOTTOM OF THE REMAINING MOUND; THE SAME DATES MAPPED ON THE MAGNETOMETRY OF THE CENTRAL PART OF THE SITE.

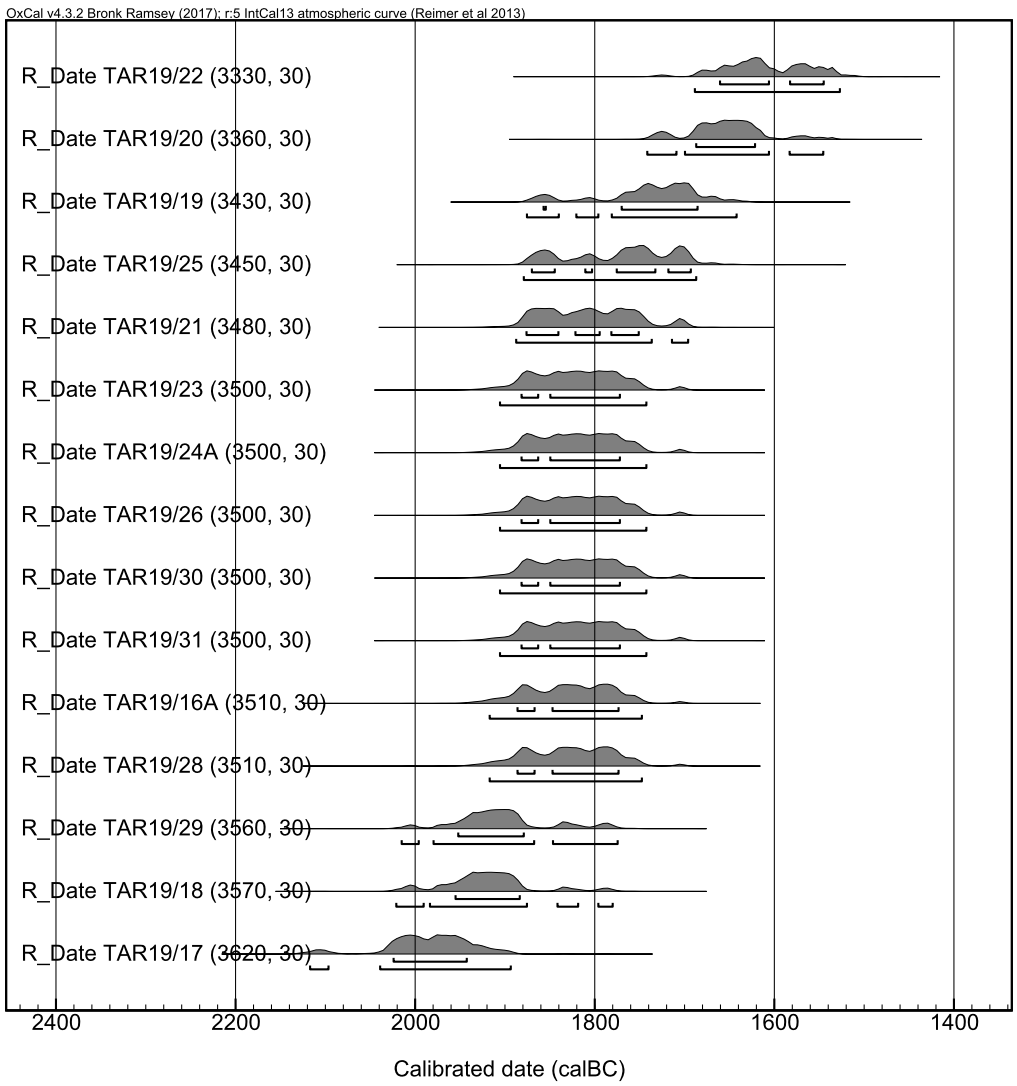


Fig. III-70: Tard-Tatárdomb. Radiocarbon dates from the infill of the two-phase ditch enclosing the central part of the site sorted by date.

and large thought related to the backfilling of the northern section of the original enclosure and the establishment of the Füzesabony period 'expansion' to the core area discussed above. This happens to be in good accordance with the evidence and date of sample no. TAR17/2 from a pit in this section just introduced. A couple of younger dates, then, take us down ultimately into the early 16th century cal BC, which may be an informed guess for the decline of settlement activity at the site and the beginning of the final infill of its enclosure. Obviously, more dates are required here, and the above reservations apply, outlined for Mezőcsát-Laposhalom, that disrepair and the gradual infilling of the select sections of the ditch that were sampled may only mark the *beginning* of a process of decline, rather than anything like the exact 'end' when the settlement was totally abandoned. The absolute dates available from houses in the outer settlement of Tard-Tatárdomb will be discussed below. However, it can already be said that from this section of the site as well, there is no positive evidence of any younger settlement activity. So from this perspective, too, for the time being the first half of the 16th century cal BC certainly stands as the proposed 'end' date of Tard-Tatárdomb.

So far we have seen that a series of radiocarbon dates from systematic core drilling in the infill of a site's ditch combined to a couple of dates from *in situ* layers or contexts that remain on the central tell or tell-like mound may allow an informed guess at the overall lifespan of its occupation. Unfortunately, this is not the case for Tibolddaróc-Bércút, the final site to be discussed here in terms of absolute chronology, where due to heavy agricultural use virtually no cultural layers are preserved, and as of yet we only have seven radiocarbon dates from four cores targeted at the centre of the enclosure as seen in magnetometry (fig. III-71). Since these dates are few in numbers and cannot be validated against such from on-tell features, it is with some reservations only that Tibolddaróc may be said to have been established somewhat later than the other sites so far discussed. The oldest dates from the infill of its ditch consistently start only during the first half of the 19th century cal BC, followed by a couple of dates down to the

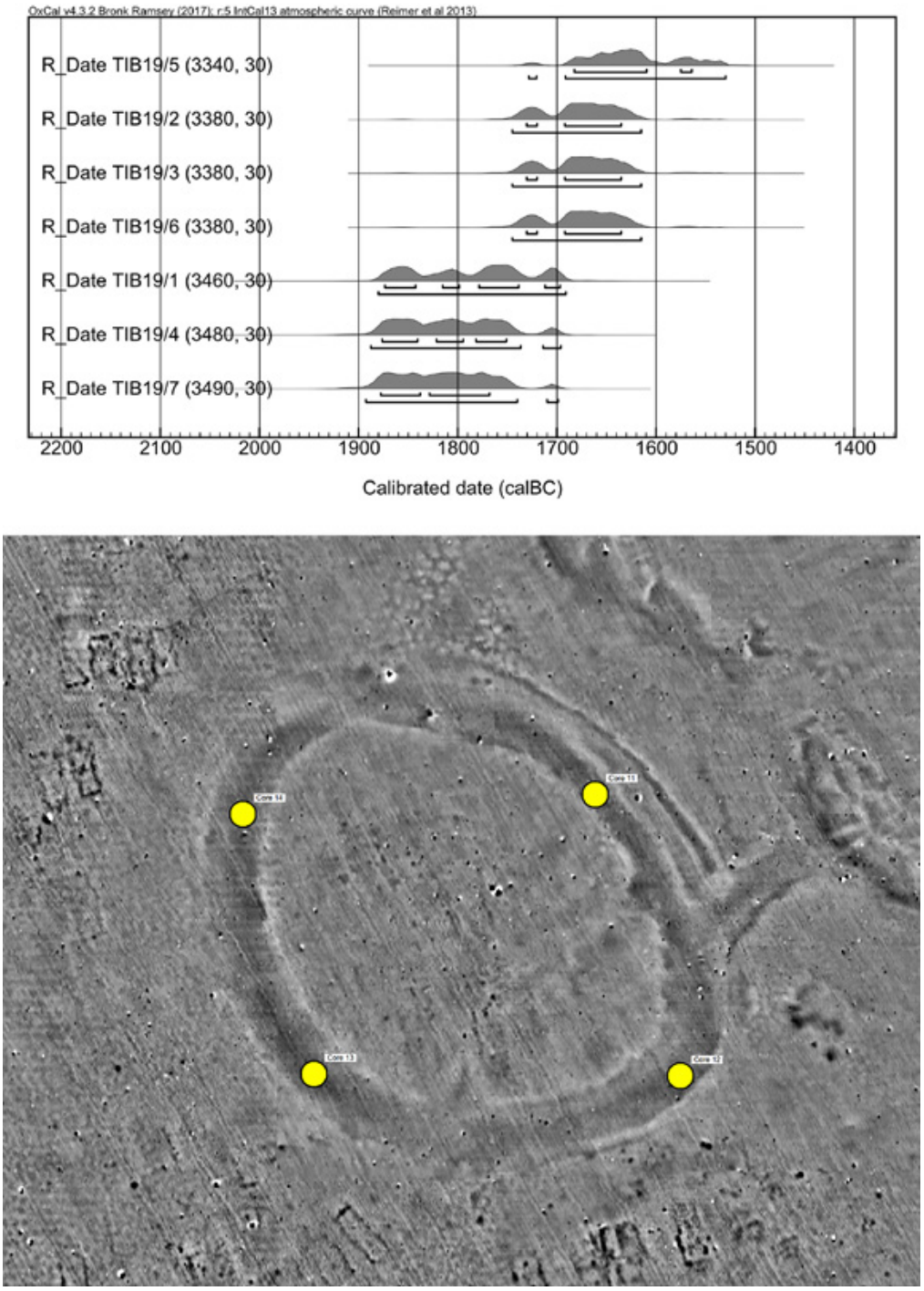


Fig. III-71: Tibolddaróc-Bércút. Radiocarbon dates from the enclosure of the site sorted by date; the position of the cores mapped on the ditch as seen in magnetometry.

first half of the 16th century cal BC. If confirmed by a larger series of dates, occupation at Tibolddaróc may thus have lasted some 300 to 350 years, with a 'start' date somewhat later than neighbouring Tard-Tatárdomb at a distance of only *c*. 4.6 km towards the south-west across a shallow rise and the valley of the Lator river on the western flank of which Tard is situated. As to the end of Tibolddaróc, the above reservations apply, and we rather see the beginning of decline, broadly matching nearby Tard, than a definite 'end' when all Middle Bronze Age life would have come to a halt and the site completely abandoned.

Even though the dates from Tibolddaróc-Bércút are few and await confirmation, as such they seem consistent, as may be illustrated by the three dates obtained from core 14 in the north-western section of the enclosure (fig. III-72): In good accordance with their stratigraphic position, we have a temporal succession from an oldest date at *c*. 1893–1700 cal BC (95.4 %; sample no. TIB19/7 = Beta-545731 [charcoal]: 3490 BP +/-30 [core 14, metre 5, 50–70 cm) just above the bottom of the ditch and presumably marking an early episode of deposition not subsequently cleaned out, via sample no. TIB19/6 dated to *c*. 1746–1616

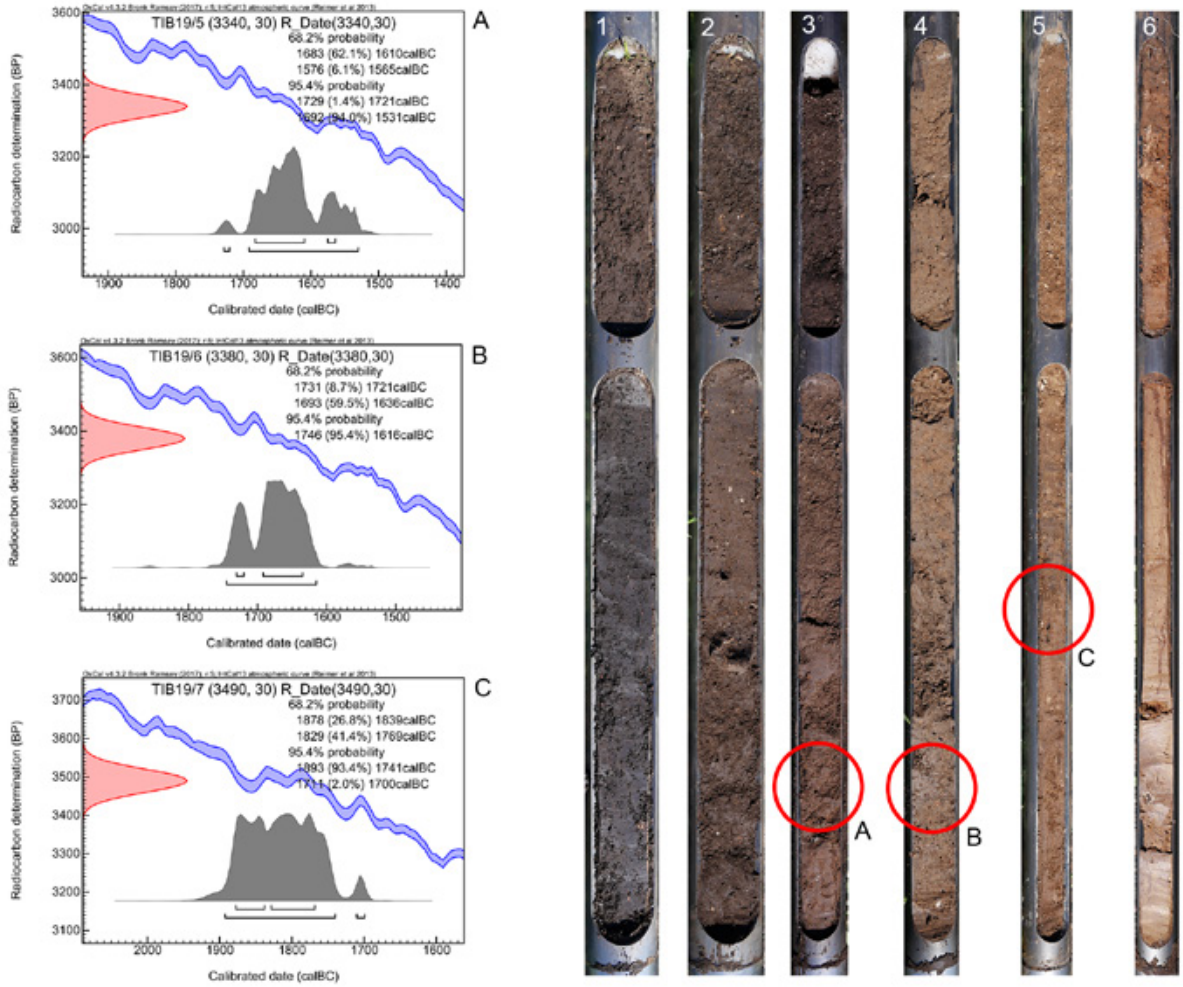


Fig. III-72: Tibolddaróc-Bércút. Three radiocarbon dates obtained from core 14 in the north-western section of the enclosure and their stratigraphic position.

cal BC (95.4 %; Beta-545730 [bone]: 3380 BP +/-30 [core 14, metre 4, 70–90 cm]) somewhat further up the core, to the youngest date at *c*. 1729–1531 cal BC furthest up in the infill (95.4 %; sample no. TIB19/5 = Beta-545729 [bone]: 3340 BP +/-30 [core 14, metre 3, 70–85 cm]). The latter date, which is also the youngest date at all from Tibolddaróc mentioned above, nicely illustrates what has been said above on the presumed 'end' date of the site as derived from its ditch. For on top of it there is still plenty of sediment that may have been deposited either while Middle Bronze Age life was still going on but in decline, or for an extended period of time after, when the remains of the settlement were left to decay.

Summing up the evidence so far from core drilling on the central mound and radiocarbon dating, plus of course our ongoing excavation at Borsodivánka-Marhajárás or the previous one at Füzesabony-Öregdomb, we see the tension confirmed outlined above between 'structure' and variability in consequence of 'agency'. Although preservation is often poor, we clearly have *in situ* evidence of the characteristic emphasis of tell-living on ancestry and the genealogy of superimposed houses or households, of generation upon generation of floor levels and hearths *etc.* renewed, followed by the debris left by destruction, and the renewal of houses in precisely their traditional place. We also see that this specific way of living and making reference back to traditional ways of doing things, of meaningfully organising lives by drawing on and manipulating a material world passed down from previous generations, finds unequivocal expression in absolute dates – even though expressly it is *not* argued that the specifics of tell-living are anything that can be measured in radiocarbon years. With the sole exception of Hernádnémeti-Németihalom, on all sites hitherto examined we have something between *c*. 350 to 500 years of continuous habitation, plus x one should add since the exact 'end' of settlement activity is often difficult to determine (fig. III-73). No doubt, together with the evidence from stratigraphy, on the 'structural' side this defines a specific Early to Middle Bronze Age Borsod identity, that was maintained for a substantial period of time, and that – among other common aspects of social life and materiality – prominently featured tell-living as outlined above. As such it differed markedly from social life and settlement during the previous Copper Age and the beginnings of the local Early Bronze Age (I and II), as well as from the subsequent Late Bronze and Iron Ages with their lateral relocation of households and short-lived even though sometimes much larger and more populous sites.

On the other hand, we must be wary not to conceive of 'tell society' – on the Borsod plain and beyond – as

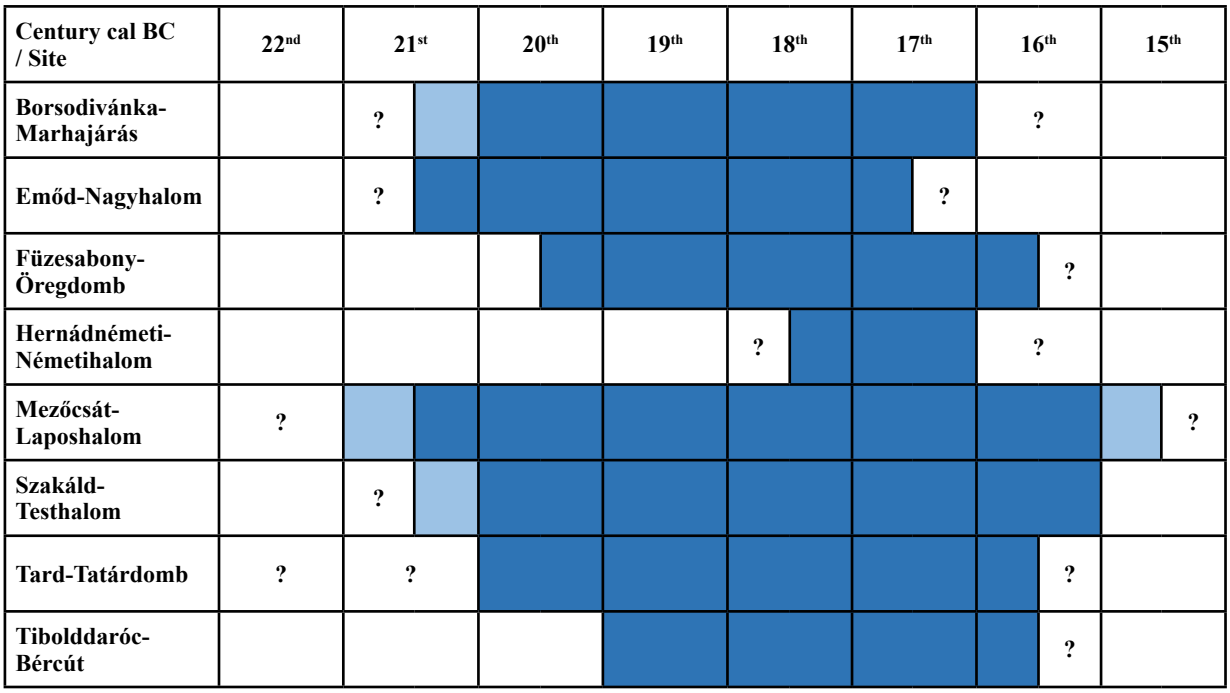


Fig. III-73: Summary of the lifespan suggested for the tell and tell-like sites on the Borsod plain hitherto dated by radiocarbon (Füzesabony-Öregdomb: Szathmári *et al.* 2019: 312 tab. 1; all other sites: BORBAS project).

'static' or 'conservative' only, as though social life had come to a halt. The largely 'unchanged' persistence of traditional practices is always the result of *ongoing* social reproduction, of social life unfolding in a specific way and not another. We do, in fact, get an occasional glimpse of the effect of 'agency' on social space and the material arrangements inextricably linked to human sociality. On a micro level this is the case, for example, with the phase-wise abandonment of on-tell households (see, for example, Borsodivánka-Marhajárás above), with their relocation from tell to outer settlement and *vice versa*, or among the different parts of a heterogeneous community in a 'composite' outer settlement itself. Somewhat further up, on a macro level, besides considerable overlap from say *c*. 1900 to 1600 cal BC, we do have some variation in the lifespan of our sites. These are not abstract numbers, and they are not irrelevant such as in traditional approaches that take an essentialising interest only in 'tell society' *as such* adapting to landscape and climate conditions. Rather, they relate to the approximate point in time, that may have differed, when specific decisions were taken, that could always have been otherwise, where, how and with whom to live that eventually brought about the accumulation of settlement debris into a tell. The same, obviously, applies towards the end, when to communities, which for 'time beyond memory' had opted for the conscious reference back to the material outcome of tradition and past social life, this system of materiality, related practices and understandings lost its meaning and binding character.

Such claims to tradition and consequent tell-living may have been part of an overarching Borsod identity that prevailed for some time. However, this identity would never have been an abstract, preexisting given. Rather, it was always subject to negotiation, and the claims and understandings involved may have helped establish a sense of identity and community, or otherwise they may have been controversial and part of strategic arguments. As such Early to Middle Bronze Age Borsod tell-living was historically specific, subject to different outcomes of the social process and contingent upon the 'actual concrete state of the social site' (Schatzki 2002: 222–223) on the various settlements and sections of the landscape it comprised. It should not come as a surprise, then, to see that neither do we have an exact Early Bronze Age 'start' date valid for all of our sites, nor did they all come to an end at exactly the same 'point' in Middle Bronze Age Füzesabony times. We are clearly heading for a somewhat fluid pattern, in consequence of 'agency', where an occasional gap among what otherwise seem to be fairly regularly spaced sites throughout the Borsod landscape is perfectly feasible. In this respect, Hernádnémeti-Némethihalom may just be an extreme example, seemingly representing as is does the failed attempt to establish something like one of our Borsod tell communities on top of a preexisting sand dune, in an attempt, maybe, to assert and appropriate a tradition that in fact had never been in existence in this particular place and that could not be brought about by the mere act of digging an apt enclosure.

III.4 The Enclosure: Defence or Signal?

Moving on outwards, all Borsod sites examined feature a more or less substantial enclosure established by means of a ditch that either for a certain period of time or during the entire lifespan of the settlement set the inner tell or tell-like core apart from its surroundings both in practical and in symbolic terms. In the greyscale plot presentation of the magnetometer data already seen above these ditches show as a continuous darkish, *i.e.* slightly positive, round or roundish anomaly of variable intensity depending on the magnetic properties of the original infill and any material deposited on top of it at a later stage (see, for example, fig. III-71 above). Typically, but by no means on every site, their surrounding ditch is also discernible by a slight depression left on the surface, and in aerial photography or satellite imagery it may be visible due to the soil colour of the infill that differs from the cultural layers on the adjacent parts of the settlement (fig. III-74).

Fig. III-74: Novaj-Földvár. Aerial photograph showing the central part of the site and the course of the ditch discernible by the darker colour of its infill.

As such, clearly, the parallel existence of a tell or tell-like core, a more or less massive ditch and an outer settlement beyond features on the 'structural' side of our Borsod sites or identity. Their ditches would both have shaped notions held of how the social space of a community should be organised, and directed everyday practices and patterns of movement and communication. Where diversity comes into the picture, or variability as the outflow of 'agency', is in the development of these enclosures through time, their obviously being subject to negotiation and modification, and how this blends into the development and history of the communities under consideration. In what follows, both aspects will be duly addressed.

III.4.1 Size and Layout ('Structure' II)

Turning to construction details first, magnetometer data do not give exact information on the width, depth and volume of subterranean structures. So it is an approximation only, albeit one close to reality, that the upper width of most Borsod sites' ditches as seen in magnetometry falls in the range of *c.* 10–20 m, sometimes with notable variation along the perimeter of individual sites (Kienlin 2018a: 29 tab. I-1).[159] Such irregularity may have been an original feature, but it may also stem from the ditches' sides partly collapsing during use or upon their subsequent abandonment before they were completely refilled. The ditches' profile was apparently U-shaped (fig. III-75; see also fig. III-19 above), and reliable information on the depth of their enclosure currently is available from some six to seven Borsod sites.[160] At Mezőcsát-Laposhalom the ditch has a depth of *c*. 3.5 m as measured from today's surface in the slight depression remaining; the ditch at Tard-Tatárdomb is up to *c*. 5.7 m deep underneath the present surface; at Borsodivánka-Marhajárás coring indicates a depth of the ditch of at least *c*. 3 m; at Gelej-Pincehát coring points to the existence of a ditch *c*. 4 m deep; at Szakáld-Testhalom the ditch is *c*. 3.7 m deep below the original surface (also Sümegi *et al.* 1996/97: 187 fig. 4; Tóth *et al.* 2005: 143–144); and at Emőd-Nagyhalom the ditch visible in magnetometry and on the surface today has a depth of *c*. 4.4 m underneath the bottom of the surface depression remaining. Such dimensions are in good accordance with adjacent regions where ditches surrounding Bronze Age tell sites have previously been targeted by excavations or test trenches. Particularly massive ones are recorded, for example, from sites such as Jászdózsa-Kápolnahalom (Hatvan; 13.5 m wide, more than 4 m deep; Stanczik/Tárnoki 1992: 127), Košice-Barca (Otomani; 18 m wide, 2.5 m deep; Vladár 1973: 277), Sălacea (fig. III-76; Otomani; partly 21 m wide, 7.5 m deep; Ordentlich 1969: 463; Bader 1982: 58; Ordentlich/Găvan/Ghemiş 2014: 208) or Otomani-Cetăţuie (fig. III-77; Otomani; partly 20 m wide and 5–6 m deep; Bader 1982: 55–56; Ordentlich/Lie/Ghemiş 2014: 141).[161]

As to the original fill, if any, and function of our Borsod sites' ditches, sedimentological analyses carried out in 2013 at Tard-Tatárdomb established that the ditch in its central part was apparently cleaned and restored on a regular basis. Its infill features anthropogenic indicators such as pottery, daub and bone fragments, and layers of

[159] For details and discussion see also Kienlin/Fischl/Pusztai (2018b).

[160] See Kienlin (2018a: 30 tab. I-2), with modifications included here for a couple of ditches recently explored through systematic core drilling by the BORBAS project (see discussion below).

[161] See also Kienlin (2015a: 43–53), and for the Vatya area see in particular Jaeger (2018: 204–207).

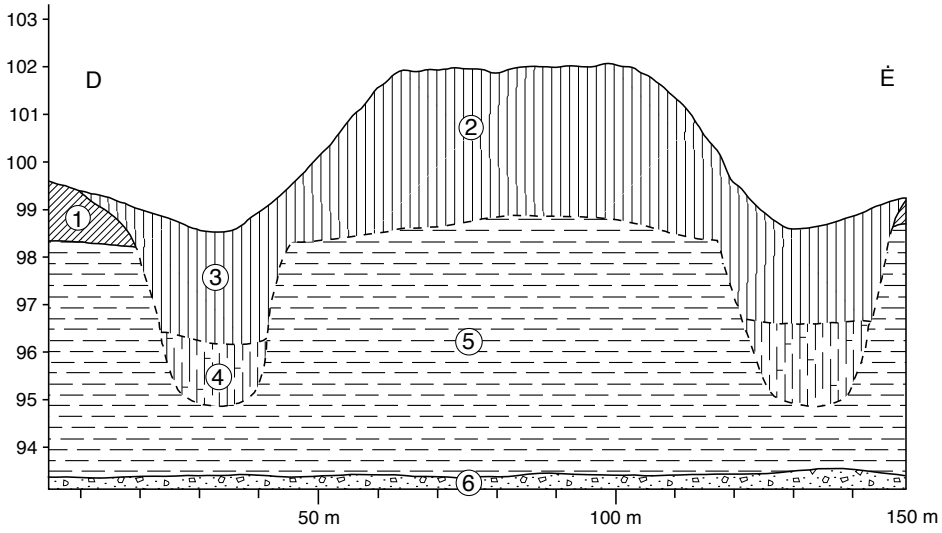
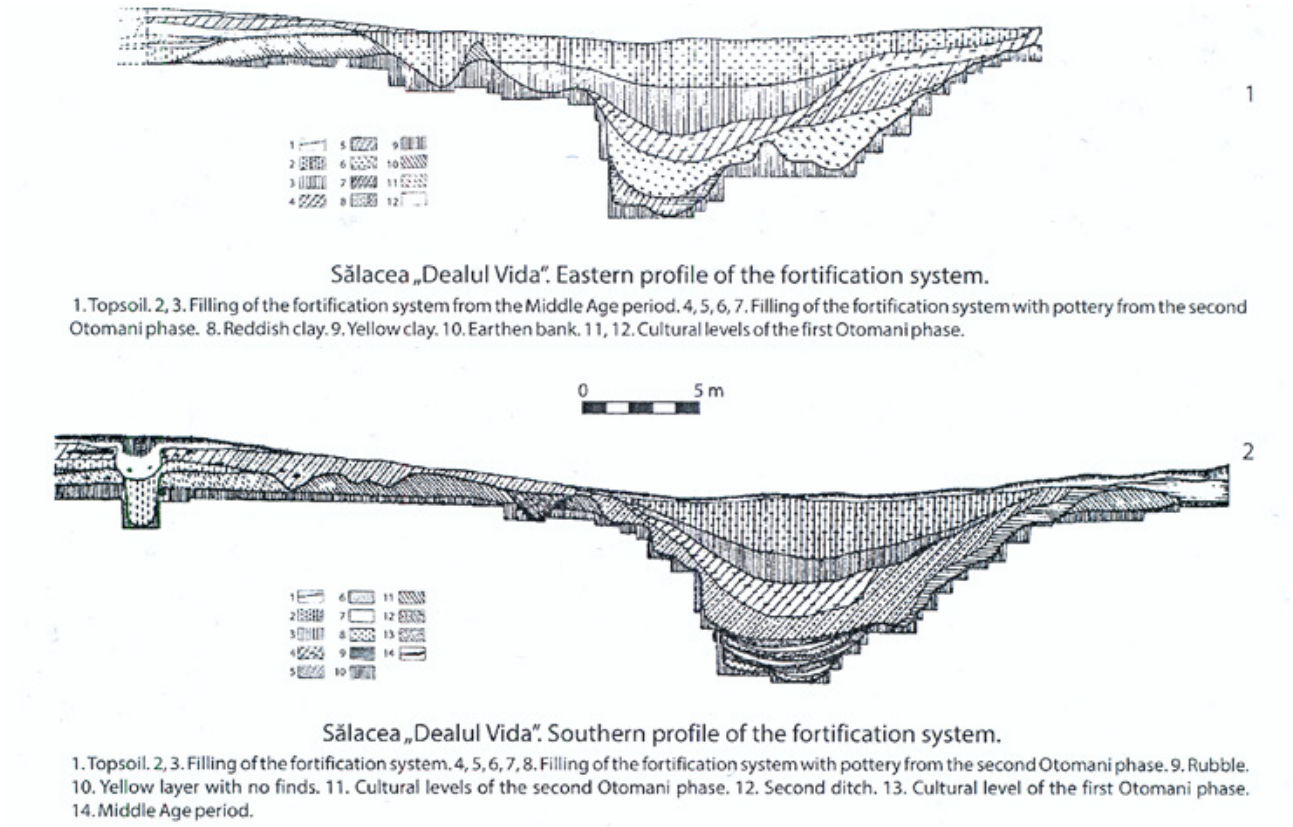


Fig. III-75: Szakáld-Testhalom. Core drilling profile of the tell site and its surrounding ditch (after Sümegi *et al.* 1996/97: 187 fig. 4).

generally identical soil morphology like the adjacent settlement. Due to the smaller size of these fragments and their poor preservation, compared to those from the core in the central tell-like part of the site, it is likely that the infilling took place by erosion after the abandonment of the settlement (fig. III-78; Fischl *et al.* 2014: 371–373). This is in line with the evidence from magnetometry from most sites that typically shows a continuous signal throughout with few, if any, overlying anomalies, thus also pointing towards a gradual infilling after the end of human occupation. Given Tard-Tatárdomb's location in the foothill zone of the Bükk mountains, on a terrace *c.* 50 m above the present-day valley bottom, it is hardly surprising that there is no evidence of a body of standing water in the ditch (Kienlin/Fischl/Pusztai 2018b: 237–243). At other sites in the Borsod plain itself the situation was most likely different, with the ditches either reaching below the groundwater table or directly connecting to adjacent rivers or swampy areas. Thus, at Borsodivánka-Marhajárás, probably situated on the bank of the Eger/Rima river or on a former peninsula, the ditch clearly connected to the adjacent river bed or swamp (fig. III-22 above). Core drilling in this case indicates fluvial sediments interspersed with indicators of human activity (charcoal, fragments of pottery and daub) down to the end of the core at a depth of 3 m at modern groundwater level (Kienlin/Fischl/Pusztai 2018b: 163). At Mezőcsát-Laposhalom coring shows that underneath the anthropogenic infill of the ditch there are fluvial sediments, dated to *c*. 32,719–31,515 cal BC (sample no. MET 2/42 = UBA-24824 [charcoal]: 29,903 BP +/-350; Kienlin 2018a: 33 fig. I-17), so here for part of the ditch use was probably made of an old channel of the Énekes/Rigós river that may still have been visible on the surface. Accordingly, previous work and our own BORBAS project's core drillings at Szakáld-Testhalom consistently show that the site's ditch at its bottom features fluvial sediments and seems to have been connected to the adjacent watercourse (fig. III-19; Sümegi *et al.* 1996/97; Tóth *et al.* 2005), while at Tiszabábolna-Fehérló tanya, situated on a peninsula in the Csincse river, the ditch is actually a meander cut-off connecting to the river on both sides and creating an artificial island (fig. III-23).

Either way, whether filled with water or not, the ditches that surround the Borsod sites must have constituted a substantial impediment that necessitated some means of passage to provide access to the interior part of the settlement. From the magnetometer data there is no evidence at all of how this was achieved. Most likely, we have to expect some wooden or otherwise organic construction or bridge that does not show, since its remains, possibly only a couple of postholes, are buried underneath the infill at the bottom of the ditches. Indirect evidence may come from Mezőcsát-Laposhalom where in the zone immediately outside the ditch, in the north-west, east and south-west there are linear negative anomalies that may stem from some kind of approach to the central part of the site (fig. III-79; see also figs. III-15 and III-45 above). At least in the south-west, this feature is also discernible in aerial photography. However, since this finding is so far unique, and there are other periods present on the site, an interpretation in terms of a Bronze Age approach requires an excavation for it to be confirmed. At Emőd-Nagyhalom, situated on top of an isolated hill in the Borsod plain, and Tibolddaróc-Bércút, on the terrace along the valley of the Kácsi river in the foothill zone of the Bükk mountains, there are gullies extending downhill towards the south-east and the north-east respectively that may be indicative of erosion occurring along an access to the site (fig. III-80; Kienlin/Fischl/Pusztai 2018b: 179–188, 245–250). At Emőd this would nicely match the direction of what is thought to be a separate settlement cluster at Emőd-Zsedény dűlő at a distance of *c*. 400 m. However, this evidence, alongside the arrangement and clustering of houses in the outer settlement of a number of sites that may be suggestive of preferential routes of access, is at best circumstantial,



Sălacea „Dealul Vida". Eastern profile of the fortification system.

1. Topsoil. 2, 3. Filling of the fortification system from the Middle Age period. 4, 5, 6, 7. Filling of the fortification system with pottery from the second Otomani phase. 8. Reddish clay. 9. Yellow clay. 10. Earthen bank. 11, 12. Cultural levels of the first Otomani phase.

Sălacea „Dealul Vida". Southern profile of the fortification system.

1. Topsoil. 2, 3. Filling of the fortification system. 4, 5, 6, 7, 8. Filling of the fortification system with pottery from the second Otomani phase. 9. Rubble. 10. Yellow layer with no finds. 11. Cultural levels of the second Otomani phase. 12. Second ditch. 13. Cultural level of the first Otomani phase. 14. Middle Age period.

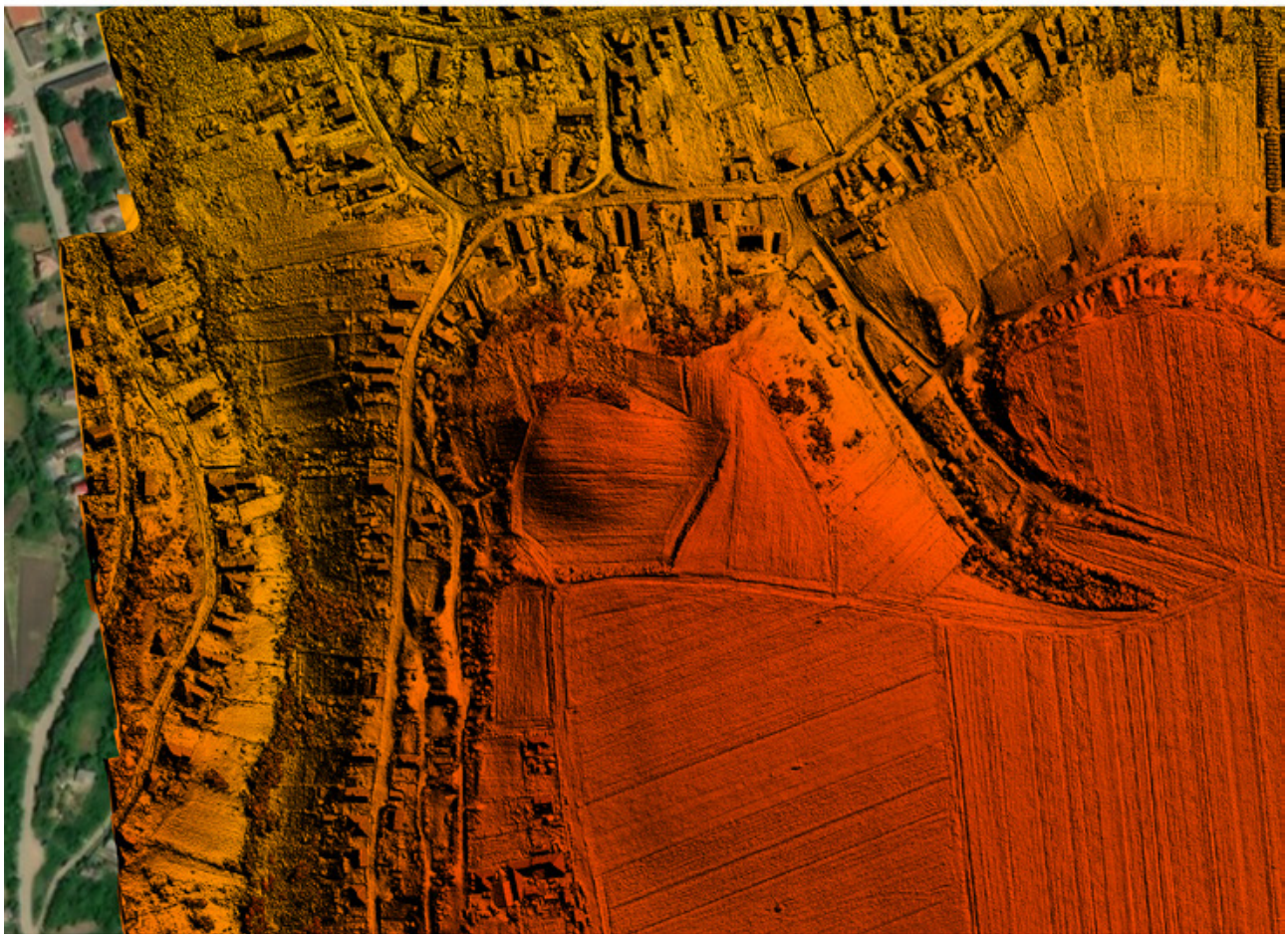


Fig. III-76: Sălacea-Dealul Vida, Bihor county, north-western Romania; Otomani culture. Profiles through the ditch according to the old excavations (after Ordentlich/Găvan/Ghemiş 2014: 214 pl. I) and digital elevation model of the site showing the depression left by the ditch on the surface.

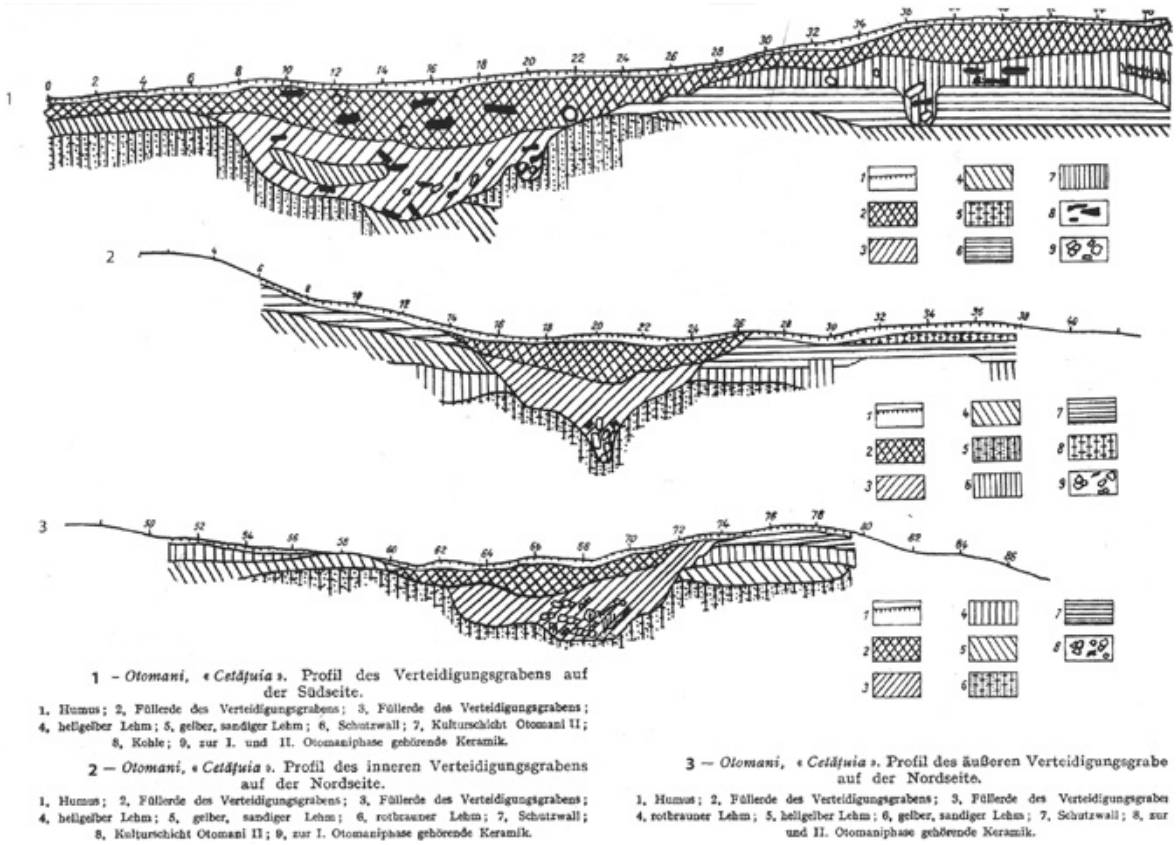


Fig. III-77: Otomani-Cetățuie, Bihor county, north-western Romania; Otomani culture. Profiles through the ditch according to the old excavations (after Ordentlich/Lie/Ghemiş 2014: 144 pl. II).

and it certainly does not tell us how the ditch itself was traversed. The situation may be somewhat different further south in Romania where at least from the sites of Munar in Arad county (Sava/Gogâltan 2014; Gogâltan 2016: 92–94) and Toboliu, Bihor county (fig. III-81; Lie *et al.* 2019), there is evidence of broad linear anomalies running across the ditches, possibly indicating some more substantial construction or even earthen causeways that provided access to the inner part of these sites.

Finally, in terms of construction details, despite claims made for the existence of an additional fortification such as ramparts or palisades running along the inner perimeter of the ditch,[162] from our current data from the Borsod plain there is no confirmation of the existence of such structures. Where houses are preserved and visible in the magnetometer data from the inner tell or tell-like part of the site, one gets the impression that there would not have been much open space left for a massive construction such as a rampart. That does not rule out, of course, the existence of more ephemeral structures such as a palisade or fence that would not necessarily show in magnetometry. However, since we have evidence of fire and burned houses it would come as a surprise if such destruction had spared any additional inner demarcation, provided it contained at least some wooden elements. From the Late Bronze Age site of Căuaş-Sighetiu in nearby north-western Romania we have clear evidence of what such a burned palisade or rampart would look like (fig. III-82; Kienlin *et al.* 2012; Kienlin/Marta 2014). Similarly, on the Middle Bronze Age tell site of Toboliu in the Romanian Körös/Criş region recent magnetometer work has provided at least an indication of some burned inner demarcation (fig. III-81). Hence, it is most likely that on the Borsod sites the absence of evidence by and large in fact means evidence of absence.

This finding is of interest with respect to the function and interpretation of the enclosures discussed. The lack of ramparts or palisades on the inside of their ditches distinctly would have left the interior of our Borsod sites open to view from their surroundings and from the outer settlement. It would also have left it prone to attack by long-range weapons or fire. On the other hand, of course, the fairly massive ditches as such would clearly have constituted a substantial impediment. We may well have then an example of what P. Roscoe (2009) aptly termed 'social signalling': an impressive demarcation, beyond mere 'functional' necessity in conflict, indicative of attempts at signalling the 'strength' of an (economically and socially) successful, well-ordered village community capable of coordinated action. Conflict and rivalry, that is to say, between such communities rather than by overt

[162] See, for example, the postulated fortifications at Dunaújváros-Kosziderpadlás (Bóna 1992c: 150; compare, however, Szeverényi/Kulcsár 2012: 307), Kakucs-Turján (Jaeger 2018: 206–207), Vráble-Fidvár (Bátora *et al.* 2012: 112, 124–125; Skorna/Kalmbach/Bátora 2018: 102–103) or Otomani-Cetățuie (Ordentlich/Lie/Ghemiş 2014: 141).

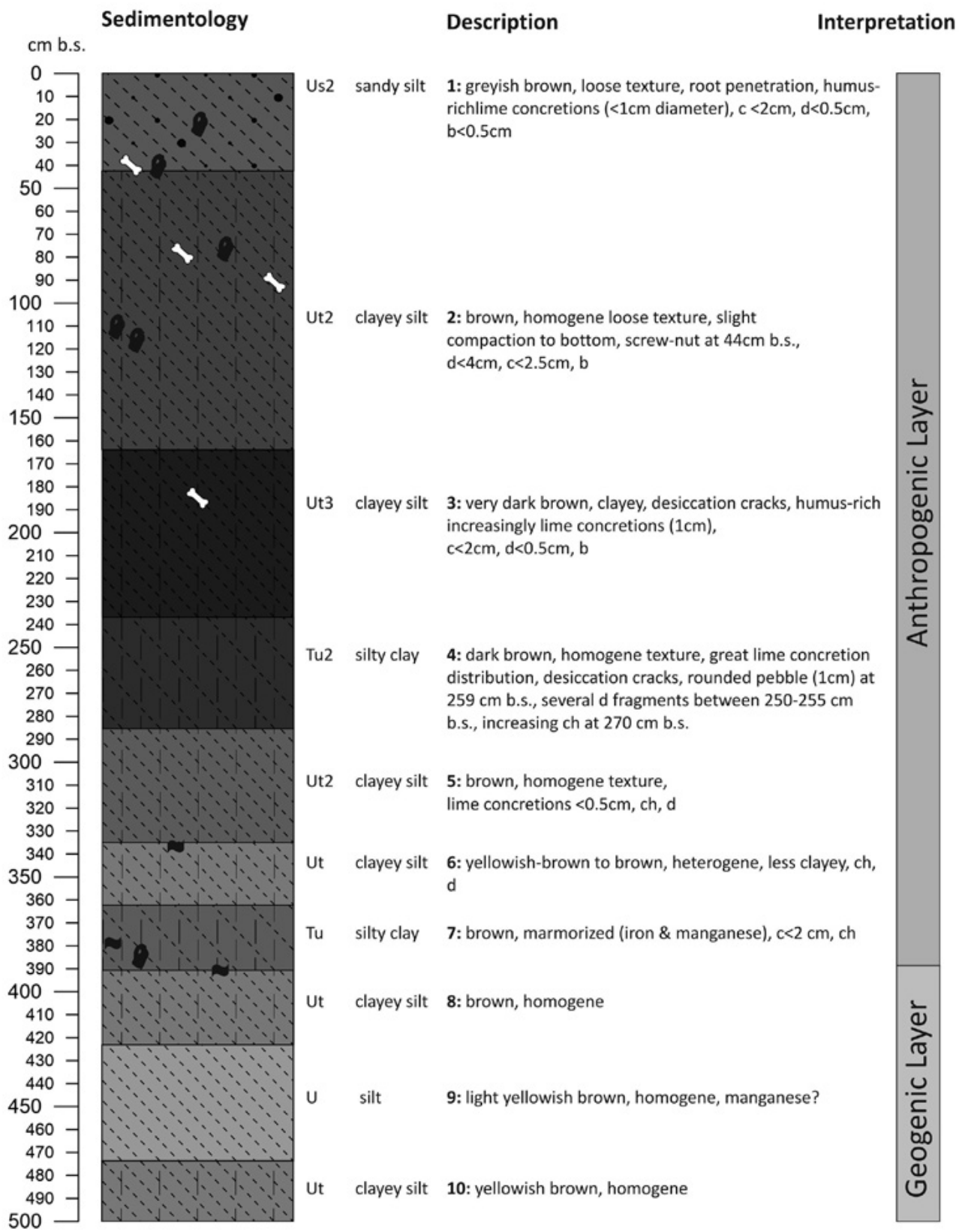


Fig. III-78: Tard-Tatárdomb. Sedimentology and interpretation of core TAR 2 from ditch (1), *c.* 3.9 m deep in this place, surrounding the inner tell-like part of the site (after Fischl *et al.* 2014: 372 fig. 31).

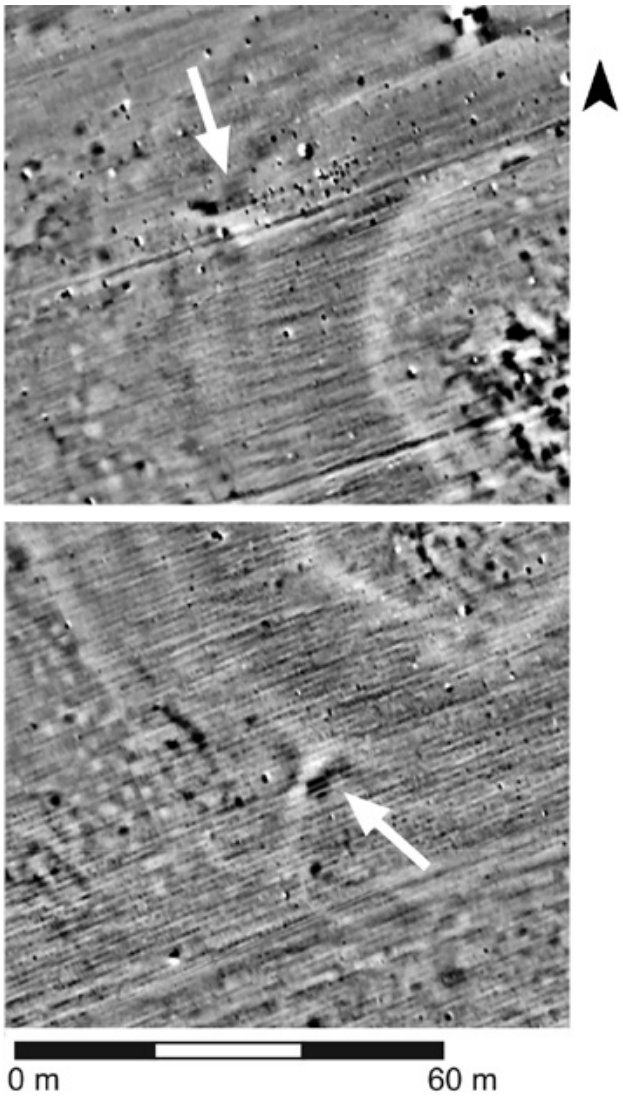


Fig. III-79: Mezőcsát-Laposhalom. Details of the magnetometer data showing features possibly related to some kind of approach to the ditch and the central part of the site from the north-west and south-west (greyscale plot; data range [black to white]: +/- 10 nT).

aggression could have been mediated by reverting to 'symbolic' or 'ritualised' fighting to communicate strength and settle dispute by assessing the likely outcome of actual violence (Roscoe 2009: 72, 89–90): 'If the deployment of military strength as lethal violence was a means of protecting and advancing individual and group interests vis-à-vis enemies *external* to a security structure, an honest display of fighting strength was a means of protecting and advancing the same interests *within* the structure and between allied structures without imperilling collective interests in security and peaceful relations.' (Roscoe 2009: 90). As such our ditches clearly may have been drawn upon on certain occasions by on-tell individuals or households in a strategic argument with their off-tell neighbours, but their construction and use will always have carried strong corporate connotations as well – not least if once an attack in fact occurred and the entire community was called upon to hold at least this part of their settlement. However, more than anything else we may encounter a massive investment in collective labour, under normal circumstances to symbolic rather than to practical ends, and the collective consumption of surpluses that were consequently not otherwise available for 'elite' consumption or individual aggrandisement (González Garcia/Parcero-Oubiña/Ayán Vila 2011: 296–297).

Turning to overall layout and the development of enclosures, we have already seen above that at a couple of sites there is evidence that our standard arrangement of a tell or tell-like core of relatively consistent size plus a massive ditch, may have had a smaller forerunner. We will return to this group below in conjunction with 'agency', since such growth implies an increase in the potential number of on-tell households, *i.e.* an ongoing negotiation of belonging to this group as well as its potentially fluid boundaries vis-à-vis off-tell households. Before that, however, it is worth having a closer look at the apparently less complex situation of what one may call the one-major-ditch-only sites – settlements that feature one ditch that broadly falls into the class of 'major' enclosures as just outlined surrounding the 'central' part of a tell or tell-like settlement. Among others in this group there are Emőd-Nagyhalom, Mezőcsát-Laposhalom, Novaj-Földvár, Tibolddaróc-Bércút and Vatta-Testhalom. Gelej-Pincehát and Tiszakeszi-Bálinthát Újtemető are less obvious examples where only smaller sections of the inner part of the site and its surrounding ditch could be covered by magnetometry (Kienlin/Fischl/Pusztai 2018b: 189–195, 259–265).

Most of these sites are preserved as tell-like rather than as proper tells. Due to the limited thickness of their cultural layers we can be fairly sure that there was in fact no previous phase of a smaller enclosure hidden under today's mound, as we have seen above is possibly the case, for example, at Ároktő-Dongóhalom, where a smaller Hatvan period core plus ditch can be inferred from an old excavation (Fischl 2006). Theoretically, such a predecessor could be hidden underneath Novaj-Földvár, which is classified as tell or tell-like due to preliminary coring indicative of a thickness of cultural layers of *c.* 1.5–2 m on the periphery of the mound and potentially even more in its centre. For Gelej-Pincehát there is no information available as to its status as tell or tell-like because the central part of the site is covered by trees and heavily disturbed by wine cellars. Emőd-Nagyhalom, Mezőcsát-Laposhalom, Tiszakeszi-Bálinthát and Vatta-Testhalom all have a thickness of cultural layers (variously determined from DEMs, core drilling or older trenches) in the *c.* 1–2 m range that could theoretically conceal an underlying ditch. In this group, from core drilling at Emőd-Nagyhalom and Mezőcsát-Laposhalom in the meantime we can be sure that there was no previous inner ditch. For Tiszakeszi-Bálinthát and Vatta-Testhalom the existence of a somewhat smaller precursor of the 'standard' ditch visible in the magnetometer data is thought unlikely, but it cannot be entirely ruled out.

On the other hand, however, from Tibolddaróc-Bércút there is indisputable evidence for the existence of a one-major-ditch-only site without a smaller forerunner, because

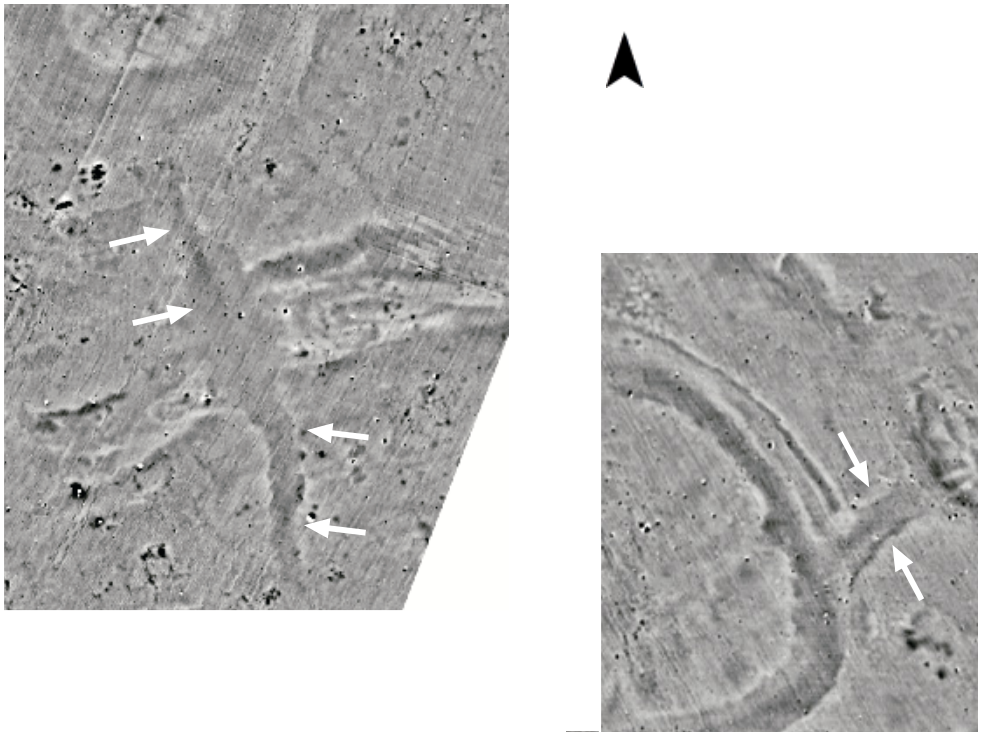


Fig. III-80: Emőd-Nagyhalom (left) and Tibolddaróc-Bércút (right). Magnetometer data showing gullies extending downhill from the sites that are possibly related to erosion along some kind of access to the settlements (greyscale plot; data range [black to white]: +/- 10 nT; not to scale).

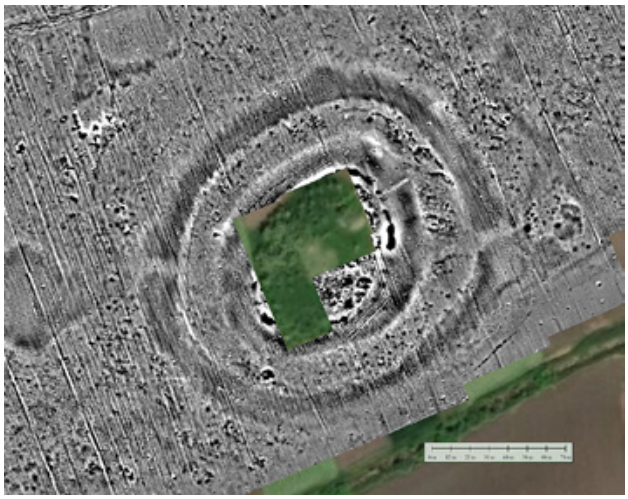


Fig. III-81: Toboliu-Dâmbu Zănăcanului, Bihor county, north-western Romania; Otomani culture. Magnetometer data from the central tell part of site and enclosure showing linear anomalies running across the ditches and indications of some burned inner demarcation (greyscale plot; data range [black to white]: +/- 10 nT).

Fig. III-82: Căuaș-Sighetiu, Satu Mare county, north-western Romania. Detail of the magnetometer data from the north-eastern periphery of the Late Bronze Age site with clear evidence of a burned palisade or rampart (greyscale plot; data range [black to white]: +/- 10 nT).

its inner part is largely denuded of cultural layers, and we clearly see the underlying geology without evidence of an earlier enclosure (fig. III-71 above). Thus, for some sites at least what we tend to perceive as the typical settlement layout in the Bronze Age Borsod plain, *i.e.* a tell or tell-like core of 'standard' size plus an also fairly standardised, massive ditch, was in fact the structure at some stage perceived and aimed at, not grown from some smaller forerunner. It is important to bear in mind here that this is not a statement on the chronological relation of tell to outer settlement if one was present. Tibolddaróc-Bércút, just mentioned, with its distinct clusters of houses in the outer part of the site may be an example here, where the tell-to-be for some unknown reason may have started to develop from one of several potentially preexisting clusters of households (see below). However, we can at least be sure that there are sites where the (future) tell or tell-like core plus ditch themselves did not evolve from

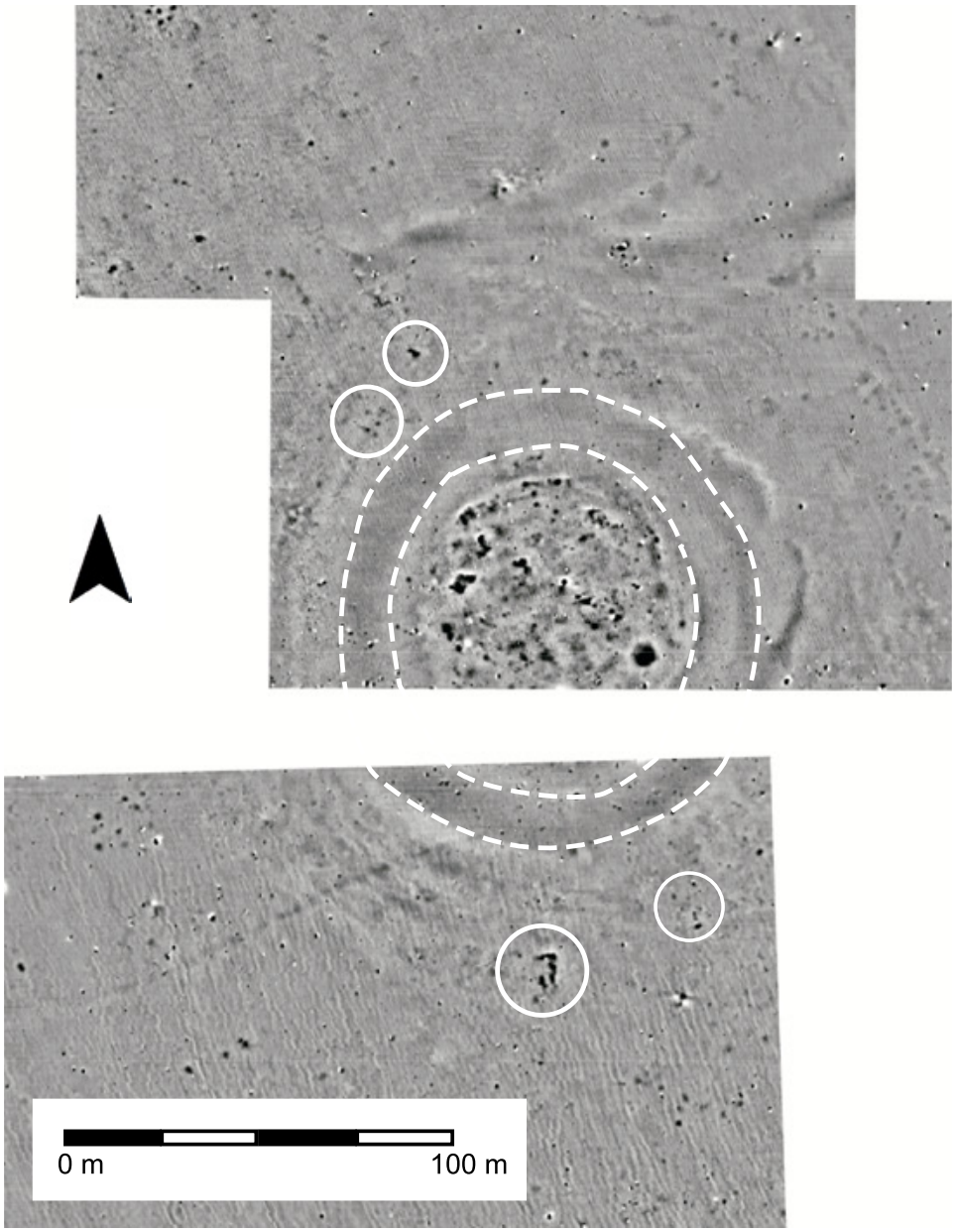


Fig. III-83: Novaj-Földvár. Detail of the magnetometer data (greyscale plot; data range [black to white]: +/- 10 nT) showing the altogether low intensity of settlement activity outside the ditch and the central part of the site (dashed lines); the circular markings indicate some of the few general 'pit' anomalies and the remains of one house in the outer part of the site close to the ditch.

smaller beginnings, but right from the start had their ultimate size and layout. As such their layout may have been conceived when a community first took hold of a strip of land for settlement, or it may have been set apart only somewhat later from a larger previously settled area. Correspondingly, this process may either have involved social delineation among households, families or kinship groups about to settle down together, or alternatively involve a process of internal differentiation among a group of people already with a history of previous co-habitation.

In any case, however, Novaj-Földvár, where beyond a relatively narrow zone along the ditch there is very little evidence of outside occupation (fig. III-83), provides an intriguing example that it was perfectly feasible to 'start' a tell without any numerous 'dependent' community in its surroundings. Unburned houses, of course, do not necessarily show in magnetometry, but given the general scarcity of 'pit' features also associated with houses and/or general human activity one would not in this case expect occupation or other land use in the surroundings to have been intense. So it was clearly possible for one of our 'standard' tell or tell-like core plus ditch sites to exist without a major outer settlement to draw upon – presumably even for a considerable period of time, given the thickness of layers at Novaj-Földvár. Opposite the standard model of 'proto-urban' tells in control of their surroundings, a site like Novaj-Földvár certainly implies that it was not (only) economic and political dependency or contributions from the off-tell commoners that allowed enclosed tell sites to

come into existence. On-tell households must have been self-sufficient, and could exist without an outer settlement to exploit (or for that matter without open settlements beyond).

Given, then, that most Borsod sites actually do have evidence of an 'outer' settlement spreading beyond the core plus ditch, what made some households seek and develop direct architectural continuity, while others consistently opted for lateral relocation, must have been more complex than mere political or economic 'domination'. It may also have involved, for example, different systems of kinship organisation, but irrespective of such differences there may have been a common feeling of attachment to the site and identity. For both 'groups' of households, on-tell and off-tell, the settlement mound gradually accumulating, its visible ancestry and its affordance as an ideational focus, may have come to stand for 'their' community. From this perspective, distinctions made and the effort involved in the maintenance of enclosures were hardly a matter of mere 'elite' dominance. Rather, the building of such structures and eventually their abandonment must have been in some way communally sanctioned and understood to be desirable and worthwhile by the wider community.

III.4.2 Enclosures Modified ('Agency' II)

We have seen above that from a long enough series of radiocarbon dates from the infill of their ditches it may be possible to arrive at an approximation of the absolute lifespan of our Borsod sites. We have also seen that between *c*. 1900 to 1600 cal BC there clearly is an overlap, and tell-living as outlined above on a multi-layer settlement mound gradually building up and surrounded by a more or less massive ditch would have been the norm throughout the Borsod plain (see fig. III-73 above). However, on the macro level of all Borsod sites compared there also appears to be some variation in the lifetime of individual sites, with some of them potentially starting or coming to an end somewhat earlier than others, and an occasional gap potentially opening at some stage or the other in the seemingly fairly regular pattern of the sites observed.

Similarly, on the micro level of individual sites, we have to acknowledge that the chronological relation of their various parts may not be as straightforward as one wishes for. There are limitations to the attempt to establish the absolute duration of the mound, the ditch and the outer settlement vis-à-vis each other from the few dates available only from the lowest layers of the tell, from the infill of the ditch and from a couple of houses beyond. Hence, different options always have to be considered and cannot be ruled out for any specific settlement prior to intensive fieldwork: As already discussed above, on a couple of sites the 'standard' composite structure of tell or tell-like core, massive ditch and outer settlement in fact seems to have been part of an original design or template. Differences would thus have been perceived from an early stage onward, including deliberate distinctions made among the members of some kind of founding community. As time passed such sites may have been more or less 'successful', thus attracting families and households or losing them to neighbouring communities. Such processes, that may find their equivalent in modifications to a site's enclosure(s), far from always resulting in linear growth, may have affected both those living on-tell and those outside or off-tell. They may have done so differentially, thus having an impact on and shifting the respective inhabitant's mutual perception and standing, expressed, for example, through the consequent relocation of households or adjustments made to their delimitations vis-à-vis each other or opposite the outside world. On the other hand, given our current state of knowledge, it cannot be ruled out either that some tell-to-be, some cluster of somehow 'important' or 'successful' households, was only set apart from its surroundings of structurally similar households within a larger settled area at some later stage and possibly for a certain period of occupation only. Such relative success and importance may have had many reasons ranging from economy, differences in kinship organisation or ritual, to the greatest on-site tradition hitherto achieved by some group of households in a community otherwise characterised by some fluctuation in membership *etc.*

In a wider perspective, it is obvious that while chronology is often problematic, the decision to enclose a settlement was no doubt taken again and again throughout the entire late Early to Middle Bronze Age of the Carpathian Basin. It was not a unified and short-term chronological horizon. Instead there is evidence that some sites were enclosed throughout their occupation, while for others this is only true for particular phases of settlement activity – both early in the sequence or towards the end.[163] Correspondingly, the frequency of enclosed tell or tell-like sites vis-à-vis open horizontal settlements may differ from region to region and from phase to phase. And the same holds true – as far as our knowledge goes – for enclosures that may surround the whole of a multi-layer site or just part of a larger settled area with potentially more than just one continuously settled cluster of houses. Tell sites and their surrounding open settlements are dynamic systems. Their development has to be carefully considered. It was not uniform in terms of an older fortified 'acropolis' versus a younger and politically dependent open 'suburbium'.

A prominent example, of course, is the complex sequence at Vráble-Fidvár in Slovakia that defies simplistic notions of the continuous growth of such communities and a static relation of the tell and its outer settlement. From starting as a rather modest Hatvan period settlement surrounded by the present inner ditch, in this case in Únětice times a massive outward expansion occurred with a new outer ditch and an outer settlement of up to 10 ha beyond, followed by a contraction in subsequent Mad'arovce times and the construction of the final middle ditch (fig.

[163] See the various tell sites discussed in the contributions to Meier-Arendt (1992) and Gogâltan/Cordoș/Ignat (2014); see also Gogâltan (2008: 52; 2015; 2017), Bátora *et al.* (2012: 124–125), Szeverényi/Kulcsár (2012), Kienlin (2015a: 50–51) and Jaeger (2018: 204–207).

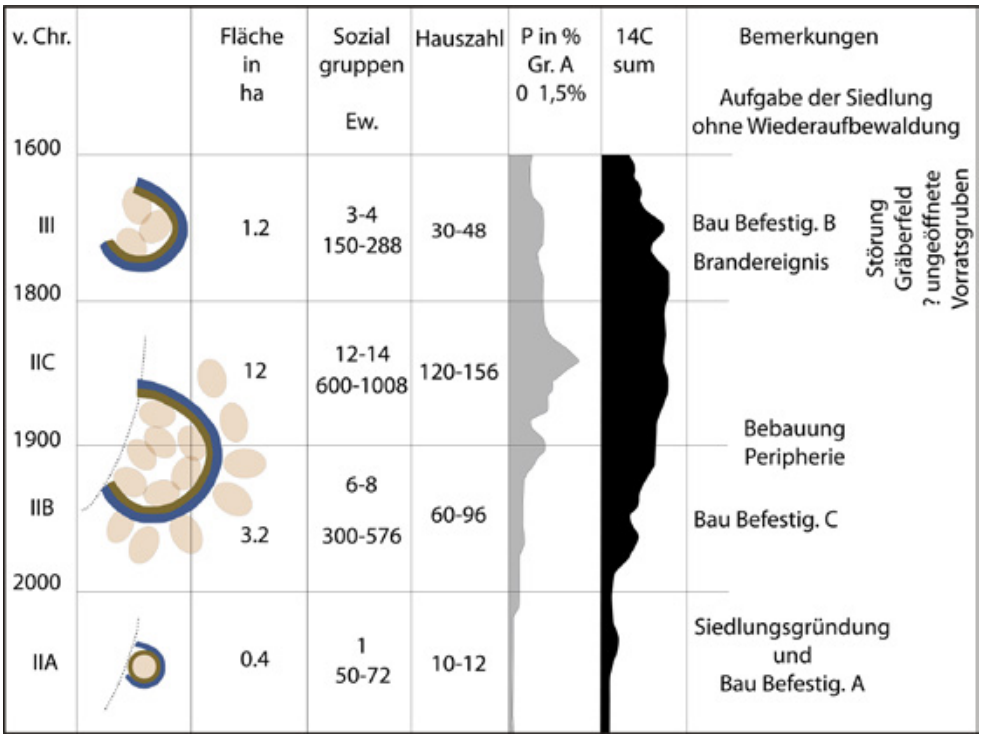


Fig. III-84: Vráble-Fidvár, Slovakia. The Hatvan, Únětice to Mad'arovce period development of the settlement and its multi-phase enclosure (after Skorna/Kalmbach/Bátora 2018: 103 fig. 2).

III-84).[164] On the other hand, in terms of outward growth from a couple of Otomani (-Füzesabony) sites beyond the Borsod plain there is more or less good evidence from excavations and geophysical prospection that older ditches were backfilled (at different Otomani phases), houses built upon them and settlement extended outward from the central tell part, for example Nižná Myšľa (Olexa 1982a: 394; 1982b: 332; 1992: 197; Fischl/Olexa 2019: 134–136), Včelince (Furmánek/Marková 2001: 106–107), Polgár-Kenderföld Kiscsőszhalom (Dani/Máthé/Szabó 2003: 93–94; Dani *et al.* 2019: 167–173), Otomani-Cetăţuie, Sălacea (Ordentlich 1968: 149; 1969: 460, 464; Bader 1982: 56, 58, 60), Bakonszeg-Kádárdomb (Máthé 1988: 32; 1992b: 167) or Andrid-Dealul Taurilor/Bika domb (fig. III-85; Marta *et al.* 2010: 123–130).[165] All of these examples are poorly understood as regards the question of whether we actually see mere outward growth across the former ditch and onto previously unsettled space; or if the apparent abandonment of the ditch in fact involved a renegotiation of belonging among groups of people already present in different parts of the site, *i.e.* those traditionally on-tell and those formerly having occupied an off-tell position and resident in a preexisting outer settlement. However, all these examples certainly imply that we are not dealing with a tell 'centre' and outward 'periphery' in any static sense. Rather, whatever relations there were between the tell and its surrounding settlement in functional, social or political terms, be they physically framed by ditches and/or enforced by immaterial rules of movement and access, they were potentially subject to change and negotiation – with both the option that each site may have followed its own trajectory, or distinct regional preferences and patterns emerging.

It is reasonably clear, already, that on the Borsod plain there is no fluctuation on the scale seen at Vráble-Fidvár. For this reason, the relatively 'standardised' size of their inner tell or tell-like part has been discussed above in terms of the strong 'normative' emphasis and relatively little deviation tolerated in our Borsod communities. On the other hand, however, we certainly also have evidence of modifications to our sites' enclosures, and there is greater variability in the development of their central part and ditches than previously expected. One has to be aware, therefore, that underneath a shared Borsod identity each settlement had its own dynamics.

In this context, we have already seen above that with Ároktő-Dongóhalom, Bogács-Pazsagpuszta, Szakáld-Testhalom and Tard-Tatárdomb there is a group of sites where our 'standard' spatial arrangement of tell or tell-like core of relatively consistent size plus a massive ditch apparently had a smaller forerunner. This nicely falls on the 'agency' side of our discussion as outlined above, since such growth implies an increase in the potential number of on-tell households, *i.e.* the ongoing negotiation of belonging to this group as well as its potentially fluid

[164] See Bátora *et al.* (2012: 124–125, fig. 16) and Bátora (2013: 378, 382); see also Nowaczinski *et al.* (2012), Gauss *et al.* (2013: 2944, 2952–2956), Schlütz/Bittmann (2015: 274–276; 2016) and Skorna/Kalmbach/Bátora (2018: 102–104).
[165] See also Kovács (1998: 484–485), Gogâltan (2008: 52), Dani (2012: 29) and Fischl *et al.* (2013: 358); for Vatya sites see Vicze (2000: 122).

Fig. III-85: Andrid-Dealul Taurilor/Bika domb, Satu Mare county, north-western Romania; Otomani culture. Magnetometer data showing settlement activity on top of the older ditch and aerial photograph of the tell-like settlement.

boundaries vis-à-vis off-tell households. It is also evident, however, that growth to the central part of our Borsod sites typically did not exceed rather narrow limits. It is obvious therefore, that with respect to growth and the relocation of households we may see greater variability in the outer settlement part discussed in the subsequent chapter that may have constituted, at least in some cases, the much larger, fluid and more dynamic section of the Borsod communities studied here.

Among the sites with smaller beginnings of their central tell or tell-like part at Tard-Tatárdomb core drilling in 2019 confirmed what was previously suspected on the basis of magnetometry and surface finds, namely that an original, Hatvan period enclosure of broadly roundish outline at some later stage had undergone modification and seen an enlargement by redirecting the course of its northern section (fig. III-86). As part of this scheme, it had the appearance that sections of the original northern part of the enclosure would have been backfilled to join the initial core and the resulting northern extension. Now, this is exactly what we see in a profile of cores that extends north from the foot of the original Hatvan period mound (figs. III-87 and III-88). Although its outer edge has not been reached, it is apparent that in this section originally there was a ditch at least *c*. 20 m wide (as measured from core 23B to core 24C) and

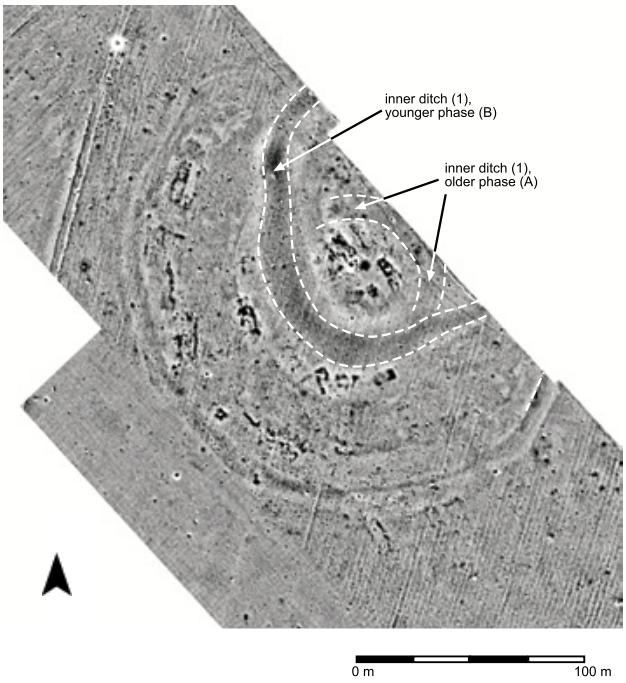


Fig. III-86: Tard-Tatárdomb. Interpretation of the magnetometer data showing the two-phase inner ditch (1, phases A and B) enclosing the central tell-like part of the site (greyscale plot; data range [black to white]: +/- 10 nT).

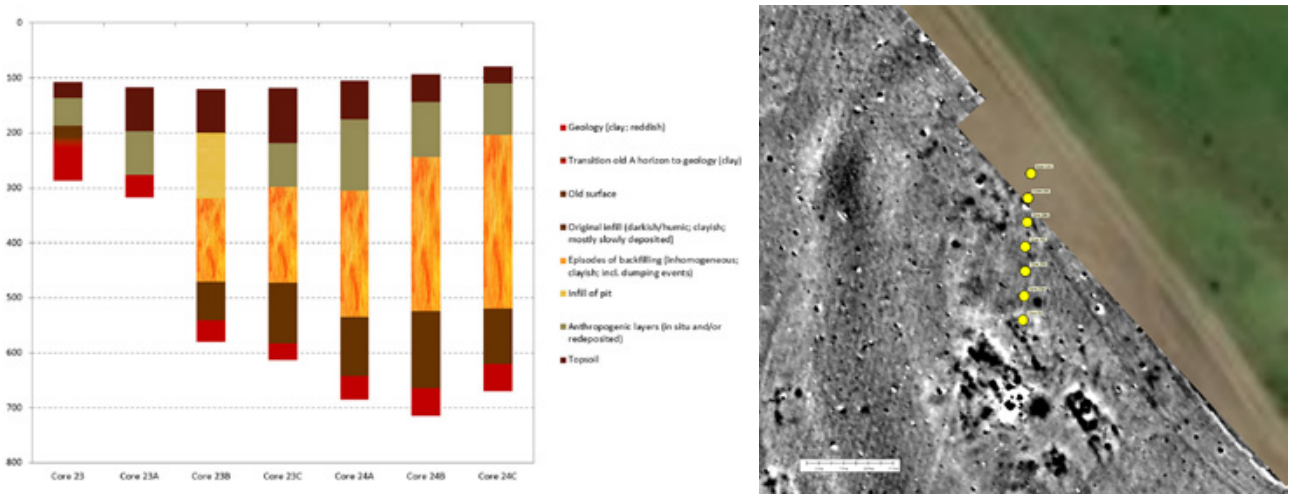


Fig. III-87: Tard-Tatárdomb. A. Schematic representation of the core drilling profile through the northern part of the original Hatvan period enclosure backfilled in Füzesabony times; B. The location of the cores mapped on the ditch as seen in magnetometry.

up to *c*. 5.7 m deep as measured from today's surface in core 24B. At the bottom of this enclosure, sediments had started to accumulate, so it must have remained open and in use for a certain period of time, though – at least at some later stage – it was not cleared out on a regular basis so that topsoil and heavily eroded settlement debris amassed at its base. Later on, still, we see from core 23B through to the outermost core 24C that material of a different, coarser and more patchy consistency was deposited in the ditch with a layer thickness of up to *c*. 3.17 m towards the outside in core 24C. Even though we cannot be sure about the exact nature and the duration of this 'event' from the distinct heaps of earth encountered and larger chunks of unmodified settlement debris such as pottery and daub, it is likely that this layer stems from the deliberate backfilling of this section of the ditch. On top of this backfill there is an anthropogenic layer or layers that consist of settlement debris mostly eroded or, perhaps, partly still *in situ* of up to *c*. 1.3 m thickness in core 24A (fig. III-88). This finding points to subsequent settlement activity apparently related to the broadly Füzesabony period occupation on both the original core of the site and on its northern extension. The same is evident from a pit encountered in core 23B that starts right underneath the modern topsoil and cuts into the backfill, thus nicely confirming the impression gained from magnetometry before that at least some sections of the backfilled ditch feature general 'pit' anomalies indicative of settlement activity on top of the previous enclosure (see above and Kienlin/Fischl/Pusztai 2018b: 237–238).

By contrast, a profile obtained from the south-western section of the main enclosure, thought to have been in use until the abandonment of the site on the basis of magnetometry before (ditch 1, phase B; Kienlin/Fischl/Pusztai 2018b: 237–238), in fact features a different history of its infill. Even beyond the width indicated by magnetometry because it is partly overlain by eroded culture layers on the outside, the core drillings show that this section of the ditch was at least 25 m wide from core 19E on the outer edge towards core 19D close to the foot of the mound (fig. III-89). It was up to *c*. 4.7 m deep underneath the present surface in core 19C, whereby, unfortunately, due to technical problems the underlying geology of reddish clay could not be reached in every core. Throughout, from core 19E to 19D at the bottom of the ditch there are layers, for their most part slowly accumulated, of washed in topsoil and eroded settlement debris, that were deposited either right from the start or later on when the enclosure was not cleaned out any more on a regular basis. Depending on how both sections of the enclosure were maintained, these layers may or may not be identical and correspond in terms of absolute chronology with those of comparable consistency and colour *etc.* observed in the north. But they certainly represent a comparable depositional regime of gradual infilling due to surface erosion and human activity or trampling in the vicinity of the ditch. An additional element present towards the edge is material accumulated due to occasional collapse occurring alongside the ditch's edges.

On top of this, in cores 19E, 19 and 19A there is a substantial layer or rather layers of more inhomogeneous, rapidly deposited material that was allowed to accumulate against the outer edge of the ditch only (fig. III-90). In terms of its consistency with larger chunks of debris and distinct heaps of soil deposited, this layer resembles the backfilling observed above in the northern section of the ditch. However, in the south-west it is not continuous throughout the entire cross section of the enclosure (compare figs. III-87 and III-89). Instead, it gives the distinct impression that we are looking at the disposal of settlement debris into the ditch from the outside. As such, the deposition of this layer would certainly have comprised several distinct 'events' and potentially a longer period of time than the backfill postulated for the northern section. Unfortunately, in both cases this brings us to the limits of radiocarbon dating, since we are not looking at closed finds, but at sample material of potentially widely different origin and age introduced into the ditch with the settlement debris discarded. However, that this disposal

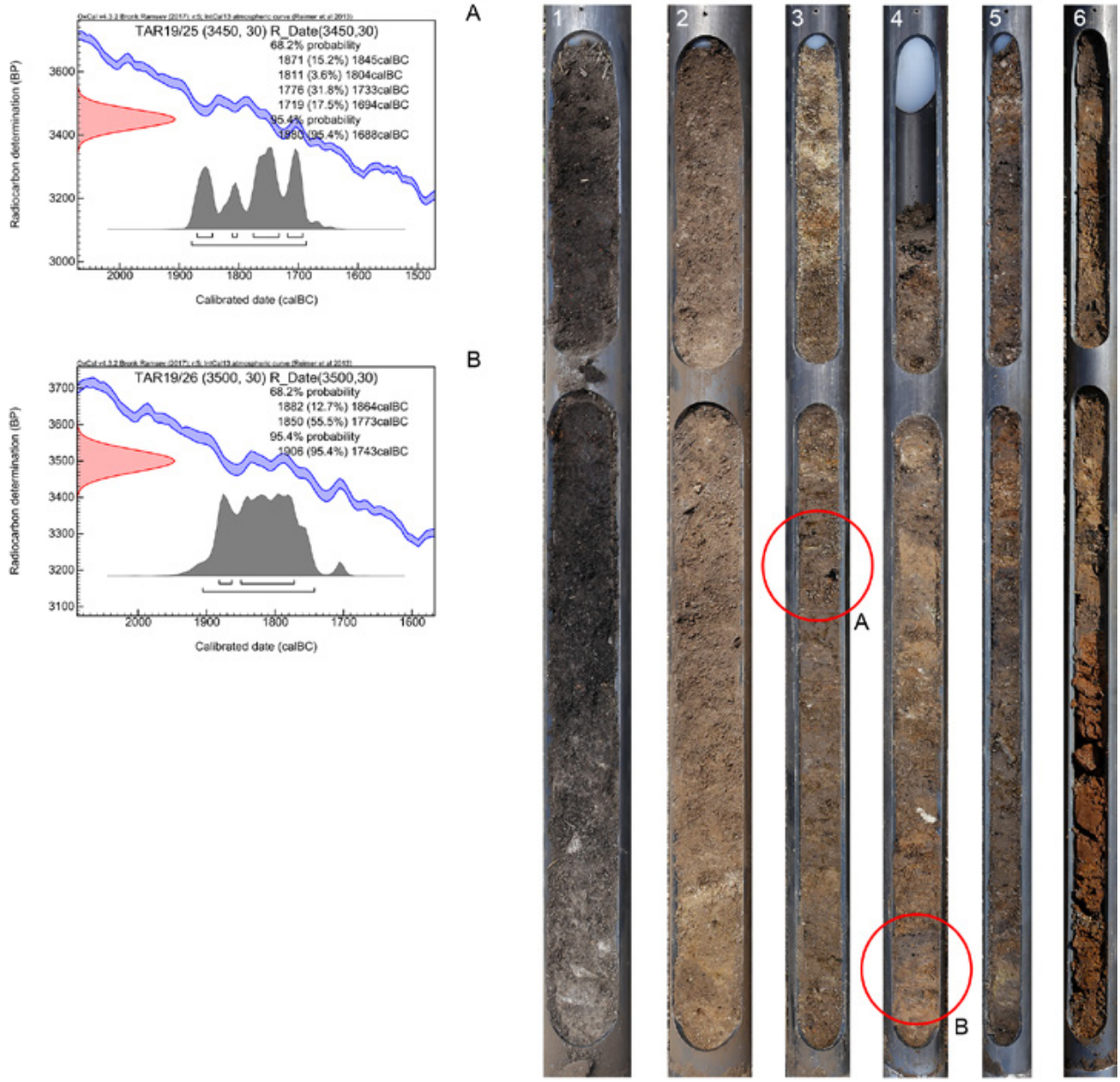


Fig. III-88: Tard-Tatárdomb. The stratigraphic sequence in core 24A in the northern section of the enclosure and two radiocarbon dates obtained from the rapid backfill seen in this core and their stratigraphic position.

of debris into the ditch should have taken place from the outside only as such is telling. A similar phenomenon can be observed at other sites as well (see below). It adds a slightly different twist to the conflicting arguments and the different interpretations of such enclosures outlined above that either focus on the necessity of elites or on the communal element involved in the establishment of such structures. For as to their maintenance, on the one hand it seems that interests clearly differed from the core to outer settlement, while on the other there were obvious limits as to what could be agreed upon and achieved if an attempt was made to enforce its conservation by those on-tell potentially profiting most and easiest from 'their' enclosure.

However, from an on-tell perspective at Tard unlike Emőd-Nagyhalom discussed below at least no houses were built upon the outside infill thus even further interfering with the traditional 'centre' of the community. Thus, it was clearly possible to maintain at least some distance and part of the demarcation right to the end, for from core 19A through to core 19D the final phase of the infill features the slowly deposited darkish (*i.e.* humic) material interspersed with ground up settlement material (fig. III-91) that is also characteristic of the final infill of other Borsod sites' ditches towards the end of the Middle Bronze Age. It is unclear when exactly this process would have started, if the beginning of the final infill corresponds with the absolute end of settlement activity at Tard-Tatárdomb, and just how long it would have taken for the entire ditch to be filled in. But both from the core drillings that do not show any remains of superimposing settlement layers and magnetometry where there are no anomalies on top of the infill it is proven that there was no subsequent settlement

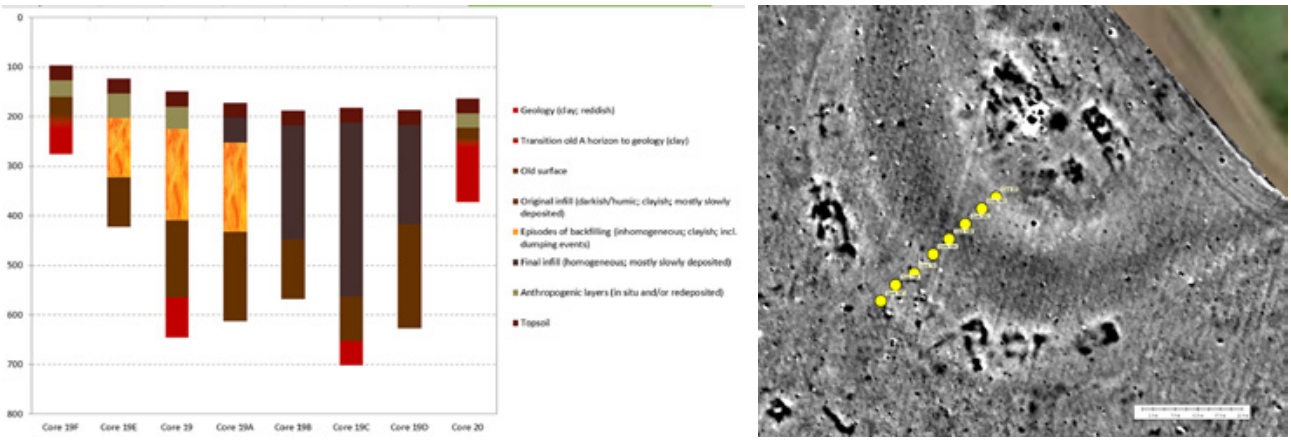


Fig. III-89: Tard-Tatárdomb. A. Schematic representation of the core drilling profile through the south-western section of the main enclosure; B. The location of the cores mapped on the ditch as seen in magnetometry.

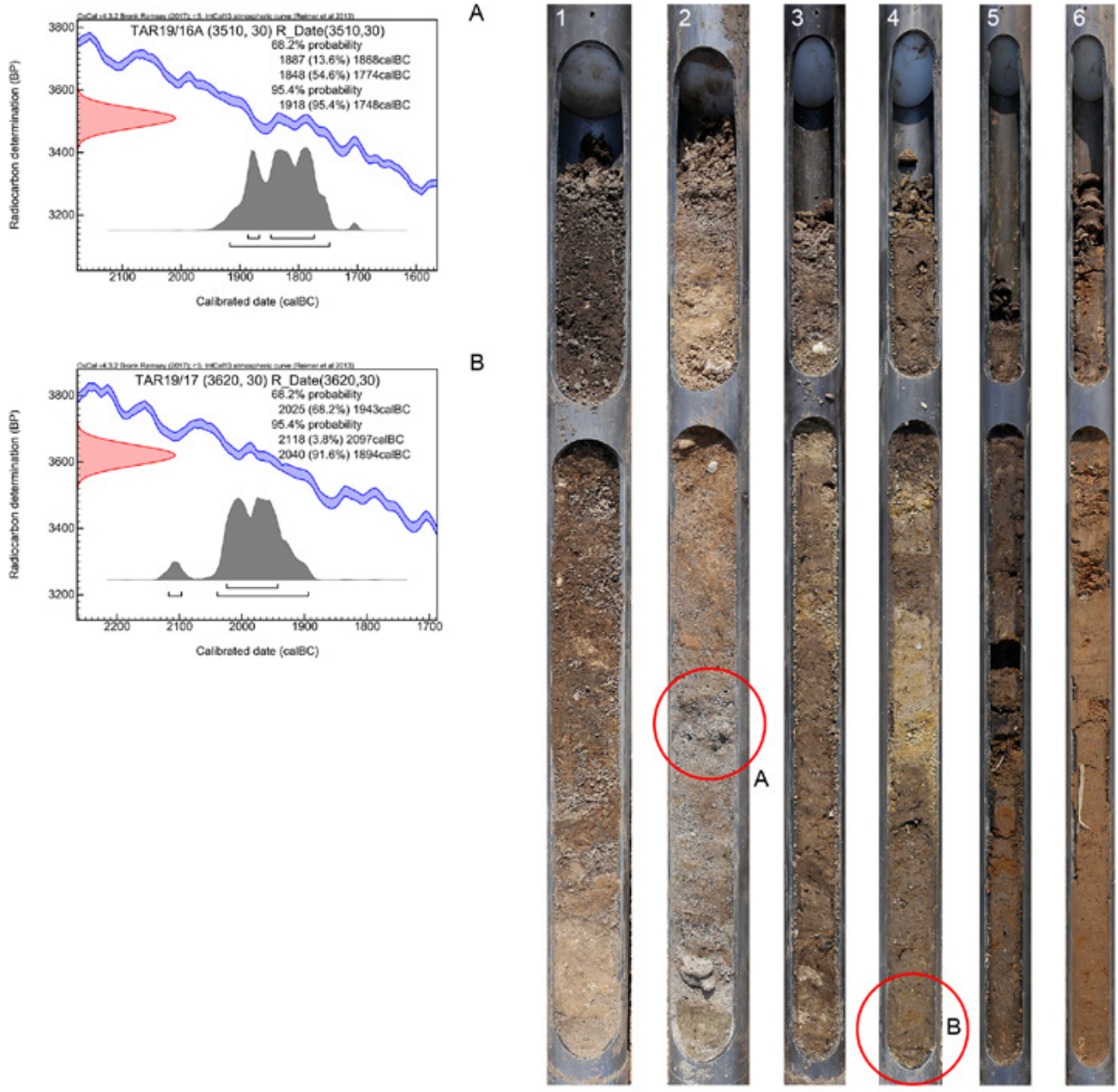


Fig. III-90: Tard-Tatárdomb. The stratigraphic sequence in core 19 in the south-western section of the main enclosure and two radiocarbon dates obtained from the disposal of settlement debris into the ditch from the outside (A) and the original infill (B).

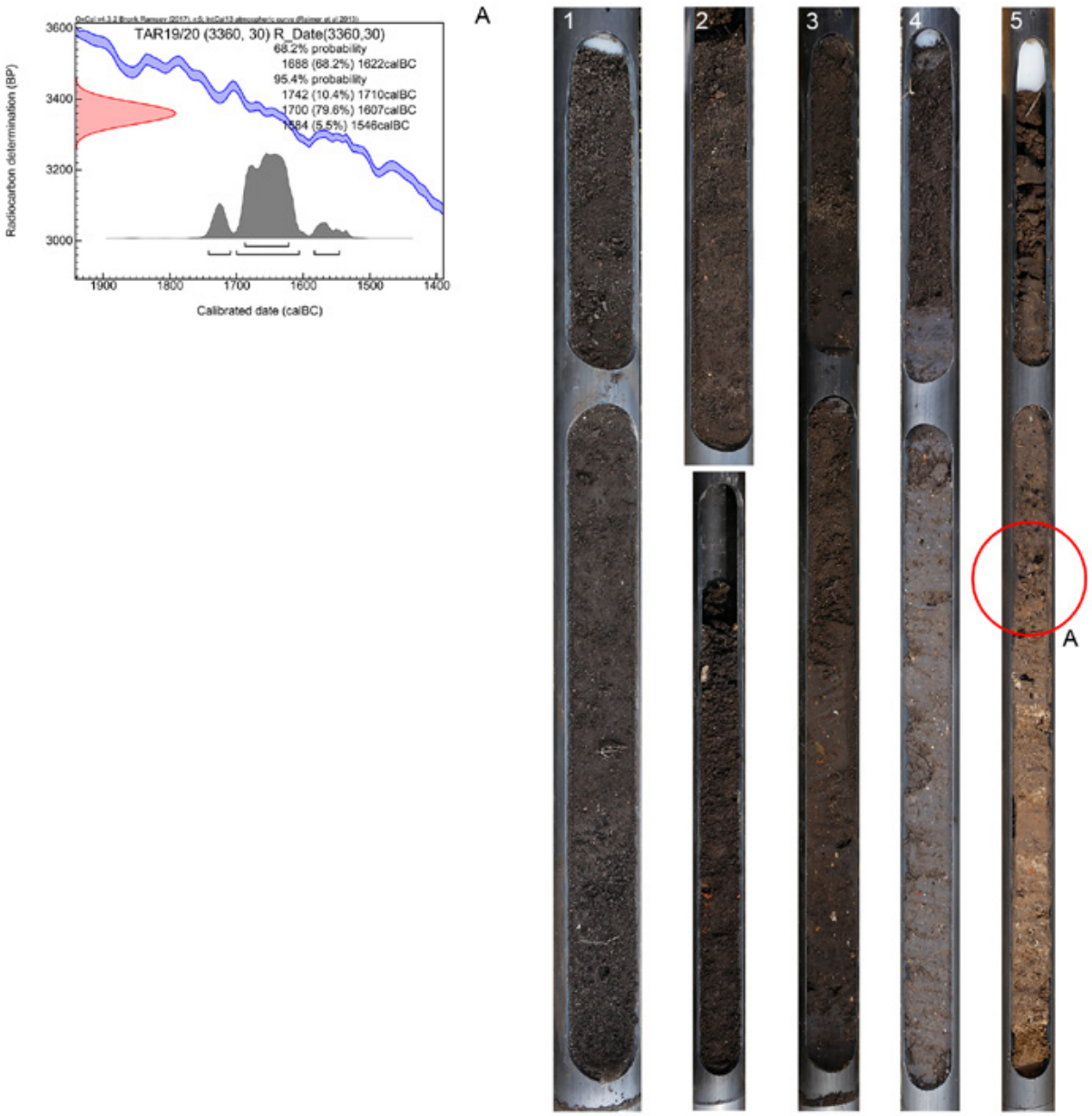


Fig. III-91: Tard-Tatárdomb. The stratigraphic sequence in core 19C in the south-western section of the main enclosure and one radiocarbon date obtained from close to the bottom of the ditch.

activity. This part of the sequence is distinctly absent from the infill of the northern section of the ditch discussed above that was deliberately backfilled at an earlier stage, and settled on or otherwise used during the younger Füzesabony period occupation of the site.

In terms of absolute radiocarbon dating, one has to be aware of the limited stratigraphical information available only from the cores used and the nature of the deposits sampled. We are looking at the infill of ditches that accumulated over an extended period, at times more slowly and at others more rapidly in the form of distinct dumping events. Furthermore, the infill may comprise sample material introduced from the surface of unknown age relative to the moment when it was washed or thrown into the ditch and got buried.

Given these restraints, from the rapid backfill into the northern section of the ditch at Tard-Tatárdomb discussed above there is a couple of fairly consistent dates from broadly the 19th to the first half of the 18th centuries cal BC (fig. III-92). One date obtained from charcoal, TAR19/29 at *c*. 2016–1775 cal BC (95.4 %; Beta-541454: 3560 BP +/-30 [core 24C, metre 3, 80–90 cm), is slightly older. It may easily refer to debris from a previous phase of settlement activity introduced with the material used for the backfill. Another date, however, at *c*. 1689–1528 cal BC (95.4 %) is significantly younger (sample no. TAR19/22 = Beta-541447 [charcoal]: 3330 BP +/-30 [core 23B, metre 4, 80–90 cm). This finding may be best explained by perturbation, since we have seen above that an earlier dating for the Füzesabony period 'expansion' to the central tell-like section at Tard is also implied by a radiocarbon

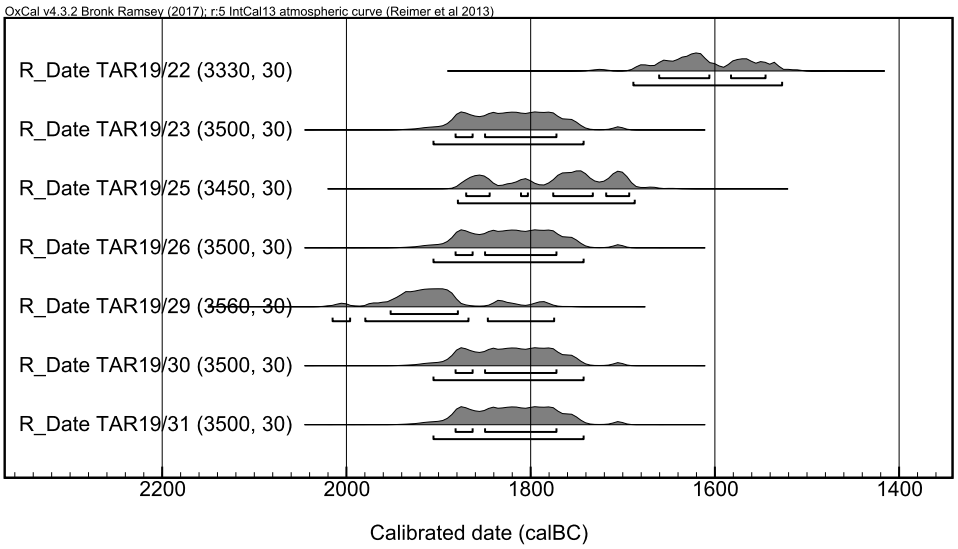


Fig. III-92: Tard-Tatárdomb. Radiocarbon dates from the rapid backfill into the northern section of the ditch.

date from a pit in this area (TAR17/2; see discussion and fig. III-69 above). For the time being, therefore, it is still safest to assume that the backfilling of the initial Hatvan period enclosure in the north and consequent enlargement of the central part of the settlement took place some time around say 1800 cal BC,[166] with the important caveat that we cannot say with certainty if this was a distinct 'event' or how long exactly it took for the backfill to be completed and settlement activity to extend across it. It is reasonably sure, however, that the constellation thus established (zone 1, phase B according to Kienlin/Fischl/Pusztai 2018b: 238–239) would have been in existence for quite some time. The modification observed to its ditch and central core certainly does not appear to have occurred only towards the end of settlement at Tard-Tatárdomb.

From the original infill that had accumulated at the bottom of the south-western section of the enclosure there are only four radiocarbon dates so far, that cover the period from broadly the 20th century cal BC to the end of the 17th century cal BC (fig. III-93). With just four dates, this does not support a statistically valid argument, and neither does it allow a comprehensive characterisation of the development of this part of the ditch's infill. However, with their wide range these dates nicely match the overall character of the layer from which they were obtained, namely that of a slow infill that accumulated over a substantial period of time. As such it features human impact (*i.e.* sample material) and debris washed into the ditch during subsequent (early) phases of the settlement's existence. Beyond that, given the nature of these deposits and the small number of samples very little can be said with certainty. The earliest date shown in figure III-93 at *c*. 2118–1894 cal BC (95.4 %; sample no. TAR19/17 = Beta-541442 [macro remains]: 3620 BP +/-30) from a depth of 3.8–4 m in core 19 nicely matches the 'start' date of the settlement derived from the central part of the site above. It may be an indication that the enclosure once dug was rarely cleaned out or at least not systematically so throughout, so that early on eroded material started to accumulate at its bottom. Seen laterally, with respect to sample nos. TAR19/24A at *c*. 1906–1743 cal BC and TAR19/28 at *c*. 1918–1748 cal BC from the original slow infill of the northern section discussed above, there is no contradiction between the dates obtained from both parts. However, given the small number of dates it is certainly open to debate, if it is by mere chance that the original infill in the north seems to have come to a somewhat earlier end. Alternatively, this is in fact the case because the original infill here was sealed rather early on by the backfill on top of it that took place in this part of the enclosure only.

Similarly, since we are not looking at distinct events anyway, it is not surprising that it is impossible to give an exact date for the disposal of settlement debris suggested above from the outside into the south-western section of the ditch. The two dates obtained from this part of the sequence, sample no. TAR19/16A at *c*. 1918–1748 cal BC (95.4 %; Beta-545723 [charcoal]: 3510 BP +/-30 [core 19, metre 2, 55–82 cm) and sample no. TAR19/18 at *c*. 2022–1781 cal BC (95.4 %; Beta-541443 [bone]: 3570 BP +/-30 [core 19A, metre 2, 65–80 cm) as such fall apart. TAR19/18, in particular, even though obtained from bone may stem from some older debris still around on the surface and redeposited into the ditch alongside other waste at some later stage only. For the same systematic reason, it is difficult to separate the original infill from the debris

[166] This dating also is not contradicted by two dates obtained from the initial infill underneath the backfill discussed: At *c*. 1906–1743 cal BC (95.4 %; sample no. TAR19/24A = Beta-545724 [charcoal]: 3500 BP +/-30 [core 23C, metre 5, 80–90 cm) and *c*. 1918–1748 cal BC (95.4 %; sample no. TAR19/28 = Beta-541453 [charcoal]: 3510 BP +/-30 [core 24B, metre 7, 43–49 cm) these dates are close but need not postdate the backfill postulated. Given that we are looking at sample material slowly washed into the original ditch from the same surface from which just somewhat later the backfill took place, this overlap need not come as a surprise.

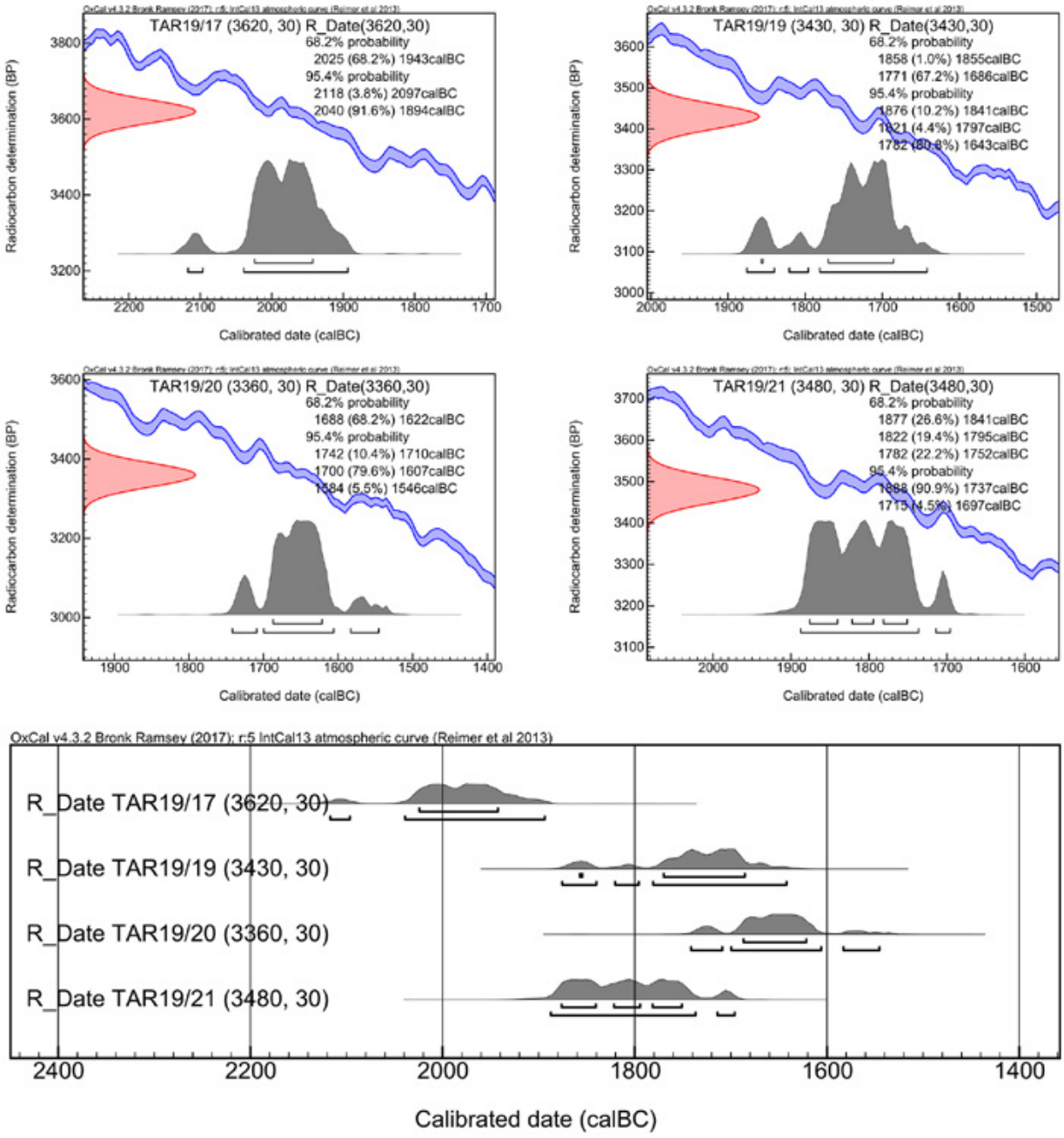


Fig. III-93: Tard-Tatárdomb. Four radiocarbon dates from the original infill at the bottom of the south-western section of the enclosure.

deposited on top of it in absolute terms. In core 19 one gets the impression that sample no. TAR19/17 from the original infill at a depth of 3.8–4 m and dated to *c*. 2118–1894 cal BC on the one hand, and sample no. TAR19/16A from the debris on top at 1.55–1.82 m depth dated to *c*. 1918–1748 cal BC on the other, are in good accordance with the stratigraphic sequence (fig. III-90). However, for reasons just discussed, in neighbouring core 19A along the same stratigraphic sequence sample no. TAR19/18 from the upper (*i.e.* younger) layer has the older radiocarbon date than the original infill underneath (TAR19/19).

In sum, then, there are clear limits to the radiocarbon dating of a stratigraphic sequence that largely consists of relocated and mixed up settlement debris at some stage washed in or deliberately thrown into the enclosure of our Borsod sites. This, finally, also applies to the absolute 'end' of settlement activity at Tard-Tatárdomb. The youngest date hitherto available and also used in the preceding chapter (figs. III-70 and III-73), sample no. TAR19/22 at *c*. 1689–1528 cal BC (95.4 %) in its specific stratigraphic position is thought intrusive. As such it is still indicative of human activity on the site and takes us down into the early 16th century cal BC. However, since it has been impossible so far to recover dateable material from the final infill of the ditch (see above on cores 19A to 19D), a more precise approximation of the abandonment of the site is still pending.

The situation at Emőd-Nagyhalom in turn is different than at Tard, since recent core drilling has established that its ditch as visible in magnetometry and on the surface (figs. III-20 and III-60 above), had a much wider predecessor in the same location that was partly backfilled early on and had houses built on top of the infill on the outside. This kind of modification or 'agency' acting upon the enclosure of one of our Borsod sites is unparalleled so far. The stratigraphic sequence at Emőd-Nagyhalom requires due consideration since it is well attested by core drilling and radiocarbon dating, even though the dates overlap, *i.e.* the resolution of the different phases of the sequence is poor, and only the modelled data allow a distinction of the course of events to be made in approximate absolute terms.

To briefly summarise the previous findings, the central tell-like part of Emőd-Nagyhalom is broadly roundish, has an inner diameter of *c.* 57–58 m and covers an area of *c.* 0.26 ha (Kienlin/Fischl/Pusztai 2018b: 179–181). In terms of size, that is to say, it falls at the lower end of the – as such rather uniform – range attested on our Borsod sites, and preservation, unfortunately, is poor with regard to architecture and layout of occupation. Magnetometry further shows that this central part of the site was enclosed by means of a ditch *c.* 14–20 m wide, that as such also falls into the range typically attested throughout the Borsod plain, and beyond there is no further subdivision of the outer settlement, at least none by means of a ditch or other structures detectable by magnetometry.[167] Since there are no overlying anomalies (except some modern, bi-polar ones), but a continuous signal throughout, like on most Borsod sites magnetometry implies that the enclosure seen was gradually infilled after the end of Early to Middle Bronze Age occupation. Finally, and arguably the most interesting feature in terms of social space, beyond the ditch there is evidence of a distinctly structured outer settlement. We will return to this finding in the subsequent chapter, and here it is the inner part of this zone only that is of interest (zone 2 after Kienlin/Fischl/Pusztai 2018b: 180–181). For in a zone roughly circular and *c*. 45–55 m wide, at least in the south-west and north-east there is evidence of two lines of houses arranged in concentric order along the ditch, *i.e.* with their long sides oriented towards the tell-like centre of the site. In the north-west there is only one line discernible, the inner one, and it is only from a couple of anomalies and distinct soil changes that the existence of an outer one can be deduced, either largely destroyed by ploughing or invisible in magnetometry because unburned. The same may apply in the south-east, where erosion is strongest, but cannot be conclusively proven.

The initial aim of our 2018 core drilling programme at Emőd-Nagyhalom – just like on all other Borsod sites – was to obtain stratigraphic information and samples for radiocarbon dating in order to provide a 'start' date from the lowest layers of the mound, an 'end' date from the infill of the ditch, and to relate houses from the outer settlement to the occupation of the mound in chronological terms. Core 16 was targeted at the interior of one of the burned houses in the north-western section of the concentric 'ring' of houses along the outside of the ditch described above. In this core, underneath the burned debris expected, the clay platform of the house, plus some distinct settlement remains redeposited right underneath the foundation of this building seen in magnetometry, for the first time we hit upon a massive layer of inhomogeneous, reddish to light brown clayish material with numerous indicators of human activity and rather well preserved settlement debris (*i.e.* not exposed or moved around a lot by erosion *etc.*) such as daub and pieces of pottery. At that stage, this finding was not well understood and the core was terminated at a depth of 3 m without the end of this layer having been reached. Nonetheless, this result was the reason to take a closer look at this situation by laying out a transect of drill holes (fig. III-94) that eventually extended from the outside (*i.e.* north-west; core 38) right through to the middle of the ditch as visible in magnetometry of this section of the site and the corresponding depression remaining on the surface (core 35). It soon became clear thereby that the stratigraphic sequence along the entire transect was much more complex than expected. It features a much wider predecessor to the ditch as seen in magnetometry, and the house with core 16 – as well as other houses of the outer ring – actually stood on a massive infill from its outside that in effect brought down the width of the original ditch to its current *c*. 20 m in this section. What we see in magnetometry as well as on the surface, therefore, is just the remains of a much wider original enclosure that is so far without parallel on the other Borsod sites examined.

The complex stratigraphic sequence encountered, and reconstructed in greater detail below, in outline is as follows: The elevation on which Emőd-Nagyhalom is located at its base consists of fluvial sand that is covered by different layers of clay, a light grey to bluish variant underneath (kaolinite and glauconite), and a reddish to yellow one further up, that we already know as the excavated material from the ditch found on the surface of the outer settlement, plus loess on top. The original, wider ditch, that initially enclosed the central part of Emőd-Nagyhalom, on the outside, between cores 30 and 40, must have had a rather steep slope, and was slightly more than 30 m wide as measured from core 40 to the foot of the current mound. It cut right through the reddish clay and into the underlying grey-bluish variant to a depth of max. *c*. 5 m underneath the present surface. It must have remained open and in use for some time, since throughout there are layers that must have eroded or collapsed into the ditch and were deposited at its bottom. On top of this original infill that occurred during the initial phases of use, and increasing in thickness towards the outside, there are more rapidly deposited layers as first encountered in core 16, that can now be interpreted as the partial collapse and rapid backfilling of an outer section of the older ditch with

[167] An additional discontinuous linear anomaly reported earlier, running broadly parallel to the above ditch in the north at a distance of *c*. 45–50 m (Fischl/Kienlin 2013: 14) upon continuation of the magnetometer survey turned out not to continue further south or to enclose the entire inner part of the site. Such diffuse anomalies may relate to surface depressions and sediment of different magnetic properties trapped, for example, on frequently committed tracks between groups of houses.

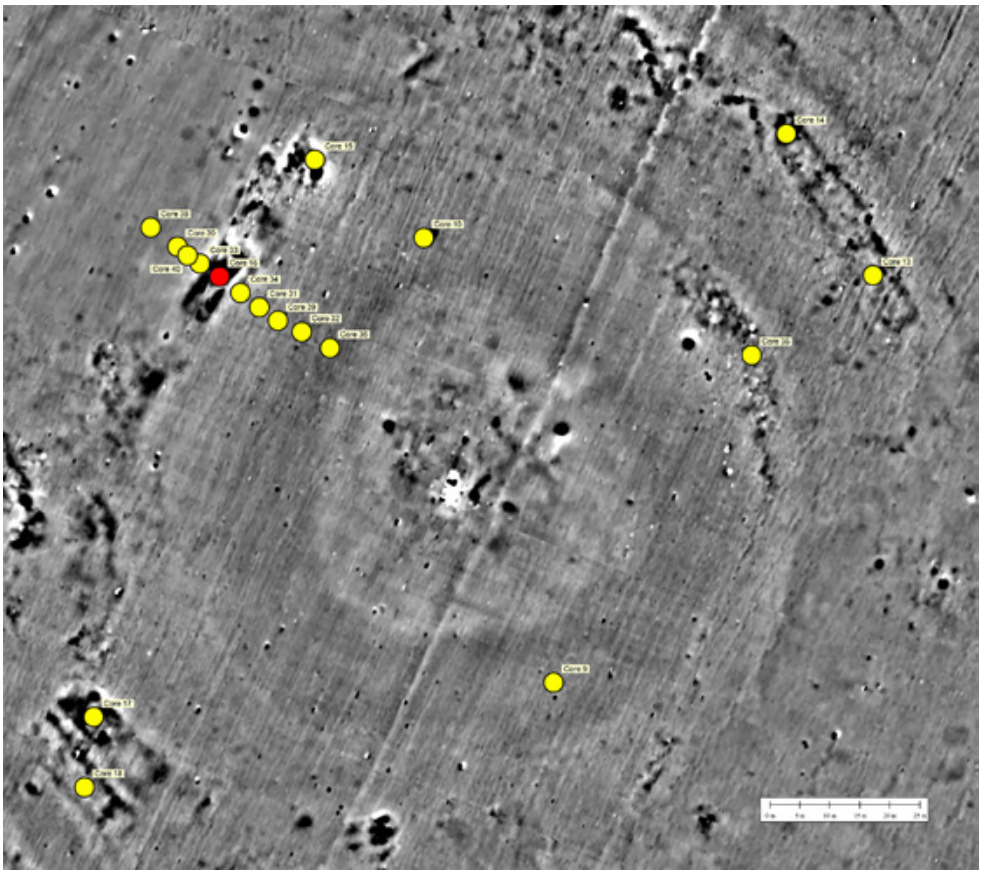


Fig. III-94: Emőd-Nagyhalom. The transect of drill holes extending across the north-western section of the ditch and further cores in houses of the outer ring as seen in magnetometry.

an inhomogeneous, clayish material mixed up throughout with settlement debris, and featuring what appear to be discrete dumping events.

So far we do not have corresponding transects on the other sides of the site. However, the stratigraphic sequence of cores 17, 18 and 36 in houses of the outer ring in the south-west and north-east respectively (fig. III-94), that all have a corresponding backfill underneath the houses targeted (see also discussion below), strongly implies that the original wider ditch ran along the entire perimeter of the site. Similarly, we cannot say precisely how much time the backfilling required, and exactly how much time elapsed between it and the construction of the outer ring of houses that came to occupy this area. However, at some stage, presumably along the entire outer perimeter of the younger ditch that remained, houses came to stand on top of this backfill. What ditch remained after the original ditch was partly backfilled was still of broadly 'normal' width in terms of our Borsod sites generally, and it seems to have been kept open until the end of the Middle Bronze Age settlement at Emőd-Nagyhalom. In any case, there are no anomalies seen on top of it, and its infill features the layered, slowly eroded darkish (*i.e.* humic), clayish material interspersed with ground up settlement material that is also characteristic of the final infill of other sites' ditches.

The stratigraphic sequence of the ditch at Emőd-Nagyhalom has been analysed in detail and published as part of the BORBAS project by Marian A. Lie whose results are referred to in what follows (figs. III-95 and III-96; Kienlin/Lie/Fischl 2019: 207–213). In total, 11 phases or units of layers can be distinguished including the underlying geology (phase I) and the modern topsoil (phase XI). The archaeological sequence as such starts with an old surface or humus level with evidence of trampling and human activity preserved outside the ditch (phase II). This layer was cut when the enclosure was dug, and excavated material was deposited on top of it (phase III) which is also evident in aerial photography that in the outer settlement shows distinct patches of yellow-reddish clay relocated from the adjacent ditch (fig. III-20 above). Subsequently, in a couple of cores at the bottom of the ditch we see lenses of eroded clay from the sides of the ditch, mixed up with settlement debris, such as charcoal, slowly washed into the ditch and accumulated during an early phase of its existence and use. From layers or lenses of this phase IV of our stratigraphy we have two radiocarbon dates at *c*. 2009–1772 cal BC (95.4 %; sample no. EMNA18/11 = Beta-523092 [charcoal]: 3550 BP +/-30 [core 32, metre 5, 20–30 cm]) and *c*. 1906–1743 cal BC (95.4 %; sample no. EMNA18/43 = Beta-530483 [charcoal]: 3500 BP +/-30 [core 10, metre 4, 53–60 cm]) respectively (fig. III-97). Since we do not know if prior to the deposition of these

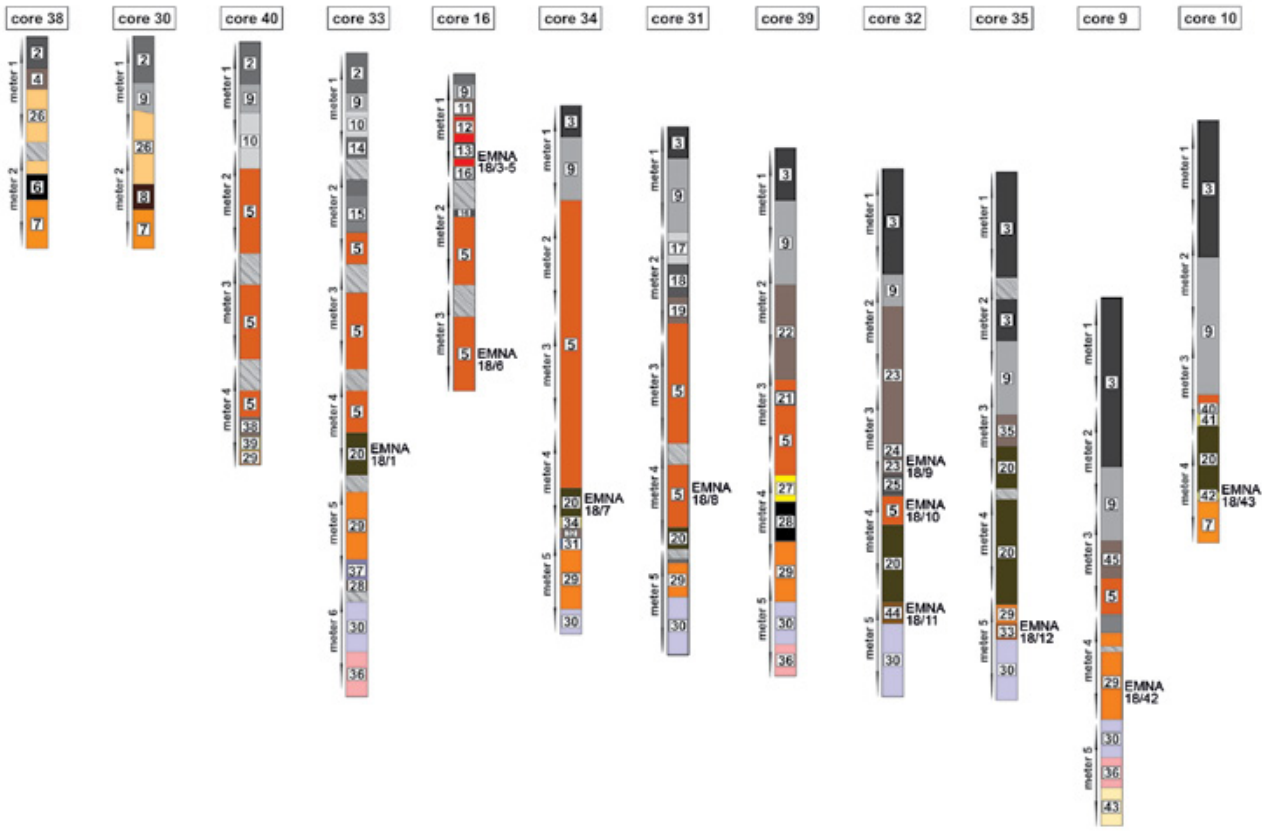


Fig. III-95: Emőd-Nagyhalom. Profile through the north-western section of the ditch and interpretation of the stratigraphy (illustration: Marian A. Lie).

lenses and the material dated the ditch was cleaned out (whether only once or on a regular basis) this does not provide a 'start' date for the enclosure as such. However, it supports the above conclusion that the enclosure at Emőd-Nagyhalom was presumably established, in use and saw the first sediments deposited some time into the 20th century cal BC.

The following phase or phases (V, VI and VII) are all different from what happened before, in that they show evidence of rapid deposition (figs. III-95 and III-96). Presumably they represent distinct 'events' in the history of the ditch's infill. Phase V, in particular, that is present in a couple of cores may be the result of a local collapse of the ditch's sides. It features the yellow-reddish clay previously excavated and deposited on the old surface nearby, mixed with some settlement debris, and partly overlain in inverse stratigraphy by material from the old surface including the ancient topsoil already featuring human impact (phase II above). So at least in the section of the ditch probed by our transect a distinct event may have been the starting point or trigger for what happened afterwards in the closely related phases VI and VII that both provide evidence of concrete dumping events of different thickness and consistency. Throughout, however, there is human impact present and concrete settlement remains such as chunks of daub, large pieces of charcoal and probably decayed wood (architectural remains?). The fact, that this material originated from the nearby outer settlement is proven by the reddish clay from the underlying geology and previously deposited on the outside that is always present as a component or matrix. We are surely looking here at a rapid and intentional infill, and it was undertaken from the outer margin of the enclosure since the layers concerned get thinner towards the centre of the ditch. Similar to the infill from the outside into the south-western section of the main enclosure at Tard-Tatárdomb discussed above, the seven radiocarbon samples obtained from contexts related to phases V, VI and VII at Emőd-Nagyhalom are notable for their apparent incoherency and stratigraphic randomness (fig. III-97). This, obviously, is the result of material of quite different origin having been used for the backfill, and consequently sample material of widely different date having been introduced. It is only by modelling and taking into account the results from previous and subsequent phases that an approximate date for the apparent backfill observed can be suggested below.

It is unclear, too, just how long this backfilling would have taken, or if indeed it represents a distinct 'event' at all. It was certainly 'fast', though, in terms of the consistency of the material deposited, with larger chunks of uneroded debris and distinct heaps of material thrown into the ditch rather than slowly washed in. There is no doubt, therefore, that a substantial outer part of the original ditch was abandoned at some stage and eventually backfilled. On top this infill there is a greater diversity of contexts that generally refer to subsequent settlement phases and feature debris of

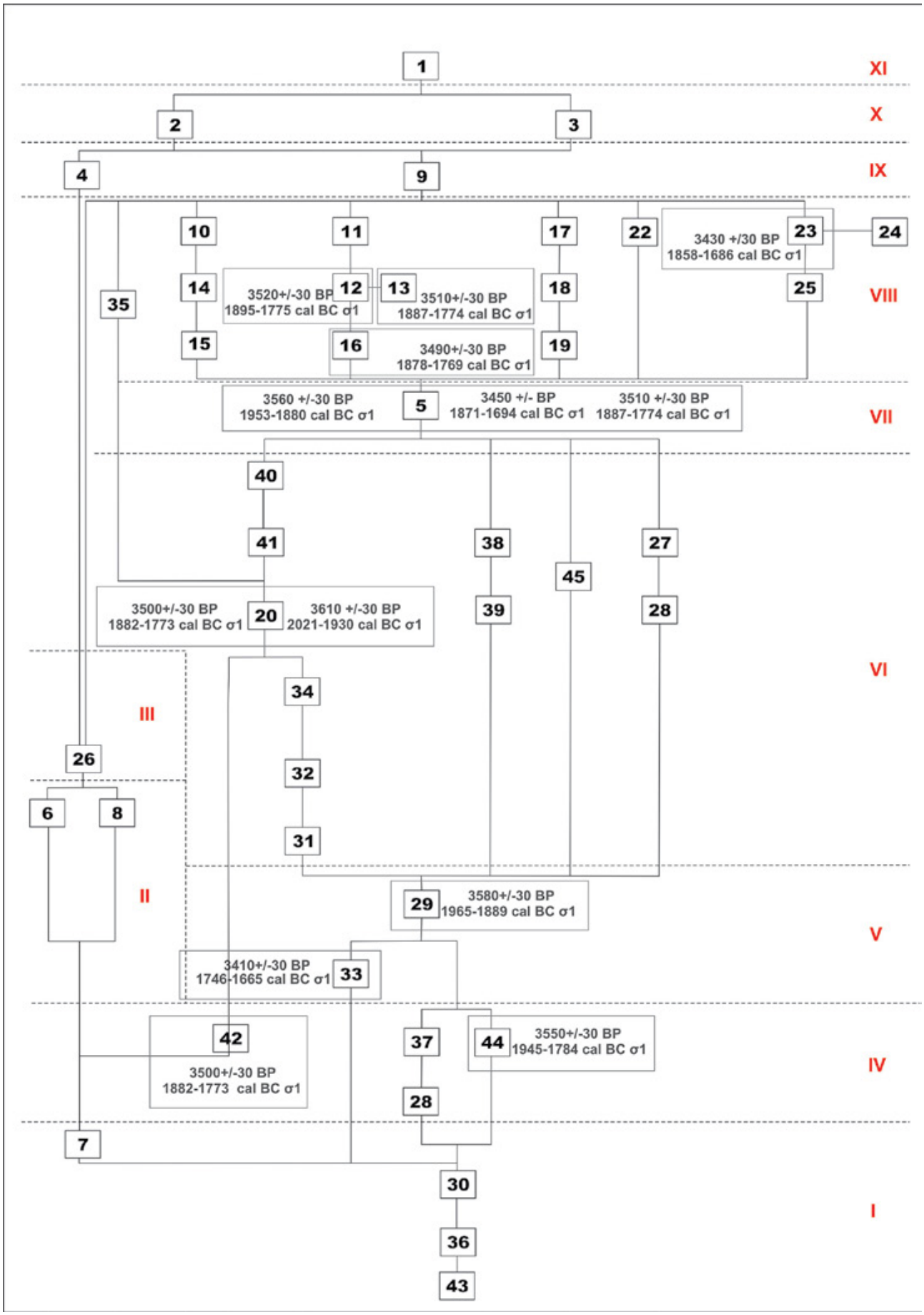


Fig. III-96: Emőd-Nagyhalom. Matrix presenting the stratigraphic relations between the contexts and phases present in the ditch (illustration: Marian A. Lie).

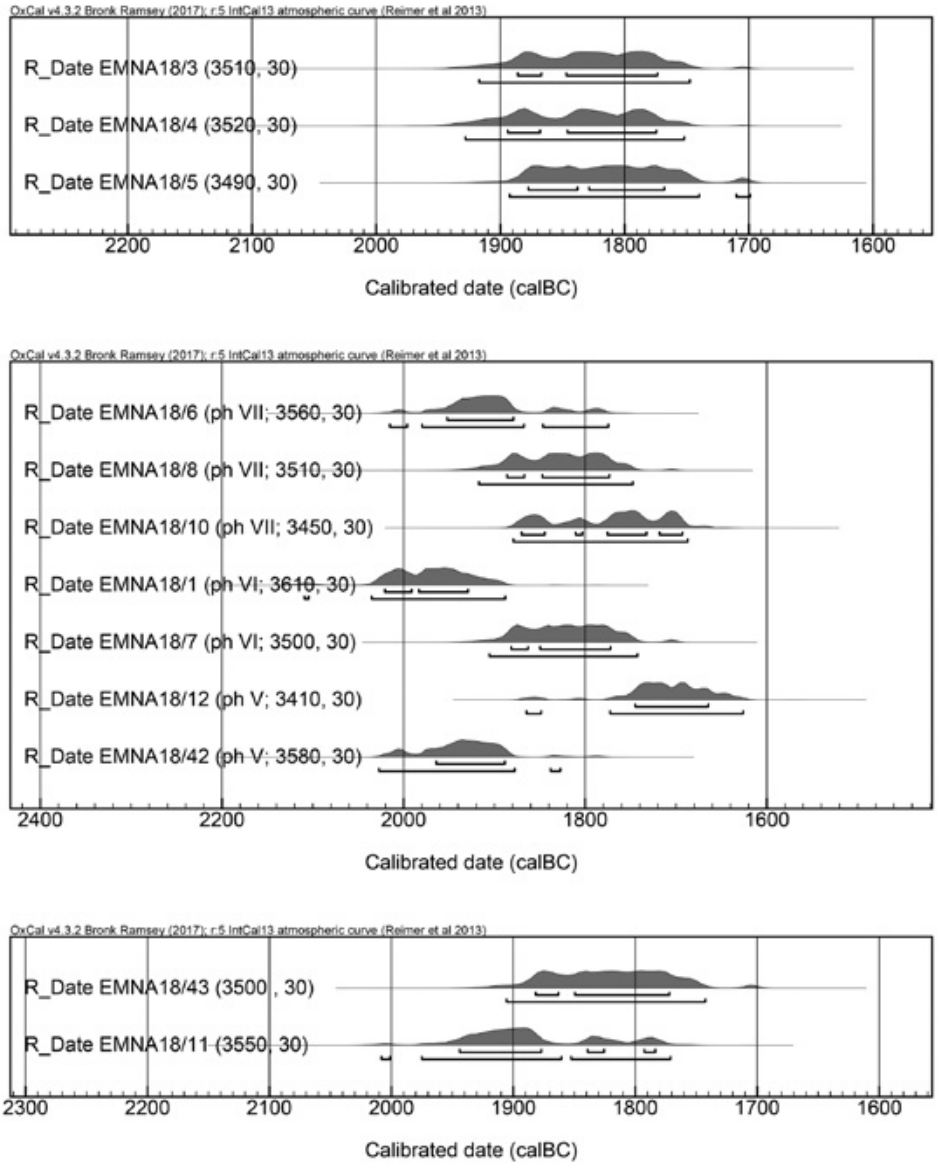
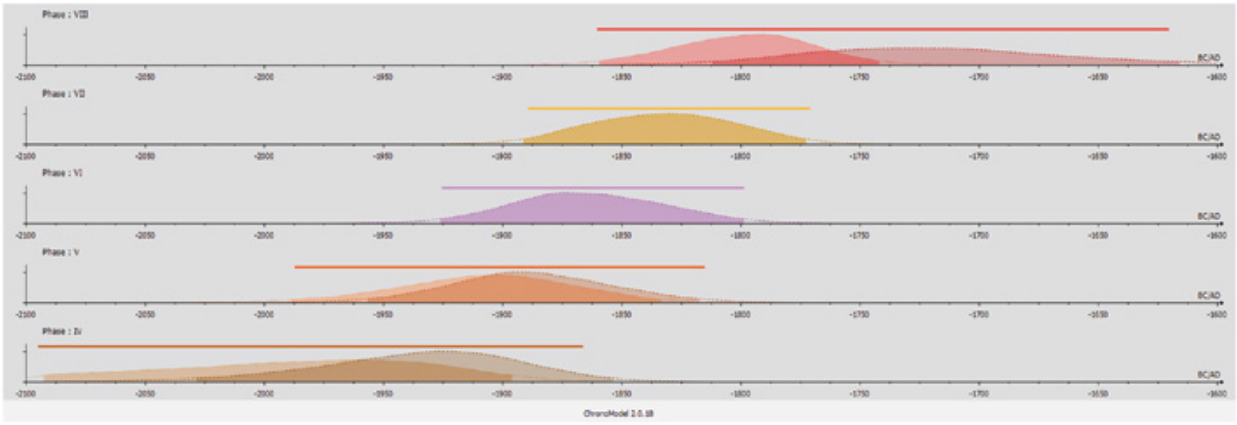


Fig. III-97: Emőd-Nagyhalom. Radiocarbon dates from the original infill into the ditch (bottom), from the rapid backfill into the outer section of the ditch (middle) and the house core 16 standing on top of the backfill (top).

different colour, texture and ways of deposition (figs. III-95 and III-96). Prominent, of course, in this phase VIII there are the remains of the burned and collapsed house in core 16 already mentioned above, that alongside others came to stand on top of the partly backfilled ditch (see also fig. III-94). From this context there are three radiocarbon dates that are fairly consistent and at *c*. 1918–1748 cal BC (95.4 %), *c*. 1929–1753 cal BC (95.4 %) and *c*. 1893–1700 cal BC (95.4 %)[168] most likely date the house in question to broadly the second half of the 19th century cal BC following (fig. III-97). At the same time, of course, this is an unambiguous *terminus ante quem* for the backfilling of the original ditch underneath the houses of this outer ring. Finally, the sequence and infill discussed is concluded by layers, thicker towards the inner part of the ditch that had remained open and in use until this stage, that initially in phase IX still have evidence of human presence on the site. But phase X, latest, represents the final infill of the ditch, that was slowly deposited over an extended period of time after the settlement had been abandoned and nature had reclaimed the site.

In order to correlate the radiocarbon dates obtained with the stratigraphy of the ditch and get a better impression, maybe, of the absolute chronology of its lifespan, its partial backfill and final abandonment, an attempt was made to employ Bayesian modelling (fig. III-98; ChronoModel version 2.0.18; Intcal 13,14c; Kienlin/Lie/Fischl 2019: 211–213). For the two models shown the stratigraphic information just outlined was used and all the dates available from phases IV to VIII were included. A

[168] Sample nos. EMNA18/3–18/5 = Beta-523084–523086 [all charcoal]: 3510 BP +/-30 (core 16, metre 1, 70–75 cm), 3520 BP +/-30 (core 16, metre 1, 80–87 cm) and 3490 BP +/-30 (core 16, metre 1, 87–93 cm).



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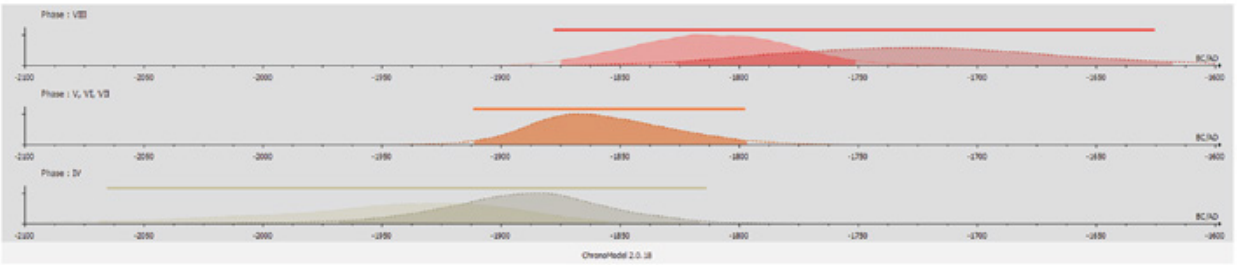


2

Fig. III-98: Chronological model of the radiocarbon data using MCMC statistics (after Marian A. Lie; software used: ChronoModel 2.0.18).

study period was assumed between 2100 and 1600 cal BC, as indicated by the oldest and youngest calibrated dates respectively at two sigma range. Two alternative models were calculated, the first one considering phases V, VI and VII as distinct events each, which in a strict sense of being superimposed as represented in figure III-96 in fact they are. The overall sequence, then, stretches from *c*. 2050 cal BC to *c*. 1750 cal BC or beyond, which nicely suits the rather early beginning of the site as postulated on the basis of the unmodelled dates above. However, due to the rather haphazard collection of the dates included (in terms of sample origin and age when buried), phases V, VI and VII cover a rather long interval which runs counter to the considerations outlined above. For this reason, our second model considers phases V, VI and VII as just one 'event', which again they are in the sense that we consider them (maybe) an initial collapse of the ditch's flanks, plus the consequent decision to backfill the affected section and beyond. This move stretches the combined 'phase' V to VII to some 100 years, but on the other hand it usefully pins down that 'event' or series of closely related events to broadly the 19th century cal BC. On the negative side, given that from a house on the central tell-like part of Emőd-Nagyhalom there is also evidence of an early beginning before *c*. 2000 cal BC (see above), the modified 'start' date of the ditch in this model (*i.e.* the earliest sediments deposited in phase IV) only *after c*. 1950 cal BC tends to be too young. For systematic reasons, the same holds true on the other end. Since we have got no dates from the youngest phases of the ditch's infill and the upper layers of the mound are lost, we cannot say with certainty when the settlement was abandoned – round *c*. 1750 cal BC as suggested by both models 1 and 2, or after broadly 1700 cal BC only or even later as suggested on the basis of the unmodelled dates above. What we know for sure, however, on the basis of the data just discussed is that some time well into the existence of the enclosure at Emőd-Nagyhalom it was subject to a substantial modification. This involved the backfilling of its outer section, and sooner or later after this event houses were built on top of this backfill. We also know for sure, importantly, that the settlement thus reorganised in terms of social space persisted and seems to have flourished for a considerable period of time.

We have seen, then, that the ditch and central part of the settlement at Emőd-Nagyhalom most likely were in existence at least from the early 20th century cal BC onwards, but we cannot provide a precise 'start' date or say how long the ditch had been in existence and was cleaned out before the first sediment was allowed to accumulate that we dated. At some stage, the walls of this massive, initial ditch may have partly collapsed, and subsequently the ditch was in part backfilled from the outside, presumably some time around the middle of the 19th century cal BC.

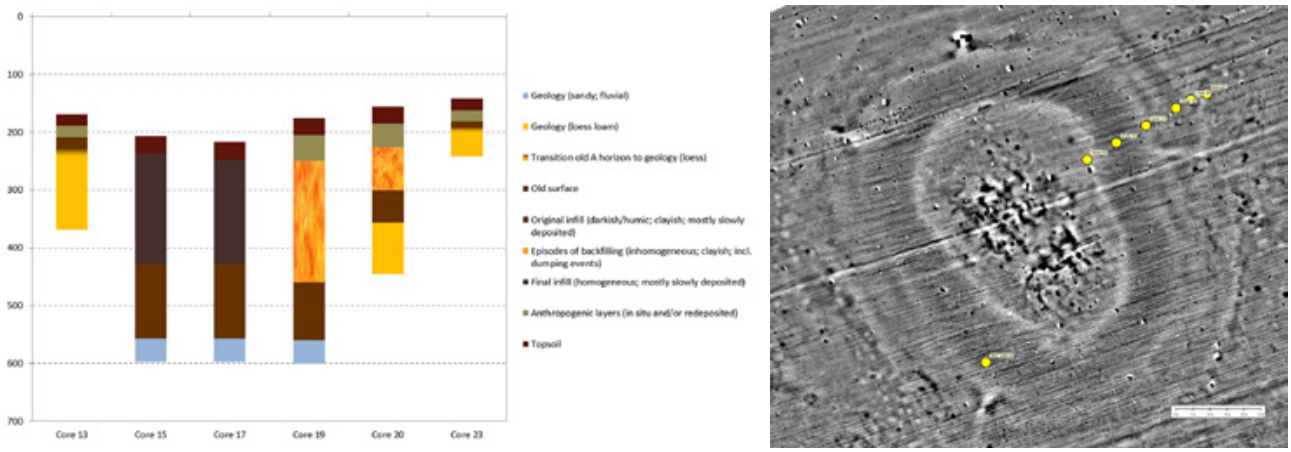


Fig. III-99: Mezőcsát-Laposhalom. A. Schematic representation of the core drilling profile through the north-eastern section of the enclosure; B. The location of the cores mapped on the ditch as seen in magnetometry.

Somewhat later, during the second half of the 19th century cal BC, according to core 16 we have positive evidence from magnetometry, stratigraphy and radiocarbon dating of a house, eventually destroyed by fire, standing on top of that backfill.

What we see, then, is a site with an unusually massive ditch in Borsod terms early in its sequence, and a decision taken – likewise rather early on – not to maintain this structure, but to reduce it to broadly 'normal' width in terms of neighbouring Borsod sites. It is unclear if this step was already taken with the intention to build the line of houses that we see on top of the backfill, or if these houses and their concentric layout are a somewhat later conception and addition. What we can comprehend, however, is the different trajectories of our sites, an outline of the different decisions taken and their various effect on future practice and perception. For at Emőd-Nagyhalom we see a deliberate (and no doubt labour-intensive) modification to the enclosure of the central part of the settlement that, for example, detracted from the symbolic impact of the enclosure. On the other hand, it did not effect the number of on-tell households, as was the case at Tard-Tatárdomb with an extension added to the original ditch, effectively increasing the number of on-tell households in a move rather inadequate, it seems, if social hierarchies were intended to become more pronounced.

Such differences in the way our sites were modified through time – underneath a shared Borsod identity and despite overall similarity of settlement layout *etc.* – are remarkable. They should remind us that similarity, at some stage, in layout and architecture must not be mistaken with long-term equivalence in social 'structure'. Thus, for example, Emőd-Nagyhalom and Tard-Tatárdomb both feature an outer ring of houses arranged along the outside of their ditch (see also below). On both sites, these houses stand in a comparable spatial relation to the inner tell-like core, and at some stage this may clearly have encouraged similar perceptions of relative closeness or affiliation to the core, similar practices and patterns of movement *etc.* Yet we can already perceive that the history of this arrangement was different on both sites, because coring at Tard shows that unlike Emőd the houses in question stand on grown soil, *i.e.* they occupied their position without all the previous debates on modifications to the existing, exceedingly large ditch, or not – and the corresponding narratives that no doubt came along with this constellation at Emőd-Nagyhalom: 'Remember our old ditch?' – 'Isn't it a shame it was spoilt and backfilled after so much effort spent?' – 'Oh lucky us, that we finally got rid of XY, of their offensive ditch and oversize obstacle that cut right through our community' *etc.*

At Mezőcsát-Laposhalom, the last site to be discussed here, the situation once more is different. In this case the signal in magnetometry and a corresponding surface depression were thought to show a ditch *c.* 14–19 m wide, while beyond in the magnetometer data there was a unique pattern, *c.* 17–21 m wide, of narrow alternating light to dark linear anomalies running parallel to the supposed ditch that remained enigmatic (Kienlin/Fischl/Pusztai 2018b: 213–214). Upon core drilling in 2019 it became clear, that like in the south-western section of the main enclosure at Tard-Tatárdomb discussed above, at Mezőcsát as well the ditch was wider than first expected, at least 30 m as measured from the foot of the mound to the outside core 20, and there is evidence of backfilling or the disposal of settlement debris into the enclosure from the outer settlement (fig. III-99). The overall sequence observed in a transect through the north-eastern section of the enclosure, therefore, is similar to Tard. It starts with a layer, present throughout the transect, slowly deposited and consisting of washed in topsoil and eroded settlement debris, that is thought to represent the initial infill during the early stages of use after the enclosure had been established. In good accordance, from this layer, just above the bottom of the ditch, there are two early radiocarbon dates at *c.* 2031–1888 cal BC (95.4 %; sample no. MET19/2 = Beta-545715 [bone]: 3600 BP +/-30 [core 15, metre 4, 40–60 cm]) and at *c.* 2133–1921 cal BC (95.4 %; sample no. MET19/8 = Beta-545721 [charcoal]: 3640 BP +/-30 [core 19, metre 4,

65–85 cm]) that confirm that the site was occupied and the enclosure in operation around 2000 cal BC or early in the 20th century latest.

Like at Tard, it was the inner section of the ditch that was kept in good repair until the end, for the corresponding cores 15 and 17 show the darkish, slowly deposited infill interspersed with eroded settlement debris that is characteristic for the end of our Borsod sites in general and that also accounts for the signal seen in magnetometry. From this part of the infill there is just one radiocarbon date, sample no. MET19/3 at *c*. 1746–1616 cal BC (95.4 %; Beta-545716 [charcoal]: 3380 BP +/-30 [core 17, metre 3, 14–28 cm]), that as such nicely illustrates the ongoing use and gradual infilling of the enclosure during the local Middle Bronze Age or Füzesabony times. It does not, of course, offer anything like a precise 'end' date or bring us anywhere close to the abandonment of the site towards end of the 16th century cal BC or even beyond as postulated above (figs. III-68 and III-73). On the outside, however, this final infill once more is distinctly missing. Instead, in the respective cores 19 and 20 there are substantial layers of inhomogeneous debris, deposited in larger chunks and distinct heaps of material, that are thought to represent either a deliberate backfilling (*i.e.* a distinct 'event'), or the more or less continuous disposal of settlement debris into the ditch from the outside for a certain period of time (fig. III-99). Core 19 provides a good example for the patchy consistency of this layer or rather layers. It also nicely illustrates that this event or series of events seals the earlier period of the slow original infill just discussed on the lower end, and itself is overlain by – most likely – eroded culture layers that represent the end of the archaeological sequence on top of this section of the ditch (fig. III-100). From core 19, too, there are five radiocarbon dates that as such nicely confirm the stratigraphic sequence outlined. The oldest date at *c*. 2133–1921 cal BC (95.4 %; sample no. MET19/8) already introduced above comes from the original infill at the bottom. The two widely disparate dates from various depths of the 'backfill' or disposed debris at *c*. 2110–1889 cal BC (95.4 %; sample no. MET19/6 = Beta-545719 [charcoal]: 3610 BP +/-30 [core 19, metre 2, 76–84 cm]) on the one hand, and at *c*. 1955–1767 cal BC (95.4 %; sample no. MET19/7 = Beta-545720 [charcoal]: 3540 BP +/-30 [core 19, metre 3, 80–91 cm]) on the other, reflect the general character of this layer. It features (sample) material introduced into the infill from the surface of potentially very different date or age before it became thrown into the ditch, and unfit to establish a precise date of this 'event' if indeed it was one. Finally, from the culture layer(s) on top there are two fairly consistent dates of slightly younger age that fall into the (second half of) 19th century or the early 18th century cal BC (fig. III-100). As such they may provide a *terminus ante quem* for the backfill or debris accumulated underneath, but they are also still far from the postulated end of the site postulated above.

The problem with this sequence is exactly the nature of the culture layer(s) seen on top of the backfill and at the end of the sequence in cores 19, 20 and 23. For it is unclear from the couple of cores available only, if these layers consist of eroded and relocated settlement material throughout, or if there are also *in situ* features preserved. Magnetometry is not much help either, for apart from the pattern of linear anomalies referred to above, there are no discernible houses and just maybe an occasional 'pit' anomaly in this section. It remains open, therefore, if at Mezőcsát-Laposhalom we see 'just' the effect of the enclosure at some stage having been 'abused' from the outside for the disposal of debris and rubbish like at Tard-Tatárdomb; or alternatively if like at Emőd-Nagyhalom this zone was intended or in fact used for occupation and the construction of houses invisible in magnetometry because they were never burned or because they were destroyed by erosion *etc.* In any case, the 'structured' appearance of this zone in magnetometry is remarkable and may point to some pattern observed in the act of backfilling more than just the completely random disposal of an occasional heap of rubbish here or the debris there from a derelict house somewhere close by in the outer settlement.

It is also important to point out, however, that despite all shortcomings in detail at Mezőcsát-Laposhalom we clearly have yet another example of an enclosure that was partly abandoned or allowed to fall into disrepair well into the lifetime of the settlement and the existence of the community that had once agreed and participated in the endeavour to enclose (a part of) their site. That is to say, that irrespective of the means of coercion once involved or persuasion originally exercised to achieve consensus, the commitment to this specific installation or spatial 'structure' dwindled. The future history of a site's enclosure was always potentially open to the contingent course of events, to 'traditional' practices, claims or convictions becoming less important, fragmented and eventually abandoned.

Finally, just two or three sites from a total of 17 examined have evidence of an outer demarcation that may – at some stage – have enclosed large parts of or even the entire community, *i.e.* both the tell or tell-like core *and* what would otherwise be conceived as the 'outer' settlement, prominent among them Tard-Tatárdomb and Maklár-Baglyashalom.[169]

At Tard-Tatárdomb this outer demarcation (ditch no. 2) is situated at a distance of *c.* 35–52 m outside the inner two-phase ditch already discussed at length above (fig. III-101; no. 1, phases A and B; Kienlin/Fischl/Pusztai 2018b: 237–238). Although we have no direct evidence to determine

[169] As argued in the previous chapter, at Hernádnémeti-Némethalom the interpretation of a smaller outer demarcation seen in magnetometry and coring is unclear (ditch no. 2; Kienlin/Fischl/Pusztai 2018b: 198). Given the short lifespan of Middle Bronze Age (tell period) occupation of the site and the presence of Late Bronze Age/Iron Age material, it is possible that this enclosure actually belongs to a younger horizon. At Tard and Maklár the situation is different since no periods other than Early to Middle Bronze Age are present and the anomalies seen of an outer enclosure can reasonably be argued to be of tell period date (Kienlin/Fischl/Pusztai 2018b: 205, 237).

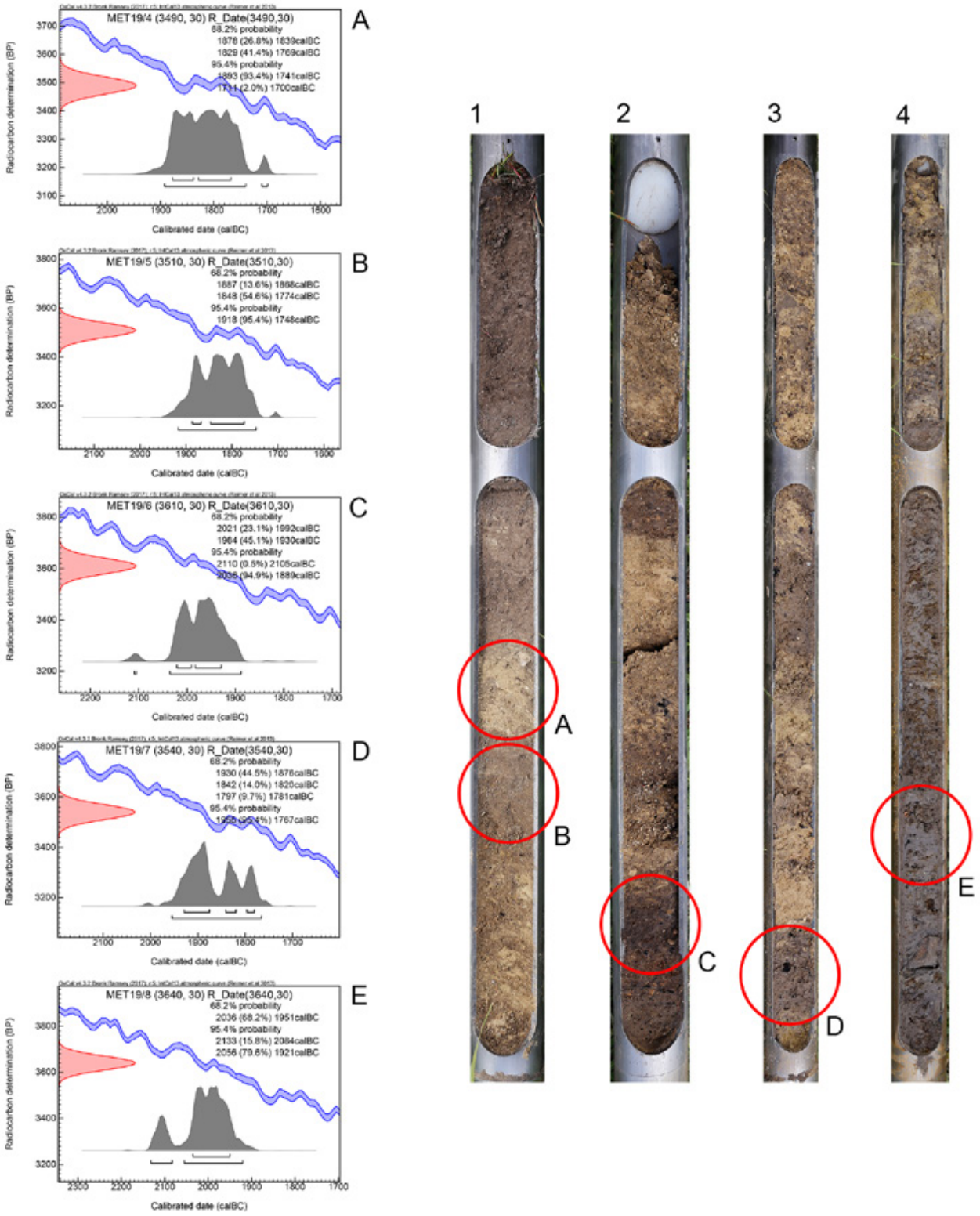


Fig. III-100: Mezőcsát-Laposhalom. Five radiocarbon dates obtained from core 19 in the north-eastern section of the enclosure and their stratigraphic position.

the chronological relation of both enclosures, it is likely that they coexisted at some time since the inner ditch is two-phase (Hatvan and Füzesabony) and presumably covers broadly the entire lifespan of the settlement. Beyond the outer enclosure there is little evidence of settlement activity apart from a few houses that may post- or antedate the outer ditch and infrequent general 'pit' anomalies of as yet unknown function. So the outer demarcation in fact may have incorporated the largest part of activity going on at the site at least for a certain period of time. The semi-circular zone thus defined as the 'outer' settlement at Tard-Tatárdomb between the two-phase inner ditch and the outer demarcation (zone 2; Kienlin/Fischl/Pusztai 2018b: 239) features a clearly discernible pattern

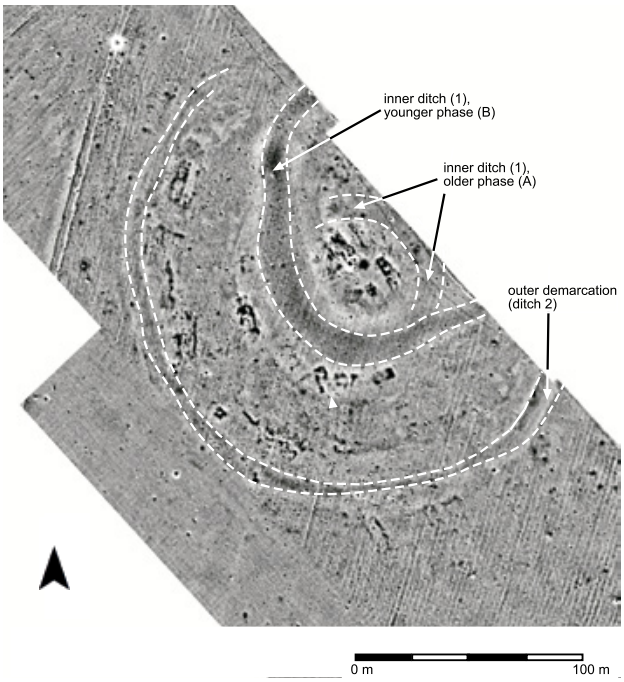


Fig. III-101: Tard-Tatárdomb. Interpretation of the magnetometer data showing the inner ditch (1) and the narrow outer demarcation (2) enclosing the largest part of the outer settlement at a distance of *c.* 35–52 m from the inner ditch (greyscale plot; data range [black to white]: +/- 10 nT).

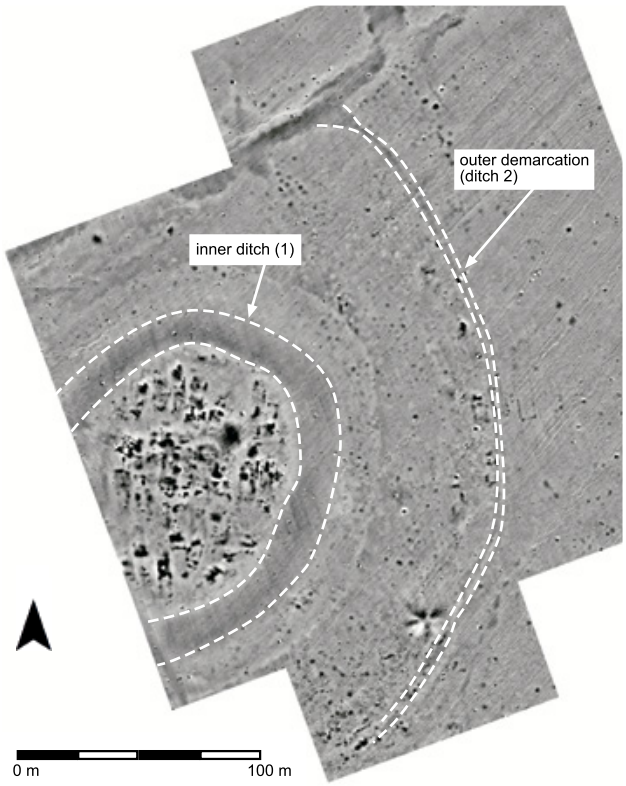


Fig. III-102: Maklár-Baglyashalom. Interpretation of the magnetometer data showing the inner ditch (1) and the narrow outer demarcation (2) enclosing the largest part of the outer settlement at a distance of *c.* 60–80 m from the inner ditch (greyscale plot; data range [black to white]: +/- 10 nT).

of two lines of houses arranged in a concentric order along the inner and outer demarcations (see also below). There is an interesting tension then at Tard, not otherwise evident in this form, between integration vis-à-vis the outside world (*i.e.* the entire community as enclosed by outer ditch 2), the maintenance of internal distinctions (*i.e.* the 'outer' ring of houses opposite the central core area), and the apparent renegotiation and expansion of affiliation to the site's central tell-like part (the Füzesabony period expansion of the core area and two phases of inner ditch 1 as discussed above).

If the outer demarcation at Tard thus in fact integrates rather than further subdivides the community, the same may be evident at Maklár-Baglyashalom, where in magnetometry a smaller enclosure (ditch no. 2) just *c.* 2–3 m wide can be seen at a distance of *c.* 60–80 m outside the inner ditch (no. 1; Kienlin/Fischl/Pusztai 2018b: 205–206). This outer demarcation connects to a gully in the north and probably ends at the slope towards the river valley in the south. It runs along the site's eastern perimeter and probably confined it towards the backward terrace (fig. III-102). Unlike Tard where we lack this kind of evidence, the outer enclosure at Maklár cuts or is overlain by a group of houses in the east and in the south is partly overlain by general 'pit' anomalies, so we can be fairly sure that it was in use for a limited period of time only. Due to poor magnetic visibility and/or preservation at Maklár-Baglyashalom in the semi-circular 'outer' settlement thus defined by both enclosures (zone 2; Kienlin/Fischl/Pusztai 2018b: 206–207) it is just possible that we see indications of a concentric arrangement of houses or pattern comparable to Tard-Tatárdomb. It is evident, however, that in this case the inner tell-like part is larger than at Tard (*c*. 0.7–0.8 ha [reconstructed] compared to [>] *c*. 0.44 ha for Tard zone 1, phase B), *i.e.* it was possibly home to a greater number of households, and that the inner ditch is one-phase, *i.e.* we do not see any comparable adjustments to the central core, at least none in terms of expansion and space provided for additional on-tell households.

Both sites, Maklár-Baglyashalom and Tard-Tatárdomb, that is to say, each followed their own trajectory. There are potential differences in the proportion of on-tell versus off-tell households, and there may or may not have been change to it over time *etc.* – certainly so in the case of Tard-Tatárdomb. Yet together they provide otherwise unattested evidence of the attempt to more closely incorporate the entire community and to set it apart symbolically from an outside world. Such an interest taken may have been passing only, and it may have occurred at different stages of the sites' existence – mind a couple of outside houses just mentioned on both sites possibly ante- or postdating the outer demarcation, and the overlying anomalies at Maklár-Baglyashalom suggestive of its infilling at some point during the existence of the settlement. However, at least at some stage the existence of an outer enclosure brought both sites up to *c*. 1.77 ha and *c*. 2.2 ha (Tard and Maklár respectively inside their outer ditches 2) of

a community possibly more *closely* incorporated, but certainly different from what would have been the case in the absence of an outer demarcation. Tard and Maklár in this respect are somewhat out of the ordinary because they are the only sites where some need seems to have been perceived for further physical and symbolic elaboration by an additional outside demarcation. The more common strategy than a physical outside boundary, apparently, was to rely on what may be described as a specific inwardly bound focus of the Borsod communities and their integration via shared traditions, material culture and the broadly similar overall layout of their settlements. We can see, therefore, different options in principle available to maintain these communities' overall integrity, with Tard and Maklár rather being the exception in their choice of an additional outer demarcation – no doubt among other things as well – to stabilise a communal identity.

Even so, the outer demarcation at Tard-Tatárdomb and Maklár-Baglyashalom as observed in magnetometry hardly qualifies as a substantial long-lived 'fortification'. Together with the apparent lack of even such ephemeral installations anywhere else, this clearly leaves the outer settlement of most of our sites open for most of their existence. This finding is yet another important observation to help characterise this way of living and the preferences of our sites' inhabitants. It is true that the intensity of occupation in the outer settlement is variable between the sites, and surely it also differed from phase to phase. Notwithstanding, we are looking here, at least in some cases, at a substantial part of these communities in terms of households, resources and inhabitants. It does not really matter, then, if one envisages these groups as hierarchical or not so heavily hierarchical (*cf.* Kristiansen/Earle 2015 and Kienlin 2015a) to acknowledge that their 'wealth' or rather their potential for coordinated action, and in the long run for survival, would in large measure have been dependent upon the well-being and their willingness to cooperate of exactly those 'commoners' so often reduced to being merely 'dummies' at the disposal of their Bronze Age chiefs. It is strange, then, to see them or at least their homesteads systematically exposed to enemy attack and supposedly endemic Bronze Age warfare. We encounter here a major difference between the Early to Middle Bronze Age tell sites under consideration and the large fortified Late Bronze Age sites in the region. The tells clearly should not yet be subsumed by a Bronze Age narrative of warriors, warfare, large-scale exchange and endemic social competition that may hold *some* truth for later periods. Instead, on the tells there was a specific inwardly bound focus, not least in their largely symbolic division of space by means of massive ditches of limited use as a fortification, and in their emphasis on local traditions such as the regional pottery styles so characteristic of the period. Presumably, this was more akin to Neolithic ways of life on comparable sites than we imagine (Kienlin 2015a), favouring identity and cooperation over aggrandisement and conflict. After all that is why we are looking at tell sites here in the first place, which are notable precisely for their long-term stability of place and architecture, their gradual development of settlement layout and material culture only, and for their conscious reference back to ancestral place – not rapid change, competition and unrestrained growth.

III.5 The Outer Settlement: Commoners or Community?

Throughout the previous chapters it has already become clear that most if not all Borsod sites discussed have some indication of Bronze Age activity in the surroundings of their tell or tell-like core, and in most cases this takes the form of a distinct outer settlement. Compared to the classic monograph on the Early Bronze Age in north-eastern Hungary by N. Kalicz (1968), who noted surface finds from outside a couple of sites but without further elaborating on this finding, it is here that recent fieldwork has most dramatically changed our knowledge of these sites. It also adds another dimension of variability, since the size, the intensity and structure of the outer settlement part show substantial variability, and on a couple of sites it takes on the form of a multi-part, 'composite' outer settlement.

Our Borsod findings, in this respect, are in line with other regions and tell-'building' communities throughout the Carpathian Basin, where modern fieldwork has led to the discovery of the remains of occupation outside the tell itself, and focus is increasingly put on the functional and social relation of both parts of the settlement. On Vatya sites, for example, where the fortification by a ditch and/or rampart was previously thought to have surrounded the entire settled area (*e.g.* Kalicz 1968: 133; David 1998: 233–234), recent fieldwork suggests the existence of an outer settlement at a number of sites (Szeverényi/Kulcsár 2012: 294–336). The topographic situation, clearly, has got a role to play here, *i.e.* if the entire settlement was protected by steep slopes anyway, or not *etc.*, and inside the Vatya area there may also be regional differences in the relative frequency of such an open, outer settlement part (Jaeger 2016: 84). There are also cultural notions involved here, distinctions made and seen of social space versus the outside world, and Hatvan and Otomani (-Füzesabony) tells, by contrast, are now widely recognised to feature settlement activity outside the (fortified) tell area on a regular basis, although the evidence at hand differs widely in quality. Beyond our Borsod sites discussed in greater detail below, Hatvan examples include Jászdózsa-Kápolnahalom with a tell six metres high of *c.* 130 x 60 m situated in a settled area estimated to *c.* 500 x 800 m (Stanczik/Tárnoki 1992: 120, 127; *cf.* Tárnoki 2003: 146–147), as well as Törökszentmiklós-Terehalom (tell: *c.* 180 x 70 m; Tárnoki 1992a: 128), Tiszaug-Kéménytető (Csányi/Stanczik 1992: 117) and Tiszafüred-Ásotthalom (tell: *c.* 75 m in diameter; Kovács 1992a: 131) with outer settlements of unspecified size. Among Otomani sites with evidence of settlement activity beyond the central fortified multi-layer tell we know of, for example, Túrkeve-Terehalom (tell: *c.* 100 x 60 m; Csányi/Tárnoki 1992: 159, 162; 2013: 708–709), Berettyóújfalu-Herpály (Máthé 1992a: 171), Medieşu Aurit-'Ciuncaş' (Marta/Ştefan 2011), Toboliu (fig. III-103; Lie *et al.* 2018; 2019) and Carei-Bobald (fig. III-104), where the substantial outer settlement has wrongly been equated with separate, but socially and politically dependent 'satellite' settlements.[170] In a few cases an additional fortification of the outside settlement has been suggested – but hardly been convincingly demonstrated (*e.g.* Stanczik/Tárnoki 1992: 127). Throughout, however, the evidence available unfortunately is still generally poor with regard to the size of the outer settlement area and its chronological or functional relation to the central tell part of the site.[171]

III.5.1 Topography, General Layout, Households and Off-tell Life ('Structure' III)

A fairly typical topographic situation on the Borsod plain itself is that the outer settlement extends backwards from the tell or tell-like core as seen from the watercourse, and laterally along the bank of the small rivers or streams on which these sites are situated. Emőd-Karola szőlők potentially features the largest outer settlement in this group (fig. III-105). Rescue excavations, magnetometer data and unsystematic surface survey point to the existence of a large zone with evidence of occupation or at least some other kind of Early to Middle Bronze Age activity that extended north from the tell-like central part of the site along the bank of the former Énekes/Rigós river for *c.* 650 m and more than 400 m west on the backward side underneath the present motorway (Kienlin/Fischl/Pusztai 2018b: 171–178). Similarly, at Mezőcsát-Laposhalom magnetometer data and surface survey indicate the existence of an outer settlement that extended along the southern bank of the Énekes/Rigós river to the east and west of the central tell-like part during Hatvan and Füzesabony times (fig. III-106). Towards the west, in particular, there is a good match between clusters of clearly bounded, roundish general 'pit' anomalies and

[170] See, for example, Németi/Molnár (2002: 118–121; 2012: 15, 41–48, 52 figs. 62–63, 63–72), Molnár/Nagy (2013: 28–35) and Molnár/Németi (2014: 49). For sure, substantial survey work and excavation are required before we can be more precise on the standing of these sites vis-à-vis Carei-Bobald 'centre' in functional, social and political terms. However, even without more detailed information on their size, their lifespan and the activities carried out by such off-tell communities, it should be noted that rather than being separate entities to be discussed in terms of their political relation to the central tell, some of these 'sites' actually seem to form a continuous settled area. This certainly is true for the three 'sites' situated within *c.* 100–250 m only from the central tell of Bobald I (*i.e.* the sites of Bobald I/1b, Bobald I/2a and Bobald II), that one would not normally regard as 'satellite' settlements, but rather as distinct clusters of potentially different age in a larger settled area (see discussion in Kienlin/Fischl/Marta 2017: 109–111).

[171] See also the reviews of the Otomani sites along the Berettyó valley by Dani/Fischl (2010) and Dani (2012), as well as Duffy (2014: 176–184) for intensive survey data on fortified Otomani tell sites and their surrounding open settlements in the Körös region.

Fig. III-103: Toboliu-Dâmbu Zănăcanului, Bihor county, north-western Romania; Otomani culture. Magnetometer data and distribution of surface finds that consistently point to the existence of an outer settlement of substantial size (magnetometry: greyscale plot; data range [black to white]: +/- 10 nT; surface survey after Lie *et al.* 2019: 356 fig. 4).

Early to Middle Bronze Age surface finds. However, as is often the case with such comparatively large outer settlement parts (occupied by houses or otherwise used), there are other (pre-)historic periods present as well, such as Sarmatian period burials east of Laposhalom (Kienlin/Fischl/Pusztai 2018b: 213–219). Therefore, prior to more intensive surface survey and targeted excavations, in this case it is impossible to positively assign a Bronze Age date to any individual group of anomalies, particularly those to the south and east of the site. Other periods being present, the data at hand does not lend itself to quantifying the settlement 'intensity' of Early to Middle Bronze Age occupation, and often it is difficult enough to tell areas of proper occupation (*i.e.* those featuring unambiguous remains of houses) apart from more general Bronze Age land use and activity only as indicated by the presence of unspecific 'pit' features in the magnetometer data. This is also true of Szakáld-Testhalom, one last example from this topographic group (figs. III-107 and III-108), where magnetometer data and unsystematic surface survey show that settlement and land use on the backward side of the mound extended *c.* 200–250 m to the north-east. Along the bank of the former Kerengő stream corresponding settlement activity can be traced *c.* 180 m to the north, as well as south and south-east of the mound (Kienlin/Fischl/Pusztai 2018b: 229–235). In this case, in the southern

Fig. III-104: Carei-Bobald, Satu Mare county, north-western Romania; Otomani culture. Magnetometer data covering a section of the outer settlement only; note that in this case there are other periods present as well, so that not all features seen will belong to the Early to Middle Bronze Age occupation of the area (greyscale plot; data range [black to white]: +/- 10 nT).

section it is impossible to positively identify individual Bronze Age features in the magnetometer data since there are also Neolithic and Copper Age surface finds (Alföld Linear Pottery and Baden). In particular, a linear anomaly of unknown date in the south of the surveyed area is problematic (*c*. 5–6 m broad and 140 m long without its beginning and end having been reached).

Tibolddaróc-Bércút shows this pattern adapted to the somewhat different topographic situation in the foothill zone of the Bükk mountains. The site is located on the western terrace along the valley of the Kácsi river, *c.* 50 m above the present-day valley bottom. Magnetometer data and surface survey show that the outer settlement laterally extended along the terrace at least *c*. 200 m north-west and *c*. 130 m south-east, as well as backwards from the central part of the site (Kienlin/Fischl/Pusztai 2018b: 245–250). A very similar topographic situation is encountered at Tard-Tatárdomb and Maklár-Baglyashalom, but with their outer demarcation and concentrically arranged houses, both these sites would have conveyed a much less accessible and exclusive impression than the possibly loosely clustered houses at Tibolddaróc (see detailed discussion below). Yet another situation can be encountered at Emőd-Nagyhalom located close to the southern tip of an isolated hill rising to *c.* 25 m above the Borsod plain (fig. III-109). Beyond the outer ring of houses already discussed in the preceding chapter that came to stand on top of the backfilled ditch,

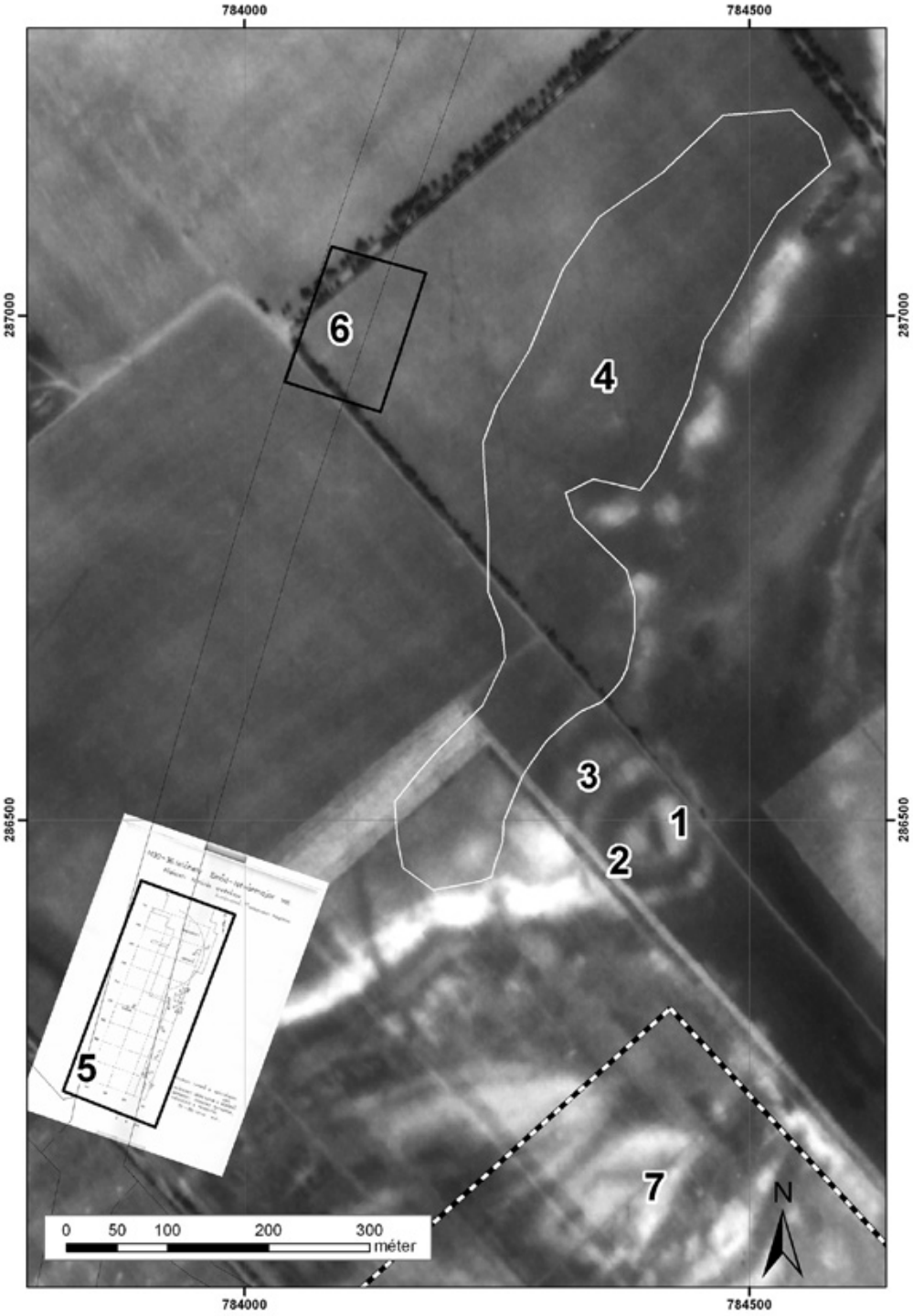


Fig. III-105: Aerial photography of Emőd-Karola szőlők. Rescue excavations, magnetometer data and unsystematic surface survey indicate the existence of a large outer settlement or zone otherwise used that extended north from the central part of the site (marked 1) along the bank of the former Énekes/Rigós river for *c.* 650 m (marked 4) and more than 400 m west where during rescue excavations in 1995 Füzesabony period pits were uncovered under today's M30 motorway (marked 5) (illustration: Klára P. Fischl).

there is in this case a wider outer settlement, set apart by its lack of cultural layers and the different orientation of its houses, arranged in distinct rows that extend up to 200 m north-east along the hilltop as well on the southern slope. So the general layout of our sites and the spatial arrangement of their inner and outer sections clearly depended on their topographic situation. However, this was mediated by the specific concerns of their inhabitants in terms of the integration of their community opposite the outside world *etc.*, and by the continued readjustment of the different parts of the settlement vis-à-vis each other.

Besides magnetometer data the outer settlement is often already revealed in satellite imagery and aerial photography.

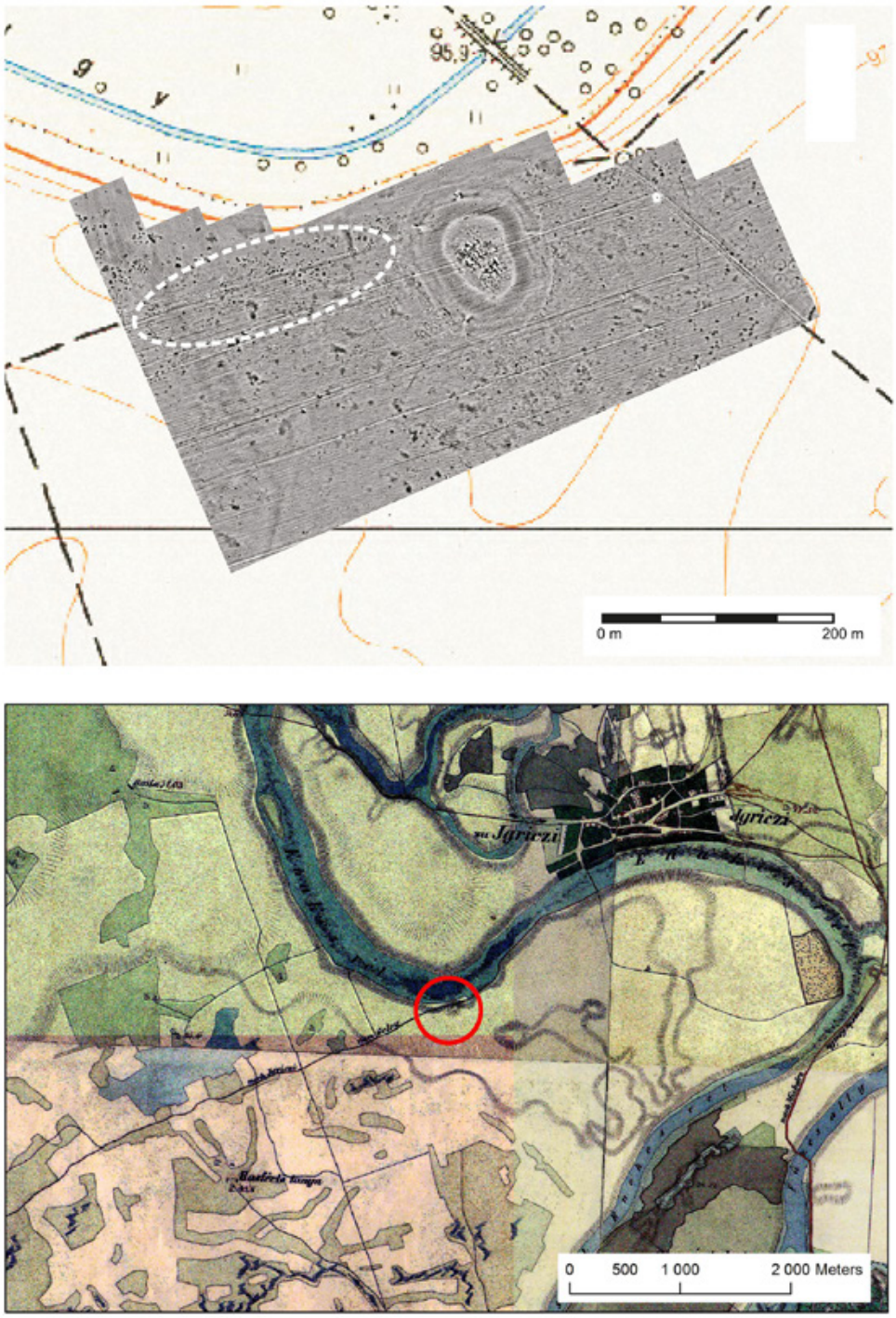


Fig. III-106: Mezőcsát-Laposhalom. The topographic situation of the site as shown by the Second Austrian-Hungarian Military Survey (below); magnetometer data of the tell-like central part of the site and the outer settlement (top; greyscale plot; data range [black to white]: +/- 10 nT); marked there is an area with numerous general 'pit' anomalies presumably of Bronze Age date west of the enclosed tell-like part of the site.

Typically, in this case there are distinctly greyish patches of topsoil set apart from their wider surroundings by their colour that is more akin to that of the central tell or tell-like part of the site. With this feature we see the result of specific soil formation processes in consequence of intense human occupation or genuine cultural layers that still cover both the central core of the site and at least certain sections of the outer settlement as well. More often than not this is an area that is also notable in magnetometry for its numerous (burned) houses, and the differences in soil chemistry also affect overall susceptibility since this zone features slightly negative (*i.e.* lighter) background readings that separate it from the wider outer settlement zone of the site beyond. This finding is of interest since even prior to systematic core drilling it already shows that at least certain sections of the outer settlement feature somewhat more continuous

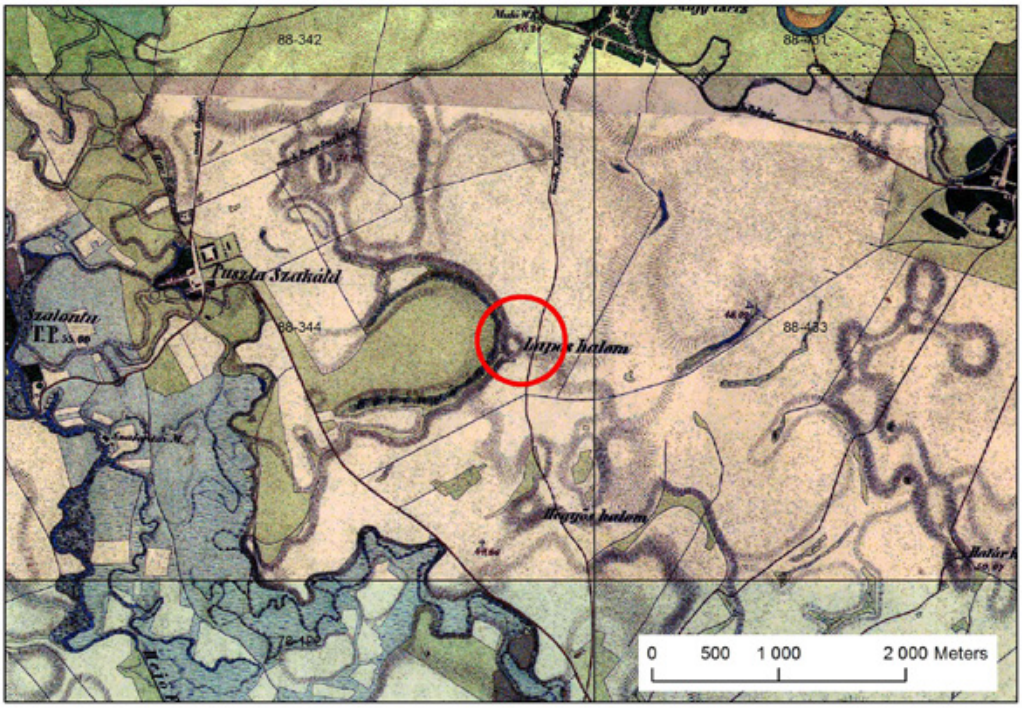


Fig. III-107: Szakáld-Testhalom. The topographic situation of the site as shown by the Second Austrian-Hungarian Military Survey.

Fig. III-108: Szakáld-Testhalom. Magnetometer data of the central tell part of the site and the multi-phase outer settlement (greyscale plot; data range [black to white]: +/- 10 nT).

Fig. III-109: Aerial photograph of Emőd-Nagyhalom seen from the south. The site is situated close to the southern tip of an isolated hill rising to *c.* 25 m above the Borsod plain and features a clearly structured outer settlement; an outer ring of houses, in particular, arranged in concentric order along the ditch is clearly discernible due to its different soil colour (anthropogenic soil changes or cultural layers).

occupation and the accumulation of some ancestry. This gives the outer settlement of some sites a clearly structured appearance, that in the foothill zone in particular is further accentuated by distinctly reddish to yellow-brownish patches of topsoil in between the greyish ones (fig. III-110). At first, these were thought to indicate the position of Bronze Age houses, *i.e.* to consist of household debris and architectural remains such as burned clay and daub. However, it soon turned out that (burned) houses in fact correlate with the above mentioned greyish patches and

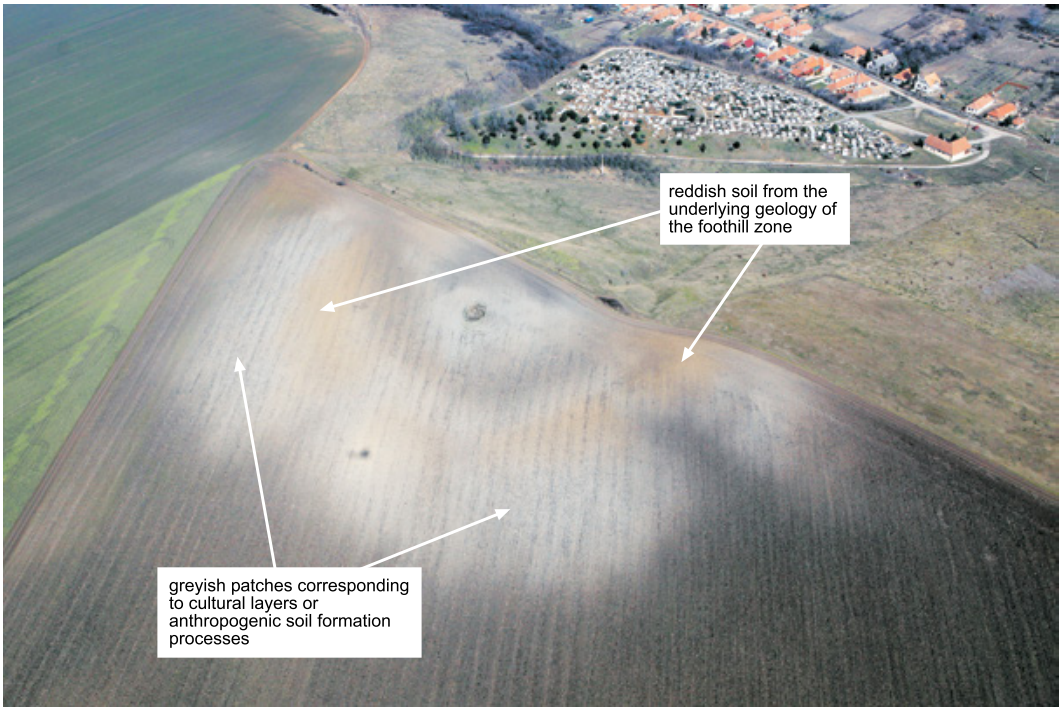


Fig. III-110: Interpreted aerial photograph of Tard-Tatárdomb seen from the south showing the clearly structured appearance of the outer settlement.

cultural layers (*e.g.* Fischl *et al.* 2014: 344), and in the meantime it has been established by coring that the reddish ones actually correspond to the underlying geology of the area. We thus see excavated material from the ditches that seems to have been deposited and spread along the *outside* of the demarcation rather than on the inside underneath the future tell-to-be.

Beyond colour change and the exposure of culture layers on the surface, the outer settlement in magnetometry typically features more or less numerous anomalies of different kinds that may show some patterning and point to differences in overall intensity of habitation as well as to a distinct zoning of some sites. A word of caution is required here concerning the limits of magnetometry and the data at hand. The most conspicuous features, of course, that can be observed in the magnetometer data from both the centre and the outer part of our sites are rectangular structures that can be identified as houses by their size and shape (figs. III-29 to III-31 above). Sometimes such houses as shown by magnetometry in the outer parts still correspond to surface concentrations of settlement debris (pottery, daub *etc.*). In fact they are often much more clearly discernible in the outer settlement than they are on the multi-layer core itself with its numerous superimposed layers and phases. It is from such evidence that on a couple of sites differences in overall layout and a 'composite' structure of some outer settlements can be deduced (see below on diversity in consequence of 'agency'). We are fairly confident that any such patterning of (burned) houses that can be observed actually reflects an ancient reality in terms of different organisational options consistently realised in locating households and (re-)building houses (*e.g.* distinct rows of houses versus houses clustered into groups, or houses arranged concentrically along the outside of the ditch). On the other hand, we do not claim, of course, that all houses thought to comply with the overall pattern identified were in existence at the same time. Furthermore, unburned and poorly visible houses may either consolidate the observed pattern or possibly introduce some variation; and one should always be wary, of course, not to assign a specific Early to Middle Bronze Age date to any individual anomaly or group of features seen. One should refrain, that is to say, from trying to quantify the intensity and extent of Bronze Age occupation even if there are no other periods present among the surface finds since simultaneity is hard to establish.

Apart from houses themselves, caution is also required with regard to another type of feature, namely the large number of more or less clearly visible positive (dark) anomalies not obviously related in spatial terms to the walls of houses or to the (postulated) location of house units in general. Typically, these are roundish features of variable size (*c.* 0.5–1 m, or occasionally more) and – like the house remains proper – of widely different strength (*c.* 5 nT to 30 nT, or occasionally more). One would tend to interpret these anomalies in general terms as various kinds of pits for storage, production or the extraction of building material *etc.* that were subsequently filled with settlement debris and refuse.[172] Wherever such anomalies are situated

[172] Proper clay pits, of course, are somewhat larger, irregularly shaped and have a 'cloudy' less well bounded appearance; for a likely example see the northern part of the outer settlement at Emőd-Nagyhalom (fig. III-122 below) or various features in the western section of the outer settlement at Toboliu in Romania (fig. III-103). – Vatya sites further west, in particular,

inside or around a clearly identifiable house unit it is possible that they are actually related in functional and chronological terms to the life cycle of that house and the activities of its inhabitants. On the other hand, whenever such 'pits' are found away from clearly discernible houses, which is sometimes the case in the outer part of the settlement, either of the following may apply: They may themselves indicate the location of a house – either by providing evidence of storage *etc.* or by representing badly preserved architectural remains. In this way occupation can sometimes be shown to have extended even wider than suggested by the remains of clearly identifiable house units alone. Alternatively, however, we may also be confronted with evidence of a distinct outer 'pit'-only zone of as yet unclear function (*e.g.* Fischl/Kienlin 2013: 8; Fischl/Kienlin/Tugya 2015: 120). If this were confirmed by future excavations, on a couple of sites sections of special function or communal use may become tangible beside broadly residential areas.[173] It is seems obvious, on the one hand, why some activities such as craft production or aspects of livestock keeping should have been carried out on the periphery of the settlement. On the other hand, this finding would carry significant implications in terms of seeing specific activities detached from individual households and potentially pooled. Furthermore, it is interesting to see that whatever was going on in this area, no need seems to have been perceived to protect what installations or provisions were involved from outside aggression.

Evidence of houses, as just outlined, both on-tell and in the outer settlement, comes from a number of Borsod sites and is of different quality with most better preserved structures measuring *c.* 4–5 m on 10–16 m. It is important here to stress, that as far as our data goes, derived from magnetometry, corresponding surface finds and the core drilling programme initiated, there are no systematic differences in terms of size, details of construction and the furnishing of houses on the central tell part and in the surrounding outer settlement (see also Kienlin/Fischl/Pusztai 2018a). The houses and households on-tell and off-tell thus clearly seem to fall on the 'structural' side of our Borsod sites, discouraging aggrandisement rather than offering an arena for deviant ambitions, competition and the display of relative 'wealth' or temporary success. We do not seem to have evidence of some kind of chiefly household or specialised production *etc.* set apart from normal housing quarters. Apart from the possibly 'specialised' use of an outer 'pit'-only zone, that may not have been used for living but for a variety of other day-to-day activities, we lack all evidence of a significant differentiation on the household level. The random distribution of surface finds of 'special' artefact types like animal figurines, portable hearths or wagon models, that are commonly thought to be associated with outstanding, socially or ritually motivated activities, throughout both the inner and outer settlement point in the same direction (Fischl/Pusztai 2018). So does, for example, the occurrence of metallurgy-related finds at Emőd-Nagyhalom that show no spatial patterning thus pointing to a decentralised practice of metallurgy on a household base both on-tell and off-tell (Kienlin/Lie/Fischl 2019: 219). Upon excavation different traditions of doing things and preferences for specific tasks may become apparent on a family or household level. However, it would come as a surprise to see anything like the functional and social differentiation in the polities that were politically controlled by Mycenaean palaces, and that are so often wrongly seen as a model for Bronze Age tell communities.

So what may have 'distinguished' the families on the tell from (some of) their off-tell neighbours may in the first instance have been their claim to greater antiquity only and their positioning in the spatial and ideological focus of the community rather than 'hard' political power or economic predominance. However, even these 'soft' factors were subject to negotiation, and 'membership' or claims laid to the central tell part of such sites was potentially fluid. Thus, for example, we have seen that it is possible that some households located outside in front of the ditch could actually lay claim to an equally long tradition like those resident on-tell, while at Tard-Tatárdomb there is evidence of an extension to the central tell-like part of the site in Füzesabony times with corresponding modifications of the inner ditch. Since we do not know precisely how densely the respective inner and the outer settlement were occupied at any given time, we cannot determine the relative percentage of people living on-tell and off-tell. But it is certainly possible or even likely, that this ratio underwent repeated change during different phases of occupation. It is obvious, too, that the relative standing of on-tell and off-tell households vis-à-vis each other did not solidify into anything like a chiefdom-type structure with a functionally and politically differentiated population. In fact, we cannot even take it as a given that living on-tell was a socio-political phenomenon at all, at least not in the narrow sense of economic prosperity or political power. Rather, it may also have involved contrasting systems of kinship organisation, or ideological concerns of relevance to and with a bearing on the wider community that 'focused' on this particular site and its enclosed (ancestral?) centre part.[174] The communities in question faced different challenges and took different options. As a result, we see local variation in settlement organisation and its development through time. Rather than a constant build up of social differentiation, political rule and economic differences, there is evidence of variable responses to contingent events and long-term trends. These may have ranged from disease and demographic development, climate and environmental parameters to economic success and the agency of groups of people or households.

are notable for the large number of storage *etc.* pits near or inside houses (see fig. III-41 above; *e.g.* Sørensen 2010: 143; Vicze 2013a: 763–765); they also occur on Hatvan and Otomani (-Füzesabony) sites, however; see, for example, our ongoing excavation at Borsodivánka-Marhajárás or the site of Toboliu (Lie *et al.* 2018).

[173] For an example of a separate storage area located between adjacent groups of houses, see Vráble-Fidvár (Bátora *et al.* 2009: 10; 2012: 114–115, 120).

[174] *E.g.* Whittle 1996; Chapman 1997a; 1997b; 2000; Bailey 2000; Parkinson 2002b; 2006.

III.5.2 Intensity, Size and Different Ways of Organising Space ('Agency' III)

Diversity, different trajectories followed by our sites, and agency within the structural confines of such tell-'building' communities have all been stressed throughout the entire discussion so far, and in the outer settlement part we encounter some prominent examples.

Starting on a macro scale, it has already been noted above that we obviously do see some differences among our sites in terms of the intensity of housing and other activities relegated to their respective peripheries. Novaj-Földvár is a good example that was already used above to argue that an enclosed tell or tell-like site in the Borsod region may well have existed without a major outer settlement to exploit. For despite some changes in soil chemistry and the distinctive greyish soil colour also familiar from other sites, in a zone *c*. 40 m wide in front of its ditch there is only weak evidence of true settlement activity from a couple of general 'pit' anomalies and just two or three badly preserved potential houses (fig. III-83 above). As one moves further out from this zone there are hardly any 'pit' anomalies anymore. Since, unlike houses, such features are not prone to erosion and do not depend on heavy burning to become visible in magnetometry, the fact that they are largely absent implies a very limited size and intensity of occupation, if at all, in the surroundings of the tell or tell-like core of this site (Kienlin 2018a: 38–39). Borsodivánka-Marhajárás may also belong to this group having less intense housing and occupation in the outer section of the site, although surface finds and at least some clusters of general 'pit' anomalies suggest that we may also see an effect of post-depositional changes (*i.e.* erosion) in this case (Kienlin/Fischl/Pusztai 2018b: 163–169). Erosion is also evident on the inner part of Tiszabábolna-Fehérló tanya where magnetometer data suggest extremely poor preservation, but among the surface finds concentrations of pottery and daub, plus fragments of grindstones, copper droplets *etc.* were still discernible and suggest the existence of spatially separated clusters of houses on the 'island'. In this case, the question of an additional outer settlement beyond the artificial 'island' is unresolved for the time being. In the magnetometer data there are hardly any anomalies that one would tend to interpret in terms of archaeological remains, but a systematic surface survey to confirm or disprove this impression is currently impossible in this area due to grassland cover (Kienlin/Fischl/Pusztai 2018b: 251–257). By contrast, other sites obviously feature a much more intense use of their outer part, even though no houses are (readily) discernible in magnetometry, and the existence, therefore, of proper outside housing cannot be unambiguously proven. Mezőcsát-Laposhalom (fig. III-106) and Szakáld-Testhalom (fig. III-108) fall into this group, and given the high density of general 'pit' anomalies, some of them surely Bronze Age, it is thought most likely that at least a couple of them indeed refer to the location of badly preserved tell period houses.

Besides overall intensity of housing and occupation, the size of the outer settlement as well is widely variable. Given that we are sometimes talking about truly large areas, it was not even possible on every site to cover the limits of Bronze Age occupation or other activity as defined by the presence of general 'pit' anomalies by magnetometry. So figure III-111 just aims to give an impression of the sometimes impressive size of the area surrounding the central tell or tell-like core where we still have anomalies or have surface finds, and can expect occasional housing or at least unspecified Bronze Age activity.[175] Emőd-Karola szőlők has already been introduced above and may illustrate this problem: At this site evidence of potential Bronze Age activity comes from the entire outer area covered by magnetometry with the exception of some low-lying stretches towards the Énekes/Rigós river, an area of *c*. 10.43 ha in total; if one tentatively includes the northern and western parts (with Bronze Age activity indicated by surface survey and rescue excavations) the entire area at some stage settled or otherwise used may have been up to 25 ha (fig. III-105). It is possible that at least in the far north and west Bronze Age surface finds are indicative of manure rather than proper occupation (compare Duffy 2014: 125–127), and that upon an expansion of magnetometry these outer margins would not feature anomalies anymore. Yet, that still leaves us with really large areas of potential Bronze Age activity.

It is an important desideratum, therefore, that future research on our sites should develop a closer understanding just how large a contemporaneously settled (and/or otherwise used) area we may expect at any given time, and how the size and the intensity of the outer settlement may have developed in a long-term perspective. For the time being, different options have to be considered that are by no means exclusive but may occur on neighbouring sites. First, since we do have indications of the existence of distinct clusters within larger settled areas or on the opposite sides of rivers,[176] it is clearly possible that some Bronze Age tells may have developed from one among several other neighbouring nuclei, similar to what has been put forward for Late Neolithic Vinča sites (*e.g.* Tringham/Krstić 1990a; 1990b: 582–586; Link 2006: 149–153 no. 34) or for the Bronze Age Körös region (fig. III-112).[177] A constellation like this may be encountered at Emőd, with two rather close sites, the enclosed tell-like

[175] However, the following should be borne in mind regarding the different quality of the data included: for some sites the outer limits have not been covered; the density of anomalies observed and of surface finds widely differs, as is potentially true of the function of the various parts of the outer 'settlement' (from more or less dense evidence of houses and true occupation to loosely defined activity areas); the chronology of the features seen requires further scrutiny; and on some sites there are other periods present than Bronze Age that may distort the picture *etc.* So figure III-111 really just provides an initial impression and cannot replace the detailed discussion in the catalogue of sites provided by Kienlin/Fischl/Pusztai (2018b).

[176] See Duffy (2014: 182–184) on the problem of telling apart distinct settlement loci or clusters of houses changing place through time from a large and truly simultaneously occupied outer settlement.

[177] See Duffy (2014: 144–149, 203–206); previously, see already Banner (1974), Bóna (1974) and Jockenhövel (1990: 211–212 with fig. 1) on the evidence from Békés-Várdomb and its surroundings.

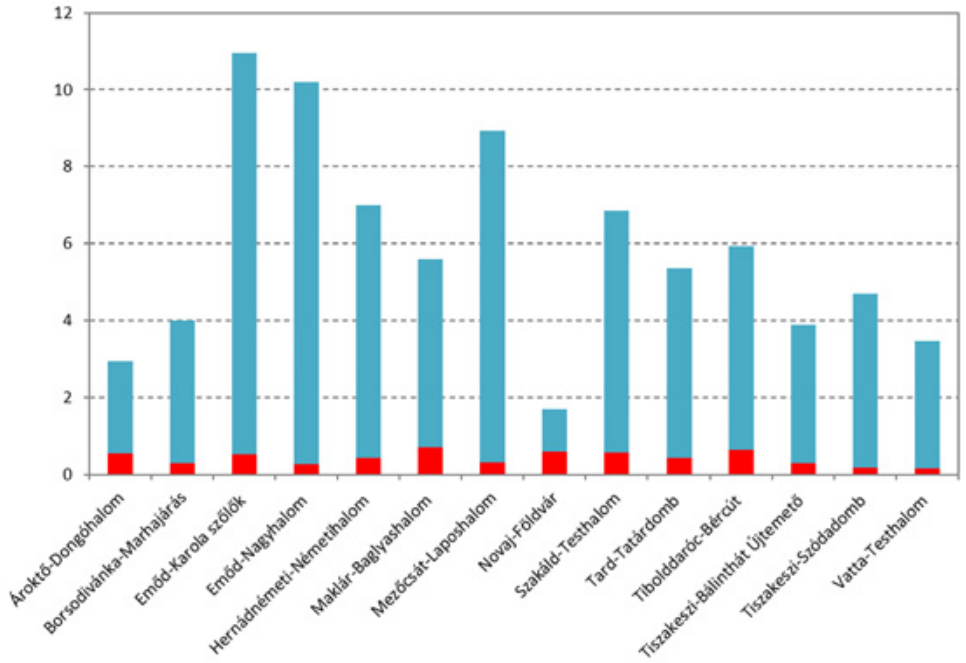


Fig. III-111: Tentative comparison of the size of the central tell or tell-like part and the outer settlement of the sites examined for this study (in hectares); the size of the outer settlement included here is the outer area covered by magnetometry with potential evidence of Bronze Age activity; in some cases like Emőd-Karola szőlők the actual size of the outer settlement or area otherwise used as indicated by surface finds may even have been larger; no distinction is made here between outer parts of the sites with unequivocal evidence of settlement activity (*i.e.* houses) and those with general 'pit' anomalies only, possibly pointing to some other kind of activity.

site of Nagyhalom and the apparently less long-lived one of Zsedény dűlő at a distance of *c*. 400 m south-east of Nagyhalom as the crow flies, but *c*. 20 m lower on a slight elevation in the surrounding marshland (fig. III-113; Kienlin/Fischl/Pusztai 2018b: 179–188). In the Zsedény dűlő area small-scale systematic surface survey indicates Early Bronze Age (Hatvan period) occupation only. Magnetometer data shows general 'pit' anomalies and possibly points to some kind of demarcation, although certainly none as massive as at Nagyhalom. Given the rather poor chronological information obtained so far, this situation may be explained in different ways: It is possible that we see a relocation of a previous Hatvan period settlement from the plain to the hill. Alternatively, both sites coexisted some time during the Early Bronze Age, and since there are occasional surface finds all the way between them they may actually represent individual clusters of occupation within a larger settled area rather than truly distinct 'sites'. Accordingly, at Borsodivánka Bronze Age finds have been recovered not only from the surroundings of the Marhajárás tell itself, but also from the far side (in terms of its premodern course) of the Rima river at a location called Szentistváni dűlő that in the meantime also features corresponding anomalies in magnetometry (fig. III-114; Kienlin/Fischl/Pusztai 2018b: 163–169). It is possible that rather than two distinct settlements (or the tell and its 'satellite') there are individual clusters – each of potentially slightly different lifespans – of one larger village, similar to the pattern proposed for Bronze Age settlement in the Körös region (Duffy 2014). Wherever this model of a 'clustered' settlement applies, clearly the tell or tell-to-be is just one part of a larger settled area that may not have been particularly special for quite some time. And the 'outer' settlement is not truly *outside* anything in a meaningful sense of the word, but rather may reflect the original condition and notions of life and settlement held in this community.

Alternatively, we clearly have to consider growth and possibly at some stage also mobility to account for exceptionally large outer settlement parts and/or rapid change in size – if we ever come close to documenting such processes by scientific dating. Expressly, this is not to advocate some abstract 'centrality' developing in the Borsod area, and certainly no 'site hierarchy'. Furthermore, without positive evidence we should not expect anything like the entire outer part of Emőd-Karola szőlők outlined above to have been densely settled at any specific time. Most likely something the size and structure of Emőd-Nagyhalom discussed below is much closer to what we normally should expect. Yet, we clearly have to be aware of differences in site size, and of the outer settlement in particular, either throughout or during certain phases only (fig. III-111) – and current work may be suggestive as to why such differences beyond organic growth might have occurred: We have seen above that the absolute lifespan of individual sites may have been different, and one would certainly not expect that all of our Borsod sites were established, grew and declined synchronously anyway (fig. III-73 above). It has been argued that we do not

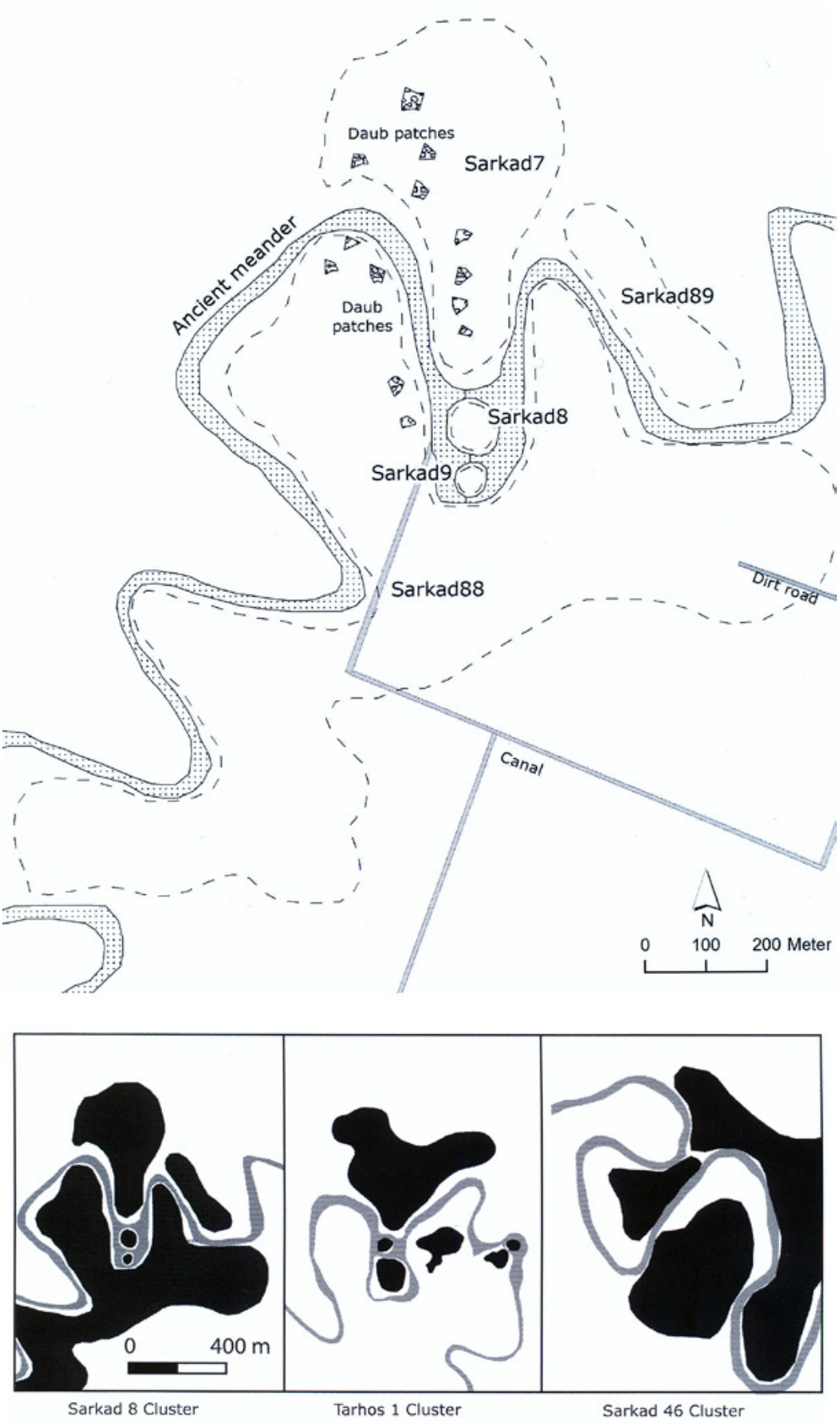


Fig. III-112: Examples of Early to Middle Bronze Age settlements organised into distinct clusters from the Hungarian Körös region (after Duffy 2014: 148 fig. 7.3, 205 fig. 9.7).

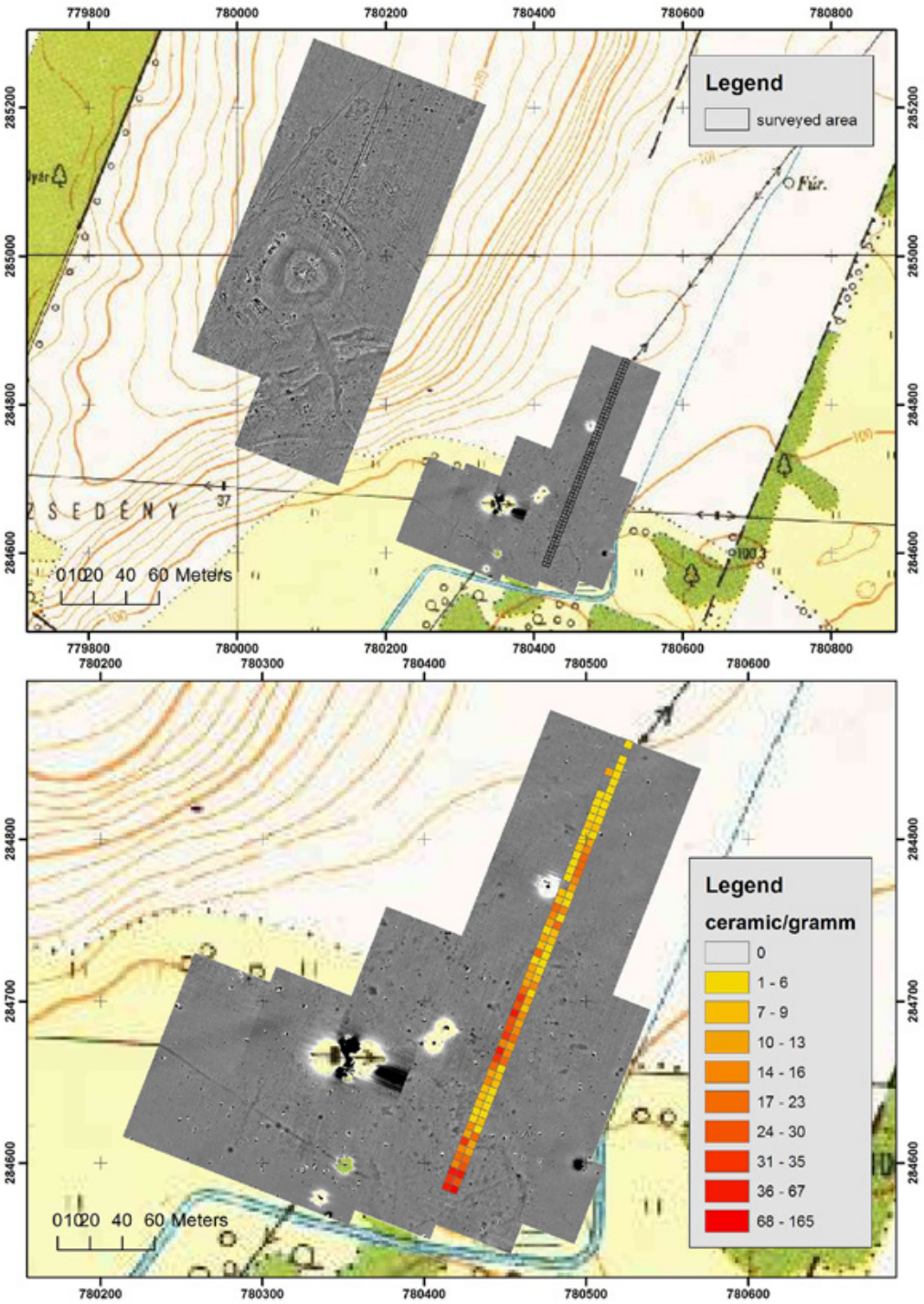


Fig. III-113: Emőd. The neighbouring sites or clusters of Nagyhalom and Zsedény dűlő in magnetometry and the distribution of surface finds at Zsedény dűlő by weight (illustration: Klára P. Fischl).

feel that this invalidates our general argument about the importance of genealogy and architectural continuity on our sites. However, we certainly have to acknowledge the possibility that we may end up with a somewhat more fluid landscape than previously expected in terms of some sites starting somewhat later or coming to an end somewhat earlier *etc.*, and an occasional gap opening in what we have so far considered to be a closely knit net of broadly comparable and largely contemporaneous sites throughout the Borsod landscape.

We have already seen households relocating between the various parts of our sites, and the number of on-tell versus off-tell households being adjusted. Now with the distinct possibility that some sites were less long-lived than others, potentially less 'successful' or for other reasons in decline, we may also see larger groups of households relocating, thus potentially adding – for some time only? – to the outer settlement of a neighbouring site, guided by kinship ties or some other pattern of preferential interaction during previous phases of coexistence. Emőd-Nagyhalom

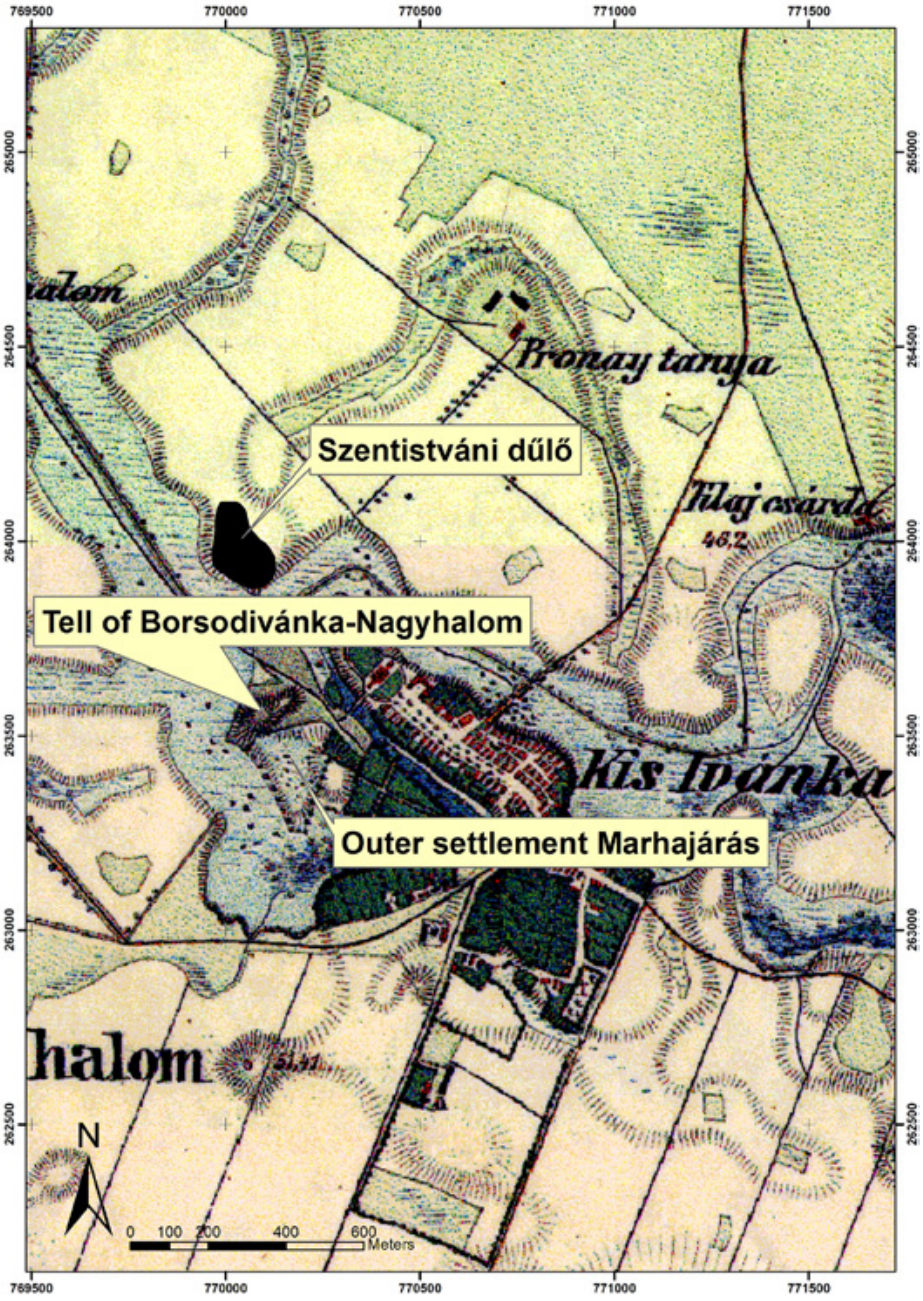


Fig. III-114: Borsodivánka. Topographic situation according to the Second Austrian-Hungarian Military Survey with the different parts or clusters of the Bronze Age settlement (Marhajárás and Szentistváni dűlő) (illustration: Klára P. Fischl).

with its remarkable 'composite' outer settlement and different patterns of relating households may be just such an example. This is definitely not to advocate historical concepts in the interpretation of archaeological data, and we most certainly see long-term stability and reference back to ancestral places as the single most important characteristic of the tell communities under consideration. Yet, we clearly have to allow for the effect of contingent events on (settlement) structure if we want to come up with a realistic understanding of this way of life, the notions held of how and where to live on the one hand, and the occasional pitfalls that required deviation on the other, that come down to us as variability in the archaeological record.

Turning now to the group of sites where there is evidence of houses that enables us to distinguish different ways of organising social space, Emőd-Nagyhalom with its rather good level of preservation and explicitly 'composite' structure may serve as a starting point to shed some light on variability and the different outcomes of the social process as people settled in the surroundings of our Borsod tell sites.

The site of Emőd-Nagyhalom has already been repeatedly referred to above (see also Kalicz 1968: 118 no. 37; Kienlin/Fischl/Pusztai 2018b: 179–188). It is situated close to the southern tip of an isolated hill, *c.* 600 m long and *c.* 25 m high above the surrounding Borsod plain and

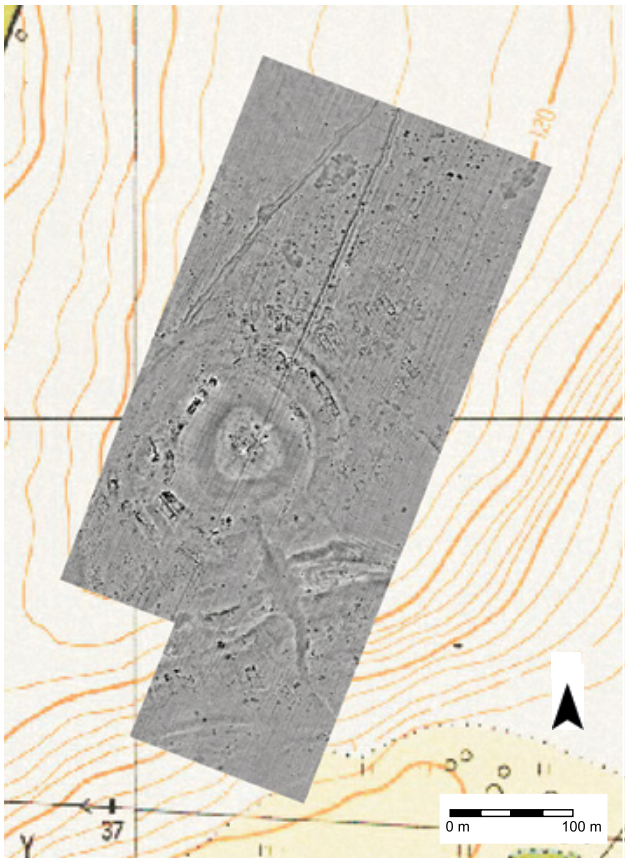


Fig. III-115: Emőd-Nagyhalom. Magnetometer data of the tell-like central part of the site and the outer settlement (greyscale plot; data range [black to white]: +/- 10 nT).

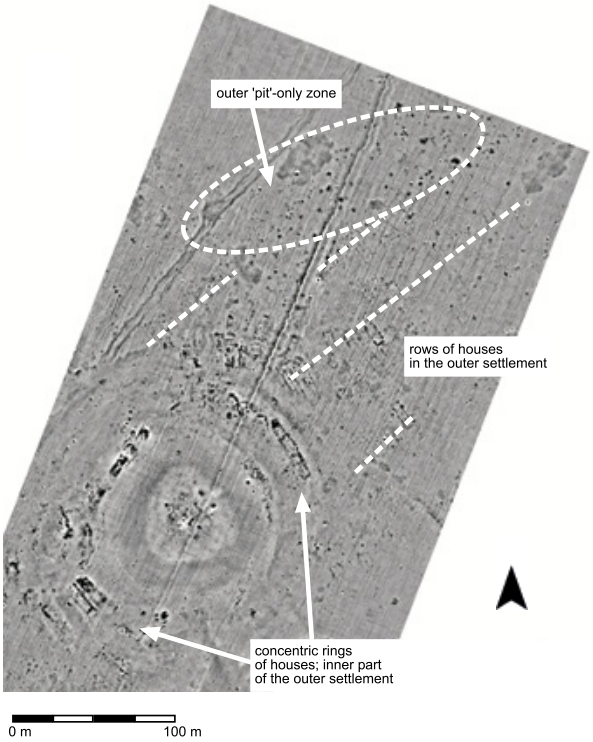


Fig. III-116: Emőd-Nagyhalom. Interpretation of the magnetometer data showing the 'composite' structure of the outer settlement (greyscale plot; data range [black to white]: +/- 10 nT).

former marshland (fig. III-109), and there is evidence from magnetometry and surface survey of a distinctly structured outer settlement that extends across almost the entire outer area covered with the exception of some of the steeper sections of the southern and eastern slope – comprising an area of almost 10 ha (figs. III-115 and III-116). The inner part of this zone, that has already been discussed above in conjunction with the partial backfilling of the site's ditch, features two lines of concentrically arranged houses with their long sides oriented towards the tell-like centre of the site. Unlike the badly preserved core area, this zone at least in the south-west, north-west and north-east, features clearly discernible (burned) houses, *c.* 4.5–6 m wide and some 9–18 m long, whereby some of the longer ones may actually represent two overlying phases with a shift along the long axis. In addition, there are numerous accompanying more or less clearly bounded general 'pit' anomalies. Besides the orientation of its houses, this zone is also set apart from the wider outer settlement beyond by the distinctly reddish and grey patches of topsoil that relate to relocated material from the adjacent ditch and, broadly speaking, cultural layers building up in this zone (human induced soil formation processes, accumulated settlement debris and/or the remains of houses).

Beyond this inner ring of houses that in spatial terms make clear reference to the tell-like core of the site, there is a wider outer settlement, that features distinct rows of more than 20 preserved (and burned) houses of broadly north-west to south-east orientation that extend up to *c.* 200 m north-east along the hilltop on which Emőd-Nagyhalom is situated as well as on its southern slope (figs. III-115 and III-116). This part of the site is set apart from the inner ring mentioned by its lack of corresponding distinctly coloured patches of topsoil or cultural layers, and by the different orientation of its houses as seen in magnetometry. Both these findings may point towards a different origin, on-site tradition or identity of the occupants of this part of the outer settlement. The different orientation of their houses will certainly have favoured divergent patterns of movement and day-to-day practices *etc.* between both zones. On the other hand, the houses in the wider outer settlement in terms of construction details and their size of *c.* 4.5–5.5 m x 10–17 m do not systematically differ from the ones further inside. A couple of them are partly superimposed (*i.e.* multi-phase), and the surface finds indicate a Hatvan *and* Füzesabony period occupation of the area. So here too we see some tradition achieved, even though, judging from the lack of corresponding soil formation processes and no cultural layers accumulating, the overall stability of occupation seems to have been lower, and we may encounter greater residential mobility of households.

Finally, beyond the part(s) of the outer settlement with evidence of houses (plus, of course, interspersed general settlement pits), in the north of the site, in particular,

there may be indications of a distinct 'pit'-only zone of as yet unclear function (*e.g.* Fischl/Kienlin 2013: 8). Since whatever activities took place here clearly involved some kind of hole in the ground (*i.e.* the anomalies to be seen), we are confident that we are looking at more than just evidence of manure (*e.g.* Duffy 2014: 125–127, fig. 6.14) that may in fact account for the occurrence of occasional surface finds far beyond the limits of magnetically visible activity. Sections of special function or communal use besides broadly residential areas are clearly an option. From Vráble-Fidvár in Slovakia, for example, there is evidence of a separate storage area located between adjacent groups of houses (Bátora *et al.* 2009: 10; 2012: 114–115, 120), but there are other activities as well that may instead be carried out on the periphery of the settlement, such as aspects of livestock keeping, the processing of stocks or activities related to craft production. Evidence of pottery production such as clay extraction pits, for example, or the procurement of daub for house construction, may also come from a couple of weaker and less well defined 'cloudy' anomalies on the outer periphery of Emőd-Nagyhalom.

Based on the results of magnetometry in 2018 a systematic surface survey was carried out as part of the BORBAS project by Klára P. Fischl, whose results are summarised here, in three sections of the outer settlement deemed of particular importance to understand the development of occupation outside the central part of the site (Kienlin/Lie/Fischl 2019: 213–223). Survey grid 1 is situated on top of the houses in the north-eastern section of the outer ring of houses running along the ditch; grid 2 is a bit further outside on top of a couple of houses that belong to the distinct lines of houses extending towards the north-east along the hilltop of Emőd-Nagyhalom; and beyond that there is grid 3 on top of a part of the outer 'pit'-only zone postulated according to our magnetometer data. Each of these sections was covered by a grid of 50 x 50 m that was subdivided into smaller grids of 5 x 5 m from which the surface finds were collected according to the strategy previously established and applied by the BORBAS project (Fischl/Pusztai 2018). In addition, beyond that, for another 150 m towards the north, starting from grid 3 in the outer 'pit' area, surface finds were collected in a less systematic fashion along 30 transects each 5 m wide and 50 m long in order to establish the northern limit of Bronze Age occupation or activity, that had not been reached during the original geomagnetic survey in 2012 and 2013. As a result, judging by the surface finds the north-eastern end of Bronze Age occupation in the outer settlement of Emőd-Nagyhalom lies no more than 50 m north of the area originally covered in our fieldwork (Kienlin/Fischl/Pusztai 2018b: 179–188). This finding is also confirmed by a small extension added to our magnetogram in this area in 2018.

In good accordance with our assumptions outlined above on the relative intensity of occupation and its outward decline based on magnetometry and aerial photography, as one moves north from survey grid 1, via grid 2 to grid 3 the overall density of finds decreases (figs. III-117 and III-118). The highest number of surface finds clearly comes from the outer ring of houses north-east of the ditch (grid 1), where we also have evidence of multi-phase occupation and rebuilding of houses from the core drillings, radiocarbon dating and magnetometry. Further outside along the lines of houses that extend towards the north-east (grid 2), the overall intensity of finds and potentially of occupation is lower. We may still see houses occasionally being renewed, and the two radiocarbon dates (see below) that so far could only be obtained due to the limited layer thickness in this zone certainly imply a prolonged overall occupation of this section. However, obviously the pattern of occupation was different and appears to have comprised the lateral shift and replacement of houses rather than the direct architectural continuity that we see on the mound and presumably also in the outer ring along the ditch.

In detail, on the other hand, in both zones, grid 1 on the outer ring and the second one on top of the houses aligned further outside, it is difficult to match the surface distribution of finds and (burned) houses seen in magnetometry. Apart from being in a more or less densely settled area throughout in the first place, there are some clearly discernible concentrations of surface finds. Some of them fall inside houses or their immediate surroundings (in particular daub in the eastern half of grid 2; fig. III-118), while others do not (*e.g.* pottery in the north-western corner of grid 2; fig. III-117);[178] and there are houses that do not feature a significant concentration of surface finds – with fragments of daub faring slightly better, it appears in our sample, than pottery finds. Such findings have also been reported from other sites, both in the Borsod region and beyond. They may be due to various factors, prominent, of course the inevitable permanent moving around of surface finds by intensive ploughing and agriculture (which certainly applies, unfortunately, to Emőd-Nagyhalom), and the rapid decay of all archaeological material thus exposed and brought to the surface. At Vráble-Fidvár it has been suggested that surface finds rather than from houses themselves come from pits, often rich in disposed settlement debris and general waste (Rassmann *et al.* 2018: 226–228). This may sometimes be the case, even if both 'categories' of finds are difficult to tell apart since pits tend to cluster inside houses and in their immediate surroundings, but the outer 'pit'-only zone at Emőd-Nagyhalom (grid 3) certainly is a counterargument with its significant decline in the frequency of surface finds (figs. III-117 and III-118). However, irrespective of its exact origin all exposed material except, of course, stone artefacts will decompose under mechanical impact and weathering or frost, and as the size of individual pieces declines they become increasingly 'invisible' in an archaeological survey. So we also have a factor of 'time' involved, more precisely the time elapsed between the plough cutting

[178] Unburned houses, of course, may show up as a concentration of surface finds, where there is no signal in magnetometry. This is not the case, however, in our current example of Emőd-Nagyhalom where magnetometry shows a dense pattern of burned houses that could account for surface finds, and apparently leave little room for unburned ones.

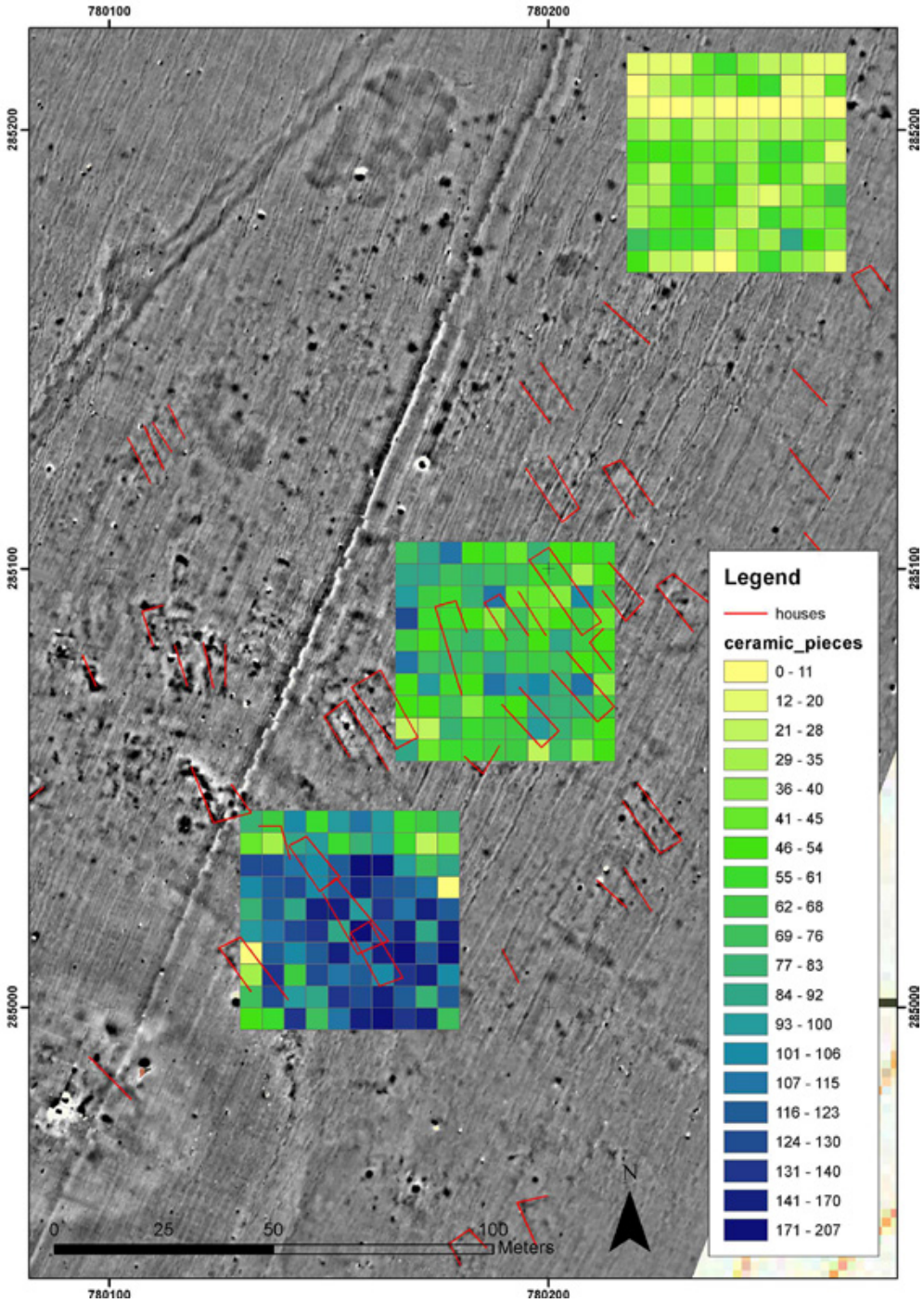


Fig. III-117: Emőd-Nagyhalom. Results of the surface survey 2018; pottery by numbers (illustration: Klára P. Fischl).

into the destruction layer of a house or a particular layer of a pit infill rich in finds, and the lucky occurrence of an archaeological surface survey. The overall picture of surface finds, that is to say, may change even from year to year, and one suspects that the relatively consistent 2018 distribution of daub fragments in Emőd-Nagyhalom (grid 2; fig. III-118) is due to the fact that these houses are right in the plough horizon and currently being destroyed.

Finally, as regards the spatial aspect of our surface finds, it is hard to tell and potentially down to worldview what the distribution of 'special' finds in grids 1 to 3 of the outer settlement implies, such as portable hearths, miniature animal figurines and vessels, rare idols and wagon models (fig. III-119). Although by no means exclusively, such finds distinctly cluster in grid 1, *i.e.* in the three houses of the outer ring covered completely or in part, that developed alongside the remaining ditch. It is tempting, of course, to take this as a confirmation of the 'special' status of these households postulated in terms of their being able to establish themselves in this somewhat 'exposed' location, and setting themselves apart from

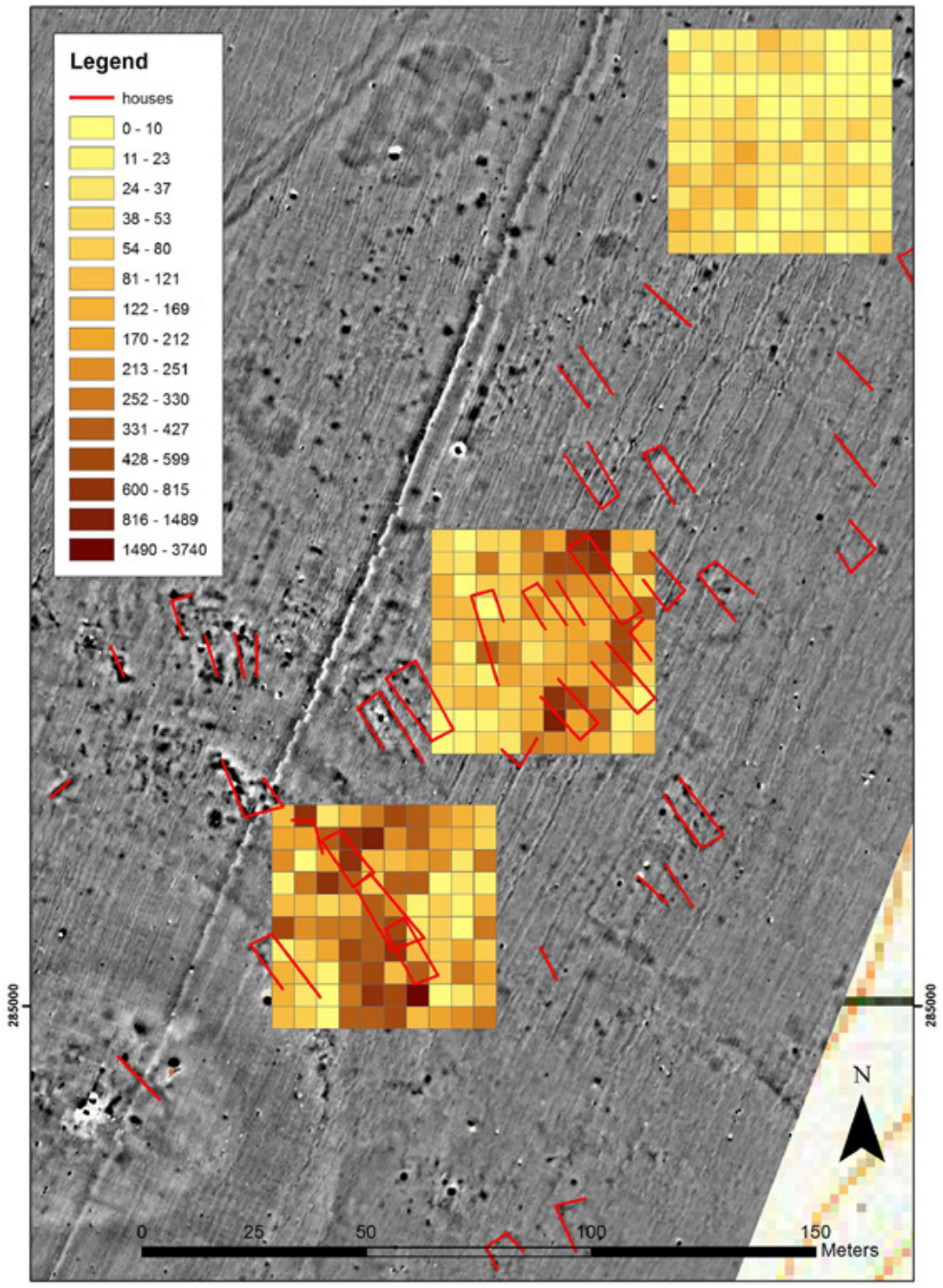


Fig. III-118: Emőd-Nagyhalom. Results of the surface survey 2018; daub by weight (illustration: Klára P. Fischl).

both the inhabitants of the central mound and the wider outer settlement. However, Bronze Age research is full of such far-fetched 'social archaeology' that relies on minute differences in the inventory of houses or graves and sees great things happening (*i.e.* typically: social 'evolution' unfolding) when in fact some caution would be in place. Instead, one clearly has to take preservation into account here, the difference in the total number of finds between grids 1 and 2 noted above (*i.e.* the ring versus the houses aligned further outside), and the difference in the overall intensity of occupation in both sections deduced variously from magnetometry, aerial photography and surface finds. It is clearly possible, then, that we are actually seeing a statistical effect (higher total number of finds equals higher number of accompanying 'special' finds as well). In any case, rather than constructing social hierarchies, down from tell, to outer ring to wider outer settlement, one should rather say that there is a possibility that an identity predominantly formulated in spatial terms to start with, *i.e.* going back initially to the act of settling together and being able to lay claim to the specific section of the site occupied together ever after *etc.*, in the long run also found expression in other aspects of material culture. We should seek to understand, then, how the practices and routines related to these different domains or media were interwoven, and how they were reproduced over time,

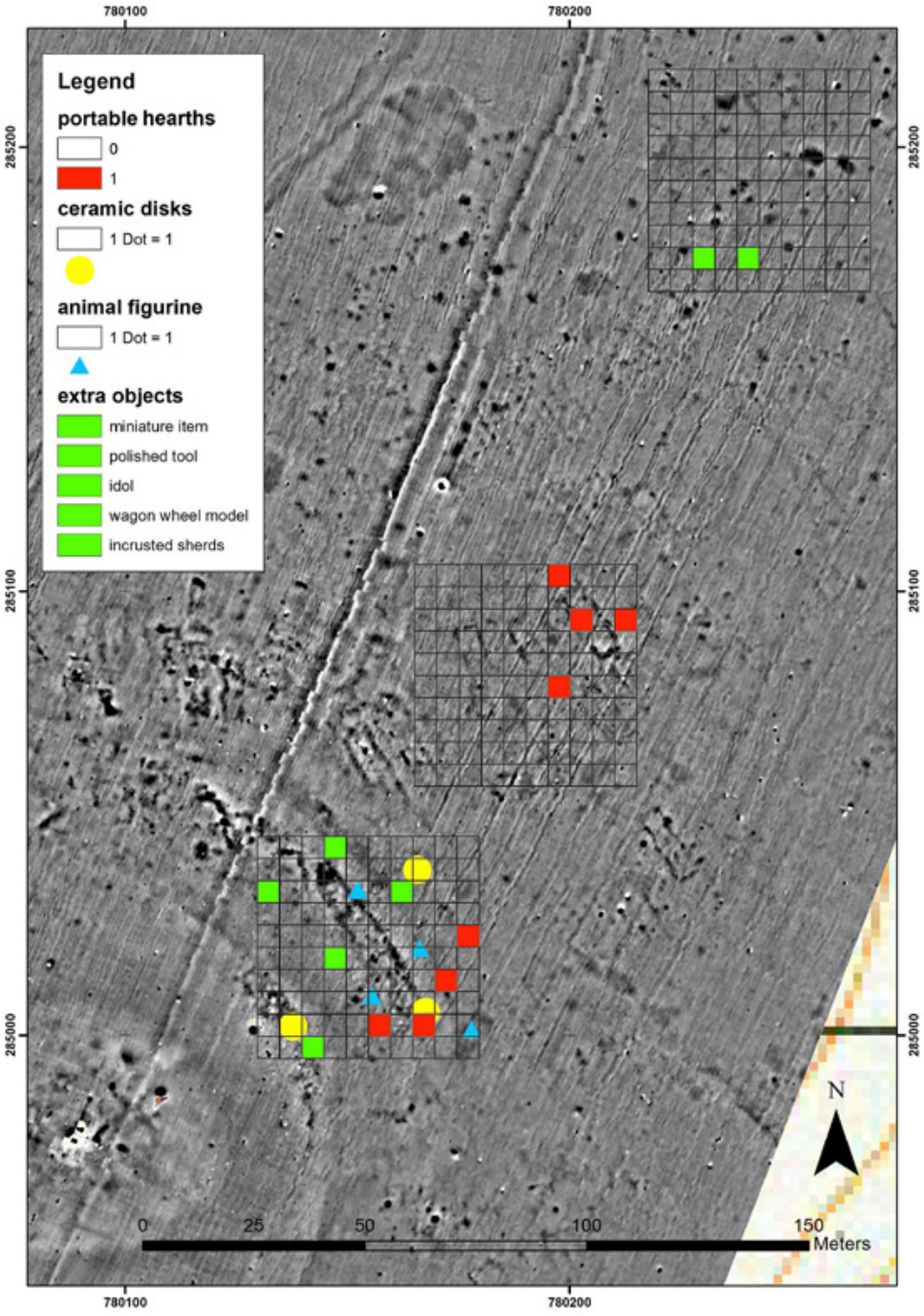


FIG. III-119: EMŐD-NAGYHALOM. RESULTS OF THE SURFACE SURVEY 2018; DISTRIBUTION OF 'SPECIAL' FINDS (ILLUSTRATION: KLÁRA P. FISCHL).

rather than trying to read them in terms of abstract and static social 'structure'.

In terms of chronology it is important that beyond general Bronze Age pottery in high numbers throughout, there is no systematic difference between grids 1 and 2, *i.e.* the respective houses covered in the outer ring versus those aligned in the rows beyond. Both sections feature Hatvan and Füzesabony style or period pottery respectively (figs. III-120 and III-121). This finding has important implications, since not only on the tell-like core but also in the outer settlement we can clearly expect, then, long-term occupation. Both parts of the site, the tell and the outer settlement, must have coexisted for a substantial period of time. It is together that in potentially changing configurations both these parts of the site (in terms of their architecture and spatial layout) and their respective inhabitants constituted the Bronze Age community at Emőd-Nagyhalom. Furthermore, in the various sections of the outer settlement as well, we can expect an Early to Middle Bronze Age occupation of some duration that can be associated conventionally with an older Hatvan period horizon and a younger Füzesabony one. So the difference noted above between the outer concentric ring

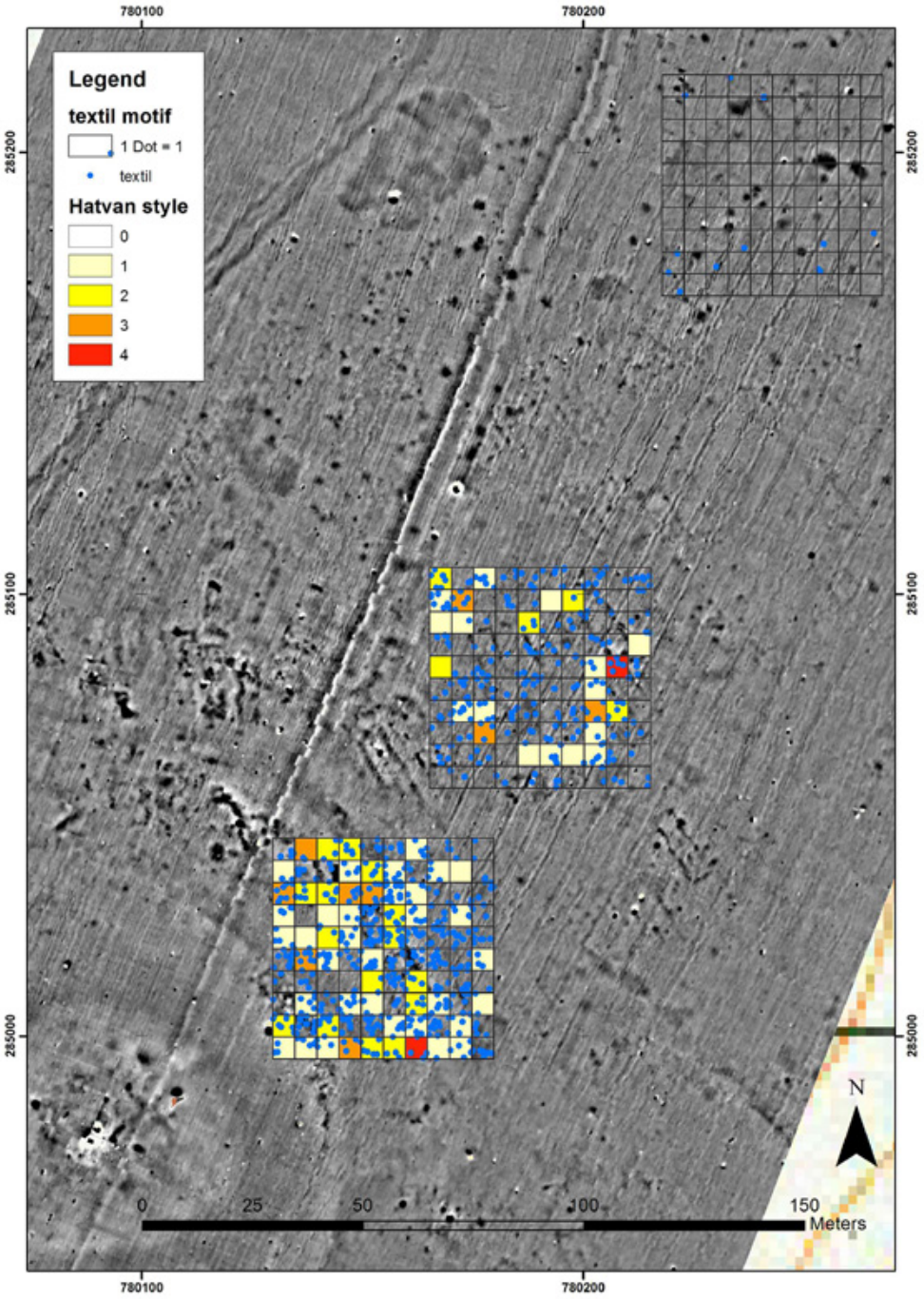


Fig. III-120: Emőd-Nagyhalom. Results of the surface survey 2018; distribution of Hatvan period pottery (illustration: Klára P. Fischl).

of houses and the rows of houses beyond must really have been one of different traditions in terms of greater direct architectural continuity in the one group on the outer ring, and the more pronounced residential mobility and lateral shift of households in the latter group resident beyond. It was not one of differences in the absolute lifespan of both sections of the outer settlement as such.

Absolute chronology, of course, is another matter, and the questions, for example, just how far, if at all, this takes us back before, say, 2000 cal BC in the outer settlement; when 'Hatvan' at Emőd was replaced by 'Füzesabony'; or when exactly the site, its tell-like core and its outer settlement, were abandoned in Füzesabony times. Such questions are difficult to answer, even with an excavation in the background, and we can only turn back briefly in what follows to our core drillings and the radiocarbon dates available so far for some supporting evidence.

We have seen above that the enclosure and the central part of Emőd-Nagyhalom had been in existence at least from the early 20th century cal BC onwards, and that its original ditch was partly backfilled presumably around the middle of the 19th century cal BC. Subsequently, the site would

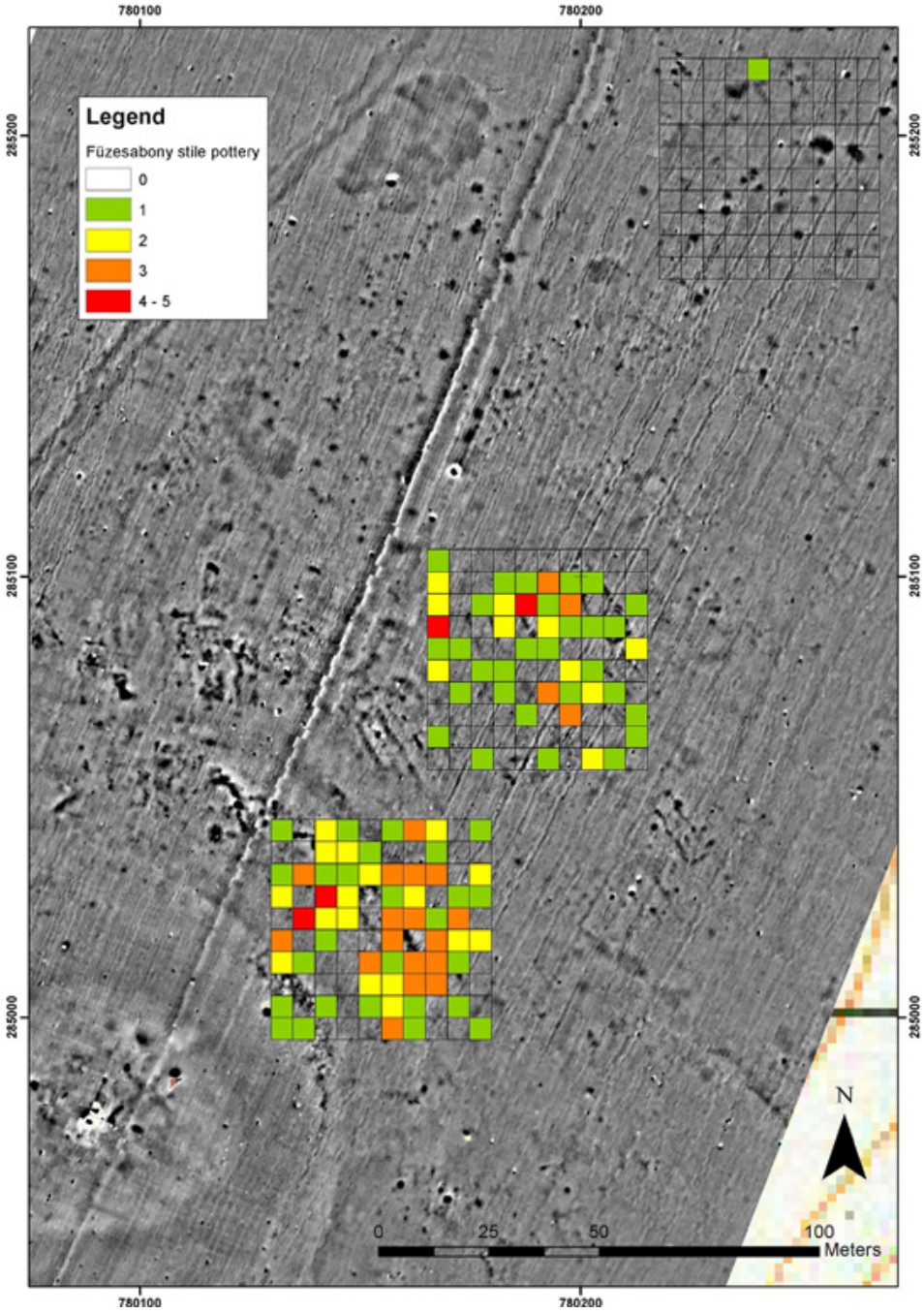


Fig. III-121: Emőd-Nagyhalom. Results of the surface survey 2018; distribution of Füzesabony period pottery (illustration: Klára P. Fischl).

have featured a tell or tell-like core enclosed by a ditch still of broadly 'normal' width in terms of neighbouring sites, plus a newly established zone of houses arranged in a concentric order along the outside of the remaining ditch and (partly) standing on top of that backfill. Based on the evidence of core 16 it was concluded, that this particular house at least was in existence and eventually destroyed by fire sometime during the second half of the 19th century cal BC thus providing a *terminus ante quem* for the backfilling of the original ditch underneath.

Beyond this, there are some additional radiocarbon dates from houses and features in the outer settlement – both from the outer ring and beyond – that may help improve our understanding of the occupation and development of this part of the site (fig. III-122). First, it has already been pointed out above that the occupation in broadly the place of the house targeted in core 16 was multi-phase, with the three radiocarbon dates already introduced referring to the end of its occupation and the final destruction layers (fig. III-97 above).[179] Underneath the debris and the clay platform of the house core 16 dated, there are redeposited settlement remains that point to a previous

[179] Sample nos. EMNA18/3 at *c.* 1918–1748 cal BC (95.4 %), EMNA18/4 at *c.* 1929–1753 cal BC (95.4 %) and EMNA18/5 at *c.* 1893–1700 cal BC (95.4 %).

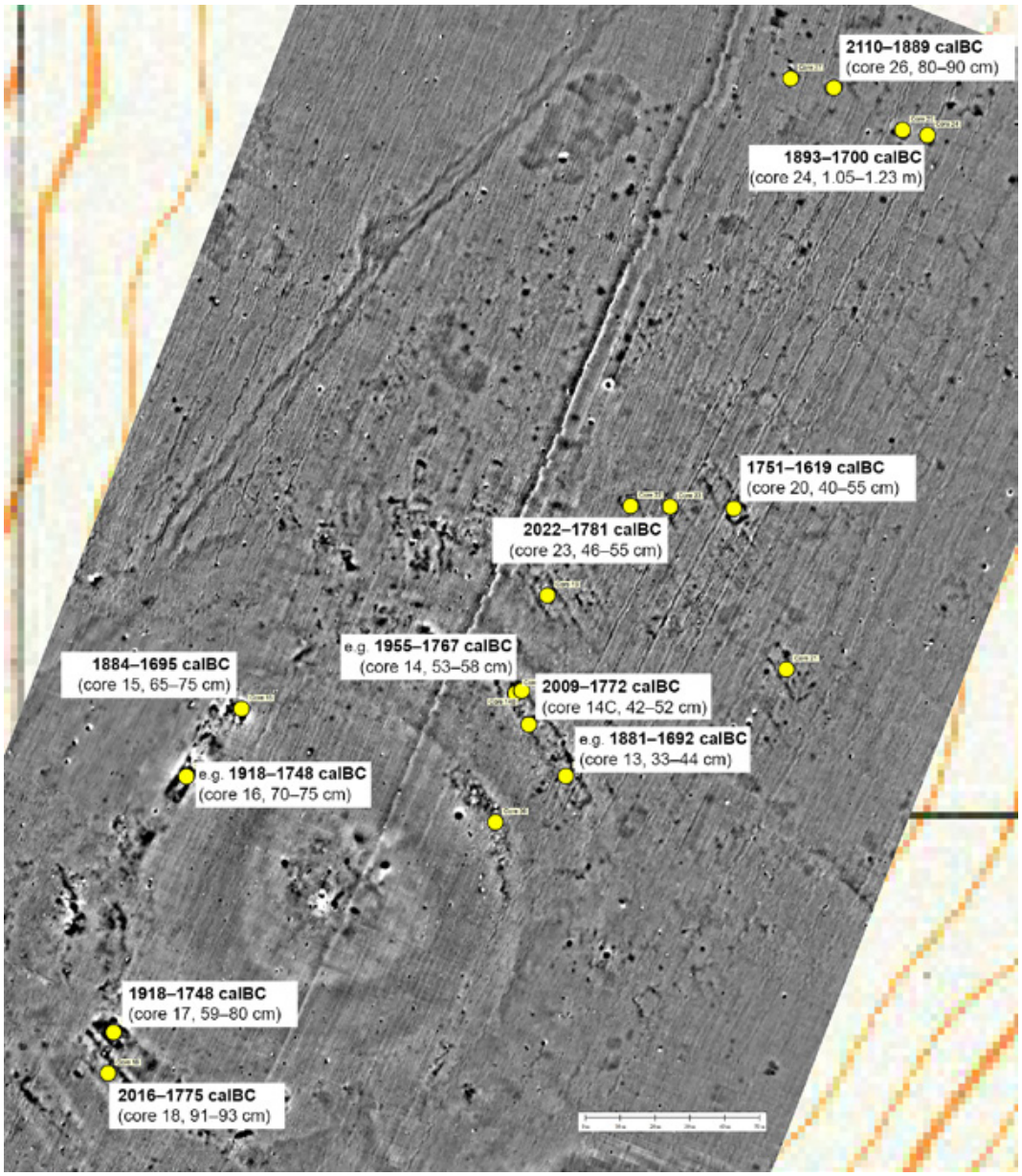


Fig. III-122: Emőd-Nagyhalom. Radiocarbon dates from houses and pits in the outer settlement mapped on the magnetometry of the site.

phase of occupation in roughly its place. Similarly, the neighbouring anomaly targeted by core 15 clearly stems from a house structure in an offset position along the long axis that is unlikely to have been standing at the same time as house core 16. From this structure there is just one radiocarbon date, unfortunately, that at *c*. 1884–1695 cal BC (95.4 %; sample no. EMNA18/22 = Beta-530462 [charcoal]: 3470 BP +/-30 [core 15, metre 1, 65–75 cm]) is just slightly younger than the dates from core 16 and shows considerable overlap (fig. III-123). We are getting towards the limits of our radiocarbon dating programme here, that of necessity often has to use long-lived sample material (*i.e.* charcoal) typically available from our core drillings, instead of short-lived samples from a proper stratigraphic sequence documented in an excavation. However, even so it is quite clear from the combined evidence of magnetometry, core drilling and radiocarbon dating, that the outer ring of houses standing along the remains of the ditch at Emőd-Nagyhalom is in fact multi-phase. It is apparent that direct architectural continuity was sought in a way reminiscent of the central multi-layer part of the site, rather than adhering to the lateral replacement seen further outside.

This also holds true, for example, in the south-west, where the houses with cores 17 and 18 are standing close by, and in magnetometry almost seem to share their north-eastern or south-western long side wall respectively (figs. III-122 and III-123). In this case, from house core 18 there is a radiocarbon date at *c*. 2016–1775 cal BC (95.4 %; sample no. EMNA18/28 = Beta-530468 [charcoal]: 3560 BP +/-30 [metre 1, 91–93 cm]), while from core 17 there is a possibly distinctly younger one at *c*. 1918–1748 cal BC (95.4 %; sample no. EMNA18/26 = Beta-530466 [charcoal]:

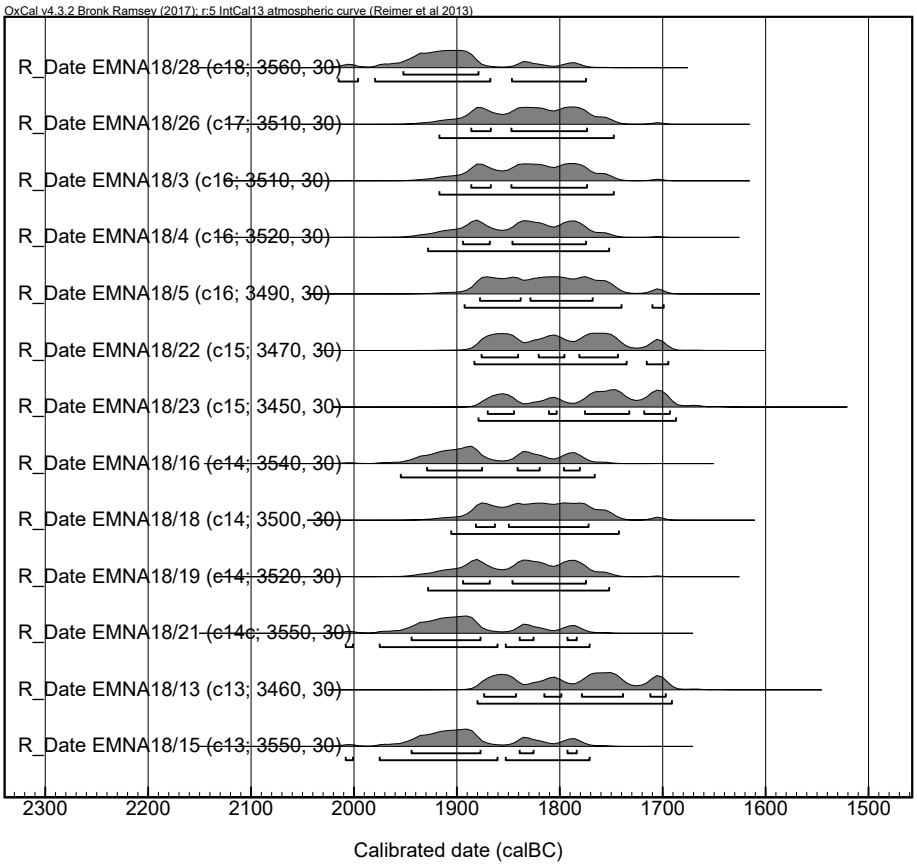


Fig. III-123: Emőd-Nagyhalom. Radiocarbon dates from houses of the outer ring partly standing on top to the backfilled ditch arranged in clockwise order starting with house core 18 (top) in the south-west.

3510 BP +/-30 [metre 1, 59–80 cm]), that imply some temporal distance between both house structures seen. It is likely, therefore, that in this section of the outer ring we have evidence of two subsequent households in broadly the same position whereby each house in itself – according to the stratigraphic evidence from our cores – may have seen more than just one phase of occupation and renewal. Similarly, in the north-east the houses targeted by cores 13 and 14 in magnetometry clearly overlap along their long axis, with some slight lateral offset apparent between their different phases. So here, too, we are looking at one or possibly two households repeatedly renewed in broadly their 'traditional' position. This impression is confirmed by core drilling that in 2018 still found *in situ* evidence of superimposed clay platforms or foundations, distinct floor levels with the remains of trampling and renewal, and destruction layers (fig. III-124). Radiocarbon dating nicely underpins the stratigraphic evidence and points to temporal depth on this section of the outer ring as well, and an occupation that may well have started already around 1900 cal BC and covered the entire 18th century cal BC (fig. III-123).

We have unambiguous evidence, then, that the arrangement of houses that developed on top of the backfill into the ditch was multi-phase itself. In this respect – as time passed by – it surely came to resemble the central, tell-like part of the site. Beyond that, given the context and the resolution of our radiocarbon dates, it is pointless to ask at this stage, in which order the households of the outer ring may have been established, in which section and when exactly this process started. As it stands, judging from house core 18, as well as from the overlapping houses with cores 13 and 14, we may have to reckon with a somewhat earlier beginning of life in the outer ring (and accordingly an earlier date of the backfill underneath) than was deduced from core 16 alone above. However, despite a possible earlier beginning and its substantial lifespan, the entire layout of this section still implies that we are dealing with *one* original conception that was carefully premeditated and strategically implemented. This applies all the more, since when the idea first came about and was subject to debate part of the building ground required to settle down right in this section of the site had yet to be made available, and this move would have required both a level of consensus and concerted action. We say part of the ground here, because while the houses with cores 17 and 18, 15 and 16, and 36 in the south-west, north-west and north-east respectively (figs. III-116 and III-122), are all standing on the backfill into the ditch, the houses sampled by cores 13 and 14 are standing on grown soil (loess on top of the underlying clay) just outside the backfill. The same probably applies for the other houses in the second, outside line of the ring. Yet they all share the same identity, or so

Fig. III-124: Emőd-Nagyhalom. Core 14B from a multi-phase house in the north-east of the outer ring, and detail of the stratigraphy in metre 1.

it seems, and they are obviously part of the same general layout. Incidentally, if the pattern aimed at could also be realised on grown soil, one wonders, why all the effort was spent in backfilling. Evidently, at some stage for a section of the population at Emőd-Nagyhalom it became important (and possible) to set themselves apart in spatial terms both from the ones further 'in' and those further 'out'. We see a shift, then, in the relative importance of different sections of the community at Emőd-Nagyhalom vis-à-vis each other. However, it will remain open if the specific solution found is an indication that a specific group (of families? of households? *etc.*), previously unheard of, for the first time successfully had their say opposite those traditionally 'inside' (*i.e.* residing on-tell), and managed to encroach on the central mound by reducing the distancing effect of its original ditch? Or was it the other way round instead, but to a similar effect, that towards the outside there was no place left to expand and build in the way intended, because there were already houses standing, in distinct rows, and occupied by people of a different tradition, origin, standing, or whatever, that would not give way so easily?

From the latter section, the lines of houses constituting the wider outer settlement, unfortunately, we only have two radiocarbon dates so far, to which one may add two Bronze Age dates from the outer 'pit'-only zone (fig. III-125). As far as the houses in this zone are concerned, this lack of samples and dates in itself is telling, since it is due to their lack of cultural layers that a couple of houses did not yield dateable material at all. This finding is a direct consequence of the alternative way of living encountered in this part of the site, since it reflects the poor preservation of houses, that never saw the building up of cultural layers and that did not expose continuity comparable to their neighbours further inside. Quite distinctly, however, this is not to claim that this part of the site as such was short-lived! Rather, there evidently was some notion of order involved in this arrangement of houses,[180] and given the evidence of the – admittedly few – radiocarbon dates it was also maintained for a considerable period of time. For both the two houses dated and the two Bronze Age pits encountered, by pure chance open a rather wide window for the occupation of this outermost section of the community at Emőd-Nagyhalom (see also fig. III-122): Thus, from the house targeted by core 23 we have a rather early date at *c*. 2022–1781 cal BC (95.4 %; sample no. EMNA18/32 = Beta-530472 [charcoal]: 3570 BP +/-30 [metre 1, 46–55 cm]), while the nearby house with core 20 at *c*. 1751–1619 cal BC (95.4 %; sample no. EMNA18/30 = Beta-530470 [charcoal]: 3390 BP +/-30 [metre 1, 40–55 cm]) points towards a significantly younger horizon. Obviously, these dates that suggest settlement activity from at least the 20th century cal BC well into the 17th century cal BC await confirmation by more radiocarbon dates. In any case, however, they are in good agreement with the presence of Hatvan to Füzesabony style pottery on the surface of the outer settlement as discussed above.

Much the same holds true for grid 3 and our outer 'pit'-only zone (figs. III-122 and III-125), even though the surface survey in this area apart from Bronze Age brought to light a considerable number of Baden period pottery as well, and from two pits we do have radiocarbon dates that fall into the 4th millennium cal BC (Kienlin/Lie/Fischl 2019: 223–228). So apparently there was a previous Copper Age occupation in this part of site, and from the number of surface finds one must conclude that some of these Baden features are just being ploughed into and destroyed.

[180] Additional groups or rows of houses can also be seen on the southern slope of the hill on which the site is located.

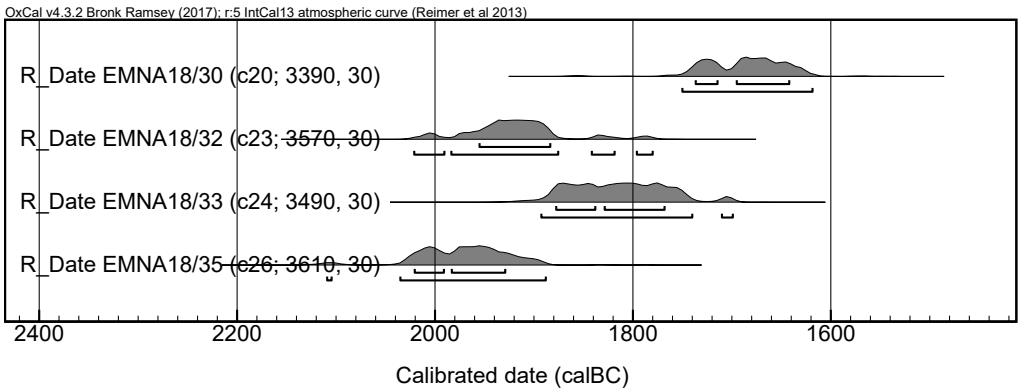


Fig. III-125: Emőd-Nagyhalom. Radiocarbon dates from two houses of the outer settlement (sample nos. EMNA 18/30 and 18/32), and from two pits in the 'pit'-only zone in the periphery of the outer settlement (sample nos. EMNA 18/33 and 18/35).

However, this Baden occupation was small-scale only: For towards the south-west, in our grid 2 on top of the Bronze Age houses, there was only one Copper Age sherd found that is obviously a dislocated stray find. Towards the north as well (where magnetometry also shows that soon we are outside the settled area) there were only two to three more pieces of Baden pottery along one of the transects where we collected surface finds. On the other hand, from two of the pits sampled at *c*. 2110–1889 cal BC (95.4 %; sample no. EMNA18/35 = Beta-530475 [charcoal]: 3610 BP +/-30 [core 26, metre 1, 80–90 cm]) and *c*. 1893–1700 cal BC (95.4 %; sample no. EMNA18/33 = Beta-530473 [charcoal]: 3490 BP +/-30 [core 24, metre 2, 5–23 cm]) respectively, we do have Early to Middle Bronze Age dates that are also confirmed by Bronze Age surface finds in this section (figs. III-120 and III-121; see also Kienlin/Lie/Fischl 2019: 227 fig. 22). So in principle our outer 'pit'-only zone still stands, with the crucial proviso that at Emőd-Nagyhalom, just like anywhere else, the existence and the precise date of such a feature has to be carefully established, not just assumed, – and that we still do not know what these pits were actually used for.

Combined, the evidence from surface survey, core drilling and radiocarbon dating leaves us with the conclusion that the three parts of the settlement at Emőd-Nagyhalom, the tell-like core, the outer ring and the wider outer settlement, in fact coexisted for a significant part of the lifespan of this community. Together their inhabitants formed one larger body, and they continued to negotiate their joint social space and social reality for a period of up to 300 to 400 years. The result was a site that was distinctly structured, but was never static, and where on one occasion, in particular, *i.e.* upon the establishment of the outer ring of houses, social space and the community as such saw a major remodelling. For ever after we see two parts of the site, the tell-like core itself and the outer ring, that distinctly relied on direct architectural continuity and traditions building up, but that remained opposed in spatial terms (both vis-à-vis each other as well as towards the outside); plus a wider outer settlement, that in local perception also 'would always have been there' and had 'always' been part of the community, but where houses and households relocated laterally and for whatever reason(s) never aspired to or never achieved the same kind of *in situ* tradition.

We encounter a layout that at some stage (*i.e.* upon the coexistence of both sections of the outer settlement) clearly may have encouraged distinctions to be made and be negotiated between households of the inner ring, seemingly emphasising their affinity to the tell-like core of the site, and those beyond. Depending on chronology, this may have involved questions such as who was on the site first or was a latecomer; who and for what reasons, be they widely accepted or controversial, was able to claim proximity to the tell-like focus of the community, partly backfill the previous ditch, and so on. On a non-discursive level, the pattern established would have brought some into closer contact through daily routines than others, thus possibly underlining their closeness in broader social terms too, favouring certain patterns of movement and corresponding encounters, and not others *etc.* It is also certainly worthwhile considering how the circular layout of the houses surrounding the central part of the site would have affected perception and communication among their inhabitants as a group and towards their neighbours – compared to the linear pattern of outer households beyond, with more clearly defined, linear distances, and possibly more prone to interpretation in terms of increasing displacement from the notional centre of the site.[181]

On the other hand, interestingly, given that there was no further outside demarcation and the ring surrounding the tell-like part was open towards the wider outer settlement, at Emőd-Nagyhalom any such potentially graded outward relations would have appeared in a little formalised manner. They may have been distinctly situational in the sense that upon various occasions different identities could be invoked: The entire community versus an outside world? The households of the 'composite' outer settlement

[181] We do not know, unfortunately, where the house entrances were located; this is another important point, of course, that would have affected patterns of perception and movement.

versus those of the tell-like core? Or, the inhabitants of the inner ring of concentrically arranged houses on themselves facing challenges both inside and outside? Plus, of course, any readjustment in membership and claims to its different zones that the site may have seen through time, as households relocated in its various parts or even joined the community from the outside.

Beyond Emőd-Nagyhalom, of course, there are other sites as well that feature evidence of more or less intensive settlement activity and houses outside their ditches. It is interesting, then, to see how the basic theme of 'outer settlement' was varied, and concerns or dynamics other than those at Emőd can be tentatively inferred. Tard-Tatárdomb, for example, in magnetometry also has unambiguous evidence of a concentric arrangement of two lines of houses in an outer ring running along the main enclosure of the site (fig. III-126). These houses or households clearly would have stood in a comparable spatial relation to the inner tell-like core like at Emőd, and as an architectural setting they would have encouraged similar patterns of movement or perception *etc.* However, we have already seen above, that this arrangement at both sites had a different history. At Tard-Tatárdomb, where the houses of the outer ring stand on grown soil, it apparently came about without all the previous debates and modifications to a preexisting, excessive ditch like at Emőd-Nagyhalom. Furthermore, at Emőd the ring of houses established on the partly backfilled ditch (and somewhat beyond), blends into a wider outer settlement without any further 'demarcation' other than the greater stability of its households compared to the outside and the orientation of its houses. At Tard-Tatárdomb, on the other hand, there is an additional outside demarcation visible in magnetometry ('ditch 2'), beyond which there is comparatively little evidence of settlement activity (Kienlin/Fischl/Pusztai 2018b: 237–239). So at least at some stage, upon the coexistence of both enclosures, the outer ring of houses may have been all the 'outer settlement' that there actually was. On a higher level we see the entire community at Tard physically enclosed and integrated, *i.e.* both the inhabitants of the tell-like core and those of the outer ring, while the community at Emőd-Nagyhalom clearly opted for the 'immaterial' approach to delineation vis-à-vis the outside world. It is worth, therefore, to have a closer look at what we know about the outer settlement at Tard-Tatárdomb and its development before moving on to a couple sites where different ways were found and chosen to organise social space in their outer sections.

In the outer settlement at Tard-Tatárdomb, defined in the above sense as the zone between the inner two-phase ditch and the outer demarcation, there is evidence from magnetometry of more than ten houses, in some cases partly superimposed and potentially multi-phase, the general location and orientation of which is thought secure, and that are arranged into two distinct lines. Magnetometer data, of course, is biased towards burned structures, so theoretically there may have been more (unburned) houses, both along the lines described, and

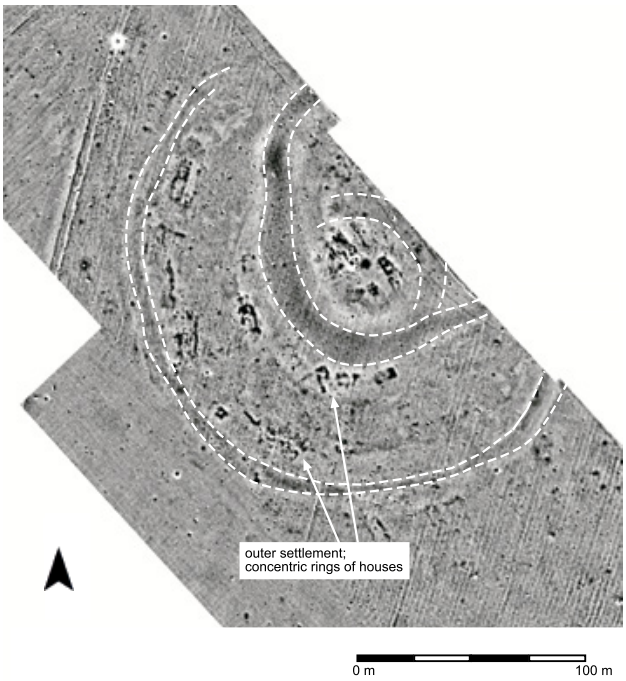


Fig. III-126: Tard-Tatárdomb. Interpretation of the magnetometer data highlighting the concentric arrangement of two lines of houses in an outer ring running along the enclosures of the site (greyscale plot; data range [black to white]: +/- 10 nT).

in principle also in between them. There is, however, a good overall match between the burned houses seen in magnetometry and somewhat broader sections with slightly negative (*i.e.* lighter) background readings in the magnetometer data (fig. III-126). The latter are due to the specific magnetic properties of broadly speaking cultural layers building up in this zone in consequence of anthropogenic soil formation processes (accumulated settlement debris and/or the remains of houses). So it is unlikely that we are missing a substantial number of unburned houses, and we are fairly certain that the general pattern observed is indeed the original one. There were two lines of houses, then, arranged in concentric order parallel to both the inner and outer ditches, situated at a distance of *c.* 15 m to 20 m from each other. The distance kept from the inner ditch was somewhat smaller (down to *c.* 2 m to 3 m only in some sections) than on the outside where the houses are situated *c.* 5 m to 6 m away from the anomaly caused by the outer enclosure. Neither in Tard nor on any other site, as has already been stressed repeatedly, do these houses differ in size and layout from those on the central tell or tell-like part. Similar to the core area in the outer settlement as well it is evident from the cultural layers accumulating in and around the houses and the core drillings that we see a longer and at least in some sections multi-phase history of occupation. Finally, beyond the outer demarcation there is evidence from magnetometry of occasional 'pit' anomalies. The interpretation of this outer zone in functional terms is still unclear. So far we lack any evidence of a concentration of specialised activities such as craft production or large-scale communal herding or storage. Hence, it is still unknown what activities precisely

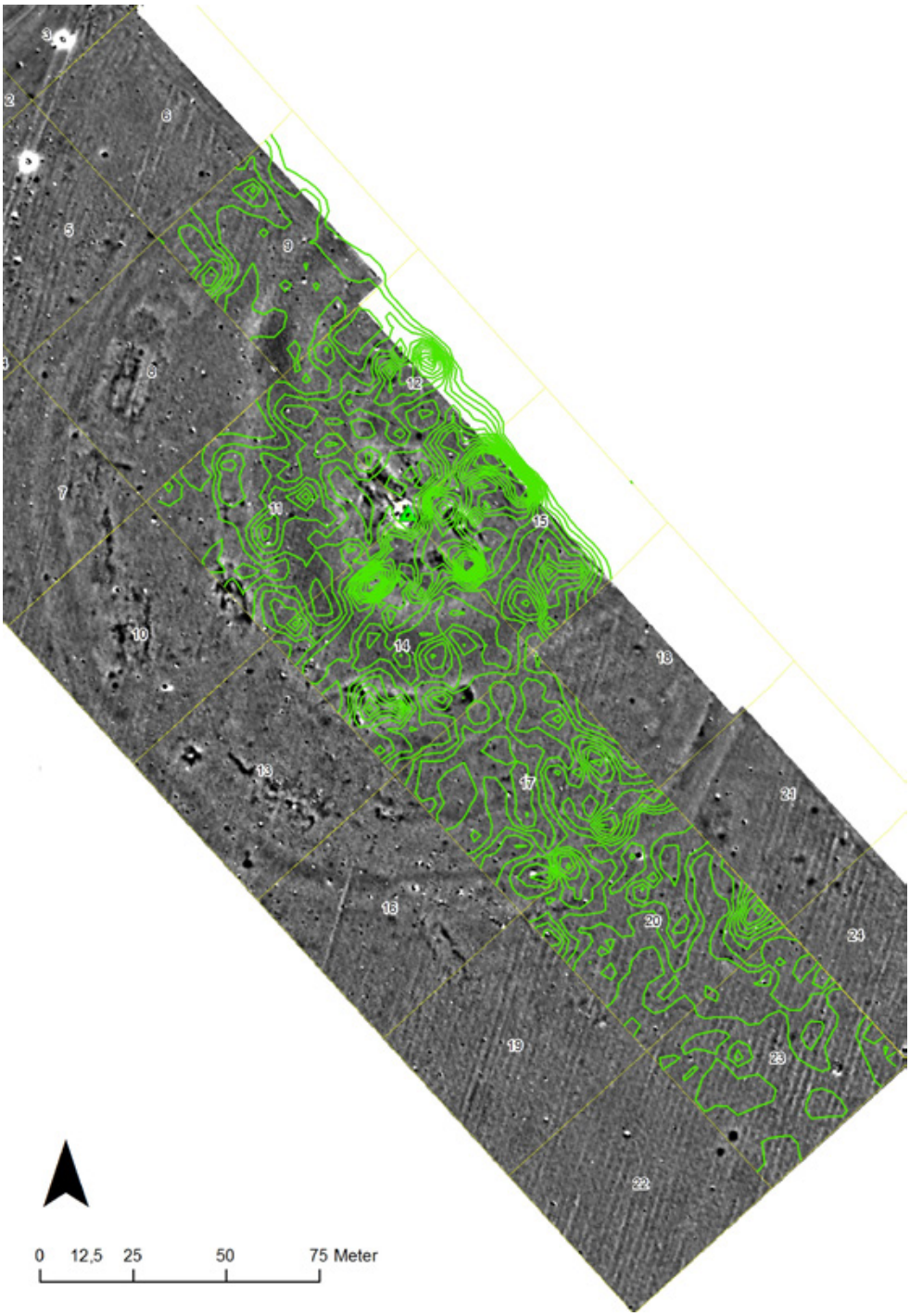


Fig. III-127: Tard-Tatárdomb. Results of the surface survey 2012; density of surface finds, contour lines overlying the magnetogram (illustration: Klára P. Fischl).

were carried out in this area devoid of proper architectural remains (as far as the magnetometry can tell), and what use was made of the occasional underground features or 'pits' that show up in the magnetometer data.

A systematic surface survey was carried out at Tard-Tatárdomb already in the early phases of the BORBAS project in 2012, and the results obtained by Klára P. Fischl have been reported on elsewhere (Fischl *et al.* 2014: 348–355). In terms of the general frequency of finds the obvious is confirmed in that the multi-layer core of the site and the nearby, more densely occupied parts of the outer settlement or ring yielded a much higher count of finds than the outer zone with occasional 'pit' anomalies only (fig. III-127). As one moves outwards across the ditch that features surface finds eroded from the adjacent higher sections of the site, and onto the outer ring of houses as indicated by magnetometry the number of finds increases significantly, and, importantly, both such of the Hatvan and Füzesabony periods are present (figs. III-128 and III-129). This is important evidence, and it is thereby proven that the outer settlement, *i.e.* the zone between the inner

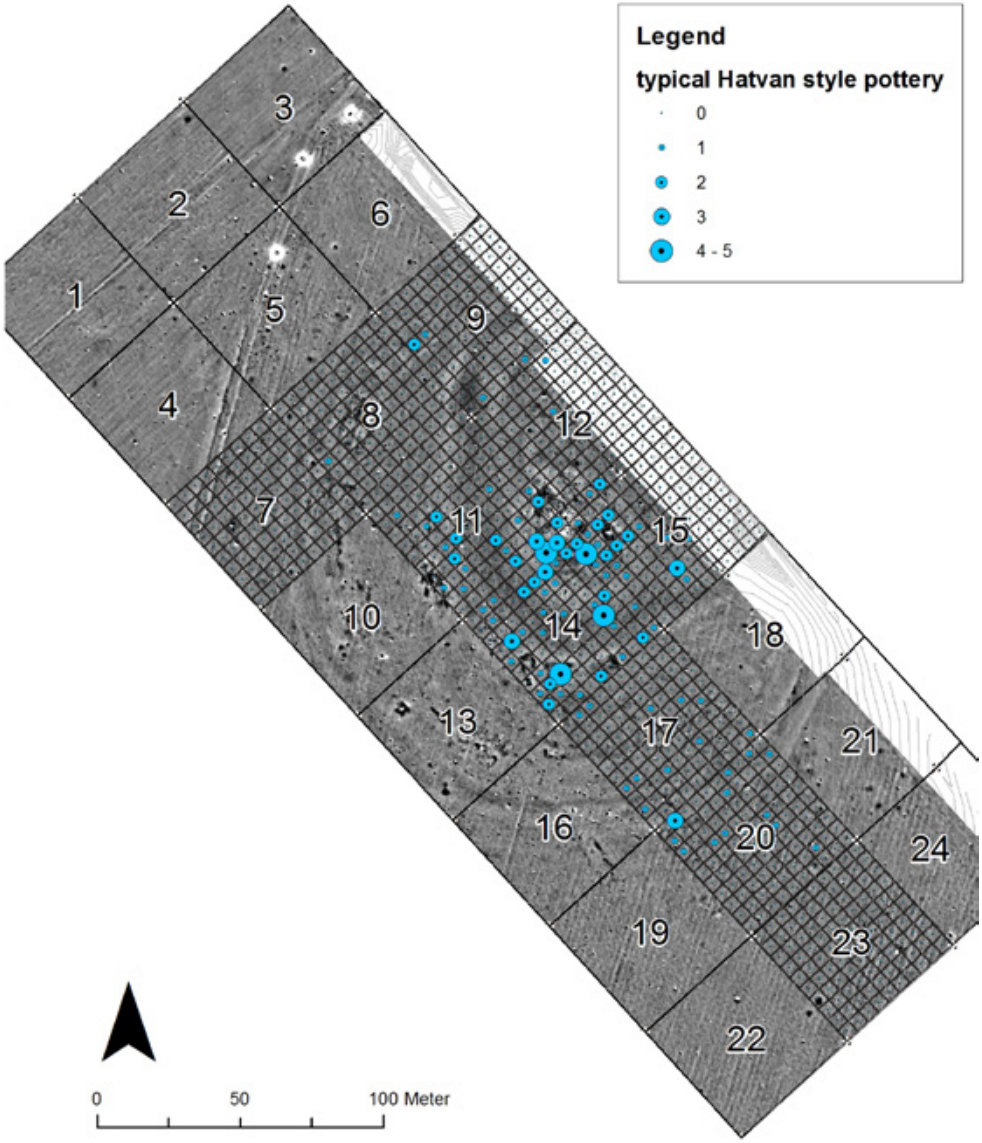


Fig. III-128: Tard-Tatárdomb. Results of the surface survey 2012; distribution of Hatvan period pottery (illustration: Klára P. Fischl).

ditch(es) and the outer demarcation, was occupied during both the Early and Middle Bronze Age.

A more detailed inspection of the surface data shows, that even individual houses visible in magnetometry may be recognisable by a concentration of surface finds. The best example comes from the southern corner of grid 14, where two adjacent houses are overlain by a very clear concentration of surface finds (fig. III-127). These houses as well as their neighbours in aerial photography correspond to greyish patches of topsoil thought to represent soil formation processes in consequence of intense human occupation or genuine cultural layers (fig. III-110 above). It is informative to see this assumption confirmed by the high density of surface finds, that also point to intensive settlement activity. In a similar vein, the phase maps imply that this part of the outer settlement indeed had a somewhat longer tradition and was occupied both during Hatvan and Füzesabony times (figs. III-128 and III-129).

In the neighbouring grids 17 and 18 there are two of the reddish patches on the surface thought to represent the yellow-reddish clay excavated from the adjacent ditch and deposited in the area of the outer settlement. This, too, is nicely confirmed by the evidence of surface finds, since in fact the density of pottery found on the surface declines as one moves onto the reddish to brown stretches under discussion (figs. III-110 and III-127). Hence, surface evidence and magnetometer data are in good accordance, both suggesting that we rather not have to expect intense occupation and architectural remains underneath the reddish patches on the surface. Instead, these represent plots of land in the outer settlement where upon the digging of the enclosure excavated material was deposited, and that afterwards did not see intense habitation covering these patches.

Finally, it is noteworthy that occasional finds of ‘special’ artefacts such as portable hearths, animal figurines, miniature axes, clay discs and wagon models are present

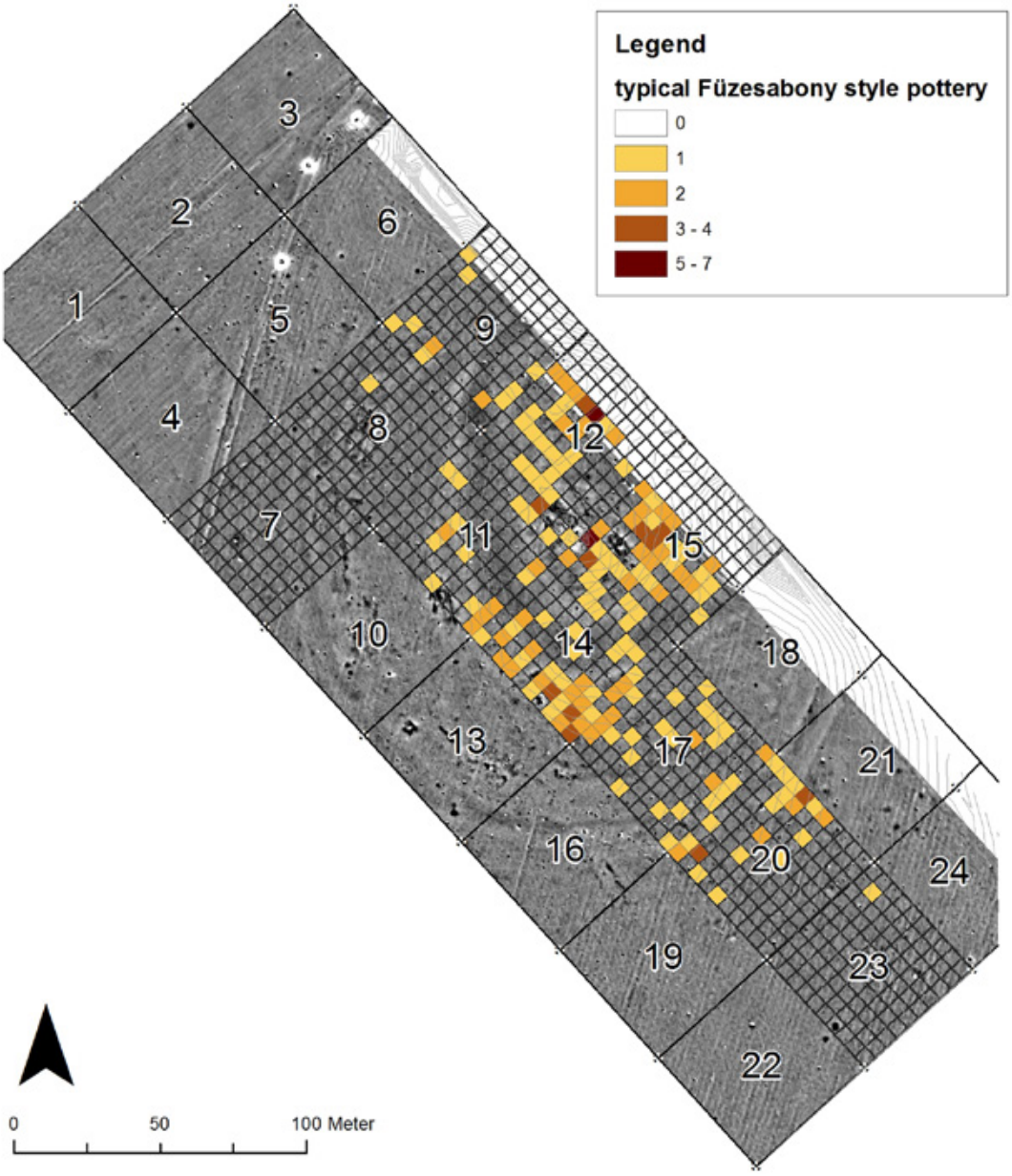


Fig. III-129: Tard-Tatárdomb. Results of the surface survey 2012; distribution of Füzesabony period pottery (illustration: Klára P. Fischl).

throughout from the central tell-like core area via the outer settlement or ring as delimited by the inner and outer ditches, and even into the outermost 'pit'-only zone (fig. III-130). Some of these finds may correspond to house remains as visible in the magnetometer data. Others may have been moved around on the surface for a couple of metres by the agricultural activities on the site. However, it is quite clear that such objects do make their appearance in both the inner and the outer part of the settlement. If understood in social and ritual terms, the occurrence of such items throughout the entire settlement would rather seem to argue against substantial differences in social standing or economic success *etc.* between the inhabitants of the different parts of the site, or different ritual obligations or other activities overseen by them. Overall 'equality' of households is also indicated, of course, by the presence of houses of comparable size, layout and architectural details such as building materials (insofar as their magnetic 'fingerprint' is similar) throughout the site as already mentioned above.

Turning back to chronology, two findings are noteworthy from the above discussion. First, surface finds from the outer settlement comprise both Hatvan and Füzesabony style pottery. So in terms of pottery chronology we can expect an occupation of a certain lifespan and coexistence of the outer settlement part with the central tell-like core throughout both the Early and Middle Bronze Age or at least a certain period of each of these. Second, this impression of longevity is also confirmed by anthropogenic soil changes, geomagnetics and core drilling, that unanimously point to the existence of multi-phase households in the

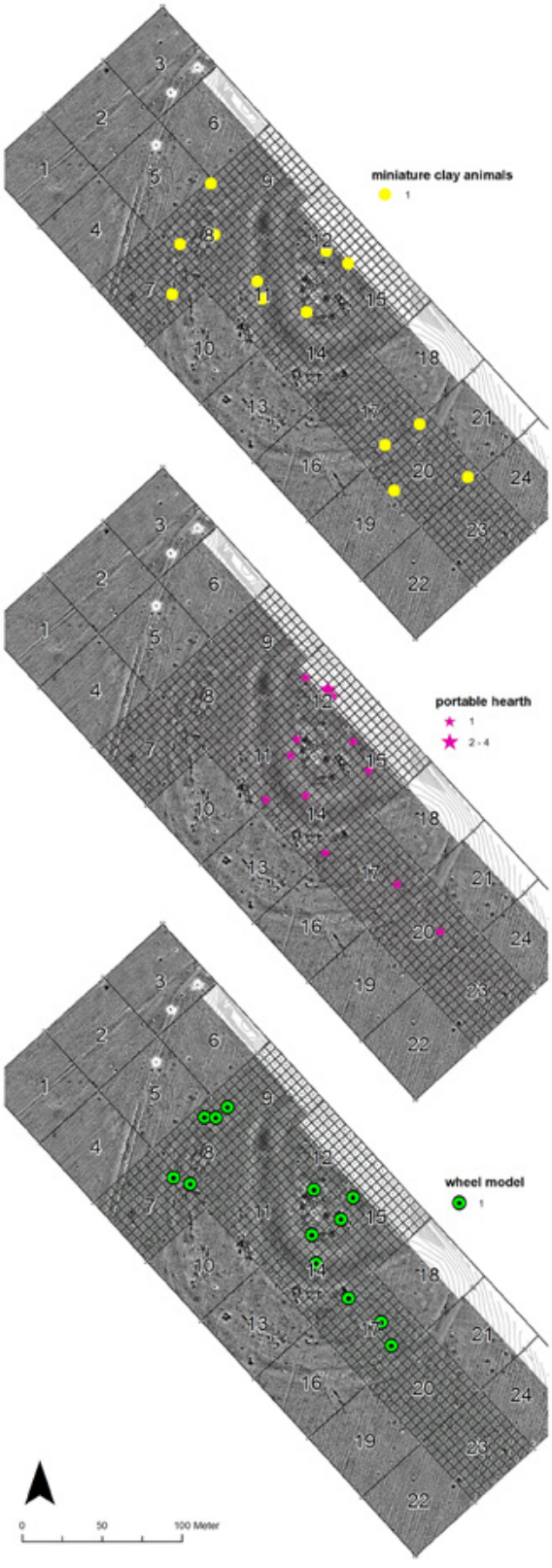


Fig. III-130: Tard-Tatárdomb. Results of the surface survey 2012; distribution of clay animal figurines, portable hearths and wagon models (wheels) (illustration: Klára P. Fischl).

outer settlement at Tard-Tatárdomb, of houses partly superimposed and renewed in broadly their 'traditional' place.

Just what this means in absolute terms is more difficult to say. In the meantime, we can turn here to a couple of radiocarbon dates obtained from core drilling in the houses of the outer settlement (figs. III-131 and III-132). With an oldest date at *c*. 2118–1883 cal BC (95.4 %) from house core 9 situated in the western section of the outer line of the ring (sample no. TAR17/5 = Poz-104966 [charcoal]: 3605 BP +/-35 [core 9, metre 1, 78–95 cm]) and a youngest date from house core 5 somewhat further north along the same outer line of houses at *c*. 1878–1664 cal BC (95.4 %; sample no. TAR19/3 = Beta-541428 [bone]: 3440 BP +/-30 [core 5B, metre 1, 45–60 cm), we have positive evidence for occupation from at least say *c*. 2000 cal BC onwards and right through to the end of the 18th century cal BC if not beyond. It is unclear if the dates that we have from core drilling with poor stratigraphic information and no archaeological material to correlate with, should be sorted into two distinct horizons corresponding to 'Hatvan' and 'Füzesabony'. In any case, however, even though the number of dates is still limited we clearly see both a somewhat older horizon of, say, the 20th century cal BC, and a somewhat younger one comprising the 19th and 18th centuries cal BC both well represented in our data. A consequent 'start' date for the outer settlement at around or even somewhat before 2000 cal BC would be well in accordance with the evidence from the central core and ditch discussed above (fig. III-73).

It is certainly possible, therefore, based on the current data that the central tell-to-be, its enclosure, and at least the occupation of certain sections of the outer settlement or ring were established at about the same time. As such, and unlike Emőd-Nagyhalom discussed before, both sections of the site may well have formed part of one original community with a coherent conception of how to live (in spatial terms) in an internally divided setting. However, given the poor resolution of our radiocarbon dates it cannot be ruled out either that the 'central' part of the site with its enclosure was established somewhat earlier and in advance to further groups of people or households settling down in its immediate surroundings a bit later. In any case, and again unlike Emőd-Nagyhalom with its structured, bi-partite outer settlement, at Tard-Tatárdomb at some later stage both these sections seem to have been integrated closely enough to express themselves towards the outside world as *one* larger community by establishing an additional outside demarcation ('ditch 2' as discussed above). Instead of the apparent negotiation going on at Emőd among the inhabitants of the wider outer settlement, those of the outer ring, only established later, and both potentially facing those on-tell, at Tard with the Füzesabony period expansion to its central part and its outer ring or settlement, uncontroversial, undivided internally and potentially part of the community for 'time beyond memory' in exact this constellation, we see social life unfolding along quite different trajectories.

Fig. III-131: Tard-Tatárdomb. Radiocarbon dates from houses in the outer settlement mapped on the magnetometry of the site.

The other end of the sequence is more difficult to judge, since unlike the infill of the enclosure of the central part that is suggestive of a decline in settlement activity only in the 16th century cal BC (see above), from the outer settlement so far dates younger than *c*. 1700 cal BC are distinctly missing (fig. III-132). Since we assume that the outer settlement is multi-phase, and its houses as seen in magnetometry are currently being destroyed by ploughing (see above on some of them being visible as distinct clusters of surface finds), it is possible that the youngest, uppermost layers or phases are lost. In core drilling, that is to say, we may only have hit upon the earlier layers surviving, and further bias may have been introduced since in the choice of samples for radiocarbon dating we typically try to avoid any surface-near layers potentially disturbed by ploughing *etc.* Alternatively, of course, we may in fact be looking at some ancient reality, and the outer settlement at Tard-Tatárdomb, or just a certain part of it or specific households, may in fact have come to a somewhat earlier end than the occupation of the central mound and its enclosure. Such questions, unfortunately, tend to be beyond the resolution of radiocarbon dating, and it will always remain unknown just how much of the original stratigraphy was lost by erosion and agriculture. Thus, too, it is speculation only that since we see large sections of the outer settlement at Tard-Tatárdomb burned, we may be looking here at a distinct event that brought the outer part of the site to an early end. Such is always theoretically possible, of course, but from the radiocarbon dates that are available an asynchronous end of individual households in the outer settlement is certainly conceivable as well.

Maklár-Baglyashalom like Tard-Tatárdomb features evidence of an outer demarcation. And it has been argued above that maybe in the semi-circular 'outer' settlement defined by both enclosures there are also indications of a concentric arrangement of houses comparable to Tard, but magnetic visibility or preservation are poor in this case. One last site in this group may be Tiszakeszi-Szódadomb where a broadly semi-circular zone *c.* 25–35 m wide outside the ditch is set apart by its slightly negative background readings and frequent anomalies. From the southern section of this zone there is fairly certain evidence of at least two rather badly preserved houses arranged in concentric order with their long sides parallel to the ditch (Kienlin/Fischl/

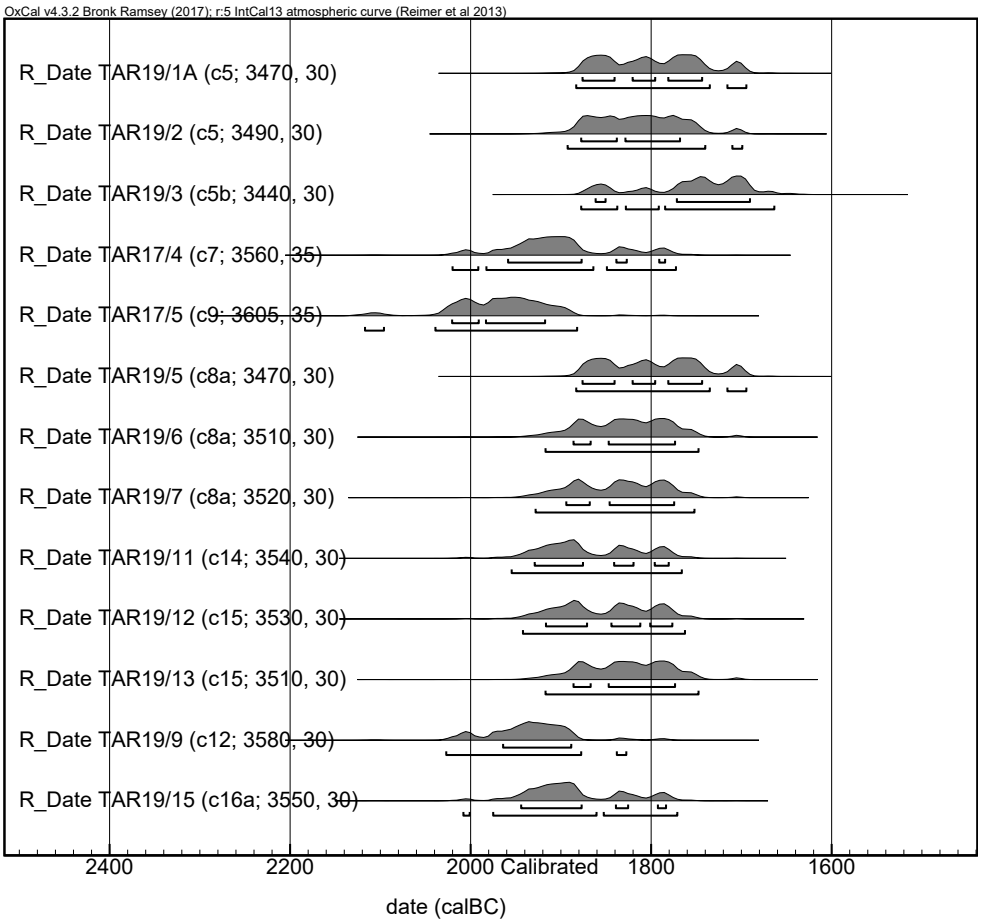


Fig. III-132: Tard-Tatárdomb. Radiocarbon dates from houses of the outer ring arranged from north to south starting with house core 5 (top) in the north.

Pusztai 2018b: 267–273). It is possible, therefore, that the overall pattern observed is similar to Emőd-Nagyhalom and Tard-Tatárdomb with a distinct ring of houses running along the outside of the ditch and set apart from the wider outer settlement by their orientation and potentially by the thickness of cultural layers. Beyond, in this case, it is uncertain whether there was a second, outer demarcation: The anomaly in question is not well defined and in its northern section shows a kind of branching, with a broader anomaly curving out west while a smaller one seems to run straight north for up to *c*. 25–30 m, which so far is unique. For the time being and prior to a systematic core drilling programme at this site it is impossible to decide if this anomaly is of Early to Middle Bronze Age date or belongs to some later phase of activity in the area (see also Fischl/Kienlin 2015). It is unclear, too, if it stems from some kind of demarcation at all, or possibly instead from some kind of track or temporary watercourse bypassing the elevation of Szódadomb on this side. If such doubt were confirmed, we would have here an unbounded transition towards the wider outer settlement like at Emőd-Nagyhalom. Unfortunately, however, since at Tiszakeszi-Szódadomb this outer zone only shows more or less clearly bounded general 'pit' anomalies, it is impossible to infer the layout and orientation of houses and compare it to the inner ring.

Finally, with Vatta-Testhalom we are moving on to the group of sites that definitely feature an alternative arrangement of social space in their outer settlement. Thus, for example, at Vatta-Testhalom in front of the ditch there is a zone, *c*. 25–30 m wide, which is notable in the aerial photography for a few distinctly reddish and mainly grey patches of topsoil that apparently stem from material relocated from the adjacent ditch and accumulated settlement debris. This feature corresponds with Emőd-Nagyhalom, Tard-Tatárdomb and perhaps Tiszakeszi-Szódadomb, but unlike Emőd and Tard at Vatta rather than a distinctly concentric pattern the houses in this zone show the general north-west to south-east orientation also evident in the wider outer settlement. In this case, this pattern also extends into a north-western section of the site already excavated in 2009 and 2010 that features Hatvan and Füzesabony period house remains nicely matching those deduced from our magnetometer data further inside (fig. III-133; Fischl *et al.* 2019). Compared to Emőd-Nagyhalom, this finding is of interest because although the intensity of occupation may have been somewhat greater in an inner section, in terms of the orientation of its houses this inner zone is hardly set apart but seamlessly blends into the wider outer settlement beyond (Kienlin/Fischl/Pusztai 2018b: 275–280). This layout may in fact have discouraged attempts

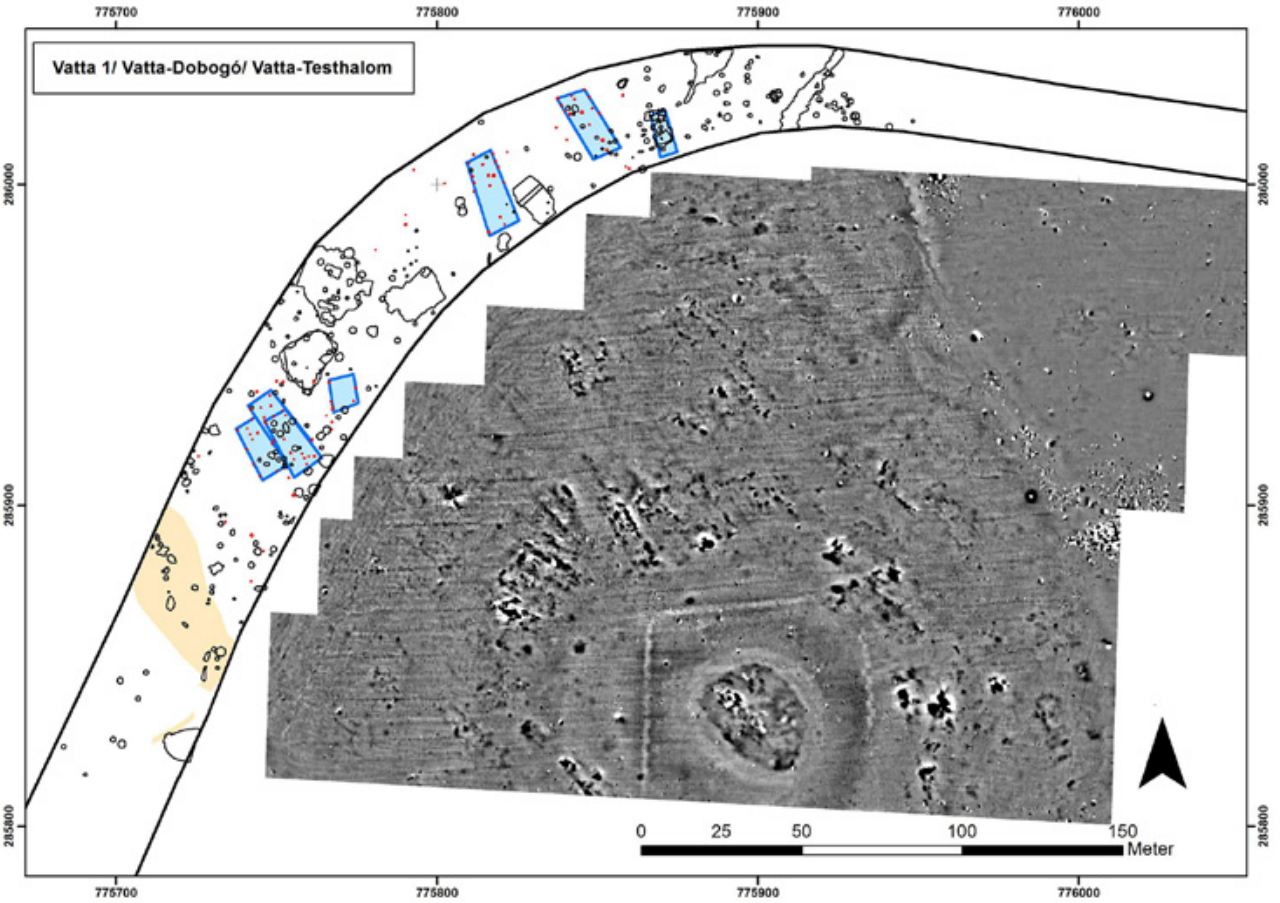


Fig. III-133: Vatta-Testhalom. Layout of the outer settlement; magnetometry and the results of a rescue excavation compared (after Fischl *et al.* 2019: 239 fig. 8).

at further differentiating among the households in the outer settlement. Or at least any such distinctions in terms of movement and perception would have had to rely on just one dimension, *i.e.* relative distance from the tell-like core, rather than also drawing on the different orientation of houses, their long sides merging and facing outward repellently, or doorways potentially opening towards the inside to the tell-like core rather than the wider outside community *etc.*

Most likely, a similar pattern can be observed at Ároktő-Dongóhalom, where the surviving outer part of the site to the north and west of the mound, shows rather intense settlement activity with evidence of burned houses up to *c.* 80 m outward from ditch 2 (fig. III-134; Kienlin/Fischl/Pusztai 2018b: 149–154). Beyond that, occasional house remains and general 'pit' anomalies can still be observed. Preservation is worse in this case than at Vatta-Testhalom, but both sites clearly indicate a tendency of houses and households under this kind of settlement layout to be arranged into broadly discernible rows. At Ároktő-Dongóhalom the predominant orientation of the inferred houses is north-west to south-east, and there may have been up to three rows of them, although certainly not all the houses were in existence at the same time. The same holds true for Tiszakeszi-Bálinthát Újtemető, where we have relatively good evidence of a line of burned houses from the area (south-)east of the site's tell-like core, starting in the magnetometer data *c.* 30 m outside the ditch (fig. III-135). These north-west to south-east oriented structures have not been covered by surface survey but judging from their size and orientation should qualify as tell-period houses. In the entire eastern area, there are additional groups of strong anomalies, sometimes elongated, that may point to the existence of further although less clearly discernible Bronze Age houses (Kienlin/Fischl/Pusztai 2018b: 259–265). Towards the north-east *c.* 90 m outside the ditch there is a line of at least two houses of unusual length in terms of the Bronze Age houses identified on our sites so far (up to *c.* 23 m), plus an accompanying smaller one; they share the predominant north-west to south-east orientation, but an extension of the surface survey is required to establish their Early to Middle Bronze Age date or otherwise.

Yet another pattern can possibly be identified at Tibolddaróc-Bércút where there are indications of distinct clusters of houses to the south and north-west of the enclosed core area (fig. III-136), rather than the rows of houses evident or postulated at Ároktő-Dongóhalom, Tiszakeszi-Bálinthát and Vatta-Testhalom. This pattern still has to be verified by a continuation of our surface survey, to exclude the possibility of unburned houses not showing in the magnetometer data in the 'empty' stretches between

Fig. III-134: Ároktő-Dongóhalom. Interpretation of the magnetometer data indicating the arrangement of houses in the outer settlement into distinct rows (greyscale plot; data range [black to white]: +/- 10 nT).

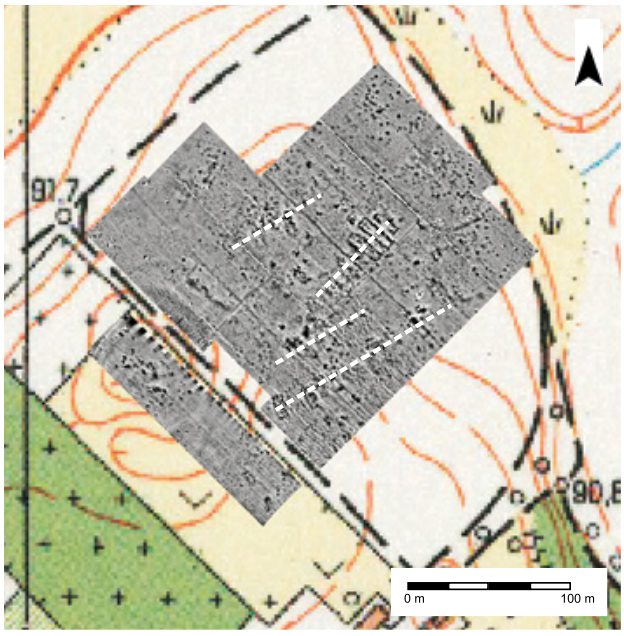


Fig. III-135: Tiszakeszi-Bálinthát Újtemető. Interpretation of the magnetometer data indicating the arrangement of houses in the outer settlement into distinct rows (greyscale plot; data range [black to white]: +/- 10 nT); note that the group of three unusually large houses in the middle row of slightly different orientation awaits verification of its Bronze Age date.

the groups of houses that are discernible (Kienlin/Fischl/Pusztai 2018b: 245–250). However, since the clustering of houses broadly corresponds with concentrations of general 'pit' anomalies, that neither require burning to show magnetically nor are prone to erosion in the way surface-near houses are, we are confident, that the clustered layout postulated will stand. This would be important evidence for the persistence of a traditional segmentary pattern with house clusters as residential foci in the surroundings of our Borsod sites – or, depending on chronology, of the

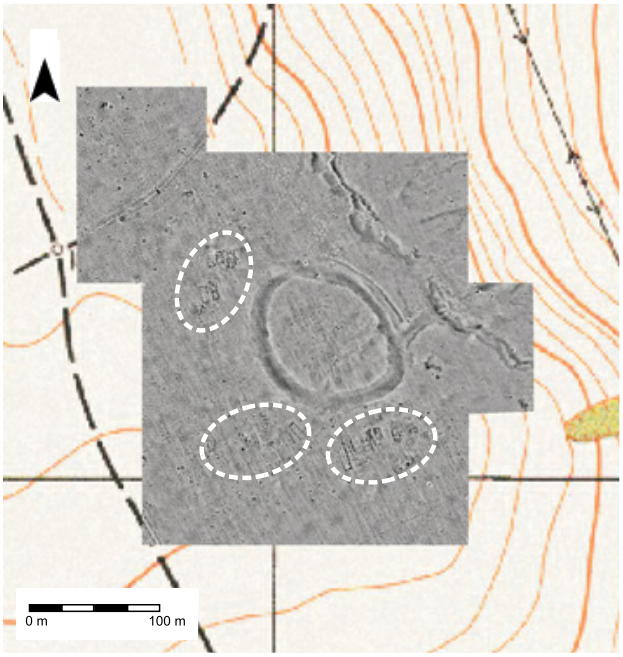


Fig. III-136: Tiboldaróc-Bércút. Interpretation of the magnetometer data showing the potential arrangement of houses in the outer settlement into distinct clusters (greyscale plot; data range [black to white]: +/- 10 nT).

tells themselves developing from and as part of a larger preexisting settled area. Clearly, then, we also have to consider if clusters or rows of houses point to the same or different collective identities such as kinship, and what impact their specific spatial layout may have had on the mechanism of integration or affiliation involved.

Summing up, even though research in the outer settlement part of Bronze Age tell communities is still very much in its beginnings throughout the Carpathian Basin, it should have become clear that we can grasp in outline the substantial variability to be expected in terms of the intensity of occupation and its overall size; in terms of the development of this part of our sites through time; and in terms of the different spatial structure and arrangement of households. The outer part of our sites, that is to say, was never static, but this section of our Borsod communities as well was subject to constant negotiation and potential change as families and households settled in the surroundings of a multi-layer tell or tell-to-be, distinctions were made or solidarity was stressed, and various different concerns were reflected and reproduced in a malleable architectural setting.

In terms of Bronze Age perception and 'agency' affecting social space the outer settlement may often have been the most informative and striking part of our sites. At least it was the section first encountered and passed through coming from the outside, and it may have invited initial assessment of the community one was about to be involved with. When compared to other settlements the intensity of its occupation may have been dramatically different as some sites thrived while others did not at exact this moment

in time. We obviously do see families, kin groups or households present that maintained different traditions, that engaged in different practices and patterns of movement. These groups of people were continuously involved in the negotiation of their social standing and reality both vis-à-vis their immediate neighbours from the different sections of the outer settlement itself and their contemporaneous 'tell-dwellers' who occupied the central core of their community. As such, the tell and outer settlement were never static entities, but continuously reproduced in terms of the mutual standing and relationship of their inhabitants, drawing on, continuously reproducing and potentially modifying the material world and architectural setting at their disposal. They were also never static entities with regard to the potentially fluid boundaries between on-tell and off-tell households. However, in this social process, as already outlined above, the outer settlement may well have been the more fluid and dynamic section of our Borsod communities than their central part that may have fallen rather on the 'structural' side for most of the time – even though, of course, this also has to be shown in every specific case rather than flatly assumed.

IV. Tell-Living

IV.1 The Tell Plenum of Practices

How, then, did people live out their lives on the Bronze Age Borsod plain? And what can we know about the conceptions they held, drawing as they did upon a material universe inherited from their predecessors, both the outcome of action and prefiguring future practices?

Before we proceed, it is important here to recall a couple of points that emerge from the preceding discussion. From the perspective of practice theory adopted in this study there is no such thing as preexisting social 'structure' or social totalities that are more than or qualitatively different from their constituent parts. Instead, one way or the other it is argued that sociality is fundamentally grounded in practices, that is – in the Schatzki (1996; 2002) version favoured above – in arrays or bundles of organised human activities that are linked and oriented by shared practical understandings, by norms or rules, and by joint ends or 'teleoaffective' structures. Furthermore, social life thus conceived is thought of as inherently tied to material arrangements which are thereby granted compositional significance for human coexistence and sociality.

'Macro' phenomena from this perspective – unlike assemblage theory (DeLanda 2016) – decidedly are not emergent wholes somehow reified into a kind of higher objective existence. Instead, Schatzki (2019a: 26–50) proposes the notion of the practice 'plenum', where myriads of bundles or nexuses of practices and arrangements are linked and connect to form broader constellations, but where the plenum '[...] like its constituent bundles and constellations, is nothing more than the practices, arrangements, and relations that compose it.' (Schatzki 2019a: 27).[182]

Hence, importantly, there is no such thing as 'tell society' as such, but it is proposed that 'tell living' as it is conceived in this study is a plenum in this sense,[183] or rather a specific section of the general practice plenum as outlined by Schatzki. And whenever reference has been made above to the 'structural' or 'normative' side of life on our Bronze Age Borsod sites this corresponds to his insistence that '[n]ormativity is central to the persistence of practices (and bundles)' (Schatzki 2019a: 35), plus, one may add, the specific quality and importance of 'ancestral' tell space and architecture, or more generally speaking of all on-tell material arrangements, to prefigure subsequent practices and the social future.

If, according to Schatzki (2019a: 45) nexuses of practices and arrangements, or bundles, are primarily connected and stabilised by '(1) common and orchestrated teleologies (ends, projects, actions), emotions, rules, and general understandings, (2) intentional relations, (3) chains of action, (4) material connections among arrangements, and (5) prefiguration', this reads almost like a theoretical underpinning of prominent post-processual approaches to Neolithic tell sites (*e.g.* Chapman 1997a; 1997b; 2000; Whittle 1996; Bailey 1997; 1999; 2000). For, one way or the other, we find emphasis placed there on corporate identities and permanence; the deliberate reference back to tradition and past material remains and the construction of social memory; and the creation in countless people's practices of a social space and architectural setting that emphasised the deep ancestry of their houses or households and reinforced their reproduction by regulating the interaction and relationships between people *etc.*

In part one of this study and subsequent publications, it has repeatedly been argued that such notions derived from Neolithic studies are important to counterbalance undue emphasis in Bronze Age research on political economy, the emergence of social hierarchies and political territories, and that tell sites from both periods may have more in common than mainstream narratives imply that stress social evolution and a rigid Neolithic/Bronze Age divide. It was for this same reason, that throughout the present study emphasis was placed, on the one hand, on the strong normative conceptions held on our Borsod sites of how the social and material world should be organised; on the 'conservative' side of their attitude to community, social space and architecture; and on the apparent discouragement of deviation and conflict – instead of the all-out competition and spiralling asymmetries prevalent in certain sections of Bronze Age research that are construed rather than being convincingly demonstrated.

On the other hand, of course, any version of practice theory explicitly grants knowledgeability to social actors and maintains that social life is indeterminate. From this perspective, as well, there cannot be anything like *ahistorical* 'tell society' as such, where stability is a given, and the social process somehow had come to a halt. Rather, in terms of the Schatzki version favoured here, the characteristic stability of tell life referred to above, and the seeming absence of change, have to be understood as '[...] a product of the actual concrete state of the social site'

[182] See also Schatzki (2019a: 47): 'All social phenomena consist in constellations, or aspects of constellations, of practices and arrangements. They differ in the practices, arrangements, and components thereof involved and in the density, continuity, and spatial-temporal spread of relations among these. It follows that all social phenomena – large or small, complex or simple, local or global, micro or macro, ancient or contemporary, economic or political, cultural or social (sic) – are composed of the same basic ingredients.'

[183] 'A plenum is a sum of particular things, which might or might not relate, that, as a sum of particular things, amounts, not to a bigger thing, but simply to a multiplicity.' (Schatzki 2019a: 27).

(Schatzki 2002: 222–223), not as an inherent property of this 'type' of society.

Longevity and outward lack of change, that is to say, are specific features of the social field in a given region and for a specific period of time. They must not mask the fact that the social is always in permanent flux. Social life is permanently unfolding anew, even if it is only on second glance that the operation of 'agency' and – in the long run – deviation and change may become obvious: '[...] practice organizations are *mutable* temporal structures. They largely govern human activity by forming sanctioned public normative contexts in which people proceed. A social practice is thus an *open* spatial-temporal array of doings and sayings that is governed by a *largely* normative array of understandings, rules, teleologies, and emotions. It is also a complex that accommodates significant *differences* among its practitioners.' (Schatzki 2019a: 35; italics added, TLK).

For this reason, in the above discussion of our Borsod sites diversity in consequence of 'agency', or variability and the constant fluctuations of everyday life, have been chosen as the second organising principle. For sure, it is a remarkable feature of 'tell living' that social life for a prolonged period of time unfolded within 'structural' confines that overall did not allow the putting of tradition at risk – the way things had always been done, corresponding norms and values, as well consonant material arrangements – or eroding the cohesion of the respective communities. It is this fascinating peculiarity that sets apart the Early to Middle Bronze Age Borsod identity studied here, with its emphasis on tell-living and direct architectural continuity *etc.*, from the ephemeral evidence of settlement activity during the preceding Copper Age and the beginnings of the local Early Bronze Age (I and II in Hungarian terminology), as well as from the much larger, more populous but short-lived sites encountered during the subsequent Late Bronze and Iron Ages.

However, this must never tempt us to reduce the social actors that we are ultimately concerned with to mere 'dummies' acting out a predetermined tell life, and incapable of making a difference in the face of tradition, norms and shared ends linking and orienting their actions into supposedly inert practices resistant to deviation and change. Even on our tells, of course, the social process was always fundamentally open and indeterminate. Social actors did have agency and intentionality in pursuit of their notion of a life well accomplished, and this is why in the above discussion attention was drawn whenever possible to instances of practices and corresponding material arrangements where they were apparently being negotiated and adjusted – beneath the seemingly unchanged and persistent Borsod identity that was outlined.

Finally, if tell-living is a plenum of practices, or a specific section of a universal practice plenum (Schatzki 2019a: 27), this notion both nicely highlights a specific quality of social life, also reflected in our personal experience, namely its complexity and interconnectedness, and the limits of the archaeological endeavour. The plenum of practices, we are told, contains innumerable practices and countless material arrangements, that in time and space '[...] link in diverse, changing combinations, yielding a panoply of bundles that evolves with time', and where '[...] multiple practices can bundle with the same arrangements at the same or over time and [...] a given practice can bundle with multiple arrangements at the same or different times.' (Schatzki 2019a: 41). For this reason, any discussion organised along individual practices will invariably fall short in some respect or other of social reality, and this also applies to what follows.[184] There is little one can do about this, except to attempt it, always bearing in mind the fundamental complexity of social life as just outlined, and every now and then deliberately try to refocus discussion on the innumerable cross-linkages among practice-arrangement bundles all too often discussed separately for purely heuristic reasons.

On a more fundamental level, this is also the reason, of course, why good post-processual archaeology, such as the contextualised understanding of social practices and their material conditions outlined by John Barrett (1994), imposes so much higher demands on the archaeological data at hand than processual 'checklist'-type archaeology (*e.g.* Renfrew 1973) or current macro histories and grand narratives (*e.g.* Kristiansen/Suchowska-Ducke 2015) largely aloof from the actual material remains of past lives. For contrary to a widely held perception that associates methodological advances with broadly speaking processual archaeology and its current successors, it is the detailed reconstruction of past social practices, invariably bound to practical understandings and the expedient manipulation of a material world, that requires application of the more fine-grained excavation techniques and scientific analyses – a prominent example being, of course, Ian Hodder's fieldwork at Çatal Höyük, whatever one may think about the specifics of his ensuing interpretations (*e.g.* Hodder 2006). That is to say that with the practice-oriented approach advocated here, and first outlined back in the 1990s, we are certainly not moving up some ladder of archaeological inference towards the more abstract and impossible to know. However, it is also necessary to acknowledge that we often still lack data applicable to the detailed reconstruction of past social practices and material arrangements that are aimed at. This also applies, of course, to the BORBAS project, the current state of knowledge of which largely informs the present discussion.

[184] For discussions of Vatya tells similarly organised, see also Sofaer (2006) and Jaeger (2018).

IV.2 Social Life Unfolding

Let us imagine, then, the Borsod plain some time around the year 2000 BC. From a bird's-eye view unavailable to the prehistoric occupants of this landscape themselves, looking north beyond the major Tisza river first we see the lowlands of the Borsod plain with a couple of meandering streams extending across it, followed by the foothill zone and beyond that the Bükk mountains occupying the far horizon. Unlike today, in Early to Middle Bronze Age times this landscape would have been more densely covered by stretches of woodland and gallery forests along the rivers and streams, interspersed with occasional marshlands or swamps and open stretches.[185] This landscape, of course, had seen previous human occupation during the Neolithic and Copper Ages, but there is little evidence of intense human settlement or impact on nature from the beginning of the local Early Bronze Age (I and II in Hungarian terminology) immediately preceding the 'tell period' of interest here. So on the ground the first impression potentially would have been quite different from today (and also from the landscape appreciated by the author of the present lines), and depending on our exact position we may find ourselves in a bit of wood with thick undergrowth or in some swampy area. Orientation may have been difficult then, and we cannot universally rely on the mountains in the north as one does today. Moving onwards, guided perhaps by the sun or some stars behind the trees, apart from vegetation we may find our progress impeded by one of the numerous stretches of standing water, either seasonal or permanent, that are not only indicated by the early modern Austrian-Hungarian maps (see, for example, figs. I-4 and III-4 above), but also proven to have existed by the preliminary analysis of fishbones from Borsodivánka-Marhajárás, that feature a wide variety of species from standing and running waters alike.[186] We are facing, then, a landscape much more in flux than our modern impression implies, exposing marked seasonality in some sections due to local hydrology, and passages viable the year before that may not currently be passable. So in terms of our moving forward we may be lucky to encounter one of the larger rivers or streams that could provide us with some sense of direction, even though we cannot take it for granted that movement as such would be easy, either way on foot passing through a dense gallery forest, an example of which can still be seen along some sections of the Tisza today, or by boat on a small stream itself that may not contain much water this time of the year.

On the other hand, of course, and this brings us back to our Bronze Age tell dwellers of interest, we would have known the landscape and its specific seasonality much more intimately than the foreign archaeologist working there for a couple of weeks for a mere decade or so and moving around largely in his car. Around, say, 2000 BC we have positive evidence from radiocarbon dating that a couple of sites both in the floodplain and along the foothills were already in existence (see fig. III-73 above). Others, apparently, were established only somewhat later, and we are not very well informed at all about the previous history of the people that at some stage we encounter as the Hatvan period occupants of our tells-to-be. We do see them, however, already in more or less full command of what we have styled above as a specific Borsod identity, and their moving around in the landscape and establishing the sites that we study gives a first hint at one dimension of this identity and some of the specific practices involved – one could call it the expedient exploitation of topography and your natural environment for settlement and living.

We should probably expect a couple of failed attempts, that did not leave any archaeological traces in the first place, or that have so far escaped archaeological scrutiny due to their short-lived, ephemeral nature. By and large, however, we see the development of a fairly consistent pattern, or rather two, that in the lowlands involved the choice of settlement location on the banks close to small rivers or streams running towards the Tisza, while in the foothill zone the terraces above the valley bottom were occupied. This finding is of interest, since in a way it shows human intentionality and agency prevailing over nature. In both the foothill zone and on the floodplain our tell dwellers-to-be clearly knew the landscape and what they were doing. For their choice of settlement location in every case provided access to fertile (loess) soils for agriculture in the immediate surroundings, as well as to woodlands and watercourses *etc.*, and the various resources these different habitats provided. In their choice of where to settle down, they were all benefitting, that is to say, from their profound and already traditional knowledge of the somewhat 'patchy' landscape they were about to appropriate for their homes, its specific seasonality, that so impeded the progress of the modern wanderer referred to above, and the opportunities it offered all year round throughout both the plain and foothills. However, in a way those living in the floodplain were in need of greater expertise and skill in making the exact choice of their site's location. For even though the lowlands as a whole are characterised by slightly curved surfaces that may only have seen seasonal flooding and that were perfectly suitable for agriculture and livestock keeping, for oneself and one's houses one

[185] See Daróczi (2015: 45–52) for a detailed review of Holocene environmental change in the eastern part of the Carpathian Basin; see also Gyulai (2010: 93–107).
[186] Personal communication Nadine Nolde.

would surely want to avoid even occasional flooding. It is exactly this kind of expertise and detailed knowledge of one's surroundings that we see in the plain, but that was unnecessary in the foothills.

Beyond this, any practices that involved cooperation to whatever ends, communication and exchange, farming and animal husbandry, or the exploitation of open grassland or riverine resources *etc.* may all have been organised somewhat differently in response to the topography and the opportunities of the foothill zone and lowlands respectively. As already argued above, this landscape as such may rather have implied different traditions, notions of the world and practices developing in both its broad zones. It is a feat of culture and human agency, then, to see the overall uniformity of a Borsod identity, and what truly binds all of our sites together is more than the general knowledge and competent exploitation of the landscape, and it cross-cuts the different topographic zones of the foothills and the lowlands: The overall similarity of settlement layout discussed at length in preceding sections, plus all the other aspects of practices and material arrangements encountered such as burial rites or pottery style that – in traditional archaeological terms – make us declare them 'Hatvan' and – subsequently – 'Füzesabony' of a Borsod variety. The formation of this more or less uniform Borsod identity was neither determined by nature and topography, nor was it consciously driven forward by individual human actors or collectivities in order to eventually cover the landscape with a closely knit net of structurally similar sites, let alone with the aim to create a landscape and a network of sites centrally organised or controlled. This pattern did not come about in one go, but developed over an extended period of time, and it would never have been deliberately maintained. Rather, we encounter the largely unintended consequences of human actions thoroughly dependent on the 'empirical realities' of a preexisting material world, partly man-made like any previous settlement, partly natural like the watercourses of the plain itself, and linked and oriented by shared practical understandings (how to move around without getting stuck in the swamp, identify resources or a place to settle down and obtain one's living from the plain or foothills *etc.*), by norms or rules (with whom to settle down after marriage, in a house of commonly accepted proportions in the appropriate section of the village *etc.*), and by shared ends or 'teleoaffective' structures (notions of life well accomplished, of community maintained, the dead and the ancestors appeased, and every now and then a hoard of precious metal objects dedicated to the gods upholding the wide firmament above our native plain *etc.*).

It may not have gone unnoticed that so far we have not been considering tell-living in a strict sense at all. This is for the simple reason that probably nobody or no group of people first exploring the river bend inside of which Mezőcsát-Laposhalom is situated for a suitable place to settle down (see fig. III-106 above), or who first climbed the terrace of Tard-Tatárdomb and stared from up there in awe at the Bükk mountains from a distance (fig. III-5), would have done so with the intention of founding an impressive multi-layer settlement mound. Tell-living proper, in the sense of being able to point to visibly a lot of ancestry of one's settlement or individual household, and maybe using this as a strategic argument, largely is a retrospective concept that only applies from some later stage onwards in the history of our Borsod sites and beyond that tells in general (*e.g.* Kienlin 2015a: 7). Therefore, at least in the beginning of the Borsod identity discussed here, tell-living may not have been a ready concept at all, simply because there were no known templates or archetypes. Only somewhat later, when a new site was established, arguments of the type of 'let us see, if our village will be as successful and long-lived as theirs in XY' *etc.* may have become feasible and an additional motivation for the incorporation of a newly founded community.

For the origins and foundations, however, of the practices that resulted in tell-'building' we surely have to look somewhere else, but before we proceed in this direction it is important here to recall that tells do not occur in splendid isolation – neither in the Borsod plain, nor indeed anywhere else it seems (*e.g.* Kienlin 2015a: 39–49). We have seen above that unlike other tell-'building' groups or micro-regions in the Borsod plain we largely lack evidence of open, horizontal settlements in between the enclosed tell or tell-like sites discussed. However, we have also seen in some detail that most if not all sites do have evidence of Bronze Age activity in the immediate surroundings of their tell or tell-like core, and that in most cases this takes the form of a distinct outer settlement, sometimes, like at Emőd-Nagyhalom, clearly structured and itself multi-sectioned. Furthermore, we have seen unambiguous evidence of general continuity *and* variability or change through time from *both* the tell or tell-like core *and* the outer settlement of a number of sites. There were adjustments being made to the enclosures of some sites, and the size and the structure of both the outer settlement and the central part were prone to change as houses or households were rearranged or newly joined a specific section of a settlement. In the process of such permanent fluctuation and reproduction of the social, the concomitant growth or decline of the various parts of the community and their respective architectural or spatial setting, the outer settlement may often have turned out to be the larger, fluid and more dynamic section of the Borsod communities under study. The central tell or tell-like part itself of various sites differed considerably in the respective thickness of cultural layers accumulated, *i.e.* in their tradition 'achieved', while on the other hand there is evidence that sections of the outer settlement also started building up cultural layers. This is confirmed by radiocarbon dates as well that show that the outer settlement in some cases may have been in existence just as long as the 'central' multi-layer part of the site.

There was manifestly an alternative, then, to tell-living, one that involved the lateral relocation of households over a larger area rather than direct architectural continuity, and underneath a shared Borsod identity we obviously encounter different corporate groups that variously

expressed and organised social relations. Instead of, that is to say, a high standing, static 'tell-society' caught up in tradition versus a subordinate, short-lived and volatile outer settlement, we witness the long-term coexistence of two alternative ways of organising social space, apparently linked to different notions of relatedness and continuity *etc.* It is important here to repeat that rather than being ranked these obviously coexisted on an equal footing. For, as has been repeatedly shown and stressed above, from magnetometry, corresponding surface finds and core drilling, there is no evidence of systematic differences in terms of size, details of construction, domestic activities carried out and the furnishing of houses on the central tell part and in the surrounding outer settlement of our Borsod sites.

A related line of argument concerns environmental determinism (*e.g.* Rosenstock 2009; 2012). It is trivial to say and universally true, that any larger community and site that is occupied for an extended period of time has to rely on access to fertile soils, water and suitable climate conditions *etc.* However, with the long-term coexistence just noted of two different notions of how to organise social relations and space (*i.e.* broadly speaking 'tell' vs. 'non-tell'), one cannot argue any more in any meaningful way that climate, carrying capacity or anything of the like prompted or permitted just this way of living or that. Tell-living or rather the specific bundle of related practices that in terms of household location and the activities taking place emphasised and required direct spatial and architectural continuity, and also a somehow packed or crowded way of living, clearly is a *cultural* choice. It involves a specific set of social values, norms or rules, and 'teleoaffective' structures, such as specific notions of relatedness, historicity and continuity *etc.* For nowhere, for sure, in the foothill zone is it apparent that lack of space or resources would have prevented lateral relocation of settlement and forced people to live on top of the nasty remains of their ancestors instead of starting anew on a clean and decent stretch of land – just think of the midden in between two house phases in our excavation at Borsodivánka-Marhajárás mentioned above. The same probably applies for most locations in the plain itself, where given the wish to relocate, the skilful and trained observer of the landscape may always have found a suitable, flood-free place somewhat further on – a good example being the aforementioned Gelej-Pincehát, where the subsequent Late Bronze Age occupation merely involved a further shift beyond the boundaries of the previous Early to Middle Bronze Age outer settlement. And in both regions, of course, the plain itself and the foothills, the coexistence of both modes of constituting relatedness and organising social space throughout the Early to Middle Bronze Age 'tell period' clearly indicates that things could always have been otherwise. There were two equally viable alternatives, 'competing' but adjoining and partly overlapping bundles of practices – of doings and sayings (*e.g.* rebuilding my future home on top of my parent's one or not, and asking my nearest neighbour for help in the provision of clay), organised by understandings, rules and norms (*e.g.* descent) – *and* corresponding material arrangements (*e.g.* 'tell' or 'non-tell') coexisting underneath the umbrella of a shared Borsod identity.

Turning back, then, to the above question of the origins and foundations of these different practices or bundles thereof, that resulted in tell formation on the one hand and the accompanying open outer settlement parts on the other, in premodern societies the obvious reason for the presence of such different traditions, norms and material arrangements is kinship. Kinship is a basic principle along which traditional human society, past and present, is organised. It comprises (social) parenthood, rules of descent and residence, the transmission of knowledge and property from one generation to the next – aspects of group structure and formation covered by descent theory – as well as alliance established through marriage. As such, kinship is a profoundly cultural notion not a biological fact, and it is not static (Barnard 2002: 784–789; also Kienlin 2012a: 23–24). It is a set of cultural norms that may be drawn upon according to context. Descent, for example, may be controversial and manipulated, and it may not be the only organising principle in action. Clans and subclans, lineages and sublineages may at times not have much significance for people's daily lives, or 'prescriptions' such as marriage rules may have little impact on 'practice', the actual behaviour of individuals mating (Barnard 2002: 802–803; Carsten 2004: 11–12; Roscoe 2009: 75–77). So here, too, there is a tension between 'structure' and 'agency', and we are never studying the remains of ancient kinship *per se* but the remains of a past 'human discourse on social relationships' drawing on, amongst other factors, culturally specific notions of kinship (Ingold 2002: 740). Competing frames of reference (such as kin vs. defence groups; Roscoe 2009) and individual departure from 'the rules of the game', both strategic and unpremeditated, result in variability that in itself is of interest and is a specific feature of the 'actual concrete state of the social site'.

However, there obviously is also patterning defined by past action guided by prescription, or in terms of practice theory human activities linked and oriented by common practical understandings, norms and ends, and '[k]inship models provide understandings of the social contexts that direct agency' in premodern societies (Ensor 2013: 20). We are not reduced to and should not study individual agency as if it was '[...] divorced from the kinds of social institutions that anthropologists had previously bracketed under kinship [...].' (Carsten 2004: 20; see also Wynne-Jones/Kohring 2007: 5). On a local or micro scale, that is to say, looking at, for example, settlement remains or burial evidence, it is likely that descent had a role to play in structuring prehistoric communities and their material arrangements, even though this will always be descent in its wider and flexible cultural sense including expansive strategies such as marriage/alliance, the 'acquisition' of children and in fact adults from outside the nuclear family or the immediate kin group. Larger entities like tribes or chiefdoms, too, from this perspective incorporate

descent groups such as lineages or clans. Apart from the question of higher-order executive power or centrality we should always take an interest in such component parts and explore how they are integrated and relate to the communities under study as a whole. For this will not be a static relation, and the conventional interest who was 'top dog' falls short of an adequate representation of the social dynamics of prehistoric groups. Political leadership in such systems, if any exists, may not be stable. The principles upon which it is based may oscillate between ascriptive and achieved, and the sources of power may be manifold, for instance wealth-based or knowledge-based. The same, of course, will also apply to the component parts of larger groupings. For tribal societies, that consist of various social segments, autonomous and alike in economic and political terms, apart from kinship may feature various pan-tribal integrative institutions or mechanisms such as age-grades, sodalities, religious societies, feasting and/or collective labour efforts which cross-cut constituent lineages, reaffirm a common identity and prevent fission (Parkinson 2002a: 5–8). Any lineages or clans present may be egalitarian or ranked with regard to concepts as different as economic success or ritual knowledge. They cooperate or compete on various occasions and on diverse matters, and so will any other corporate groups present (Sahlins 1963: 287; 1968: 8–13; Blanton *et al.* 1996: 3–4; Roscoe 2009: 94–105).

Throughout prehistory there is in fact ample evidence of kinship linking and orienting household practices or, for example, craft production such as metalworking and related activities. Thus, the essentially kinship-based organisation of traditional society has been used to explore groups as diverse as the Early Neolithic *Linearbandkeramik* culture (LBK), whose rapid spread across large parts of central Europe has been explained with reference to expanding lineages or clans (*e.g.* Lüning 2005; Frirdich 2005), Late Neolithic tell sites in the Carpathian Basin, through to Early Bronze Age burial and the spread of metal in the Northalpine region of Central Europe. It has been shown, for example, that the small hamlets and cemeteries of the LBK culture were occupied by people of different origins and social backgrounds. They were apparently members of different lineages or clans, some of them 'adhering' to a Neolithic lifestyle for longer than others who had abandoned Mesolithic traditions only a short time before. In line with general expectations of such kinship-based systems, this affected, for instance, their use of space and the arrangement of their houses over several generations (fig. IV-1; *e.g.* Lüning 2005; 2012). Furthermore, according to their different kinship background, these people also had access to different exchange networks. The inhabitants of adjacent houses demonstrably obtained their different varieties of flint from a number of different, often widely distant sources, and such patterns too remained stable for many generations (*e.g.* Frirdich 1994; 2003; 2005; Gronenborn 1999; 2003; Lüning 2005). Similarly, in both Late Neolithic and Bronze Age lakeside settlements of the Northalpine region, with their exceptional preservation of architectural remains and precise dendrochronological dates, along with the well-preserved furnishings of households and the organic remains of everyday life, there is fine-grained evidence of different practices on a household level presumably corresponding to descent and kinship groupings (*e.g.* Schlichtherle 2004; 2009). Thus, for example, we see members of different households using different plots of virgin forest or secondary forests and obtaining different qualities of wood (*e.g.* Bleicher 2009); we see them cultivating different plots in the landscape with a varied spectrum of seeds and tolerating different sorts of weed (fig. IV-2; *e.g.* Maier/Schlichtherle/Vogt 2016); we see them consuming various amounts and spectra of domesticated animals and game respectively (*e.g.* Doppler *et al.* 2010; 2012); and we see these patterns remaining stable over several generations on individual sites, while there is also exceptionally good evidence of households relocating into newly formed hamlets and bringing their various different ways of doing things and traditions with them (*e.g.* Hofman *et al.* 2016).

Moving back into the Carpathian Basin, kin groups have also been identified by various authors as the basic integrative unit of Late Neolithic tell settlements, such as in R. Tringham's analysis of Selevac and other Vinča sites that placed an emphasis on the interdependence of sedentism, the intensification of production and consumption (both of staple foods and other goods) and the emergence of stable household units identified by the increasing emphasis on the architecture and the continuity of houses or house clusters within larger tell and non-tell villages (*e.g.* Tringham/Krstić 1990a; 1990b: 589–605). More recently W. Parkinson (2002b; 2006) turned back to the notion of tribal society in his study of Late Neolithic to Copper Age settlement patterns in the Carpathian Basin and used integrative units on various structural levels from the house or immediate co-residential unit via the village up to whole clusters of sites as a major analytical tool. Thus, for example, the existence of large, multi-room and possibly two-storeyed houses on Late Neolithic sites, their internal division and, for example, the presence of more than one oven or fire-place, is taken to imply co-residence of several nuclear families and a high degree of interaction and cooperation at household level (Parkinson 2002b: 401–419; 2006: 123–156). In some cases such units are seen to group into distinct clusters within the wider settlement, and these neighbourhoods of presumably extended kin groups or lineages are interpreted as the basic unit of Late Neolithic communities, the focus of daily life, storage, production and social reproduction (see also Link 2006: 57–58).

Against this background, it is likely that whenever the results of modern excavations become available from such sites there will be some kind of household 'specialisation', or rather different preferences for specific tasks on a household level. Thus, for example, at Okolište in Bosnia-Herzegovina it has been shown that some economic activities, such as hunting, the processing of cereals, woodworking or weaving, were unevenly distributed among the houses examined. In addition,

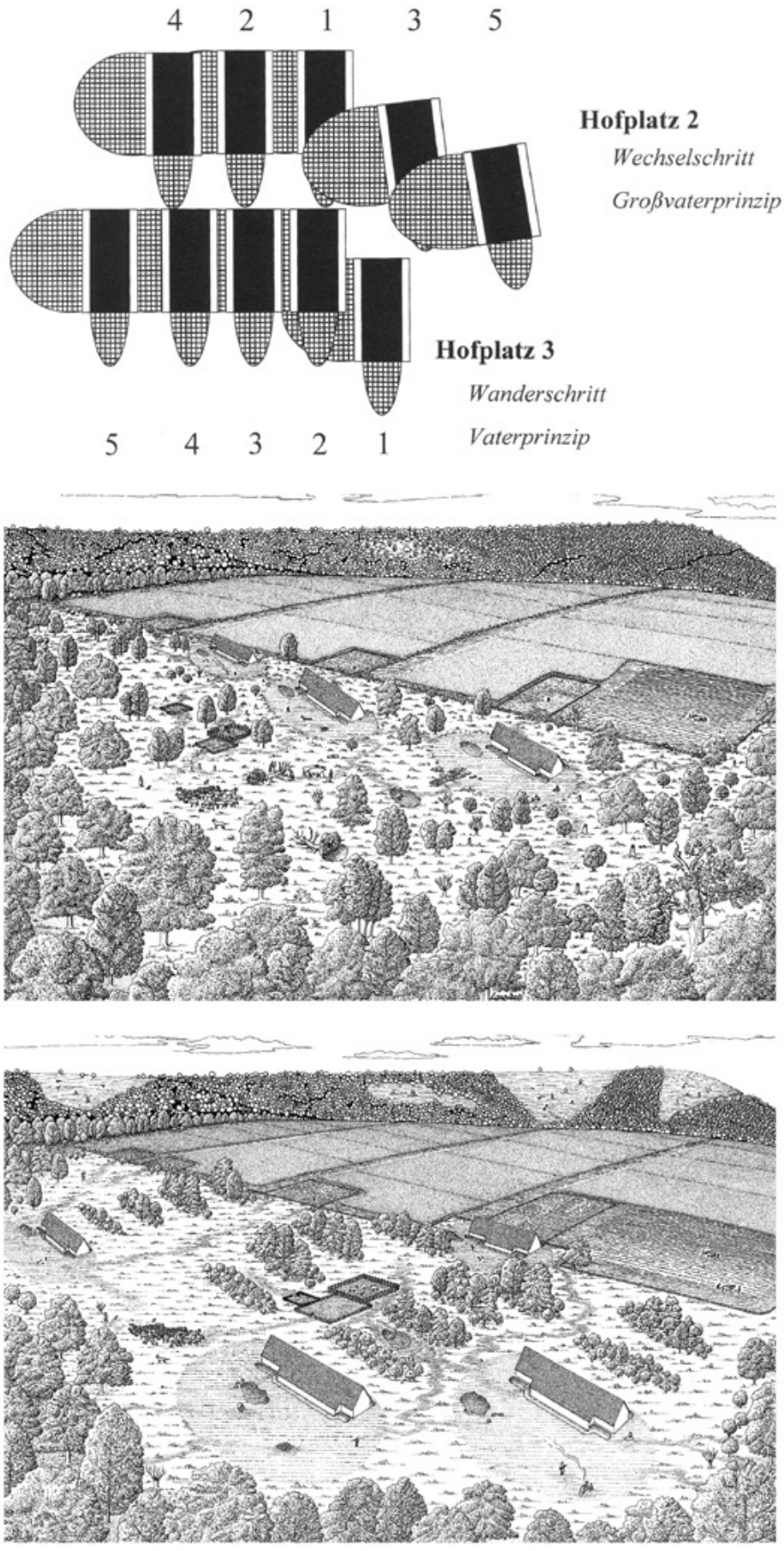
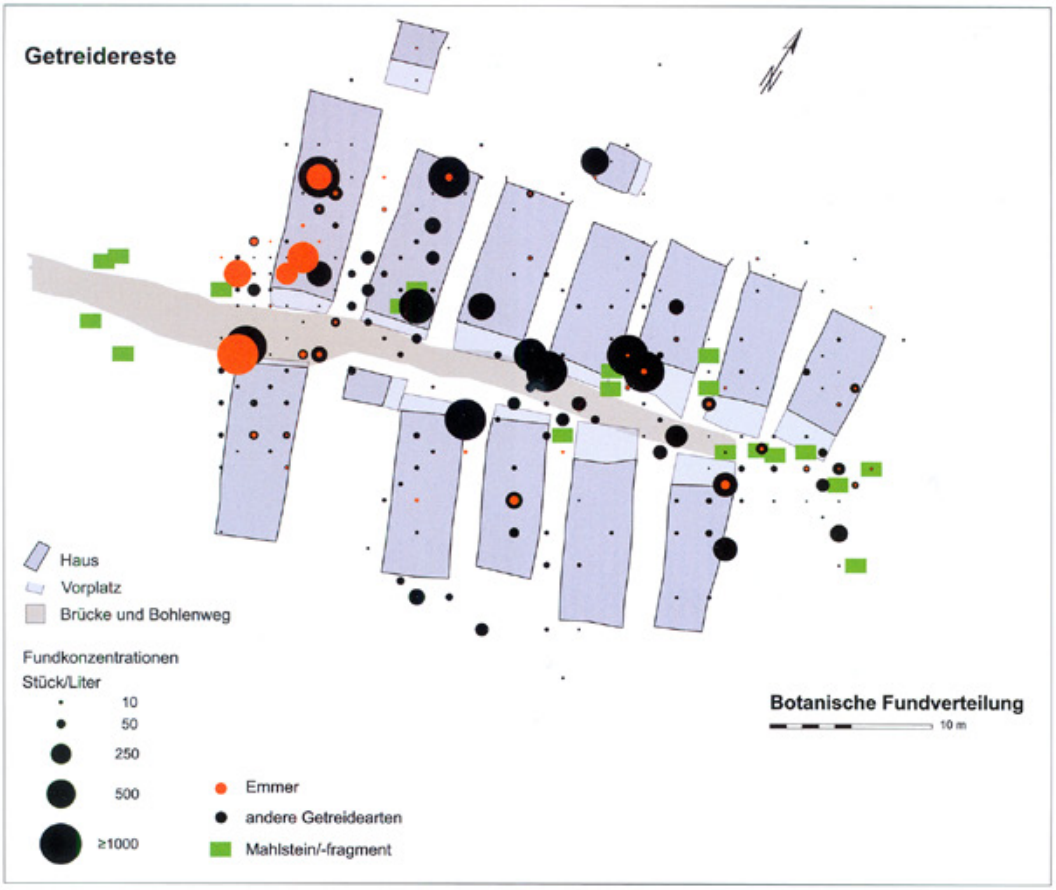


Fig. IV-1: The Early Neolithic site of Schwanfeld, Germany. Suggested patterns of the rearrangement of houses during subsequent building phases following different genealogical principles (top); reconstruction of the Schwanfeld hamlet during its earliest and latest phases (middle and bottom; after Lüning 2005: 50 fig. 2, 59 fig. 10, 62 fig. 12).



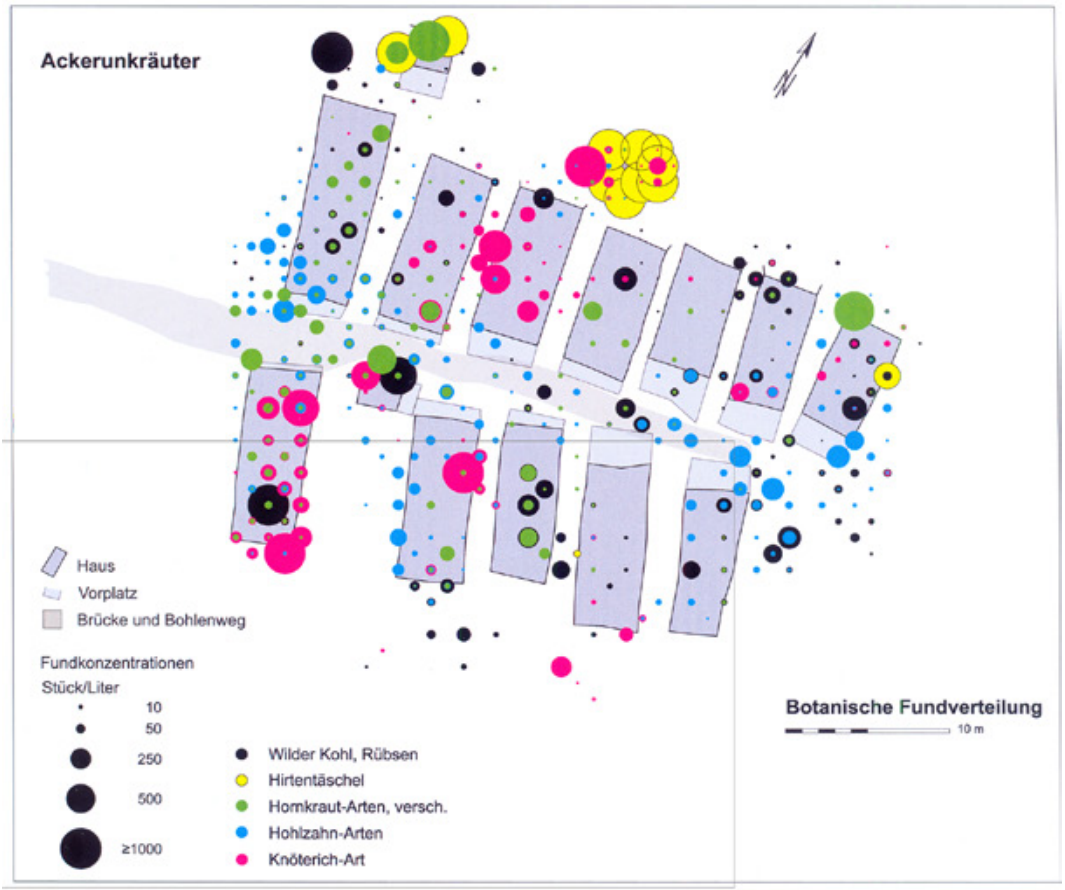


FIG. IV-2: THE LATE NEOLITHIC SITE OF BAD BUCHAU-TORWIESEN II, GERMANY. DIFFERENTIAL DISTRIBUTION OF GRAIN VARIETIES AND FIELD WEEDS AMONG THE VARIOUS HOUSEHOLDS OF THE SITE (AFTER MAIER/SCHLICHTHERLE/VOGT 2016: 100 FIG. 119, 101 FIG. 120).

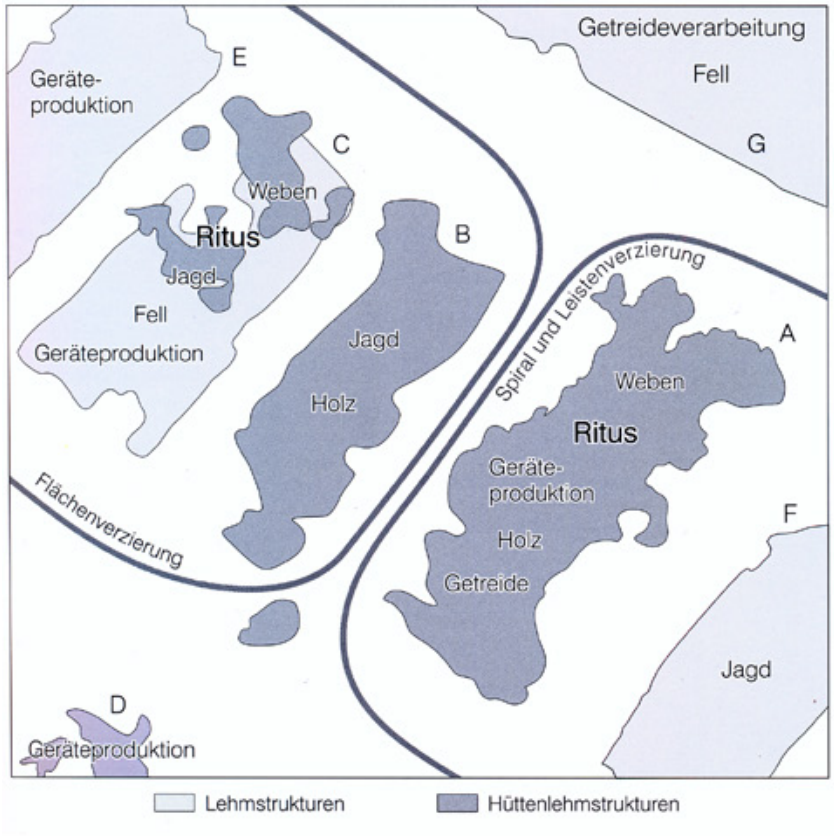
patterns of consumption evident, for example, in the pottery assemblages also show characteristic differences (fig. IV-3).[187] From this the excavators conclude that there may have been so-called 'alpha' households, which for several generations turned out to be more successful in food production and pursued a broader range of productive activities than their neighbours. Since these 'alpha' households are also thought to feature evidence of ritual elaboration (*e.g.* figurines) and ritualised food consumption or feasting, it is assumed that such differences in relative 'success' may have translated into greater influence of these households and their members on their community. It is a matter of debate, of course, if any such differences, which are widely known throughout Neolithic Europe, equal political differentiation. Most authors would agree, however, that there was no distinct socio-political hierarchisation or institutionalised central authority in Late Neolithic tell communities, whether because fissioning set a limit to household competition or because collective identities were emphasised vis-à-vis individual ambitions. Accordingly, for instance, the 'alpha' households of the Okolište community identified are thought to have failed to establish stable 'political' institutions and the necessity of cooperation between household units is emphasised (*e.g.* Müller *et al.* 2011: 102–103; Müller/Rassmann/Kujundžić-Vejzagić 2013: 56–57; Hofmann 2013: 455–456). In segmentary societies there is in fact considerable complexity, and distinctions are made between individuals or groups of people in various respects (Kienlin 2012a; see also Tringham/Krstić 1990b: 605–606). Yet it cannot be taken as a given that any inequalities that may arise, such as in the number of household members, in relative economic success or in knowledge and skills, will be other than short-lived and not accumulative.

Kinship, of course, is also a feature of Bronze Age groups, even though this is often masked by the predominant interest taken in ranking, while this is in fact only a subset of the mechanisms that structure human society. Undue emphasis is thereby put on specifically Bronze Age alpha males and aggrandisers, whose agency and ambitions are strangely decontextualised from any common norms and values that invariably bound them in premodern societies. A prominent example comes from the cemetery of Mokrin in the Early to Middle Bronze Age Maros group (fig. IV-4; Girić 1971; Soroceanu 1991). While previously this was thought of as one large community and burial that developed in a unilinear pattern (*e.g.* Primas 1977; O'Shea 1996), more recently it could be shown that interment along each of the distinct lines of graves of this cemetery took place at its own pace (Wagner 2005). We are looking indeed at a distinctly segmentary pattern where each row had its own dynamics and traditions. The grave goods point towards the presence of people with different identities as expressed via pottery decoration and their use of metal ornaments *etc.* (Wagner 2005: 132–142). This finding is also confirmed by physical anthropology that provides evidence of differences in diet between the individuals buried along these rows of graves (Rega 1997: 239). Such evidence clearly indicates that we are dealing with small-scale social segments such as lineages or clans, and quite obviously there was no power or authority extending beyond the immediate co-residential unit, kin group or the limits of the individual's lifespan. Yet, even in the most recent study slight differences in the 'richness' of grave inventories along the various rows are interpreted in terms of ranking (Wagner 2005: 132–145); and this interpretation is even supported by the authors of the latest study on muscolo-skeletal markers, *i.e.* labour intensity and activities carried out by the individuals buried, although their results do not show any clear correlation with social 'status' as determined by the archaeological analysis (Porčić/Stefanović 2009: 265–267). Apart from confusing economic success and political power it is suggested that this conceals the more basic principles along which these communities were organised. In a processual tradition methodological sophistication is directed towards differential access to power and wealth, but it is only underlying evolutionist assumptions that have us believe that the patterning observed indeed refers to ranking – at the neglect of the obvious, a lineage-based, segmentary system.

Similar findings have been reported elsewhere, for example at the Austrian site of Franzhausen I and in the Traisen valley where the small-scale segmentary pattern recently deduced from the cemetery (Spatzier 2007: 238, 243–246) is nicely matched by the surrounding hamlets (fig. IV-5). They no doubt imply that spatial patterning in Early Bronze Age cemeteries might not be indicative of chronological differences alone but in fact refer to different kinship groups or co-residential communities burying their dead separately in what to us appears as one larger cemetery. If such kinship-based systems prevailed far into the Bronze Age, this will not only have affected the spatial layout of settlements and cemeteries, but also for instance these people's access to exchange networks and their craft production. One last example may illustrate this facet, namely the well-known Early Bronze Age cemetery at Singen close to Lake Constance in south-western Germany. Singen is a fairly typical cemetery of this time and region with some 90 graves of crouched inhumation burials arranged into four to five distinct groups (fig. IV-6; Krause 1988; 1996). The grave goods include a characteristic spectrum of daggers, needles, rings and other ornaments of copper, which show systematic differences in their trace element content interpreted as the result of changes in Alpine metal supply through time (fig. IV-7; Krause 1988: 29–31, 125–130, 205–213). The Singen community from this perspective occupied an important position in a so-called metallurgy chain (*Metallurgiekette*) controlling trade in copper from the Alps into the area north of Lake Constance (Krause 1998; 2002).

Now, *contra* this model of the Singen community itself and its role in the supra-regional distribution or 'trade' of Alpine copper, right from the start problems with the dating

[187] Hofmann *et al.* 2010: 197–207; Müller *et al.* 2011: 83–90; Hofmann 2012: 188–190, 193–196; Müller/Rassmann/Kujundžić-Vejzagić 2013: 54–57; Müller *et al.* 2013: 413–418; Hofmann 2013.



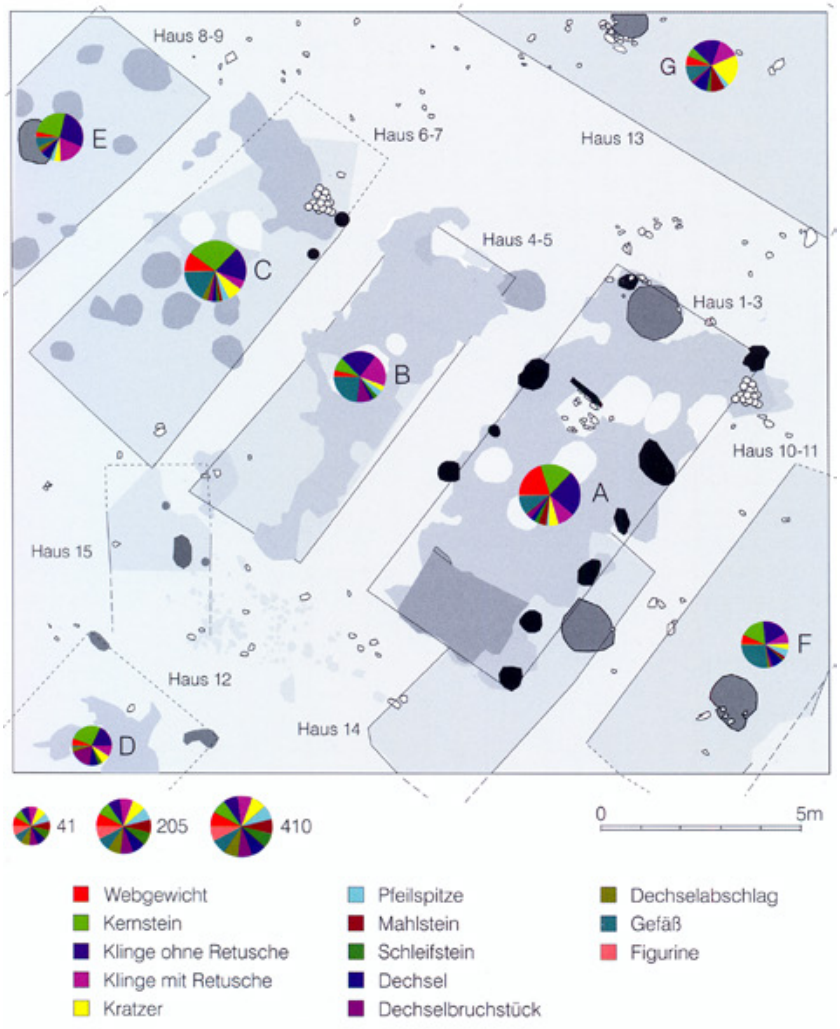


Fig. IV-3: The Late Neolithic tell site of Okolište, Visoko Basin, Bosnia-Herzegovina. Differential distribution of finds in various houses and inferred pattern of household activities (after Müller *et al.* 2011: 89 fig. 8, 91 fig. 11).

Fig. IV-4: The Early Bronze Age cemetery of Mokrin, Serbia. Arrangement of the graves into distinct rows and groups thought to represent different communities or lineages (after Wagner 2005: 116 fig. 4 and 126 fig. 13 – dashed lines: chronological phases after J. Wagner).

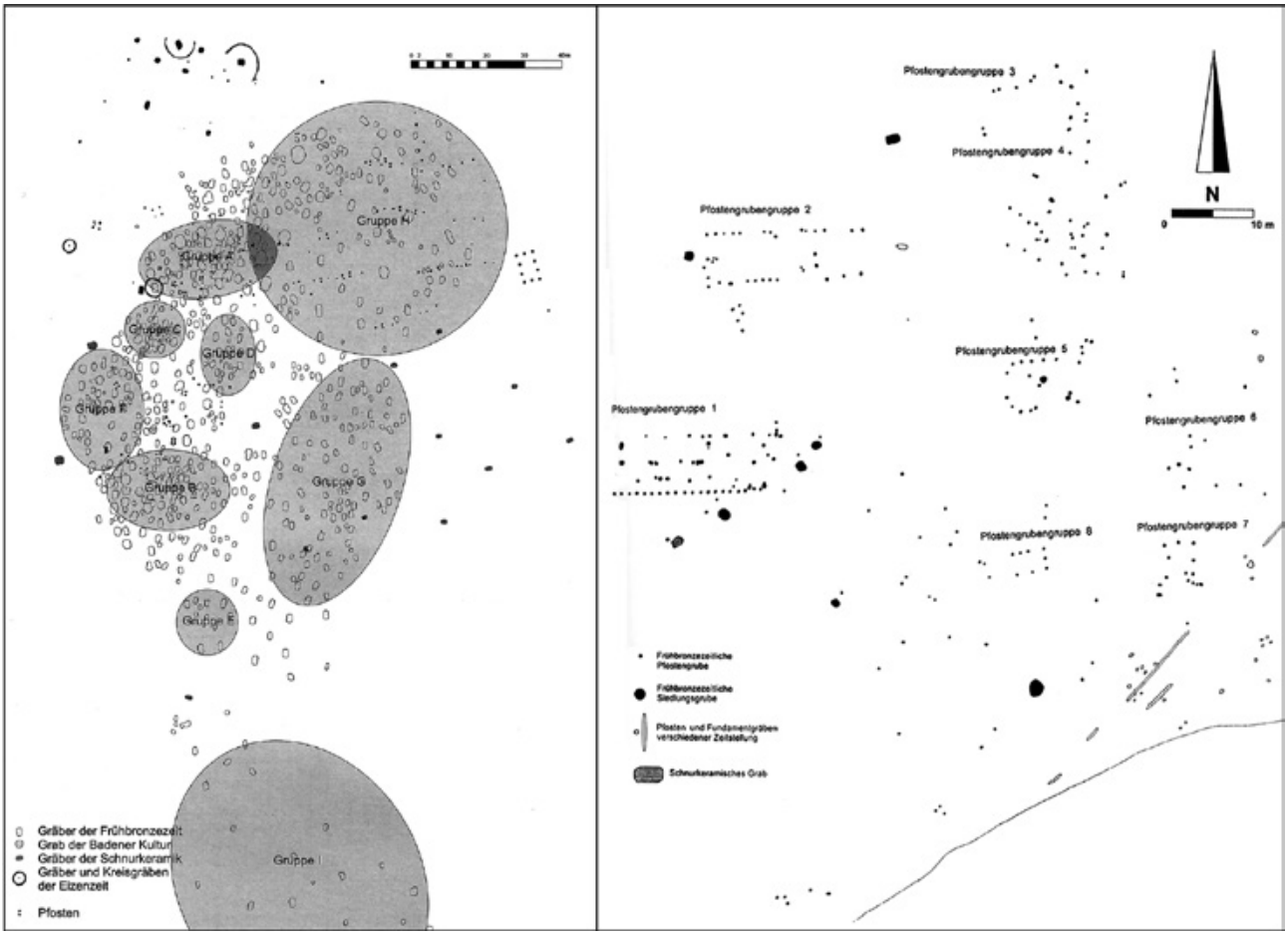


Fig. IV-5: The Early Bronze Age cemetery of Franzhausen I, Austria. The arrangement of the graves into nine groups thought to represent different communities or lineages (after Spatzier 2007: 221 fig. 2) and Franzhausen, Early Bronze Age hamlet 1 (after Neugebauer/ Neugebauer 1997: 33 fig. 11).

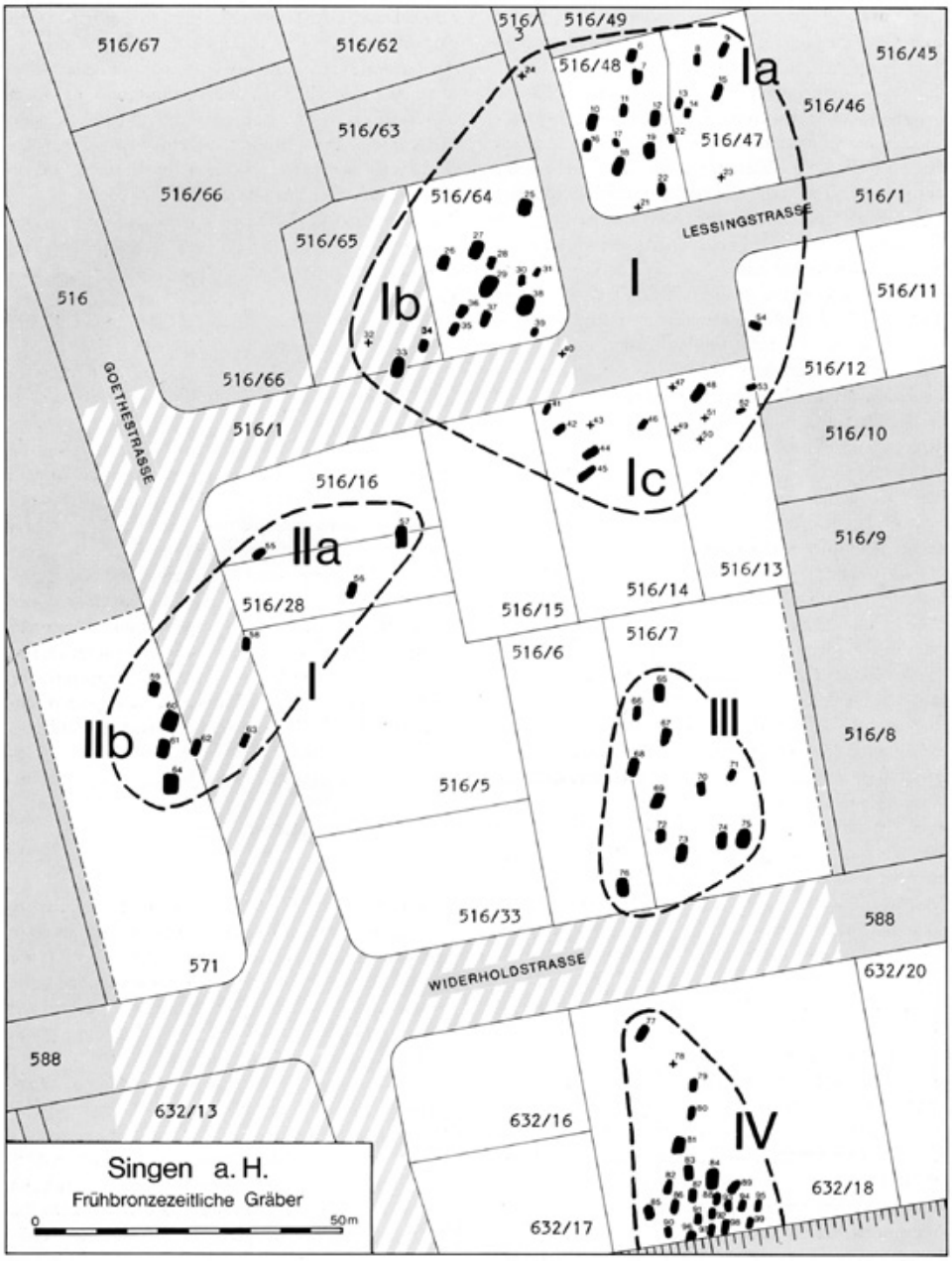


Fig. IV-6: The Early Bronze Age cemetery of Singen am Hohentwiel, Germany. Grave groups (after Krause 1988: 28 fig. 6).

of the Singen grave groups were noted, for it is unclear if the fine-grained chronology of Bavarian grave finds used by Krause (1988: 119–130) is in fact applicable to the Singen area (Schier 1991: 224–225). In the meantime, surely, this criticism is substantiated by recent discussions on the importance of kinship in traditional society referred to above. If this is the case, and in the Singen cemetery we encounter small-scale social units such as members of different lineages for example, it cannot be taken for granted anymore that any differences in material culture (grave goods) are due to chronological factors alone. It is possible instead that different kinds of ornaments, weapons or tools point to the coexistence of settlement units whose inhabitants did not share in all respects a common sense of local identity but traced back their origin to different ancestors or locations. This also adds complexity, of course, to the question of metal supply. For it is possible that instead of mere chronology the compositional variation observed here hints at small-scale, decentralised mining and smelting activities. If the members of the Singen community belonged to different descent groups, they probably had access to different networks of exchange. There was not one line down which copper was traded to Singen, and variation in trace element content is not to be understood in purely chronological terms (*i.e.* mining activities proceeding along one particular ore vein with resulting changes in trace element content; Krause 1988: 242). Rather there may have been a whole range of different contacts and obligations extending towards the Alps. Copper artefacts may have been obtained by different

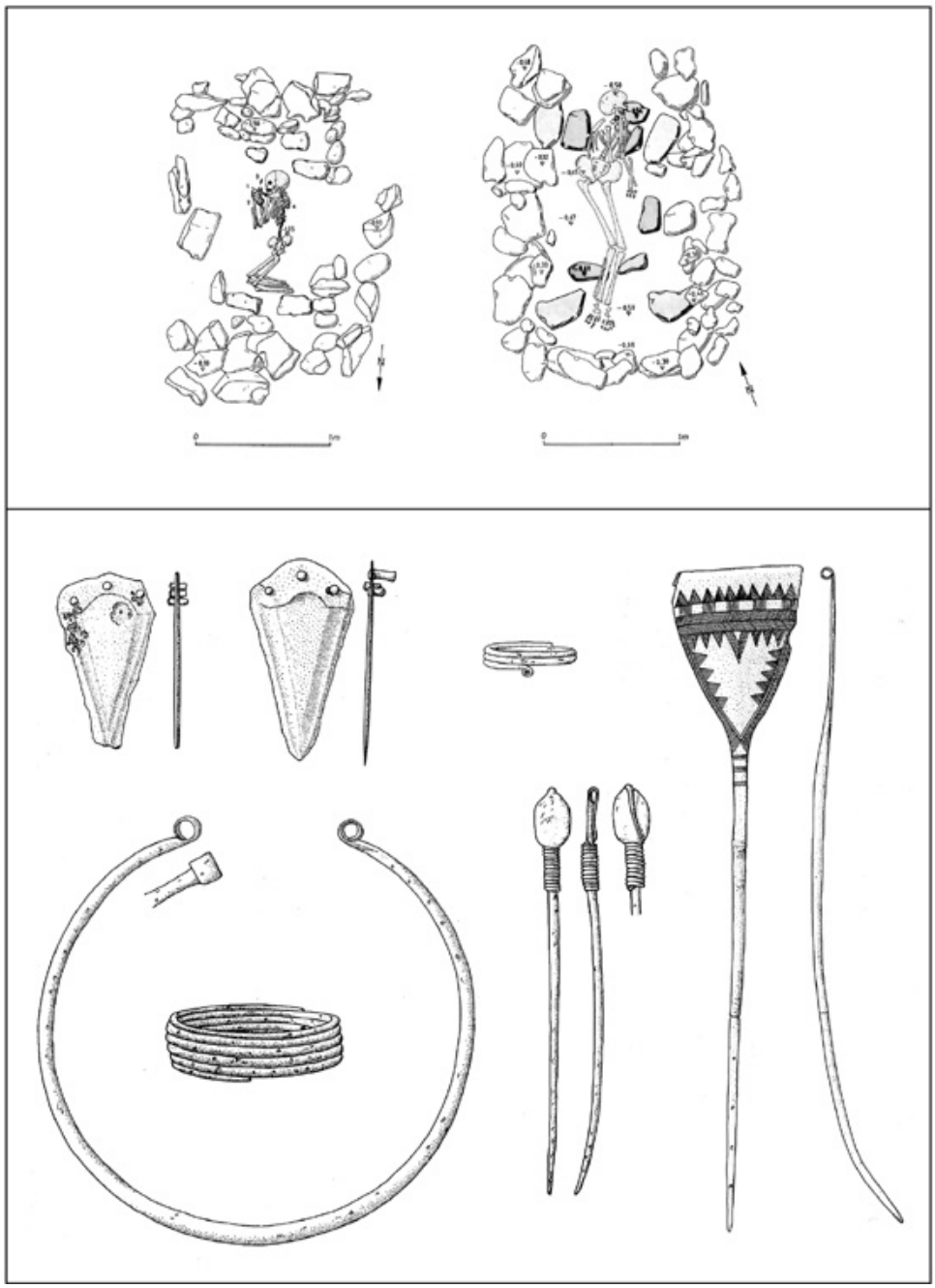


Fig. IV-7: The Early Bronze Age cemetery of Singen am Hohentwiel, Germany. Crouched burials with stone settings (graves 19 and 68); typical grave goods (after Krause 1988: 50 fig. 13, 64 fig. 23, 72 fig. 31, 80 fig. 38, 86 fig. 42b, 304 fig. 128, 325 fig. 183).

avenues of exchanges, and their trace element content hints at the exploitation of similar but distinct deposits by various local partners, who were operating Alpine mining activities on a small-scale seasonal basis (Kienlin/Stöllner 2009; Kienlin 2010: 176–190).

Turning back to our Borsod sites, it can plausibly be argued, then, that kinship and rules of descent were among the organising principles, the rules and norms central to both the persistence of tell-living or the tell-'building' bundle of practices observed on our sites on the one hand, *and* the alternative, yet in many ways overlapping bundle manifesting itself in the shifting occupation of the outer settlement on the other. In a similar vein, it has been argued by Stella Souvatzi that the parallel existence of tells and flat sites in Neolithic Greece can be traced back to corporate groups with different notions of relatedness and descent (Souvatzi 2020: 132–135). Unilineal or patrilineal descent groups in this conception are characteristically resident on-tell, and their existence is the point of departure for tell formation in the first place, while groups with an emphasis on bilateral descent were occupying flat sites. The latter did not see a comparable building up of cultural layers due to more frequent relocation and greater fluctuation of individual homesteads without as such necessarily being

less long-lived than tells (see also Chapman/Gaydarska 2019: 166–167).

In our Borsod context, the notion of the practice plenum introduced above, allows us to better conceptualise the specific overlapping and interconnectedness of both phenomena and the groups of people involved. For on the one hand there are numerous practices and material arrangements that occur both on-tell and in the outer settlement. They thus constitute one larger bundle or section of the practice plenum that corresponds – variously expressed – to both sections of our sites being 'Hatvan' and 'Füzesabony'; both being part of a larger Borsod identity as outlined above; both on occasion forming one comprehensive community or village capable of joint action; and last but certainly not least their inhabitants sharing a multitude of everyday practices and experiences, and living out their lives in largely the same and overlapping material arrangements – for example, producing and using Hatvan or Füzesabony style pottery throughout; engaging in other crafts such as metalworking; procuring raw materials and establishing networks extending towards neighbouring communities; building houses of about the same size and construction; raising crops and animals; and consuming them at an occasional feast *etc.*

On the other hand, as to the distinct differences of both bundles of practices, tell-living versus outer settlement, it is most unfortunate that we are much less well informed about differences of individual households' practices on our sites than, say, in the lakeside settlements of the Northalpine region mentioned above. And given the preliminary results of our core drilling programme, ongoing erosion and destruction by agriculture are increasingly reducing the number of candidates, in the outer settlement parts in particular, where targeted excavations are still promising. So it is the spatial layout of our sites, in particular, as deduced from magnetometry that still informs us about the coexistence of both ways of life, their different ways of organising social space as such, and, by inference, about their different notions of relatedness and continuity, their varieties of outlook on the world, their different everyday patterns of movement and, potentially, access at certain times to the various sections of their village *etc.*

Among these, as already stated above, tell-living in the retrospective sense of being able to directly access and experience the ancestry of one's household or corporate group by reference to the material remains of the past or 'climbing' the ancestral mound is secondary only, even though from some point onwards this surely became an important factor. Quite likely in some way this applied to both those actually living on-tell and the wider community beyond, and the settlement mound gradually accumulating, its visible ancestry and its affordance as an ideational focus, may on occasion have come to stand for 'their' community at large. For such claims to tradition are always negotiated and available to be variously drawn upon depending on the actual needs and the specific situation faced – be it those in fact of on-tell descent versus those non-tell lineages outside; or if both of them merged into the 'entire village' against an outside enemy seeking their wives or land *etc.* Irrespective of the visible ancestry of the settlement mound itself slowly building up, however, both on a discursive and a practical level differences between those on-tell and off-tell would surely have been present and perceived right from the start. These may have involved anything from the explicit statement of descent variously perceived; via the tacit notion that families or households somewhere in the neighbourhood handled things somewhat 'differently' in a couple of ways; to the practical choice of where to build one's house, right on top of the former one, or rather a couple of metres beyond; whom to ask for help in the oncoming construction works; and on what grounds to base this plea, be it kinship ties or rather obligations still standing since last year's feast *etc.*

If it is their layout and specific organisation of social space that is informative about the coexistence of broadly speaking two alternative ways of life, or practice bundles, underneath the umbrella of a shared Borsod identity, then it is interesting to see in detail how this juxtaposition *and* togetherness combined developed into somewhat different constellations on individual Borsod sites. Social life is always indeterminate, and preexisting practice organisations plus material arrangements are always just that, *mutable* temporal 'structures'.

We have seen that the exact beginning of the tell-to-be, its enclosure and the corresponding 'outer' settlement is difficult to determine even from a larger series of radiocarbon dates. However, at sites like Emőd-Nagyhalom or Tard-Tatárdomb discussed above there is every reason to assume that the lifespan of their tell or tell-like 'centre' and their outer settlement largely overlapped. For sure this is the case in archaeological terms of both featuring Hatvan and Füzesabony period pottery respectively, and in absolute terms as well it is certainly possible that the first houses or households in both sections of such sites were in fact established at the same time. This model would expect first 'settlers' of potentially different origins, and certainly of different identities in terms of expressing descent and organising social space, cooperating on the foundation of a new community or village. 'Cooperation' here would have comprised such diverse but consequent and coordinated practices as exploring the landscape for a suitable place not yet claimed by others; negotiating the exact layout of the future settlement in terms of the whereabouts of specific groups of people or households, and – if applicable right from the start – any internal divisions or demarcation; the clearing of the site itself and suitable fields in the surroundings; to any specific building activities that would have required more hands than an individual family or household could muster *etc.* Such cooperation underlying the establishment of a community in the first place does not rule out, of course, subsequent competition and conflict along various lines. It would, however, have set the tune for future social life that would always have carried a strong notion of solidarity and relatedness, rather than just the hierarchies, competition

and attempted aggrandisement at the expense of others that some sections of Bronze Age research unduly tend to highlight.

The same basically applies in model two, if the various sections of a site, or groups of households, were in fact established at different times. Cooperation and consensus would then be required, for example, for any newcomers to be accepted and incorporated into a preexisting community, both in abstract terms of different notions held of life, the universe or, say, descent; and in a more down-to-earth sense of assigning them a plot to settle down that is not otherwise claimed and their share of arable land *etc.* Importantly, on this model or variants thereof priority of the tell or tell-like part cannot simply be taken as given, but in every single case we need positive evidence regarding which part of the site actually predates the other(s). Just like the situation in the preceding Late Neolithic, where such constellations have received much more attention, it is clearly possible that one of the Bronze Age Borsod tells-to-be may have developed with some delay only, and as part of a larger preexisting community that featured several neighbouring nuclei or clusters of occupation organised, for example, along different notions of order or rules of descent *etc.*

Even if the exact chronology will always be problematic, *i.e.* which part of the site is the oldest and which came last, we clearly do have evidence of such constellations and, by inference, the essentially segmentary pattern underlying them. An obvious example is Borsodivánka where Bronze Age finds also come to light at Szentistváni dűlő on the far side of the Rima river as seen from the Marhajárás tell itself (see fig. III-114 above). There may thus be evidence of separate settlement clusters – each of potentially slightly different lifespans and dynamics – that together formed one larger village. Similarly, at Tibolddaróc-Bércút we have encountered distinct clusters of houses to the south and north-west of the enclosed core area (fig. III-136). In this case, due to the topography of the foothill zone, these clusters are not located on the opposite sides of a meandering river like in the floodplain. We clearly have to reckon therefore with different patterns of relatedness, movement and the organisation of everyday practices than at Borsodivánka, be it only in terms of the intermediate river at the latter site being more difficult to cross. Nonetheless, featuring a large and distinctly structured settled area beyond the enclosed core itself, Tibolddaróc-Bércút surely also qualifies as a candidate for the persistence of a traditional segmentary pattern with house clusters as the residential foci of kinship groups; be it – depending on chronology – that they were all founded at the same time; that the enclosed section predates the outside clusters and was the original starting point of settled life up on this terrace section; or the other way round that the enclosure plus multi-layer mound postulated inside it only developed from and as part of a larger preexisting settled area.

Finally, yet another situation can be observed at Novaj-Földvár, where it has been argued above that there is very little evidence of outside occupation beyond the ditch (fig. III-83). This finding, as already outlined, has important implications for a 'political economy' approach to Bronze Age tells, since it implies that tell-living obviously was possible without a major outer settlement to 'exploit', or for that matter any more numerous 'dependent' communities or flat sites to draw upon in the wider surroundings. Now, from the perspective advocated here this should not come as a surprise: Tell-living and the alternative bundle of practices observed in the outer settlement, plus their respective material arrangements, that partly overlap and partly set both traditions apart, prominent of course by a settlement mound gradually building up on one part of the site and not on the other(s), are conceived as (normally) interconnected but essentially *unranked* sections of the universal practice plenum. As such, Novaj-Földvár only illustrates that while both bundles of practices typically occur together on the Borsod sites, and are closely linked and interwoven, they are not mutually dependent, and they stand in no causal or prefigurative relation. Instead, we witness the coexistence of largely autonomous (kinship) groups of people, at times their cooperation, at others tension and potential fissioning. They could always have been arranged otherwise and have lived in a different constellation, or for that matter *separately* as at Novaj-Földvár. As such, however, Novaj-Földvár seems to be an exception, and interconnectedness as the general rule is also implied by the uniformity of our Borsod identity covering both on-tell and off-tell practice bundles, and by the multitude of everyday practices and overlapping material arrangements – apart from what specifically sets the tell apart such as direct architectural continuity sought *etc.* – that both actually share.

As time goes by, our Borsod sites, or certain respective sections of them, developed into multi-layer settlement mounds or tells. There is some overlap here, since we have seen above that sections of the outer settlement of a couple of sites also saw the accumulation of some cultural layers. But in general there was greater fluctuation on the 'outside', and the lateral replacement of houses prevailed. The tell part in the *c*. 0.2–0.6 ha range shows a fairly standardised size, that stands in contrast to some neighbouring groups and micro-regions. This finding was discussed above as an expression of the normative side of the Borsod communities with comparatively little deviation being tolerated. There is some variation in size, of course, corresponding to the number of households or families involved in the foundation of this part of the settlement in the first place, and there are also modifications to the tell or tell-like 'centre' of a couple of sites at some later stage. However, the size and the structure of the groups of people involved, their notions of how to live, with how many neighbours to come to terms and cooperate with *etc.*, obviously did not differ widely during the Early to Middle Bronze Ages and throughout the Borsod plain.

Once all the available plots were occupied and houses built, those living on-tell would have shared and held in common perceptions and experiences more or less specific only to

their native section of the wider settlement and community. Maklár-Baglyashalom may serve as an example, as one of our larger tell-like settlements with evidence in magnetometry of numerous houses oriented in north-south direction and more or less tightly packed into three rows of *c*. 6 to 7 houses each, two standing rather close-by in the middle and north, plus a southern one separated by a small alley (fig. III-43 above). This is not so much 'proto-urban' in any meaningful sense, but the overall impression may instead have been one of messiness, confinement and crowded living conditions that left little room for anything like the modern concept of 'privacy'. Any step outside one's house would find one facing the walls of a neighbouring building, one's neighbours themselves, or worse still there may not have been any quiet spot available for whatever task to get done before sunset *etc.* Any plot temporarily abandoned instead of serving as an additional activity zone for adjacent houses or households, and perhaps conveying a sense of 'spaciousness', may have become a matter of conflicting claims, or it may have been reduced to a forbidding 'wasteland'. Just recall our excavation at Borsodivánka-Marhajárás mentioned above. There we see a massive midden building up on an open stretch in between two house phases. In any case, the overall impression of such tells may have been crowded and 'messy', from a modern perspective of course. A sense of belonging encouraged by tell-living on the one hand may always have been competing with notions of constraint on the other, if tight controls over unsociable conduct were in place and required in order to maintain cohesion and peaceful coexistence on the confined ancestral space. The latter, of course, cooperation and sociability, may already have been implied and facilitated by what had brought those people together in the first place, namely a sense of relatedness potentially derived from kinship ties. However, the evident concern with discouraging deviation and dissent also transpires from a specific quality of the on-tell material arrangement, namely the emphasis put on the likeness of households via the apparent restrictions on house size and layout that aimed to discourage individual ambition and aggrandisement *etc.*

In terms of specific practices, the organised doings and sayings of tell residents, as already outlined above there would have been both such that were specifically on-tell, and such that were overlapping and interconnected with the practices of their off-tell neighbours, for example agriculture in general, the exploitation of riverine resources, textile production, or the procurement and working of lithic raw materials. And there would have been activities, of course, that in the crowded and narrow setting of the mound would have been impracticable, and that consequently required displacement to an off-tell setting (see also Chapman/Gaydarska 2019: 155). What to an off-tell household may have been a normal activity carried out somewhere in the immediate vicinity of the house, for tell residents may thus have been beset with additional transport, moving around or, for example, the negotiation of access to some suitable outside plot of land. Aspects of pottery production, at least the firing, or livestock breeding are just examples of two such practices that spring to mind. Tell-living comes at a cost. The potential advantages in terms of command over a lot of ancestry or the notional focus of the community, whenever on occasion such may have become a strategic argument, were surely counterbalanced at the next opportunity when those off-tell won the upper hand. This may have been the case in such trivial moments when a suitable plot was required for the disassembling of a piece of slaughtered cattle; whenever one was forced to pass by their off-tell homes and attracted comment on the way to one's field or pasture outside the settlement; or whenever a more formalised event or large-scale meeting was about to take place, the 'public' space required was more closely associated with those off-tell, and alternative focal points of the entire settlement and community temporarily took centre stage rather than one's proud native tell.

Specifically on-tell practices, on the other hand, would have been all those related, one way or the other, to the deep ancestry of on-tell households or kin groups, their specific notions of relatedness, descent and historicity, plus the corresponding material arrangements such as the apparent emphasis on direct architectural continuity. Some of these may be more or less invisible in archaeological terms such as any rituals referring to the ancestors and the genealogy of on-tell households, or hospitality and feasting to maintain sociality and reduce tensions among those crowded on-tell. They share this fate with other practices and expressions of identity that are not necessarily typically on-tell, but potentially different among groups of households be they on-tell or off-tell, such as any specific preferences in raw material procurement and use (flint vs. rock? stone vs. bronze?), in the choice, the methods of preparation and the consumption of food (game vs. beef, or fish? cereals vs. pulses?) *etc.* What we clearly do see, however, is the effect of the specifically on-tell practices oriented by this group of people's notions of descent and relatedness not otherwise evident in the outer settlement part(s), and their corresponding material arrangements: The genealogies of superimposed houses, of generation upon generation of floor levels and hearths renewed, followed by the debris left by destruction, and the rebuilding of houses in their traditional place. We see here, in fact, an entire bundle of doings and sayings, from, for instance, the preparation of the building ground by tearing down the previous house; the levelling of its remains; all digging of pits that required penetrating directly into the ancestral remains; to – once a house was standing – the repeated renewal of hearths or ovens in their old position; their occasional relocation, perhaps, into another room or constellation; or maybe the anger caused and subsequent repairs required when the loose building ground or ancestral debris subsided and additional levelling had to be applied *etc.* None of this would have had a direct off-tell correlate. In sum, we see the emergence of an architectural setting from the combined practices of generation upon generation of on-tell people that reflected the deep ancestry of their families or households, and that in turn guided and prefigured their subsequent reproduction by regulating the interaction, movement and relationships of people *etc.*

From the perspective advocated here, on the one hand the enclosure and massive ditches as well clearly seem to fall on the side of specifically on-tell practices and material arrangements. For we have seen above that they typically surround the multi-layer part of the settlement, and there are just two examples at Tard-Tatárdomb and Maklár-Baglyashalom of an additional outer demarcation that would – at some stage – have enclosed the entire community, *i.e.* both the tell or tell-like core *and* the off-tell 'outer' settlement (see figs. III-101 and III-102 above). On the other hand, however, the practice of 'enclosure' is also in a characteristic way expansive and extends laterally to interconnect tell-living *and* the alternative practice bundle manifesting itself in the shifting occupation of the outer settlement. In both these sections of our sites we may reasonably expect larger corporate groups of families or households, organised along notions of kinship and rules of descent *etc.* Such segmentary orders always rely on both identity and integration fostered on the inside, and delimitation towards the outside 'other' (see also Kienlin 2015c). Therefore, even if the ditches were perceived to 'belong' to those on-tell, *i.e.* for example to have been initiated and constructed by them in the first place, from the outside perspective they would always have fulfilled a very similar role in the material representation of a dividing line towards the 'other', meaning in this case those of on-tell descent *etc.* actually located inside, but at the same time, of course, part of the same overarching segmentary community or village.

We have seen above that the precise chronology of on-tell occupation, the enclosure and the outer settlement vis-à-vis each other is hard to determine even from a larger series of radiocarbon dates. Hence, it is quite possible that we have to reckon with different trajectories on our sites. There may well have been such settlements where the composite structure of a tell or tell-like core, massive ditch and outer settlement existed right from the start, alongside others where one group of households, the future tell, among several others was only enclosed at some later stage. In any case, however, at some point the construction of the enclosure would have involved massive earthworks in order to produce a huge whole in the ground. A substantial expenditure of time and manpower would have been required. This effort, obviously, may have been carried out by those of on-tell descent alone, taking a direct interest in 'their' ditch, over a longer period of time. Novaj-Földvár may be such an example, given that the evidence of outside settlement activity is scarce on this site. However, more commonly excavating the ditch may also have involved the mobilisation of labour from adjacent off-tell households, if any such were present at the time, and the exchange of labour and resources among larger corporate groups both on-tell and off-tell. This point, of course, to mainstream Bronze Age research is only conceivable as the result of 'chiefly' power exerted over his subordinates, even though it is in fact entirely unclear, how such coercion should have been applied without groups of people or households simply opting out and relocating somewhere else on the Borsod plain, where initially at least it was hardly overcrowded, or beyond. We are not going to repeat a detailed critique of this conception here (see *e.g.* Kienlin 2012b; 2015a). For it is surely possible and well established in other contexts that such large-scale 'architectural' undertakings like our ditches were carried out on a collaborative basis, as a collective enterprise that saw the pooling of the workforce from a larger collectivity such as one of our segmentary Borsod villages featuring both people or kin groups of on-tell and off-tell descent *etc.*

The crucial point here is, that any such pooling and cooperation would have turned the ditch, that may anyway have been perceived as worth the effort from both the inside *and* the outside, and that may have constituted a welcome dividing line for various corporate groups (see above), into a lasting material representation of the *entire* community rather than just one of its segments. And, perhaps even more importantly, it may have left those on-tell indebted and obliged to their purportedly dependent outside 'subordinates' whenever the subject of past cooperation and assistance granted was brought up, and songs were sung that recalled this important event in the remote past of the community and its large-scale collective effort.

Finally, it is in this context, too, that P. Roscoe's (2009) 'social signalling' referred to above has to be understood. It is obvious that in the event of actual conflict and endangerment the enclosed part of our sites may have been a safe haven for members of the entire community. In this sense, the ditches may certainly have protected the lives of those who were resident off-tell as well as the tell occupants themselves. Yet, it has been argued above that – with the exception, perhaps, of the albeit narrow outer demarcations at Tard-Tatárdomb and Maklár-Baglyashalom – it is strange that a substantial part of these communities in terms of their houses, installations, stocks and resources was exposed to enemy attack. Those living off-tell and occupying the open outer section of the settlement would surely have formed an important part of their wider community. Their well-being and their willingness to cooperate would have been crucial for the success, the potential for coordinated action and, in the long run, for the survival of them all. To see all those who were off-tell and their homesteads left largely unprotected throughout the entire lifetime of most of our Borsod sites surely implies, therefore, that we are wrong if we assume that warfare and all-out conflict were endemic in the Bronze Age. These communities clearly had a specifically inward bound focus. People were concerned with the maintenance of sociality and the integration of the various on-tell and off-tell segments of their sites and the various traditions encountered into a viable community. And towards the outside as well, a landscape of structurally similar villages throughout the Borsod plain, it has the appearance that conflict was discouraged. A more or less 'peaceful' coexistence, or at least with low levels of actual conflict, was aspired to underneath the umbrella of a joint Borsod identity that as such may have served as a model

of relatedness. To this end, then, the enclosures that on the inside represented and demarcated some aspects of the various descent groups present, towards the outside may have been exactly what Roscoe (2009: 72, 89–90) describes, namely a massive statement beyond mere 'functional' necessity in actual conflict, signalling the 'strength' of a segmentary, but well-ordered community, economically and socially successful, and always capable of coordinated action if challenged.

Presumably, the enclosures of our Borsod sites were in operation throughout their existence as a deterrent in the sense just outlined. They would also for a long time have carried forward the remembrance of a large-scale collaborative undertaking and collective architectural enterprise as suggested above, wherever this had in fact been the case. We will never know for sure, but it is likely that such massive installations would have been compared, admired and talked about. They would also have been available, of course, on various occasions and to different ends to be drawn upon as a strategic argument both by those on-tell and by their off-tell neighbours. However, it should not be forgotten that in more down-to-earth terms, too, these ditches will always have been among those material arrangements that most strongly shaped and prefigured on-tell social life. We do not know how they were bridged, but surely one had to walk to the appropriate point(s) to cross, and on one's way pass by those notorious households 'controlling' access to the bridge and their gossiping inhabitants, and not others that were more sociable, every time an errand took one to the outside world *etc.* The ditches in the plain most likely were flooded, either by groundwater or from adjacent watercourses. On the terraces in the foothill zone this is unlikely, but in both topographic situations it is likely that refuse or wastewater collected in the enclosure, until on occasion it was cleaned out or washed away by natural currents. Unpleasant smells and vermin may then have been a common problem. In everyday life the enclosure may often have been the single most important complication or nuisance for those living on-tell, as well as for their immediate neighbours on the outside – rather than being perceived as an omnipresent expression of the power of the chief as Bronze Age research would have it.

Beyond what has just been said, however, the meaning of such material arrangements is always situated in and dependent on practice (Schatzki 1996: 111–112; 2002: 98–101). The ditches, therefore, surely would have made sense in different ways to different people throughout their existence. They would have acquired various different meanings as they were drawn upon and referred to in the context of changing practices. Unfortunately, based on the core drilling data hitherto available only, we cannot say for how long, if at all, the ditches of the Borsod sites studied were entirely cleaned out and maintained on a regular basis. The first change evident throughout is the gradual sedimentation processes denoted as 'original infill' during use in the above discussion. It is unclear if this already represents an adjustment in the appreciation and meaning of these structures, or just the emergence of a certain carelessness.

A somewhat more marked shift in the perception of our sites' demarcation is evident, in any case, from the south-western section of the main enclosure at Tard-Tatárdomb (see fig. III-89 above) and from the ditch at Mezőcsát-Laposhalom (fig. III-99) discussed above. Both feature evidence that the inner section of the ditch was kept in good repair until the end, but from the outside at some stage large chunks and distinct heaps of material were deposited into the ditch. These substantial layers of inhomogeneous debris are thought to represent either a couple of deliberate dumping 'events', or the more or less continuous disposal of settlement debris into the ditch from the outside for a certain period of time. In any case, they show that some enclosures were partly abandoned or allowed to fall into disrepair well into the lifetime of the settlement and the existence of the community that had once agreed and participated in the endeavour to enclose this section of their site. Whether coercion had originally been involved, or persuasion and cooperation as suggested here, it is apparent that at least in certain quarters the commitment to this specific installation or material arrangement dwindled. As long as the site was inhabited by its Early to Middle Bronze Age occupants this shift in perception and involvement was never absolute. The enclosures at least in part survived to see a slow final infill by erosion. But opinions manifestly differed as to the necessity of maintenance as such, or the course and the exact width that the enclosure should still have. This finding is also of interest, since it lends support to the doubts cited above regarding the existence of a strong central 'authority' on our sites. There were obvious limits to what could be achieved by those on-tell potentially profiting the most from 'their' enclosure in any attempt to enforce its preservation.

While as a material arrangement it prefigured future practices and the imminent constitution of the social field, the future history of any enclosure itself was contingent on the agency and ambitions of individual actors or corporate groups. It depended on 'traditional' doings and sayings, norms and rules still being adhered to, or becoming less binding, fragmented, and eventually abandoned. In consequence, we encounter different trajectories underneath the umbrella of a shared Borsod identity and common history throughout the Early to Middle Bronze Age. Emőd-Nagyhalom discussed at length above is an excellent example, for its enclosure features a quite remarkable development and modification. The sequence starts with an unusually massive ditch in Borsod terms more than 30 m wide. At some stage, likewise still rather early on, the walls of this massive, initial enclosure may have partly collapsed, and a decision was taken not to restore this structure, but to reduce it to broadly 'normal' width by backfilling its outer section (fig. III-95 above). On top of this infill a group or ring of additional houses was built, arranged in concentric order along the remaining ditch. These houses, that conclude the sequence, themselves were multi-phase, and were eventually destroyed by

fire. Unlike the south-western section of the enclosure at Tard-Tatárdomb referred to above, that was gradually abandoned, at Emőd we therefore have evidence of a deliberate and no doubt labour-intensive modification to the ditch. This was apparently done with the idea in mind to establish a separate sphere of houses on top of the infill, that would have occupied some kind of intermediate position between the outer settlement, where strictly speaking they belonged, and the inner tell-like part of the site, to which they had close spatial affinities. In doing so, one seems to have accepted, or deliberately aimed at, the resulting impairment of the enclosure and the reduction of its symbolic impact. And, last but not least, unlike the northern extension added to the original ditch at Tard, to which we will turn in the subsequent paragraph, we see a tampering here with the enclosure at Emőd that did not affect the number of on-tell households, or for that matter the relative numbers of those on-tell versus their off-tell neighbours *etc.*

We see different groups of people at work here and different motivations in the layout of social space. There were different outcomes to the social process and consequent material arrangements. A final example comes from the group of sites with major modifications to their enclosures – both expressive of changing social relations among those on-tell and off-tell corporate groups present, and prefiguring future practices and the further course of social life in their communities. Thus, at Ároktő-Dongóhalom, Bogács-Pazsagpuszta, Szakáld-Testhalom and Tard-Tatárdomb we are more or less sure that their present broadly 'standard' size tell or tell-like core had a smaller forerunner, and that upon a revision of their enclosures the number of houses or households with an on-tell affiliation saw an adjustment. This process is most evident at Tard-Tatárdomb, discussed at length above, where an older, roundish Hatvan period ditch at some later stage was partly filled in, the 'central' part of the site enlarged, and the Füzesabony period enclosure expanded to its unusual final U-shaped design (fig. III-86 above). We can see here an increase in the potential number of on-tell households, *i.e.* the ongoing negotiation of belonging to this group, as well as its potentially fluid boundaries vis-à-vis contemporaneous off-tell households. Kinship and descent, as outlined above, are not static, but they are mutable cultural notions that can be drawn upon and potentially reformulated according to context and the requirements of the 'actual concrete state of the social site'. In this process, any material arrangements such as the course of an enclosure or the layout and the clustering of 'related' households can be used to push social change or to make claims about belonging and relatedness. Whatever had thus been claimed would subsequently have been drawn upon in doings and sayings, and it would have appeared as always already a given even though it was of recent making only.

Turning now to what is actually the much larger part than their tell or tell-like core of most of our Borsod sites, the outer settlement, it has already been argued above that rather than the tell and dependent 'suburbium' or such, we in fact see the coexistence of two (or more) corporate groups more or less on equal footing, but drawing on different traditions and adhering – in certain respects – to different notions of relatedness and continuity. In terms of practice theory, both these sections of our sites underneath an overarching Borsod identity, and as part of one larger community or village, would have formed different, yet overlapping sections of the general practice plenum. They would have shared a multitude of everyday practices and material arrangements on the one hand, while exposing some distinct differences in their doings and sayings, and the rules they adhered to, for example, of descent and co-residence on the other. Such differences in the organising principles or norms of social life, and in the everyday practices linked and oriented by them, it has been argued, in premodern societies are often down to kinship, and descent groups form an important context that informs and directs human agency (see Ensor 2013 above). In the outer settlement we see, then, the lasting presence of an alternative way of life to tell-living, one that at a fundamental level would have comprised alternative avenues to social integration, other than just strong unilineal descent. Or, from the perspective of corresponding material arrangements, one that would have been centred and dependent – in a long-term perspective – on the horizontal replacement of buildings and the lateral relocation of households over a larger area, instead of direct architectural continuity *etc.* As such, of course, the outer part of the Borsod settlements is much closer to the prehistoric 'normality' of wider Neolithic and Bronze Age Europe beyond the Carpathian Basin that never saw the building up of tells at all. The fascination of our sites stems from exactly the close coexistence of both these ways of life – normally set apart or opposite – on the same site and as part of one wider community. And like on-tell living discussed above, in the outer settlement, as well, there was variability in layout and flexibility in the concrete organisation of social space through time. In the outer settlement, too, just like on-tell, social life was essentially indeterminate. Preexisting practice bundles plus material arrangements guided social action and prefigured the future course of social life, but they never determined it, and they themselves would have proven mutable in consequence of human activity and agency.

Among the different ways encountered to organise social space, reference has already been made above to the distinctly clustered or segmentary pattern evident at Borsodivánka and Tibolddaróc-Bércút (see figs. III-114 and III-136). Depending on chronology, which section of the site was occupied first, and when the enclosure of the tell or tell-like core was established, it is thought likely that one way or the other we have evidence here of the residential foci of distinct corporate groups, that developed – partly – along their own lines and logic, yet at the same time as part of one larger village community. And only some of these people or kin groups obviously adhered to notions of descent and co-residence that would eventually have resulted in tell formation. The same possibly holds

true for a second group of sites, including for example Ároktő-Dongóhalom, Tiszakeszi-Bálinthát Újtemető and Vatta-Testhalom, that in the outer settlement show a different layout of houses arranged into broadly discernible rows and sharing the same predominant orientation, often along the north-west to south-east axis (figs. III-133, III-134 and III-135 above). Here, too, there is a marked contrast between an on-tell way of life evident in the 'centre' only, and an off-tell tradition and lateral relocation in the outer settlement. However, other than the 'clustered' sites just referred to, the linear pattern of outer households observed in this case may instead have discouraged attempts at further differentiating the households in the outer settlement into distinct sub-groups or clusters. That is to say, that instead of an emphasis on the presence of several and potentially preexisting kin groups, we may see here an arrangement that stressed the uniformity of all those present at any given time and adhering to 'off-tell living', irrespective, perhaps, of actual descent. And maybe, too, this arrangement was characteristically open for newcomers from outside the original community to add another line of houses following the once established pattern, or just to merge laterally into an existing one on the outside. Differences under this regime nonetheless may have been perceived along exactly these same lines, *i.e.* for example in terms of on-site 'seniority', increasing displacement from the notional centre of the site or the perceived origin of one's row *etc.*

Our best example so far, of course, to highlight variability and the different outcomes of the social process as people settled in the surroundings of our Borsod tell sites is Emőd-Nagyhalom with the explicitly 'composite' structure of its outer settlement (fig. III-116 above). The inner part of this zone has already been referred to above in conjunction with the partial backfilling of the site's ditch. It features two lines of houses standing with their long sides oriented towards the tell-like centre of the site. This arrangement that developed on top of the backfill was multi-phase itself, and besides the orientation of its houses, this zone is also set apart from the outer settlement beyond by the cultural layers building up to a certain thickness. In this respect – as time passed by – it surely came to resemble the central, tell-like part of the site to which these houses were also referring in spatial terms. Beyond this inner ring there was a wider outer settlement with distinct rows of houses extending along the hilltop on which Emőd-Nagyhalom is situated. A couple of these houses are partly superimposed, and in terms of pottery chronology as well this part of the site was multi-phase and occupied during both Hatvan *and* Füzesabony times. So as such this section of the settlement evidently was long-lived too, even though, judging from the lack of distinct cultural layers, the overall stability of occupation was lower, and there was a greater residential mobility of households.

Both the 'central' mound and the outer settlement at Emőd-Nagyhalom were occupied for a period of up to 300 to 400 years. Together their inhabitants formed one larger body, and it seems that among them they continued to negotiate their joint social reality throughout the entire lifespan of this community. The result was a site that was distinctly structured, and it has been argued above that this pattern in general terms may refer to a different origin, on-site tradition and identity in terms of descent and kinship of those occupying the various parts of the settlement. Importantly, this community and its spatial arrangement were never static, and at least on one occasion, upon the backfilling of the ditch and the establishment of the outer ring of houses, a major remodelling of space and social relations took place. At this stage, evidently, some section or corporate group found itself in a position, and perceived the need, to set themselves apart in spatial terms both from the ones further 'in', or on-tell, and those further 'out'. In doing so, internally among them they claimed relatedness (perhaps for the first time in exactly this constellation), while towards the in- and outside 'other' they proclaimed difference (that may not have been previously perceived in exactly these terms). And they created a spatial and material arrangement that on a non-discursive level would brought some into closer contact than others, favouring differences in daily routines and practices, and thus perpetuating the different identities proclaimed among neighbouring groups into the future.

There is a shift, then, in the relative complexity of the site, the formation, or perhaps the inflow, of a new corporate group, and a redefinition of the various sections of the community present vis-à-vis each other. Permanently from this point on there were two parts of the site, the tell-like core itself and the outer ring, that distinctly relied on architectural continuity and traditions building up (even though for those starting anew in the outer ring initially this was a claim rather than reality), but that remained opposed in spatial terms (both vis-à-vis each other as well as towards the outside). And there was a wider outer settlement, that like the central core from an emic perspective would also 'always' have been there. Unlike the core, however, this was the traditional 'alternative' and part of the community where houses and households had always and consistently been laterally relocated. It was a section where one neither aspired to the same kind of *in situ* tradition that was building up in the tell part, nor one would ever have thought about 'adopting' any different way of expressing relatedness and continuity than the *own* ancestral one.

These people or corporate groups were clearly 'different' in various respects, and their community would have seen occasional conflict and the negotiation of their relative standing vis-à-vis each other. However, they surely were never ranked in an orthodox sense, and while distinctions were explicitly formulated in some aspects, in others we see the explicit attempt to maintain sociality and the integrity of an overarching village community. Prominently, from the perspective of archaeological visibility, this is the case for the size, the layout and the furnishing of houses and households that do not show any major differences throughout the various sections of the settlement but placed a universal emphasis on likeness. On the normative

side, there clearly was a notion of what was still tolerable in terms of deviation among individuals or any corporate groups present; what was necessary in terms of continued coexistence; what was communally sanctioned; and what was understood to be desirable and worthwhile – the teleoaffective structures of the wider community. All these identities, individual and collective, formed a nested set and coexisted on different levels. They would have been distinctly contextual in the sense that upon various occasions different identities could easily be invoked: The entire community versus an outside world; those of the 'composite' outer settlement versus those of the tell-like core; or the inhabitants of the inner ring on themselves against both their inside and outside neighbours.

Turning to practice(s) and perception, it is important to recall certain aspects of chronology and size first. Surface surveys show that in the outer settlement of our sites typically there is evidence of both Hatvan and Füzesabony period occupation (Fischl/Pusztai 2018: 101–128). Radiocarbon dates, unfortunately, are so far only available from the outer settlement of two sites, namely Emőd-Nagyhalom and Tard-Tatárdomb, but these also point to long-term occupation throughout the local Early to Middle Bronze Ages (see above). It will always be difficult to tell from relative pottery chronology and radiocarbon dates beset with standard deviations when *exactly* individual groups or clusters of houses both on-tell and off-tell were established relative to each other – whether at precisely the same time or somewhat delayed. However, it is reasonably clear, already, that the outer settlement part as such, if not all of its individual groups, rows or clusters of houses, was long-lived. In some cases it may obviously have coexisted with the 'central' tell or tell-like part of the site throughout the entire lifespan of the community. In terms of size, on the other hand, we have seen that there are significant differences in the intensity of off-tell activity and the area occupied. Novaj-Földvár has already been repeatedly used as an example of a site with very little evidence of outside occupation at all, while Emőd-Karola szőlők, the site with the largest outer settlement so far, has unequivocal evidence of Bronze Age outside occupation from at least *c*. 10 ha, but may have comprised up to 25 ha in total (fig. III-111).

Both aspects combined, the longevity of the outer settlement as such and its sometimes substantial extent, make it unlikely that the entire outside area – at least of the larger sites – was ever completely covered with houses and under continuous intensive use. This is confirmed by the lack of cultural layers building up throughout the largest part of the outer settlement, a notable exception with a specific *raison d'être* being the outer ring of houses at Emőd-Nagyhalom discussed above. For this reason it has been argued that the continued lateral relocation of households over a larger area – as opposed to on-tell architectural continuity –, and corresponding more flexible notions of relatedness, historicity and descent were a central feature of the off-tell section of the general plenum of practices represented by our Borsod communities. As such 'off-tell living' would have been present on most of the sites and throughout most if not all of their existence. And it would always have brought to mind the fact that there was a viable alternative to tell-living.

As such, it has also been argued that the outer settlement may have been the more flexible and fluid part of the Borsod communities under discussion. For sure, in certain instances and for a certain period of time, this may have been the more populous, and maybe the more dynamic and influential section of some of these communities. And here, too, on a more frequent basis than on-tell, we may see the negotiation of belonging, the reordering and relocation of households – potentially so of corporate groups from both the respective community itself, and from other Borsod villages beyond that may have suffered internal conflict and inevitable fission, or that may have fared less well over the past couple of years for some other unknown and contingent reason. Emőd-Nagyhalom with its remarkable 'composite' outer settlement and different patterns of relating households may be just such an example of larger groups of households relocating.

In social terms the outer settlement may thus have had a less static 'feel' to it than the inner tell or tell-like part of the site. It is important to bear in mind, however, that this is not to be mistaken with disorder or some idealised, modernist notion of 'freedom'. For we clearly do see specifically off-tell norms and rules in operation that linked and oriented off-tell practices pertaining to architecture and the organisation of social space in this section of the site. As outlined above, even though the only 'real' boundary would have been the ditch that set them all apart from those on-tell, the corporate groups of the outer settlement as well, among them expressed and proclaimed difference and identity by the spatial arrangement of their houses or households. Differences among those off-tell surely were present and perceived – both on a discursive and on a non-discursive level – even if they were emphasised and reproduced via the layout and the arrangement of houses 'only'. Any moving around, on the other hand, would not have been physically restricted and only 'hampered' by tradition, gesture and comment if it was not felt appropriate on this particular occasion *etc.*

On a more pragmatic level the less static 'feel' of off-tell living postulated here would no doubt have corresponded with a less crowded and more spacious impression conveyed by the specifically off-tell setting and layout of social space. Along the rows of houses in the outer settlement of a couple of sites we have superimpositions, that is not all of these houses would have been standing at the same time. Whoever entered the settlement from the outside world would therefore have perceived a more or less comprehensive, successful or affluent outer section of this community, but one that was less densely settled or crowded than the subsequent 'inner' tell part, as he or she moved on. There was order, that is to say, with houses arranged into distinct rows, rings or clusters, but with the more frequent gaps and with alleys in between them there

would have been a marked contrast to the 'central' part of the site. These 'gaps' are also the reason why we must not automatically assume that the outer settlement would have had a less 'messy' appearance than the central tell. For unlike on-tell architectural practice, we may clearly have to reckon here with the more frequent ruins of derelict houses that had been abandoned, but never demolished or cleared, as they would have been in an on-tell setting, when a household or family simply moved on to a neighbouring plot in the next generation. Gaps, on the other hand, in the sense of truly open plots never built upon in the recent past, and any wider alleys in between lines or groups of houses, would have served as precisely those activity zones for neighbouring households sometimes so dearly missing on-tell.

Furthermore, any such open spaces, and alleys in particular, in terms of movement and communication would have meant that daily life and the organisation of many activities in the outer settlement was different and potentially easier or more straightforward than on the 'central' tell. Aspects of practices or bundles of practices such as animal husbandry (*e.g.* butchering),[188] the processing of agricultural products such as threshing, or craft production such as the extraction of clay, its processing, the forming and burning of pottery, would all have been possible in the immediate surroundings of the household. Or at least any moving around of people or animals required would have been largely unhindered *etc.* In this context, it is also important to recall once more, that with the exception of Tard-Tatárdomb and Maklár-Baglyashalom, where at some stage there was an outer demarcation to enclose the entire community, this feature is distinctly absent from the majority of our sites and throughout their existence. This finding has been discussed above in terms of the inhabitants of the outer settlement being left prone to attack, and it has been argued that we should not expect a permanent state of warfare in the Bronze Age among our sites and structuring their relations. Now, on a different note, the absence of an outer demarcation is also instructive in terms of daily life and the broader perceptions held, perhaps, of the social and the outside world. Since typically there was no further, outer demarcation, access could easily be gained to any fields, pasture or other special purpose plots outside the village or settled area proper. The outside boundary may have been fluid in the first place, such as when the 'last house' of the village was variously defined every generation as another house was added along one line of houses, while another one was abandoned and reclaimed by nature. And surrounding 'nature' itself may have been variously perceived through time. It may perhaps have been generally withdrawing as human impact on the surroundings of the settlement increased over time. But there may also have been different grades of the 'outside world' such as fields proper, plots of forest already degraded and used as pasture, any plots of land prone to flooding and distinctly 'seasonal' compared to other more permanent stretches of the landscape, or the fields used by 'us' versus by 'them', our neighbours *etc.*

Fig. IV-8: Tiszakeszi-Bálinthát Újtemető. Pieces of daub with the impressions of wattle from the outer settlement (after Fischl/Pusztai 2018: 115 fig. II-24).

Finally, as already outlined above in reference to those living on-tell, in terms of specific practices in the outer settlement as well there was a plethora of ongoing activities and practices that no doubt partly would have linked different groups of households in this section of the site, while potentially distinguishing them from their direct neighbours in other aspects; and the same applies to practices interconnecting corporate groups resident in the outer settlement and those living on-tell or, alternatively, setting them apart from each other. Many aspects of this complex picture or multifold bundles of practices unfortunately may be lost to archaeology, or at least await the excavation of well-preserved houses or households in both sections in order to establish correspondences or differences in their respective activities. Yet, architecture and the layout of our sites consistently referred to throughout this study may at least provide a hint at what is meant: On the one hand, some aspects of 'building' and 'housing', each a complex bundle of practices and material arrangements, manifestly set those living on the 'outside' apart from those on-tell. For we have seen above that 'off-tell-living' was distinctly characterised by the lateral relocation of households *etc.*, not practiced on-tell, and it would have comprised certain notions of relatedness and rules of descent *etc.*, other than those held on the 'central' tell part of the settlement. These conceptions would have linked and oriented specifically off-tell building practices, including for example the choice of an appropriate, far-off

[188] See Beáta Tugya in Fischl/Pusztai (2018: 128–133) on the animal bones recovered from the Borsod sites examined by the BORBAS project; see also Fischl *et al.* (2014: 361–367) and Fischl/Kienlin/Tugya (2015: 129–132).

Fig. IV-9: Bogács-Pazsagpuszta. Characteristic Swedish helmet bowls from the old excavations in the central tell-like part of the settlement (after Mengyán 2019a: 262 fig. 5).

plot for next generation's houses, while the resulting and always already preexisting arrangement of houses itself would have come to prefigure any such future notions of belonging or descent and corresponding practices.

On the other hand, in terms of interconnectedness, for example, we do not see systematic differences in terms of house size and architecture throughout the different sections of our Borsod sites, and many building techniques would invariably have been practised throughout the entire village community. In terms of the doings and sayings involved, both on-tell people and those off-tell (or at least some of them respectively) would have been skilled in choosing the proper trees for timber, in woodworking for the various parts of their houses, in the provision and preparation of clay for the house walls and other features *etc.* (fig. IV-8). They would all have been involved to various degrees in the passing on of any such knowledge and skills to other members of their family, their household or the wider community beyond. And every now and again they would themselves have had to rely on support from a neighbouring household, for example to mount this roof beam, or to mobilise and obtain support for some other task that necessitated a collaborative effort.

Clay, of course, would not only have been used in building. Rather, as pottery it would have been ubiquitous throughout the entire settlement (figs. IV-9 and IV-10; see also Kalicz 1968: 149–160; Bóna 1975: 151–155), as would the practice of pottery making. In premodern society this practice is often associated with the female domain, but irrespective of gender issues (Sofaer 2006) it is clearly one of the most expansive and 'cross-cutting' practices throughout prehistory since the Neolithic. Pottery making was surely widely practiced on a household basis throughout the Borsod communities studied, and it would have brought people together for various practical activities such as the search for, the negotiation of access to and the 'management' of good clay deposits in the vicinity. Furthermore, it would also have played a vital role in the formulation of a common identity – both on a village level of the entire community, and beyond in terms of the overarching Borsod identity postulated. Identity was also surely expressed and reproduced via other means of material culture, such as textiles or the decoration of house walls, that we are less well informed about. However, the making and use of pottery, by their mundane everyday presence, not discursively reflected upon for most of the time, would no doubt have been crucial practices, not just for supplying necessary containers, but for integration and establishing a feeling of belonging. At some stage, hopefully, it will be possible to compare the complete pottery inventories of individual households, as well as those of entire sites, say in the plain versus the foothill zone. It is likely that this will reveal variability on various levels and different preferences in terms of production techniques (the choice of clay, its preparation and tempering, the building of pots or the firing parameters *etc.*), the relative percentages of wares, shapes and decoration. Yet, on the other hand all pottery that we collect from the surface or excavate, in any case the fine wares, are clearly 'Hatvan' and 'Füzesabony' respectively, that is they stand for an aspect of the overarching identity that held these people together – beyond them belonging to this individual household or that, or being proponents of on-tell versus off-tell living. As such, pottery making, the many activities involved along its *chaîne opératoire*, the skills needed and the norms governing, for example, the choice of an adequate decoration for pots of this or that purpose, surely was an important aspect of social life.

Fig. IV-10: Novaj-Földvár. Characteristic jugs from the old excavations in the central tell-like part of the settlement (after Mengyán 2019b: 282 fig. 5).

The material arrangements thus brought into existence would have been of compositional significance for future coexistence and sociality in this village community – all the boards full of pottery along the house walls;[189] all the handling of pots in the context of other everyday practices such as storage or cooking; and all the potential moving around of pots between households or different sections of the site, as one lump of honeycombs was obtained in exchange for, say, some cheese or an alcoholic drink.

Drawing on the example of Vatya period Százhalombatta, Joanna Sofaer (2006) has aptly demonstrated the many links in terms of the procurement of raw materials, the shared practical understandings and the techniques involved, between the making of pottery and metalworking. The latter, of course, is yet another practice bundle also widely in evidence on our Borsod sites. In the context of Bronze Age research, it is often associated with on-tell elites in control of craft production and 'chiefs' subsidising full-time craft specialists by redistribution. This is yet another old debate that we will not go over again here (see Kienlin 2012b; 2015a). For all the available evidence clearly indicates that rather than being exceedingly 'special' in terms of Bronze Age 'social evolution', metalworking was widely practiced throughout the Borsod communities under consideration; and much like pottery making – albeit on a smaller scale – most likely it would have been practiced on a household level. Basically wherever the material from the old sondages on the central tell or tell-like part of some Borsod sites was properly documented and is still available for study, for example from Ároktő-Dongóhalom, Füzesabony-Öregdomb, Novaj-Földvár and Tibolddaróc-Bércút (Găvan 2015: 185–186 no. 1, 191–192 no. 15, 206 no. 37, 222–223 no. 62), there are finished metal objects such as an occasional dagger, axe blade or spearhead, and various ornaments such as needles, rings or spirals *etc.* (fig. IV-11). The same applies to metallurgy-related artefacts or remains, such as more or less numerous fragments of crucibles, casting moulds, *tuyères*, or slag that testify to the on-site practice of metallurgy (fig. IV-12). Now, whenever systematic archaeological fieldwork is extended onto the outer settlement, the same applies for this section of our Borsod communities as well, and for that matter for other groups beyond. So in the meantime from the outer section of a couple of sites we have both numerous finished objects like daggers and direct evidence of metalworking in terms of moulds, *tuyères* and copper or bronze droplets from the casting process (figs. IV-13 and IV-14).[190]

Metalworking, for sure, was just yet another practice among many others such as the working of stone,[191] bone and antler into tools or ornaments (fig. IV-15), that occurred both on-tell and off-tell. Most likely, in the

[189] For a well preserved *in situ* example, see the assemblage from the burned House 1 from level 2 at Túrkeve-Terehalom (Csányi/Tárnoki 2013).

[190] *E.g.* Fischl/Kienlin/Tugya 2015: 128–129; Fischl/Kienlin 2015: 118–119; Fischl/Pusztai 2018: 127–128; Kienlin/Lie/Fischl 2019: 219–220.

[191] See György Lengyel and Nikolett Kovács in Fischl/Pusztai (2018: 133–137) on the stone finds recovered from the Borsod sites examined by the BORBAS project; see also Fischl *et al.* (2014: 355–361).

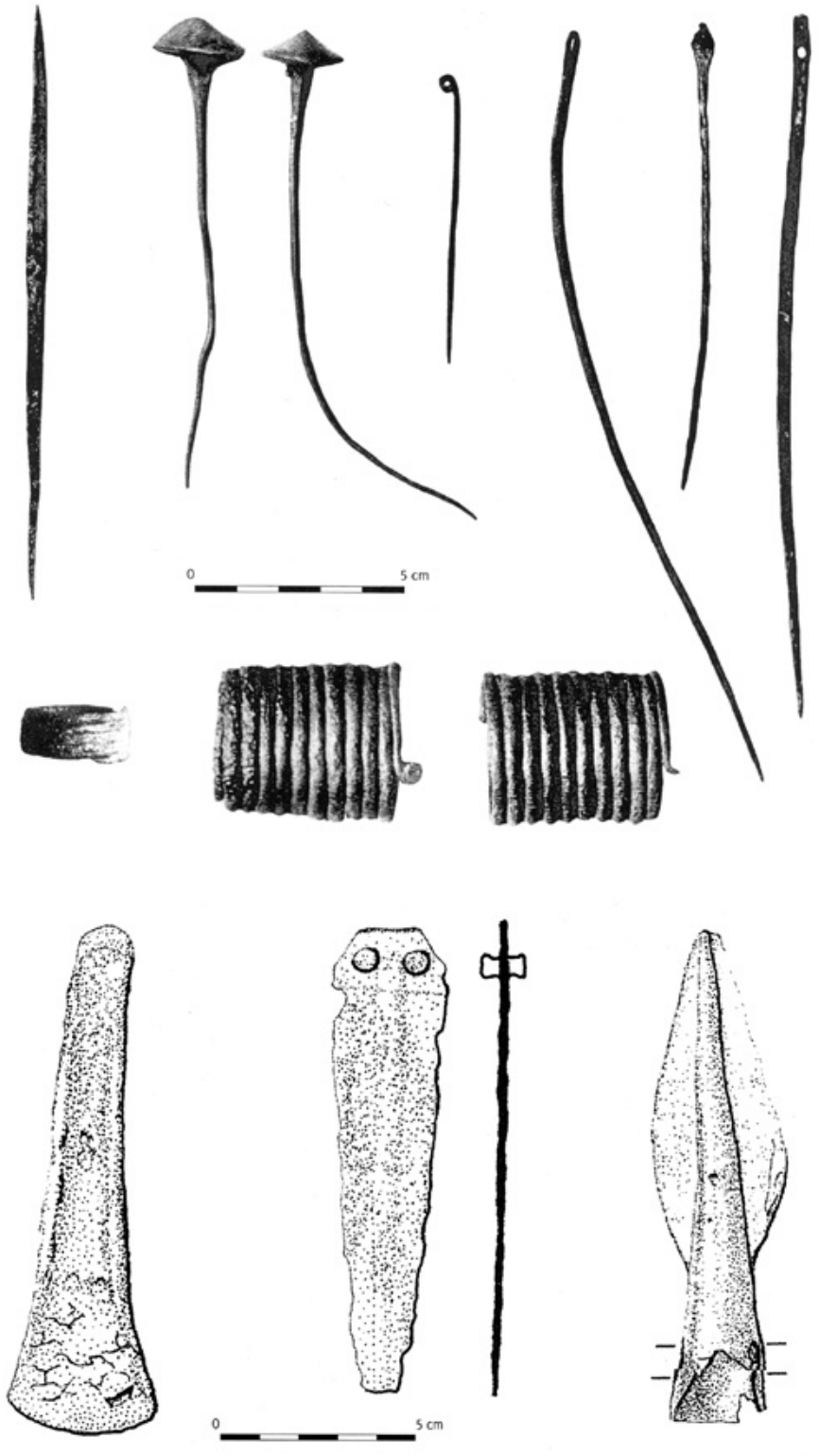


Fig. IV-11: Copper or bronze objects from the old excavations at Ároktő-Dongóhalom (bottom) and Füzesabony-Öregdomb (middle and top) (after Găvan 2015: 284 pl. 1, 297 pl. 14).

various sections of our sites all of these would have been carried out on a household basis, and potentially this was the case with different intensity as individual households (or rather, of course, their inhabitants) may have developed divergent preferences. Apart from the famous one-phase workshop on the Vatin period tell of Mošorin-Feudvar (Hänsel/Medović 2004; also Kienlin 2007; 2015a: 63–66), and, possibly, a metallurgy-related feature at the Vatya site of Lovasberény-Mihályvár,[192] proper metal workshops are distinctly absent from the numerous (older and more

[192] *E.g.* Petres/Bándi 1969: 175 fig. 6; Fischl/Kiss/Kulcsár 2013: 13–14; Jaeger 2016: 88–89.

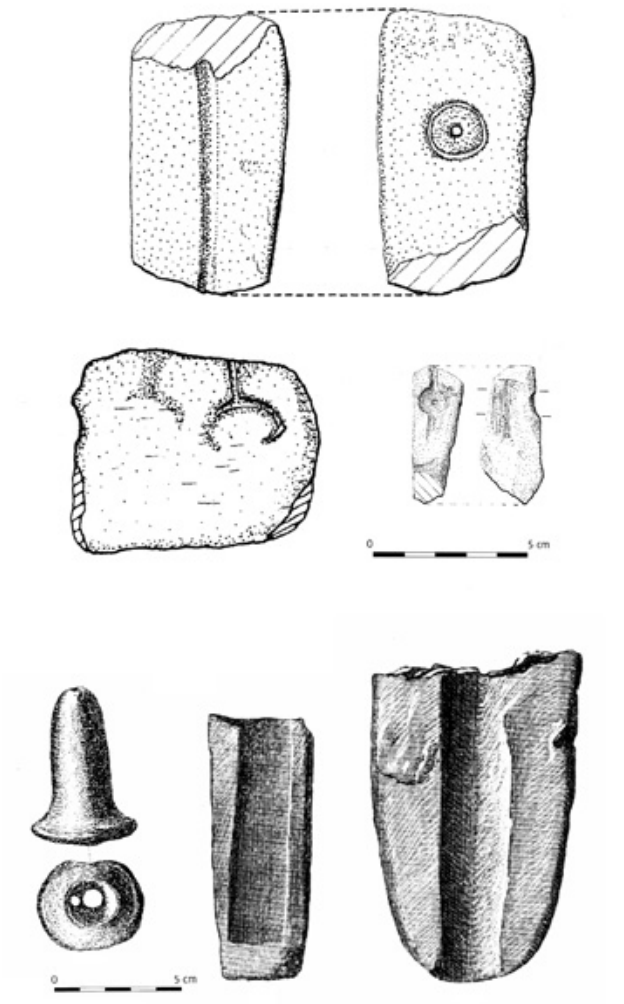


Fig. IV-12: Metallurgy-related artefacts (moulds and a tuyère) from the old excavations at Ároktő-Dongóhalom (top) and Tibolddaróc-Bércút (bottom) (after Găvan 2015: 284 pl. 1, 351 pl. 68).

Fig. IV-13: Tiszakeszi-Szódadomb. Surface find of an Early Bronze Age triangular dagger blade (after Fischl/Kienlin 2015: 118 fig. 6).

recent) excavations on Bronze Age tell sites throughout the Carpathian Basin. This finding in itself is testimony to the rather ephemeral nature of the practice of metallurgy that is only to be expected, be it on-tell or in the outer settlement. Just like pottery making, but certainly less frequently, the casting and working of copper and bronze objects may have occurred on a seasonal basis, or whenever actually required, in the immediate vicinity of individual houses or households. As such it would have left few traces for the archaeologist to discover. More importantly, however, originally, too, this was not a material arrangement that would have been constantly present or frequently encountered by any Bronze Age inhabitant of one of the Borsod sites under consideration. And unlike other everyday activities like the processing of food and cooking, it may not have had a lasting impact or influence on what it felt like to live on this tell or in its outer settlement.

Fig. IV-14: Emőd-Nagyhalom. Surface find of a casting mould for an Early to Middle Bronze Age dagger with a midrib (after Fischl/Pusztai 2018: 127 fig. II-34).

In terms of the on-tell versus off-tell distribution of metallurgy-related artefacts and the practice of metalworking, a couple of taphonomic points have to be

Fig. IV-15: Tiszabábolna-Fehérló tanya. Decorated bone fragment (after Fischl/Pusztai 2018: 126 fig. II-33).

considered: First, in a settlement context it is more or less astonishing to find any more numerous metal objects at all, for surely one would have kept an eye on them, and they would not have simply been lost on a regular basis. So in terms of the finished objects recovered both on-tell and in the outer settlement rather than proper loss we may actually encounter broadly speaking 'depositions' referring to a domestic context, be it that metal objects were deliberately hidden or deposited for whatever reason, or that they went missing on occasion when a house was destroyed by accident or torn down for rebuilding. Irrespective of this question, however, metal objects were present both on the tell and in the outer settlement. They were manifestly available to members of the various different sections of our communities, not just some on-tell 'elite'. As for metalworking itself and specifically casting, like the firing of pottery this activity may be easier conceived outside some off-tell house or household, rather than in the more dense and crowded setting of on-tell houses. From this perspective, the on-tell presence all the same of metallurgy-related artefacts like moulds or *tuyères* may indicate that they were stored in a domestic context rather than pointing to the on-tell practice of metallurgy as such. Crucibles or moulds *etc.* may thus have been kept indoor for re-use from an earlier casting event, or prepared in advance for a forthcoming one, while their actual use would have taken place on some off-tell 'outside' plot where such activities were traditionally (or just occasionally) carried out by all those on-tell.

Unlike the making of pottery, of course, metalworking in the plain in particular would have involved the procurement of raw materials from farther afield. However, there is no systematic reason to assume that this would always have involved an acute awareness of a 'pan-European' Bronze Age world beyond the own experience and lifeworld – a notion of oneself being part of a major supply chain that ultimately would have extended from Cornwall or Brittany, via the Alps or the German and Slovakian Ore Mountains, along the Danube, Tisza *etc.*, and ultimately towards Mycenae (*cf.* Kienlin 2017; 2018b; Piccolini/Kienlin 2018). Instead, as indicated by the Singen example discussed above, individual families or households may have been drawing on something akin to their traditional networks of raw material supplies for the procurement of metal as well. Thus, the perceived 'origin' of copper may not have been so very much different from the one of specific stone, silex or obsidian varieties, that all came from 'somewhere' in the mountains on the far horizon, along this particular river, and ultimately from the domain of this specific community that had already extended its hospitality to grandfather exploring far-off regions for conspicuously coloured stones while hunting or driving domestic animals *etc.* Tin, on the other hand, if it ever became available as such at all, not as a finished bronze object at some stage to be remolten, may just have come down some abstract line – from where nobody within living memory had bothered to pay a visit; somewhere even beyond the wildest imagination, but also of no practical relevance, and not pondered any longer.

Finally, from the recent catalogue of metal objects and metallurgy-related finds recovered from Bronze Age tell sites throughout the Carpathian Basin compiled by Alexandra Găvan (2015) two related aspects are apparent: First, there is a clear correlation between the amount of archaeological work done on a site (*i.e.* the number and the size of trenches, a surface survey carried out beyond *etc.*) and the frequency of such finds – our own work on the outer settlement parts of the Borsod sites being just such an example. And, second, that beyond the impact of archaeological activity on the picture that we have, there is the distinct possibility that certain sites may in fact stand out from their surroundings in terms of community specialisation – for a certain period only or throughout their existence – and saw a greater emphasis placed on specific activities such as metallurgy than elsewhere. Among the Borsod sites, that have been covered in a comparable manner by a non-systematic metal detector survey alongside our systematic surface survey and magnetometry, Emőd-Nagyhalom is notable in this respect and features a relatively high number of more than 100 metal finds, among them pins, other ornaments and five dagger blades, plus a couple of characteristic metallurgy-related objects (Kienlin/Lie/Fischl 2019: 219–220). One of the dagger blades recovered is the specimen shown, still *c*. 16 cm long with a roundish hilt plate, four rivets (one missing) and an incised double 'V'-shaped decoration that

Fig. IV-16: Emőd-Nagyhalom. Surface find of an Early to Middle Bronze Age dagger blade (after Kienlin/Lie/Fischl 2019: 220 fig. 16).

in terms of quality and preservation stands out (fig. IV-16). Besides, and actually more importantly in terms of metallurgy as such, there are numerous copper or bronze droplets, an end piece of a tuyère and the fragment of a mould (fig. IV-14) that all testify to the practice of casting and working copper or bronze on the site. As already mentioned above, these finds come from all over the site, and they point to a decentralised practice of metallurgy on a household base both on-tell and off-tell. Compared to other sites covered by the BORBAS project that have less extensive evidence of metallurgy, we may be looking here at distinct differences in terms of the relative frequency of such practices throughout the Borsod micro-region, even though these sites otherwise show remarkable similarity in terms of settlement layout and size *etc.*

However, it is difficult to quantify the influence of the state of archaeological activity on the known number of finds, and it depends, for example, on the conditions under which fieldwork was carried out, the qualification of those involved, or – in the case of older sondages – on the attention paid to inconspicuous metallurgical debris or methods of documentation *etc.* It is hard to say, therefore, just how many objects of what kind exactly we want to see to accord a site (or for that matter an individual household where such activities are assumed to be located) a special status in terms of metallurgical activity. Much Bronze Age research tends to explain such findings in overdetermined, structural terms of control of access to raw material deposits or chiefly power exerted over some important trade route or river (*e.g.* O'Shea 2011; Earle *et al.* 2015; O'Shea/Nicodemus 2019). In doing so we risk bumping up a more trivial ancient reality, and we tend to ignore the inherent contingency of social life, where all preexisting practice organisations plus material arrangements may prefigure, but never determine, the future state(s) of the social. By mere chance, then, three generations ago there may have lived two young men (or women?) in different families or households, on-tell or off-tell, that took a particular interest in all things shiny and malleable; who turned out to be patient and skilful in manual activity in general, but eventually took to casting and/or hammering metal, initially to provide their families or households with whatever was required; who proudly shared and exchanged their products later on with neighbours more talented for, say, knapping stone or weaving; and who handed on their specific talent and enthusiasm to their numerous sons (and daughters?), who all besides practicing agriculture for a living took a particular interest in metallurgy, so that this preference spread in their respective corporate groups, or may even have attracted attention from neighbouring villages *etc.* Any such household specialisation, or rather preferences shared by larger sections of a specific community or village for a certain period of time is not perforce the same as the full-time craft specialisation and functional differentiation under political control that many Bronze Age archaeologists are so eager to find in their data.

V. Epilogue

V.1 Death and Burial on the Bronze Age Borsod Plain

This is a book on social life and the living, very much perceived through everyday practices, settlement and social space. Death, then, hopefully would not have been a feature of daily being, and graves certainly are not a reflection or mirror of life (*cf.* Parker Pearson 1999). However, burial for sure is an important social practice, and reference back to ancestral space has been identified throughout as an important aspect of social life on the settlement mounds under consideration. So to conclude this study it is certainly worthwhile looking at death and burial on the Bronze Age Borsod plain, in an attempt to see if some of the concerns in life hitherto outlined find their equivalent in the domain of the dead, and in what ways practices related to life and death respectively overlapped or were interconnected.

Let us begin, then, with what we do not see, namely settlement burial. This practice had been prominent on the Early Neolithic tell sites in the Near East (fig. V-1), where it is plausibly argued that it expressed a commitment to fixed places, underlined claims to tradition by incorporating the ancestors and had a role to play in the construction of social memory, or the like (*e.g.* Hodder 1990; 2006). Some of these concerns, obviously, were preserved in the initial spread west of the Neolithic way of life to Europe, where tell settlement is a distinctive feature of Early Neolithic groups in Greece and the southern Balkans (*e.g.* Perlès 2001: 172–199; Parzinger 1993: 294–296; Souvatzi 2008: 47–76); and they resurfaced further to the north on the Balkan peninsula and into the Carpathian Basin where tell settlement only occurred during the local Late Neolithic (*e.g.* Gogâltan 2003; Link 2006). On these sites, clearly, there is still evidence of the burial of select groups of people, rather than a representative sample let alone the entire population, even though this may only have been a faint reflection of the ritual elaboration originally evident in the Near East. For we encounter individual burials or small groups of them dispersed throughout the settlement, rather than the dead lying in dozens underneath the platforms inside specific 'history houses', their skulls being unearthed, handled and manipulated before being reburied *etc.*[193]

On Bronze Age tells, by contrast, systematic settlement burial is distinctly absent, even though there are occasional reports of disarticulated human remains (Gogâltan 2012: 18–19). Thus, while a sense of ancestry and continuity of place is clearly evident, such notions were now entertained and reproduced differently than during the preceding Neolithic. They still found visible archaeological expression mainly in direct architectural continuity and were practised by superimposing generation upon generation of on-tell houses as outlined above. The lack of burials in the context of this practice bundle from a modern perspective makes these sites less disconcerting than their Late Neolithic forerunners. And while cult and ritual as such may be allowed for,[194] they are perceived as less explicitly linked to the building-up of a specific Bronze Age tell materiality. As Antonio Blanco-González has aptly put it:

> 'Their vertical building-up is indeed regarded as the straight reflection of long-lasting stability coupled with the cumulative – and almost inadvertent and natural (?) – side effect of building with earthen and stone architecture. Thus, contrary to the vibrant interpretive atmosphere surrounding Neolithic and Chalcolithic sites, the layers, deposits and assemblages from Bronze and Iron Age tells are often envisaged in utilitarian terms as socially deactivated debris and trash.' (Blanco-González/Kienlin 2020: 6).

We must be wary here of projecting back a more 'rational' (or self-aggrandising and political) quality on Bronze Age life than during the preceding Neolithic. Bronze Age tells must not be studied in terms of 'political' economy only. Instead, we must allow for a specifically 'moral' economy as well, where '[...] the moral value shared by person and place increased with the time-depth of the settlement and the range of ancestral associations, as consolidated through social memory [...].' (Chapman 2020: 215; see also Barrett 2012a). This is certainly not to deny change through time or difference in historical context; and it is not argued that there was an essentialised, ahistorical 'tell life' largely alike and prevalent during both the Neolithic and the Bronze Ages. However, on the tell sites of *both* periods evidence for the existence of distinct 'sanctuaries' is controversial, and it does seem that there was similarly no clear distinction between ritual and the 'worldly' sphere of households during both epochs.[195] We may have to reconsider, then, for example the role of hoarding on Bronze Age tells, for this typically receives a historical or political interpretation, when in fact this practice may have replaced older ways of ritual expression and reference back to the deep ancestry of a site, among them intramural burial. Throughout Bronze Age Europe, and for that matter a largely off-tell archaeology, hoarding is considered a ritual

[193] See, for example, all the sites discussed in the papers in Raczky (1987); see also Korek (1989: 46–47), Lichter (2001), Link (2006: 58–59), Parkinson (2006: 47–48), Borić (2009: 221–225), Siklósi (2013: 423–425, 429–430) and Kienlin (2015a: 7–26).

[194] See, in particular, Gogâltan (2012) with a comprehensive review of the evidence of cult and ritual on the Bronze Age tell sites in the Carpathian Basin.

[195] See discussion and further references in Kienlin (2015a: 24, 55, 60–61).

Fig. V-1: Settlement burial at Çatal Höyük, Turkey. Multiple burials underneath a platform in Building 1 (bottom) and a skeleton holding a plastered skull from Building 42 (top; after Hodder 2006: plates 12 and 13).

practice, a phenomenon related to the communication of Bronze Age people with ancestral or supernatural powers (*e.g.* papers in Hänsel/Hänsel 1997) – although, of course, as such it may also have carried strong social or political implications. Hoards, from this perspective, may have marked out ritual landscapes and defined social boundaries (*e.g.* Fontijn 2001/02; Hansen/Neumann/Vachta 2012), and their deposition may have been used to negotiate social relations in a broadly ritual context (*e.g.* Bradley 1990; Kristiansen/Larsson 2005). Whenever hoarding occurs on Bronze Age tells, however, interpretation is different, for these hoards, especially if they comprise metal objects, are perceived in strictly historical or social and political terms only. Their deposition is thought to relate to the destruction of tells by outside aggressors,[196] or the hiding away of wealth that can be 'read' in terms of the social and political differentiation of tell communities.[197] Why not, instead, should we seek to understand hoards on tells, including the often neglected deposition of pottery and other clay objects (Gogâltan 2012: 19–23), in terms similar to those accepted in the outside world and in terms of approaches familiar in Neolithic research: The marking

[196] *E.g.* Mozsolics 1957; Bóna 1992a: 34–38; *cf.* David 1998: 240–244; 2002: 10–33.

[197] See, for example, Earle/Kristiansen (2010c: 241, 254) and Gogâltan (2010: 38).

out of social space by means of ritual, enchained social relations, and the construction of narratives related to the ancestry of such sites where previous generations had already buried if not their dead but their most precious valuables dedicating them to the gods or ancestors?

However, even in the local Late Neolithic only a small section of the entire population would have been buried in their settlement, while the vast majority of the dead remain unaccounted for. Even then, that is to say, the specifically on-tell link to the past and ancestry would not have been primarily established via burial and on-tell practices related to the handling, care of and the direct reference back to the physical remains of concrete individuals from past generations. This certainly holds true also for the Bronze Age, where we see specifically on-tell notions of relatedness and descent, that throughout their existence did without settlement burial and the manipulation of the bones of the ancestors. Instead, as detailed above, we see an emphasis on direct architectural continuity *etc.*, not evident in the same way off-tell, perhaps supplemented by the curation of other items of material culture as just outlined in relation to hoarding. But the dead of both those on-tell and off-tell alike were buried outside the settlement, and a more or less clear spatial division was established between the physical domains of the living and the dead. It is probably beyond archaeology if and in what sense this involved a true shift in the specific notions of kinship and descent involved, such as a more abstracted conception of 'ancestry' during the Bronze Age. However, there may not have been fundamental differences between Neolithic and Bronze Age communities in this respect at all. For after what has just been said, not even the local Late Neolithic relied exclusively on the physical incorporation of bygone kin into the settlement domain. In any case, however, we can trace the different practices involved and some of the consequences of the creation of a separate mortuary domain outside the immediate sphere of the living, be they on-tell or off-tell.

It is important here, once more, to avoid the pitfalls of entrenched paradigms. For since the discovery of the Eneolithic cemetery of Varna in Bulgaria, in particular, debates on tells and extramural cemeteries tend to be framed in terms of socio-political evolution, and often involve the assumption of intra-group tension and competition for individual status. Conflict and individual identities, it is suggested, could not be accommodated, negotiated or expressed any more within the constraints put upon social practices in contemporaneous tell settlements (Chapman *et al.* 2006: 163, 171), and consequently led to a decoupling and spatial separation of mortuary space: '[...] a crisis in the communally accepted form of personhood and a threat to the egalitarian basis of ancestral dwelling on the tell from a new level of conspicuous, competitive consumption that could not be contained within the traditional ancestral domestic arena. [...] that led to the co-emergence of a new arena of social power to validate the newly developed patronal roles [...].' (Chapman *et al.* 2006: 174). In Bronze Age research, specifically, this argument goes well with the traditional emphasis on on-tell 'elites' or 'chiefs'. It finds us inclined to accept that any small differences in the 'richness' of grave goods revealed by methodological sophistication and statistical analysis are meaningful in terms of power differentials. We are invited, then, to look out for social competition in the cemeteries, that could no longer be harboured on-tell, and seeming 'equality' in the domain of the living becomes the masking of a deeper social 'reality' – namely competition and aggrandisement, assumed rather than convincingly demonstrated by reference to the actual concrete remains of past social life on the ground (see also discussion in Kienlin 2010: 97–101). This is a problematic argument that forestalls an unprejudiced study of both the domains of the living and the dead. The obsessive search for hierarchies conceals the more basic principles along which these communities were organised.

It has been argued at length throughout this study, that in the Bronze Age tell communities under consideration there was a strong concern with communal values. Traditional notions of the self *and* the community were encouraged rather than setting a premium on the aggressive aggrandising behaviour of select 'alpha' males, the aspect which tends to fascinate Bronze Age archaeology. For after all this is exactly what the notion of a 'tell' stands for. What we see is the long-term stability of a traditional way of life and continuity in the norms and values structuring the social life of these people, their practices, their social space or material arrangements in general. Regarding the various on-tell and off-tell sections of the Borsod sites, it has further been argued that this applies to the *entire* community they formed. Instead of a 'central' tell and its dependent 'suburbium', we see in fact the long-term coexistence of several corporate groups more or less on equal footing, but representing different avenues to social integration. As part of one larger community or village all of them would have had in common a multitude of everyday practices and material arrangements, but they adhered to alternative ways of organising social space and fostered different notions of relatedness and historicity *etc.* As such, on most of our Borsod sites discussed here these different traditions (or rather, of course, their respective proponents) would all have been present throughout their existence, and they would have come to stand for the viability of alternative approaches to social life and social integration.

Now, in this concluding section it will be contended that rather than conflict and competition it is exactly this segmentary pattern of alternative notions of relatedness and descent, that we also encounter in the domain of death and burial. Rather than being an alternative arena for social competition and conspicuous consumption allegedly invisible on-site, in the extramural burial grounds of the Early to Middle Bronze Age Borsod plain we see similar concerns to those expressed in the world of the living. Compared to their distant Neolithic forerunners the emergence of extramural burial grounds no doubt is a new feature of our Bronze Age sites – foreshadowed, of course,

during the intermediate Copper Age. Both distancing the dead from the settlement and locating them at fixed places in the landscape would have made a difference with regard to numerous practices pertaining to the dead and the living respectively. This must not be reduced to, and is not exhausted by, the widespread interest in socio-political hierarchisation. Extramural burial as such may also refer to the obvious, namely changing perceptions of death *etc.*, as well as to numerous other concerns of the living instead of just propagating social change. The appropriate treatment of the dead, obviously, may have provided an opportunity for the expression of individual distinctions. Yet, it may well have done so without negating or eroding communal solidarity, and extramural burial grounds may have provided complementary focal points in the landscape to the house and the settlement alone for ceremonies that strengthened the bond between the living and the dead.

In the graves that we are about to turn to there is unequivocal evidence of a concern with aspects of personhood and individual identities, but this concern is typically centred on categories of age and gender – children and various grades of adults, male or female –, differentiated by the dead person's position and orientation, and by modest differences in the grave goods present. Any slight differences in 'wealth' that are potentially seen, then, may depend on various contingent factors. We may only be looking at the relative success – from generation to generation or among the various households present – to adequately express basic categories of age and gender: the surviving relatives' present capacity after a couple of particularly dry years, and their actual readiness, to supply everything required to match the deceased's *habitus*; his or her not being married yet; a father or mother of four passing away much too early before any of the children could take full responsibility *etc.*, or an old man or woman after a life of accomplishment *etc.* Beyond that there is little evidence to suggest a markedly stratified society, and any weak interest that may be evident in personal standing – say individual merit, experience or preferred activities – is mediated by the integration of most graves into larger corporate groupings corresponding most likely to those seen in life and in the settlement. A burial, that is to say, may be accomplished or successful in much more mundane terms than aggrandisement. It never takes place in isolation, and it is never a statement merely on the dead person's (and his/her relatives') standing or ambitions. Instead, it is always firmly embedded in and linked to wider notions of identity, the reproduction of community and cosmological order *etc.*

Starting somewhat outside the Borsod plain itself, from Encs in the Hernád valley to the north and from Tiszafüred just south across the Tisza there is evidence of larger Middle Bronze Age cemeteries. Encs was only excavated in the run-up of the construction of the M30 motorway in 2018 and awaits detailed publication, but there are more than 1,000 graves, most of them Füzesabony period and style inhumations, which are reported to be arranged in east-west oriented rows plus some distinct groups (Mengyán/Dávid 2019). Tiszafüred, by contrast, is an old excavation that has never been properly published, and there is competing information both on the total number of graves and the structure of this burial ground or rather grounds (*e.g.* Kovács 1992b; *cf.* Thomas 2008: 231–233; Daróczi 2015: 184–185). Most likely, there were actually several distinct groups of graves or cemeteries located on the slight elevation above the Tisza to the south-east of the modern village, with a total of probably more than a 1,000 graves. Some 600 of these are said to come from Majoroshalom, the largest individual Early to mainly Middle Bronze Age cemetery identified in the area, and said to show an internal division into distinct grave groups and rows (*e.g.* Kovács 1992b: 96). With Encs it is as yet unclear where the next settlements were located, but the cemeteries of Tiszafüred are commonly thought to relate to the neighbouring tell site of Tiszafüred-Ásotthalom (*e.g.* Kovács 1992a). They both show, however, that one 'model' of burial practised saw a greater number of dead people laid to rest into one larger, even though distinctly structured burial ground. If Tiszafüred applies these would have come from among the inhabitants and the various corporate groups of one long-lived tell or tell-like settlement nearby. However, depending on the actual settlement structure and topography – the presence perhaps of more than just one settlement mound and/or potential flat sites in the surroundings – we may also expect cemeteries that actually comprise the dead of several neighbouring settlement units. One way or the other, all of these would have been thought to be related and 'qualified' for joint burial in one larger cemetery. However, underneath that shared identity they would also have been distinguished in life along various lines of, say, co-residence or kinship, and this separation would then be carried over into the apparent spatial order of their graves and the distinct rows or clusters seen.

Pending future excavations, such larger 'inclusive' cemeteries obviously may yet come to light on the Borsod plain itself as well. For the time being, however, the more common and one may say alternative model is for somewhat smaller cemeteries, most likely several of them for each settlement, and each potentially marked out by slight differences in burial rite, grave goods or material culture, and chronology or the time span when burials took place. It is this arrangement that is thought to match the segmentary pattern of alternative notions of relatedness and descent identified above on our Borsod sites. Underneath an overarching village identity, it sees the different notions of belonging and identity held by the living, who were organised into distinct corporate groups, transposed to the domain of the dead. This pattern as such, of course, has been observed for a long time. It is the underlying reason why Hatvan period graves, when cremation was still predominant and the dead were buried in small groups, are largely absent and are only discovered by chance on rare occasions (*e.g.* Kalicz 1968: 143–149; Tárnoki 1992b). But it is also still characteristic

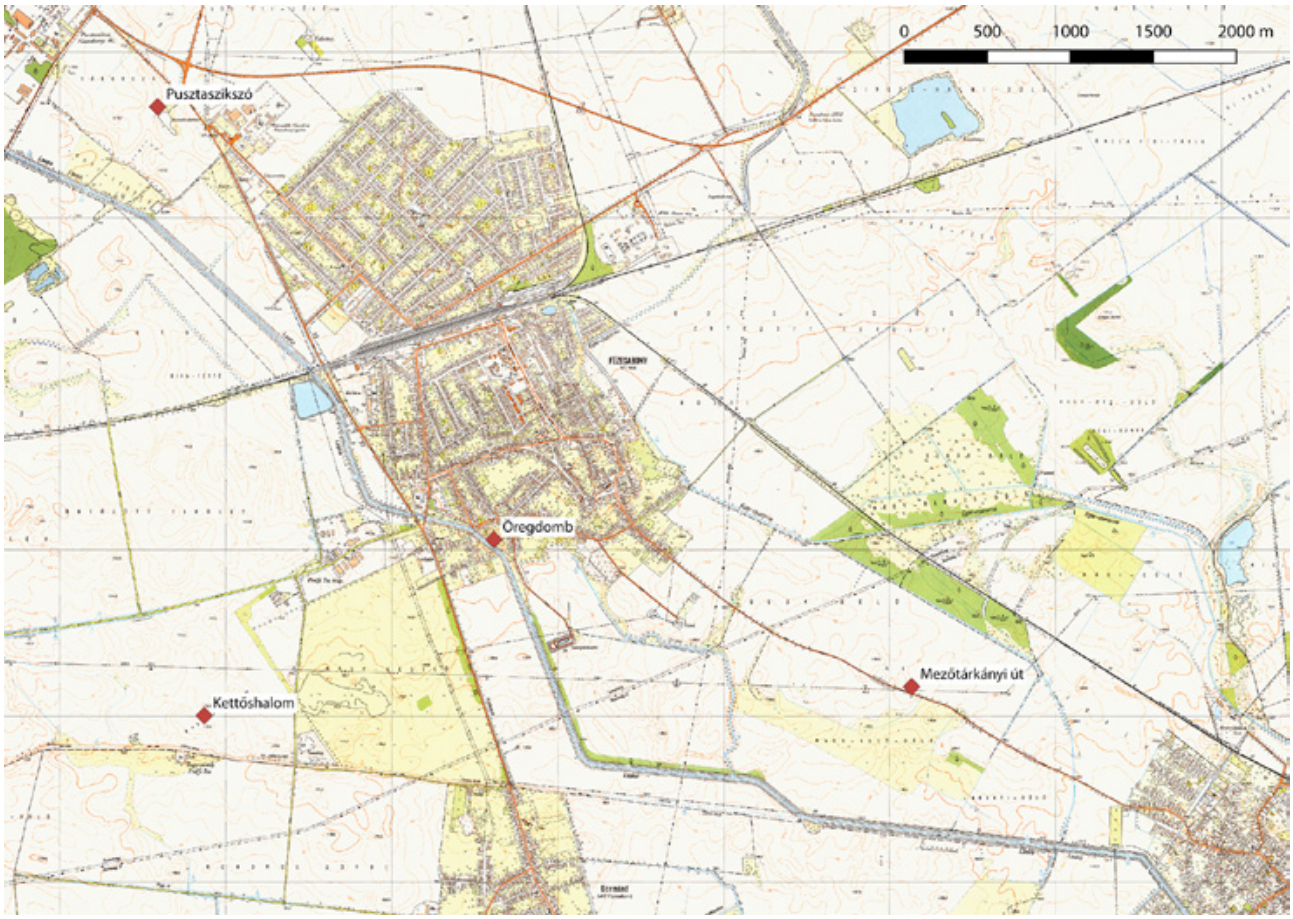


Fig. V-2: The location of burial grounds in the surroundings of Füzesabony-Öregdomb thought to belong to the eponymous tell site (after Szathmári *et al.* 2019: 300 fig. 5).

for Füzesabony period inhumation burial,[198] and we can turn to Füzesabony-Öregdomb, Gelej-Pincehát and Vatta-Testhalom for various more or less well documented examples of such constellations.

In the wider surroundings of Füzesabony-Öregdomb there are at least three grave groups or small cemeteries known that are thought to relate to the eponymous tell site (fig. V-2): Pusztaszikszó, the largest of these burial grounds, is located at a distance of about three kilometres to the north-west, and comprises 30 well documented graves; Kettőshalom with 24 excavated graves is situated *c.* 1.2 km south-west of the tell; and yet another small group of graves was discovered in the south-east along the road to neighbouring Mezőtárkány (Thomas 2008: 121–154, 250–257; Szathmári *et al.* 2019: 300–301). With distances of up to three kilometres from the tell, it is obvious that the allocation of these burial grounds to the site of Füzesabony-Öregdomb depends on our archaeological knowledge of its surroundings and the potential presence of other settlements in the vicinity. Given the general lack of open sites throughout the Borsod plain and the relatively close spacing of the enclosed multi-layer settlement mounds under study, it is perhaps not unlikely that these grave groups were indeed created by those resident on Öregdomb and in its surrounding outer settlement that has recently seen some systematic archaeological fieldwork (Szathmári *et al.* 2019: 306–309).

Unfortunately, none of these cemeteries has been excavated according to modern standards, and we cannot be sure about their exact extent or the number of graves *etc.* However, the general pattern seen is telling, and it nicely accords with the model of these communities proposed above. On various levels, the separate burial grounds as such and their internal divisions, such as at Pusztaszikszó where even though the central part has been destroyed distinct lines of graves are still discernible (fig. V-3), correspond to corporate groups resident on-tell or in its outer settlement. Every new interment plus any subsequent reference to these graves in ritual would then have reinforced and underlined the identity of those involved, be they co-residents, family or kinship groups *etc.* Thus, a notion of relatedness would have been expressed and reproduced by the use of their 'own' burial ground, set apart in spatial terms from the

[198] As substantiated in the first part of this study, the Hatvan to Füzesabony sequence is seen here as a continuous development rather than the replacement of one 'people' by another (Kienlin 2015a: 34–38). Clearly, the shift from cremation to inhumation burial referred to above, was among the strongest reasons for traditional research to postulate a new population (*e.g.* Bóna 1975: 148–151; 1992a: 26–29). This is rejected as essentialist, for in fact there is cremation throughout, and in late Füzesabony times it is gaining renewed importance. Settlement and material culture, too, in many aspects show continuity, and we have a nice example here of asynchronous development and change in the various domains of life and death that do not boil down to ethnicity.

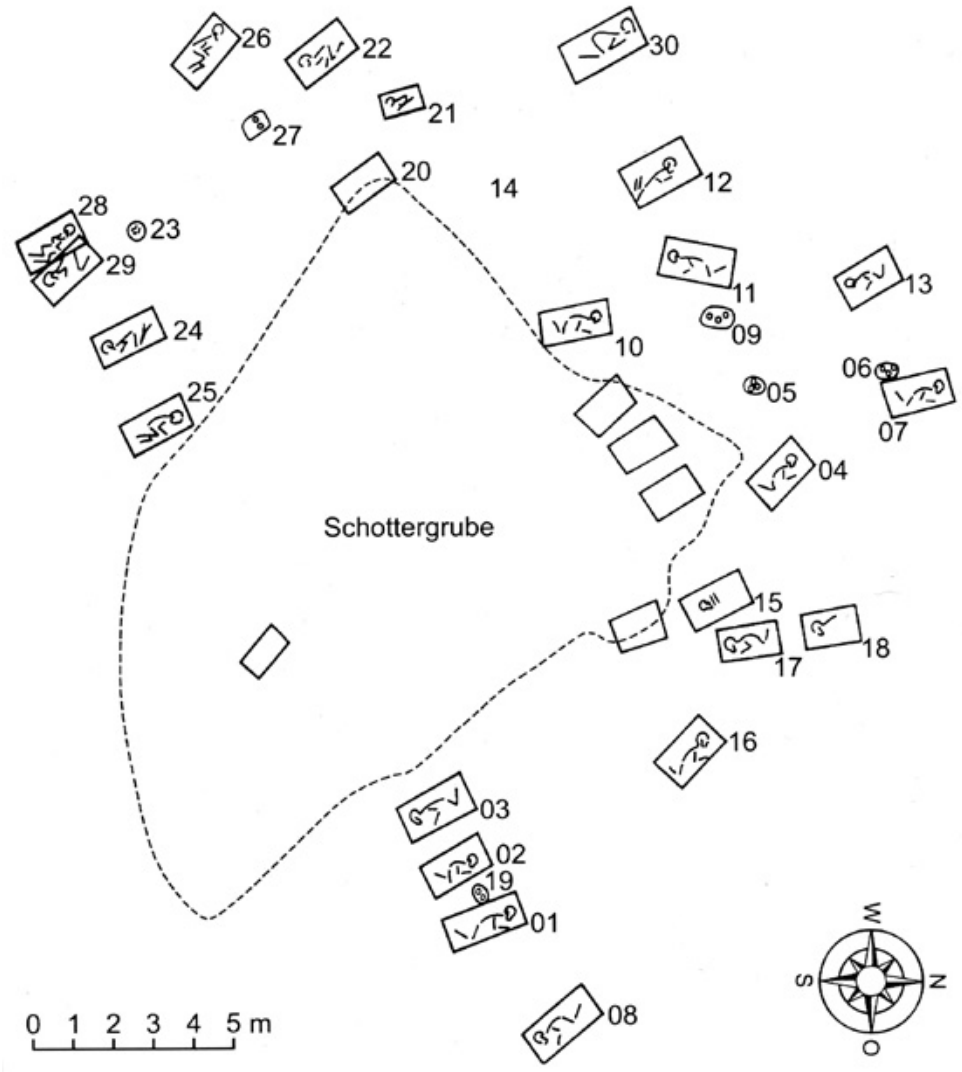


Fig. V-3: Pusztaszikszó. Plan of the burial ground thought to belong to the tell site of Füzesabony-Öregdomb (after Thomas 2008: tab. 54).

ones of their direct on-tell or off-tell neighbours. The same applies to any other aspects of material culture involved – the differences in relative 'richness' noted, or rather the different uses of ornaments and implements in burial to express the identity or the *habitus* of the deceased; or facets of burial ritual such as the ongoing practice of cremation in some families or kin groups, and not so in others *etc.* For this reason, while there obviously are chronological differences between the grave groups discussed (Thomas 2008: 121–154, 250–257), rather than putting them in neat historical succession – a narrative, for example, of 'rich' early settlers first in Kettőshalom, followed by their less affluent successors at Pusztaszikszó (Szathmári *et al.* 2019: 301) – we would do better to assume the broadly parallel existence of various corporate groups in both the domains of life and death. Partly overlapping and partly asynchronous, there were distinct groups of people that claimed and sought proximity in death, and that most likely were also related one way or the other in their own lifetimes, as social life unfolded at Öregdomb and in its surrounding outer settlement respectively.

It is unlikely that in the known cemeteries we see the entire population of Füzesabony-Öregdomb at any specific moment or through time, and other corporate groups originally present certainly are still 'hiding' in their respective burial grounds somewhere in the surroundings (if these have not been destroyed at some stage, of course). As such, given it was agreed who qualified for common burial in the first place, among them they had to negotiate an appropriate and universally accepted location for their dead somewhere in the surroundings of their settlement. This would surely have involved various practical considerations as well as social and cultural ones: accessibility during different times of the year and under various weather conditions such as flooding after permanent rain in spring had to be ensured; a suitable flood-free place for the dead had to be found in the first place; any competing claims to precisely this same stretch of land had to be mediated, be it also for burial, agriculture or some other 'off-site' activity of economic importance; and the chosen site surely had to match broadly ideological concerns such as the need to separate the dead from the

living by some watercourse or other topographic feature apt to bring about sufficient 'liminality' (see already Kalicz 1968: 148–149).

It may well be, then, that for purely practical reasons some cemeteries came to be situated at quite some distance from the domain of the living. However, this expansion into the landscape, and the effective spatial separation of these grave groups from their settlement or village, may also reflect a deliberate social strategy and communal concerns: We see here the broadly speaking 'segmentary' aspect of the Borsod communities studied emphasised and transposed into the domain of the dead. Withdrawing from sight and distancing whatever happened in this context in terms of sectional traditions and identities enacted and reaffirmed, may well have been perceived then as a necessity to prevent the erosion of communal solidarity. Sociality and the integrity of an overarching village community may have been encouraged and maintained by pushing the alternative, practices related to the death and adequate burial of the members of distinct corporate groups undeniably present as such, to the fringes.

Our next example, Gelej, exhibits a similar 'segmentary' arrangement with two smaller adjacent cemeteries, Kanálisdűlő and Beltelekdűlő (Kemenczei 1979; Thomas 2008: 25–120), although in this case these are located at a distance of hardly more than 500 m from what is thought to be the corresponding settlement. Recent fieldwork has considerably improved our understanding of the situation at Gelej (figs. V-4 and V-5). For where previously there was thought to be an open, single-layer site only (*e.g.* Kemenczei 1979: 27, fig. 2; Thomas 2008: 25, 86–87), there is now evidence from magnetometry and coring that indicates the existence of an enclosed, presumably multi-layer part of the settlement *c.* 900 m west of the modern village and situated on the western bank of an old arm of the Csincse river (Kienlin/Fischl/Pusztai 2018b: 189–195). Most likely, therefore, this is one of our 'standard' Borsod sites, the central possibly tell-like part of which is covered by trees and heavily disturbed by wine cellars. The enclosure is also largely covered, but can be traced in magnetometry for some 45 m, and core drilling confirms the existence of a ditch *c*. 4 m deep. Beyond that there is the outer settlement of Early to Middle Bronze Age date – the part of the site previously thought to be an open single-layer settlement. It overlaps with Late Bronze Age settlement activity at some distance further south and south-east (Kemenczei 1979: fig. 2), but there is a clear shift in focus, and towards the central part of the Early to Middle Bronze Age site Late Bronze Age evidence is distinctly absent.

This settlement is no more or less 'rural' than any other of our Borsod sites, and its cemeteries at Kanálisdűlő and Beltelekdűlő provide a cautionary tale that warns us against Bronze Age research's bias that has us read any patterning in our data in terms of 'hierarchies' instead of simply allowing for what we actually see, namely complexity and different identities in broadly speaking traditional, segmentary societies. For even in a recent study of Otomani-Füzesabony burial rite Gelej features as a 'rural' open site that allegedly compares poorly with the true 'centres of power' of that culture due to its 'poor' grave furnishings and rare metal objects (Thomas 2008: 86–87, 118–120). This is surely problematic. We are not talking about an open site here at all anymore. And just like the practice of metalworking referred to above, with regard to other activities as well such as burial ritual and the choice of grave goods, we have to allow for distinct differences between communities and specific preferences of people that occur among otherwise structurally similar sites, and that do not simply translate into settlement 'hierarchies', or the like.

In Gelej, then, the two burial grounds that we know of since their (partial) excavation in the 1940s and 1960s (Kemenczei 1979: 5), are situated on a slight elevation on the opposite, eastern side of the (old) Csincse river as seen from the settlement (fig. V-5). Except for the possible survival of some gallery forest, they would invariably have been in sight from the settlement, and certainly within easy reach for a community whose members practised fishing and must otherwise have been accustomed to a landscape full of meandering watercourses. So here there was a largely symbolic demarcation, the river, between the domain of the living and the dead, but at least the two cemeteries that we know of where not widely separated and set apart in spatial terms – neither among them, nor in relation to the settlement of the living. Throughout the Borsod plain there were clearly different notions in operation, then, and alternative options where to 'locate' the dead. Those buried at Kanálisdűlő and Beltelekdűlő would surely have been more 'present' in the daily life of their former community than some of the dead buried in the wider surroundings of Füzesabony-Öregdomb above, in terms of people having to pass by their burial ground on the way out to their fields or pastures *etc.*

Kanálisdűlő is the larger one of both cemeteries, with some 153 documented graves and an unknown number destroyed by a sand quarry (fig. V-6; Kemenczei 1979: 7–22; Thomas 2008: 25–87), while the section of the grave group excavated at Beltelekdűlő comprises only 22 graves (fig. V-7; Kemenczei 1979: 23–26; Thomas 2008: 87–117). Geomagnetic prospection carried out in 2016 indicates that the boundaries of both grave groups may not have been reached in the old excavations. However, both groups that are only situated at *c*. 150 m distance (judging from their excavated parts) do not seem to connect, and the overall segmentary pattern postulated clearly stands (fig. V-5). In good accordance with the evidence from Füzesabony discussed above, we see therefore the joint burial in distinct grave groups, themselves structured into lines or subgroups, of those also related in life on grounds of co-residence or kinship, be they on-tell or off-tell, or from the various sections of a larger outer settlement *etc.* And just like their co-residence or any other shared practices in life, so too burial ritual and any reference back to their graves would have served to reinforce and reproduce the

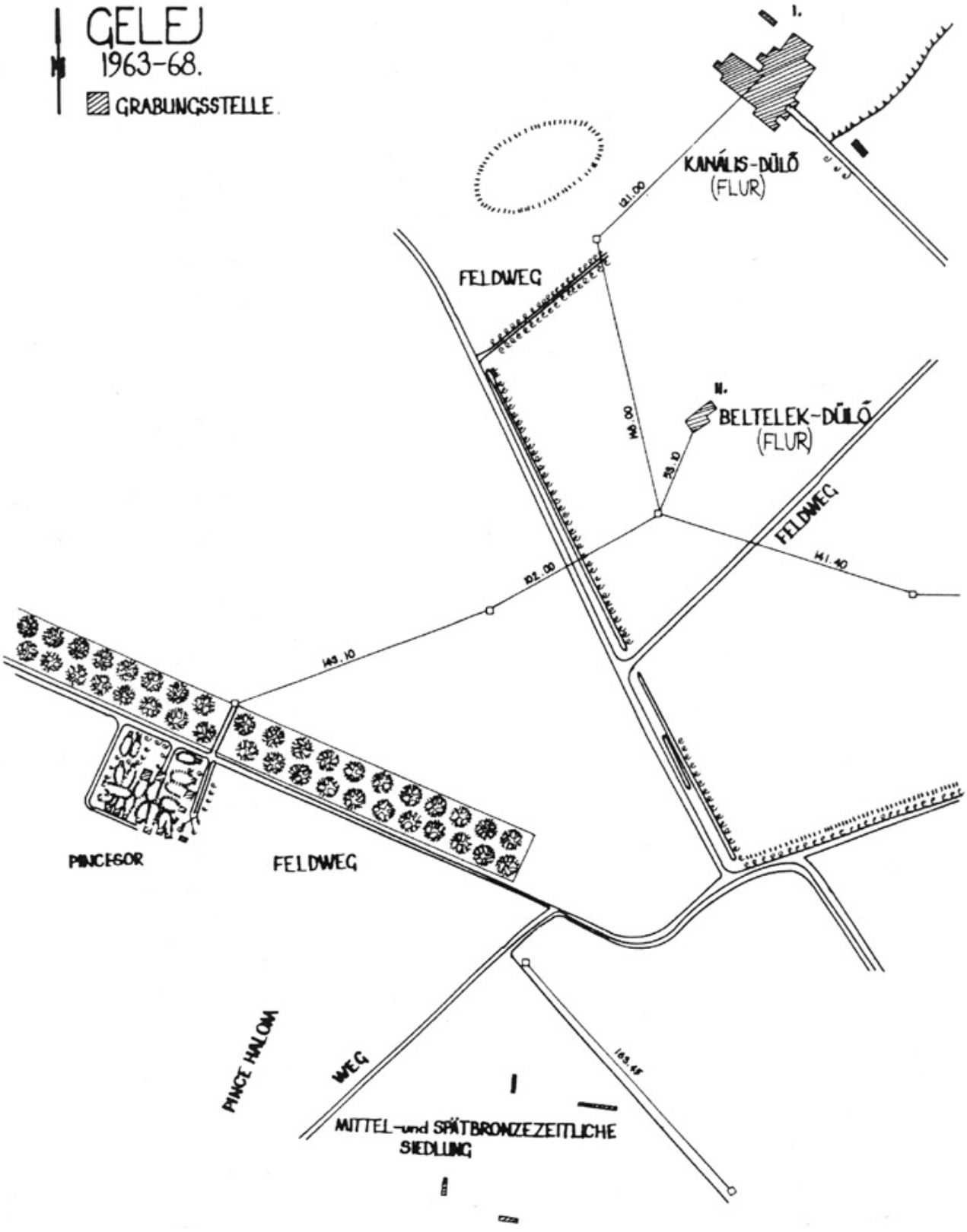


Fig. V-4: Gelej. The location of the Middle Bronze Age cemeteries of Kanálisdűlő and Beltelekdűlő after T. Kemenczei in 1979, plus the location of what at that time were thought the remains of an open Middle and Late Bronze Age settlement on the opposite side of the Csincse river (after Thomas 2008: tab. 1 = Kemenczei 1979: fig. 2).

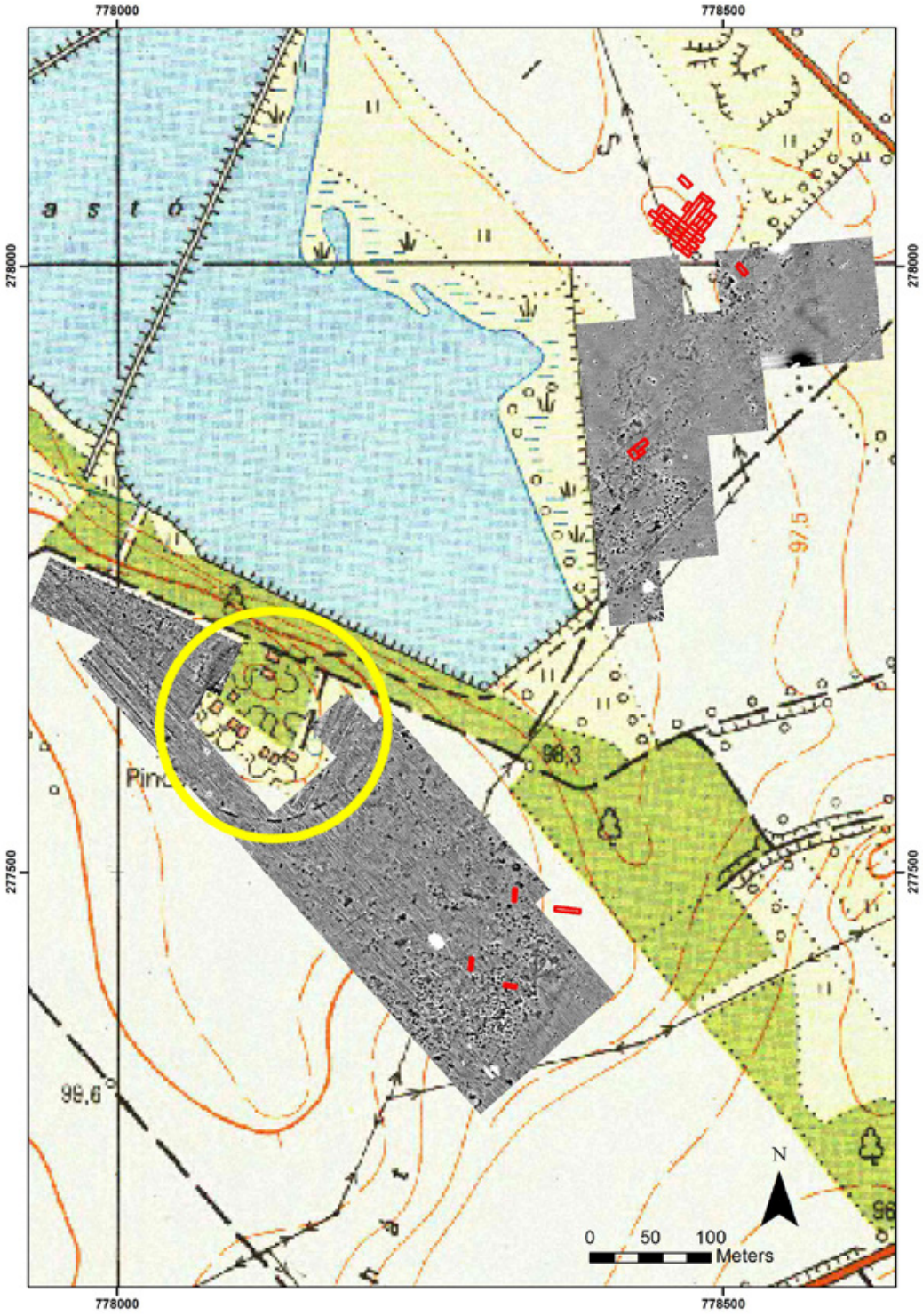


Fig. V-5: Gelej. The modern topographic setting with an old arm of the Csincse river transformed into a quarry pond, the enclosed central tell-like(?) part of the site (encircled yellow) and magnetometer data from the outer settlement and the opposite side of the old river (greyscale plot; data range [black to white]: +/- 10 nT); marked in red: the location of the old excavations as reconstructed by Klára P. Fischl in what is now known is the outer settlement, and in the burial grounds of Kanálisdűlő and Beltelekdűlő on the far side of the river.

identity of those making up these corporate groups. In line with this argument, while clearly adhering to the same rite of Füzesabony period burial – crouched, gendered inhumation with a range of modest grave furnishings, mainly sets of pottery and an occasional metal ornament or implement (fig. V-8) – between them Kanálisdűlő and Beltelekdűlő also display differences in the choice of grave furnishings. And despite the more or less strict adherence to the supra-regional norms of Füzesabony style burial there is variation in detail, for example, in relation to the orientation of the dead or the number of special burials *etc.* (Thomas 2008: 118–120). Both groups, that is to say, variously expressed identity, and each followed their own trajectory, for they were not established at the same time,

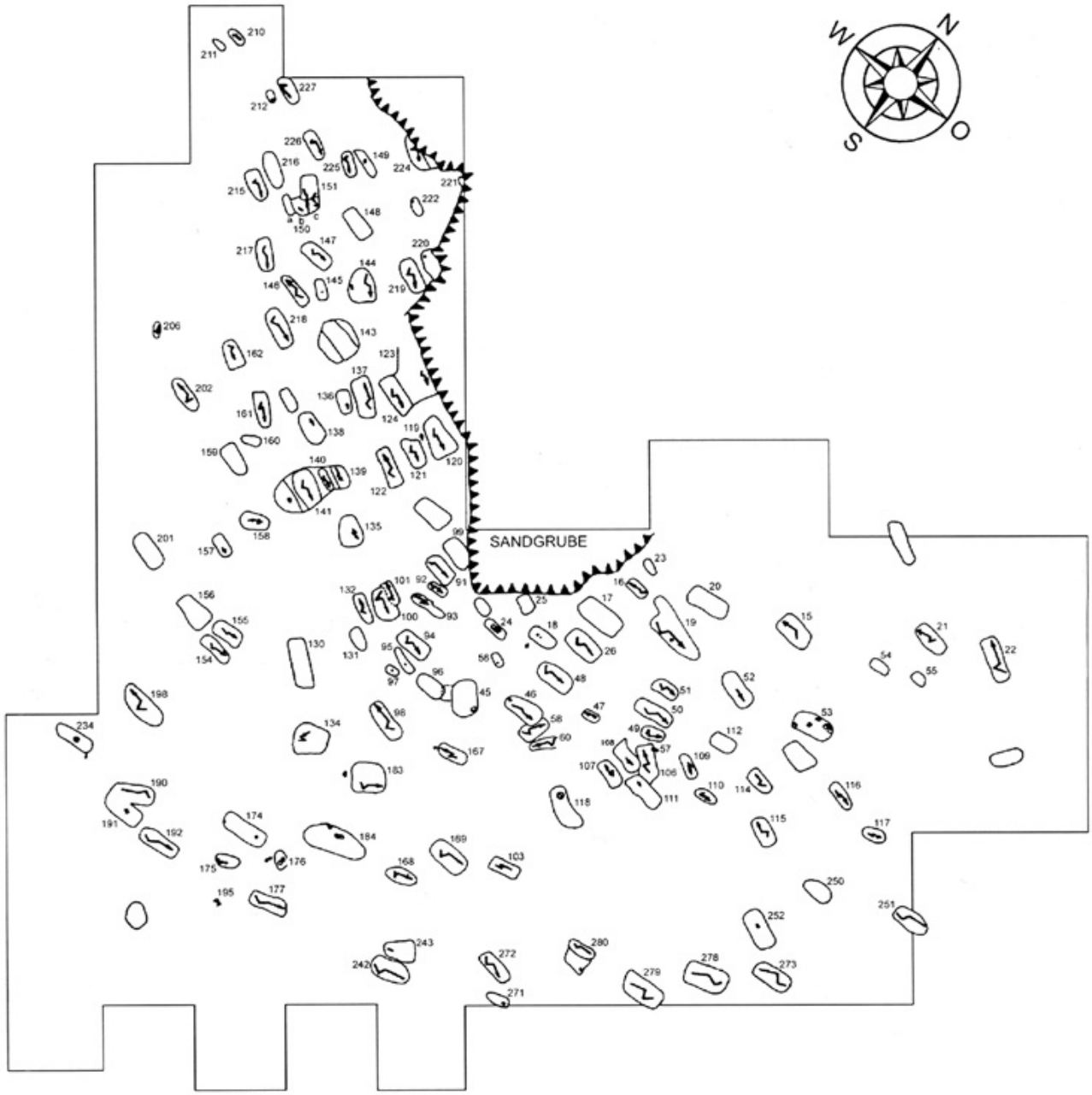


Fig. V-6: Gelej-Kanálisdűlő. Plan of the burial ground (after Thomas 2008: tab. 2 = Kemenczei 1979: fig. 3).

and their lifespan was different – as far, of course, as we can tell from the graves that have been preserved and excavated.

Once again, however, all such variability, that is indicative of the various identities and traditions of the people and corporate groups present, in the most recent restudy of the Gelej cemeteries is reduced to just one dimension – social inequality – and collapsed into a linear temporal narrative: Beltelekdűlő as the supposedly younger phase II burial ground, where an emerging local elite set itself apart from those 'commoners' still disposing of their dead at Kanálisdűlő (Thomas 2008: 120). This is exactly the kind of short-circuit 'social archaeology' that keeps the 'Emergence of Bronze Age Society' narrative going, with its overreliance on minute differences in grave furnishings as indicators of abstract, static 'status', and our ability to truly differentiate distinct phases in what in reality was a continuum of material culture change and the development of burial ritual and grave furnishings. At Kanálisdűlő and Beltelekdűlő, too, it is much more likely that we actually have evidence of various corporate groups, organised probably along kinship lines, and by and large on equal footing. As such, in life these people would have participated in numerous practices, partly overlapping and partly setting them apart from their neighbours. Their adherence, in part, to different norms and rules, their various identities and the traditions fostered, would have been carried over at burial into the domain of the dead, while at the same time being reinforced thereby and reproduced among the living.

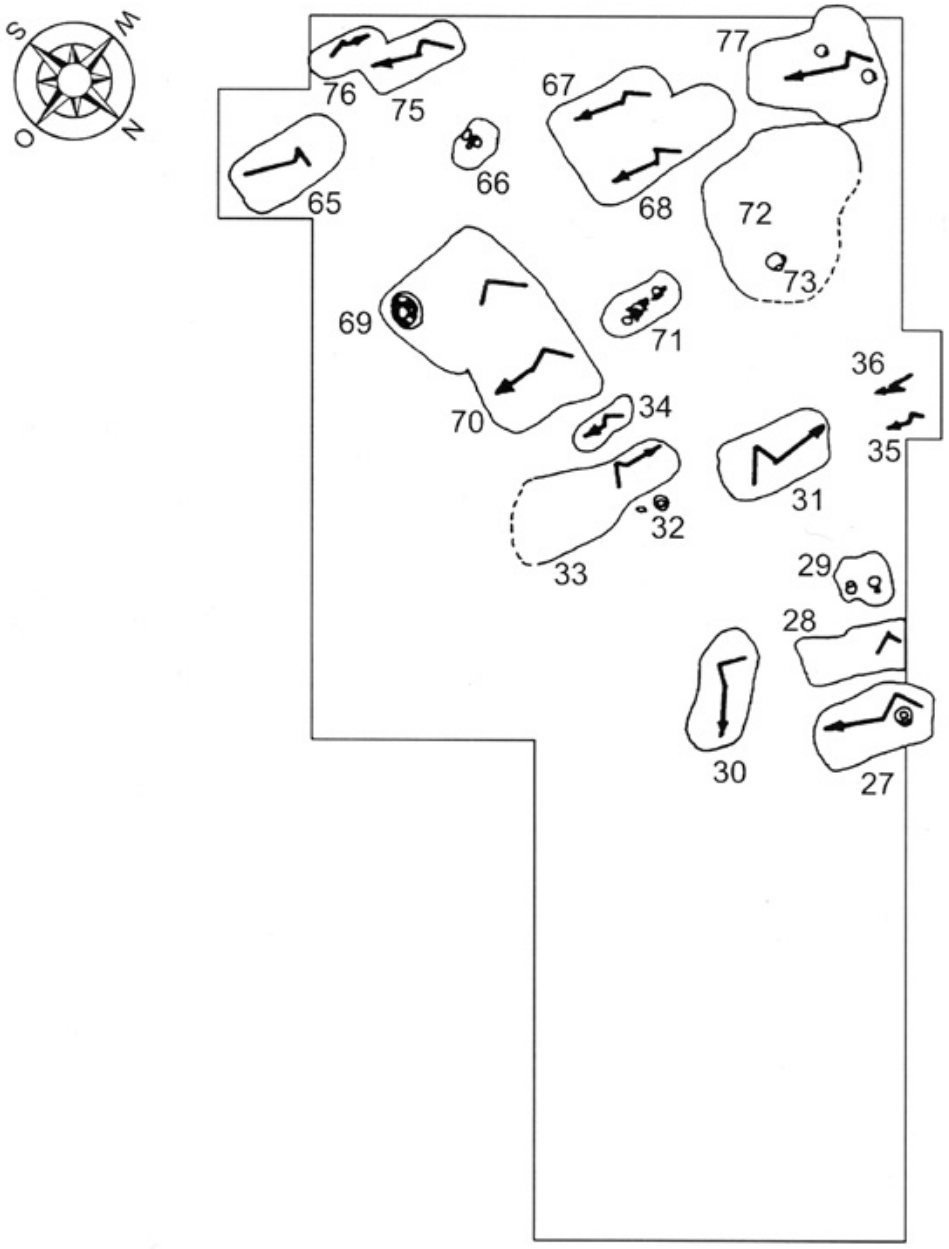


Fig. V-7: Gelej-Beltelekdűlő. Plan of the burial ground (after Thomas 2008: tab. 40 = Kemenczei 1979: fig. 4).

Our final example comes from Vatta-Testhalom where the recently published rescue excavations carried out in 2009 and 2010 along the course of a massive drainage channel for the neighbouring open-cast mine provide a fascinating glimpse at the variability of burial rites, their development through time and the relation of burial and settlement (Fischl *et al.* 2019). We have already seen above that the outer settlement of this tell-like site extended beyond the area covered by magnetometry in 2013 and into the section of the site previously destroyed by the drainage channel (see fig. III-133 above). Now, interestingly, in this area, that at some stage featured a couple of houses that fit into the overall pattern seen in the magnetometer data of the outer settlement, there are also some distinct groups of a couple of graves each, plus some scattered individual burials, both featuring inhumation and cremation burials (fig. V-9; Fischl *et al.* 2019: 238–242). Among the cremation burials, that for their most part can be positively assigned to the Hatvan period by their pottery, there are both confirmed urn burials (fig. V-10) and possibly scattered cremations less well preserved and more difficult to document. At least six of the urn graves apparently formed a distinct group somewhat set apart from surrounding settlement features; other individual burials, by contrast, appear loosely scattered throughout the excavated area, and – depending on chronology – may have come closer to adjacent remains of settlement activity. The same applies to a total of eight Füzesabony period inhumation burials, three of which are loosely scattered throughout the excavated section, while the remaining five formed a distinct group close to or overlapping with a potential group of houses (figs. V-9 and V-10).

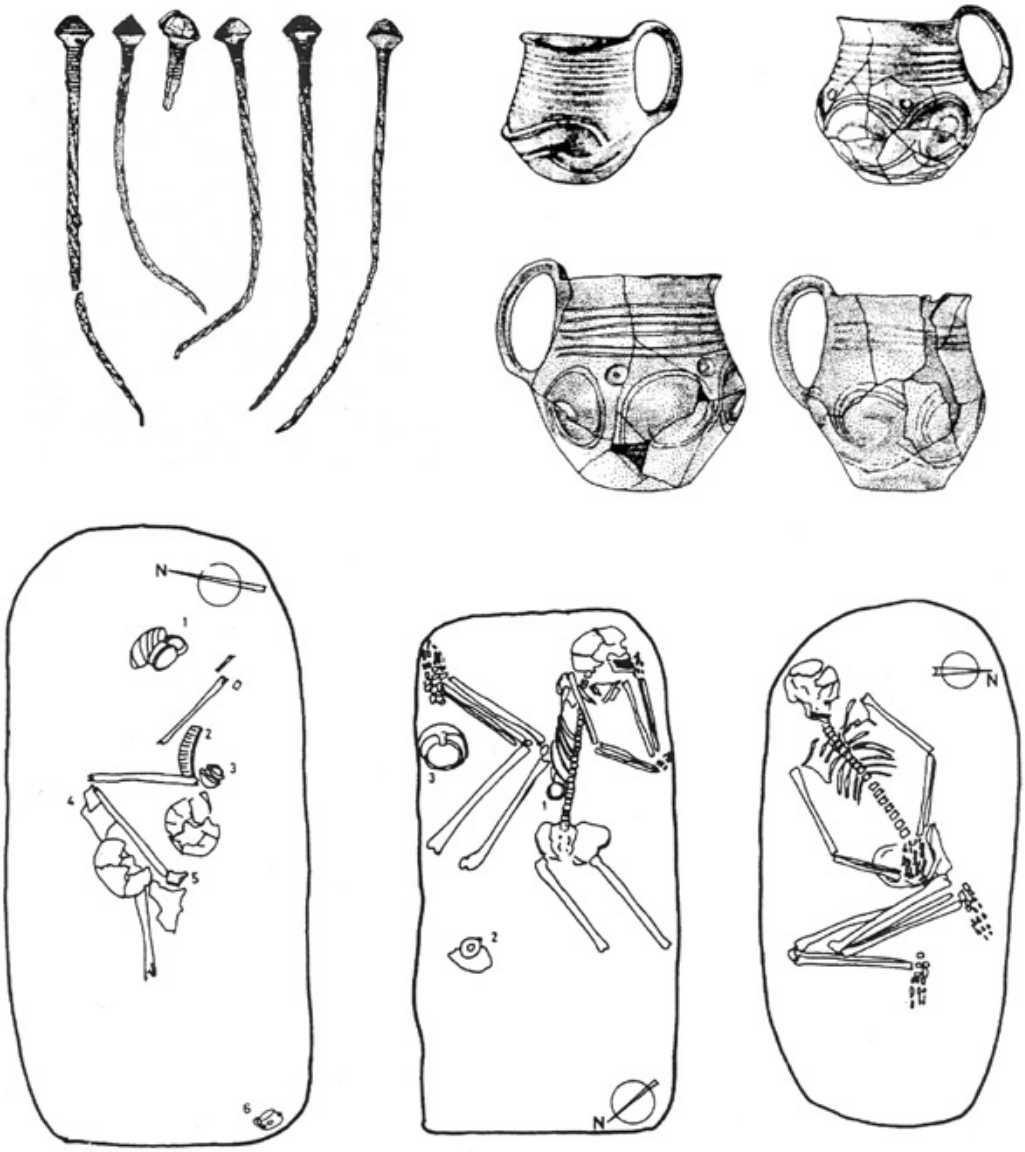


Fig. V-8: Gelej-Kanálisdűlő. Select crouched inhumation burials and grave furnishings (jugs and pins) from the Middle Bronze Age cemetery (after Thomas 2008: tabs. 9, 17 and 20 = various tables in Kemenczei 1979).

We clearly have to await full publication of these features and the finds they contained. Even then, of course, it will always be difficult to demonstrate exact contemporaneity. However, we know for sure from surface finds and excavated features that the outer settlement (or respective sections thereof) was in existence throughout Early Bronze Age Hatvan and Middle Bronze Age Füzesabony times, and the same applies to the graves just mentioned. We will probably never know if any of the grave groups or individual graves actually coexisted with houses in their immediate vicinity, or if burial took place in a section of the outer settlement not intensively used or occupied during exactly this period. But these findings clearly come close to something broadly like 'settlement burial', and they leave us with the distinct possibility that some of the anomalies from general 'settlement' pits, referred to above in our discussion of the Borsod sites' outer part, may actually refer instead to individual graves or small groups of burials.

This is not to make up a new category of Bronze Age tell period settlement burial, and the majority of the dead clearly was laid to rest in the extramural cemeteries discussed in this chapter. However, the separation of the domains of the living and the dead may not after all have been as strict and exclusive as we tend to expect. In the light of these findings, the disarticulated human remains reported from a couple of tell sites referred to above deserve closer scrutiny (Gogâltan 2012: 18–19).[199] However, it is also of particular interest to see the ancestors occasionally coming to light in the *outer* settlement – the section of our sites not

[199] Of course, the famous Slovakian site of Nižná Myšľa also comes to mind here, where the original settlement and enclosure at some later stage were expanded outwards, and the phase II settlement came to overlie the previous extramural burial ground (see Fischl/Olexa 2019: 134–136 with the older literature). However, this way of 'relating' the living and the dead would seem instead to be marked by discontinuity, even though, of course, in practice every pit dug in the new phase II settlement would potentially have brought to light the bones of (perhaps someone else's) ancestors.

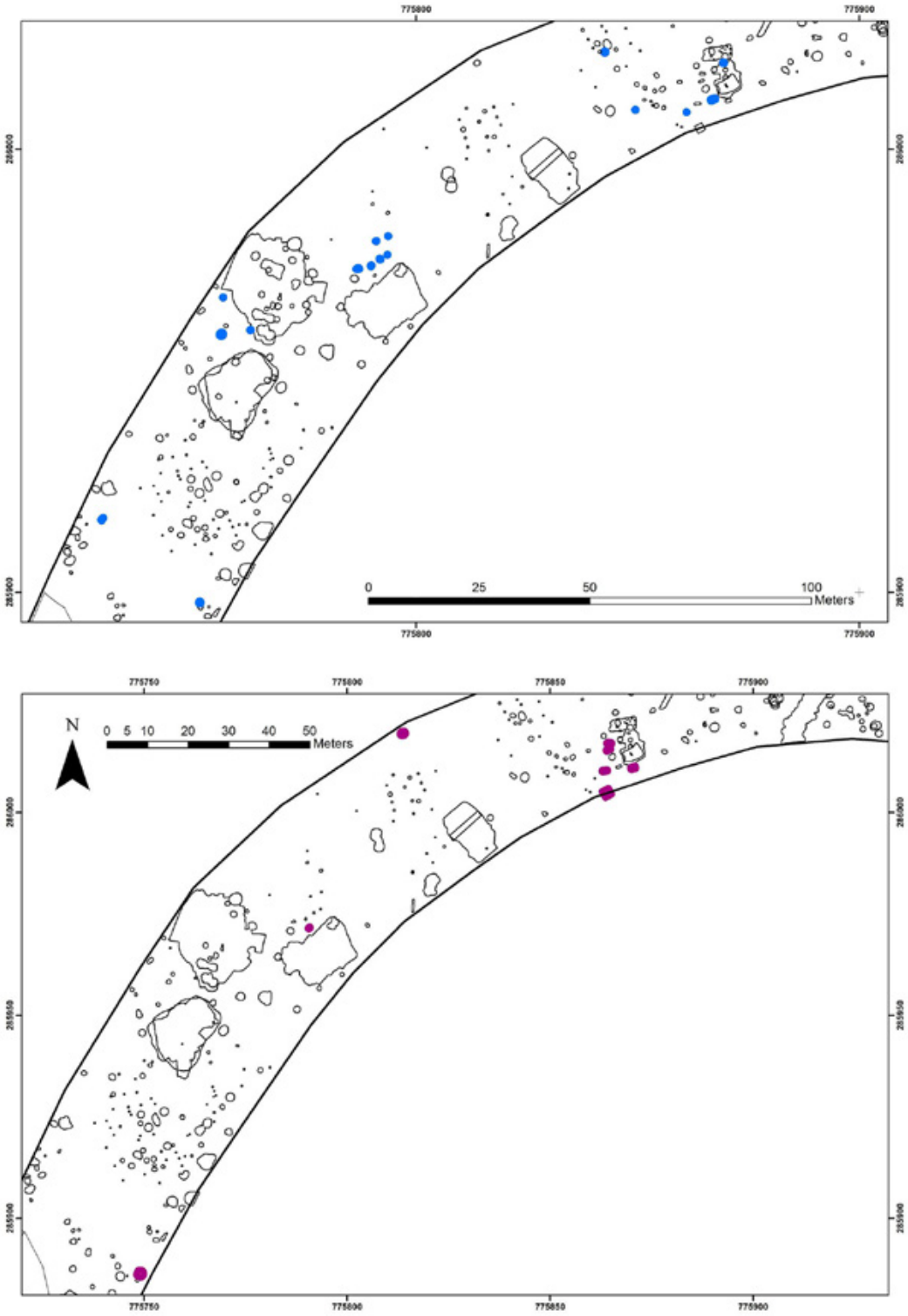


Fig. V-9: Vatta-Testhalom. The location of cremation burials (top) and inhumation burials (bottom) in the periphery of the outer settlement (after Fischl *et al.* 2019: 240–241, figs. 9–10).

typically marked by direct reference back to the past, but by greater fluidity and the lateral relocation of households. On the other hand, we have also seen that the outer settlement as such of most sites was clearly long-lived and achieved some tradition, sometimes more marked so such as at Emőd-Nagyhalom than in other cases. Against this background, an individual grave or small group of burials need not come as a surprise, even if the spatial link between the dead and their persisting households, if their descendants were still present at all somewhere in this outer settlement or in that specific section of it, would only have been rather weak. It is also unclear if daily reference would have been made to these ancestors as people passed by and went about their daily activities, and whether their

Fig. V-10: Vatta-Testhalom. Cremation burials (top) and inhumation burials (bottom) from the periphery of the outer settlement (after Fischl *et al.* 2019: 240–241, figs. 9–10).

graves would have been marked or remembered for any longer once their corresponding households had relocated somewhere else.

The latter aspect, continuous reference back and burial rites, at Vatta, too, would probably have been more strongly expressed and of lasting importance in reference to those dead buried in distinct extramural burial grounds of greater stability and duration. And very much like the situation discussed above at Gelej, at Vatta one of these – presumably in the plural – was located just on the opposite, eastern side of the old course of the Csincse river that passed by the settlement (fig. V-11; Fischl *et al.* 2019: 243–250). Only a section of this cemetery was uncovered upon the construction of the above mentioned drainage channel. We do not know, therefore, just how many graves this burial ground comprised in total and how far it extended to the north and south respectively. We do get an impression, however, of its spatial layout, namely more or less distinct rows of graves aligned in north-south direction, of its temporal depth, namely Early and Middle Bronze Age, and the development and in fact the apparent coexistence of different burial rites, *i.e.* 'Hatvan' and 'Füzesabony' styles through time.

A number of burials with scattered cremations and Hatvan period pottery seem to mark an older horizon in the use of this burial ground, as do probably a couple of urn burials inferred. With regard to the 'settlement burials' just discussed, as well as to other extramural cemeteries potentially present in the wider surroundings, it would be interesting, then, to know how urn burial and scattered cremations relate, and if they are expressive of different family traditions or identities present in the various sections of the Vatta-Testhalom community of their times. The same applies to a Middle Bronze Age horizon that is represented by some 39 characteristically gendered, crouched inhumation burials in Füzesabony tradition or style (fig. V-12), plus a number of scattered cremation burials also associated with Füzesabony period pottery (Fischl *et al.* 2019: 247–248). We must be wary here though of essentialising concepts inherited from previous research. For while cremation burial surely becomes more frequent again during late Füzesabony times (*e.g.* Streda nad Bodrogom; Thomas 2008: 155–163), we certainly must not assume that there was ever something like a homogenous, pristine Füzesabony 'people' invading and replacing a Hatvan one. It is unlikely that we see a migrant people bringing with them their strict and exclusive Middle Bronze Age burial custom as an ethnic marker, and only at some later stage somehow picking up cremation in a local tradition (and from whom, one may ask, if the older Hatvan population had previously been replaced or their tradition discredited?).

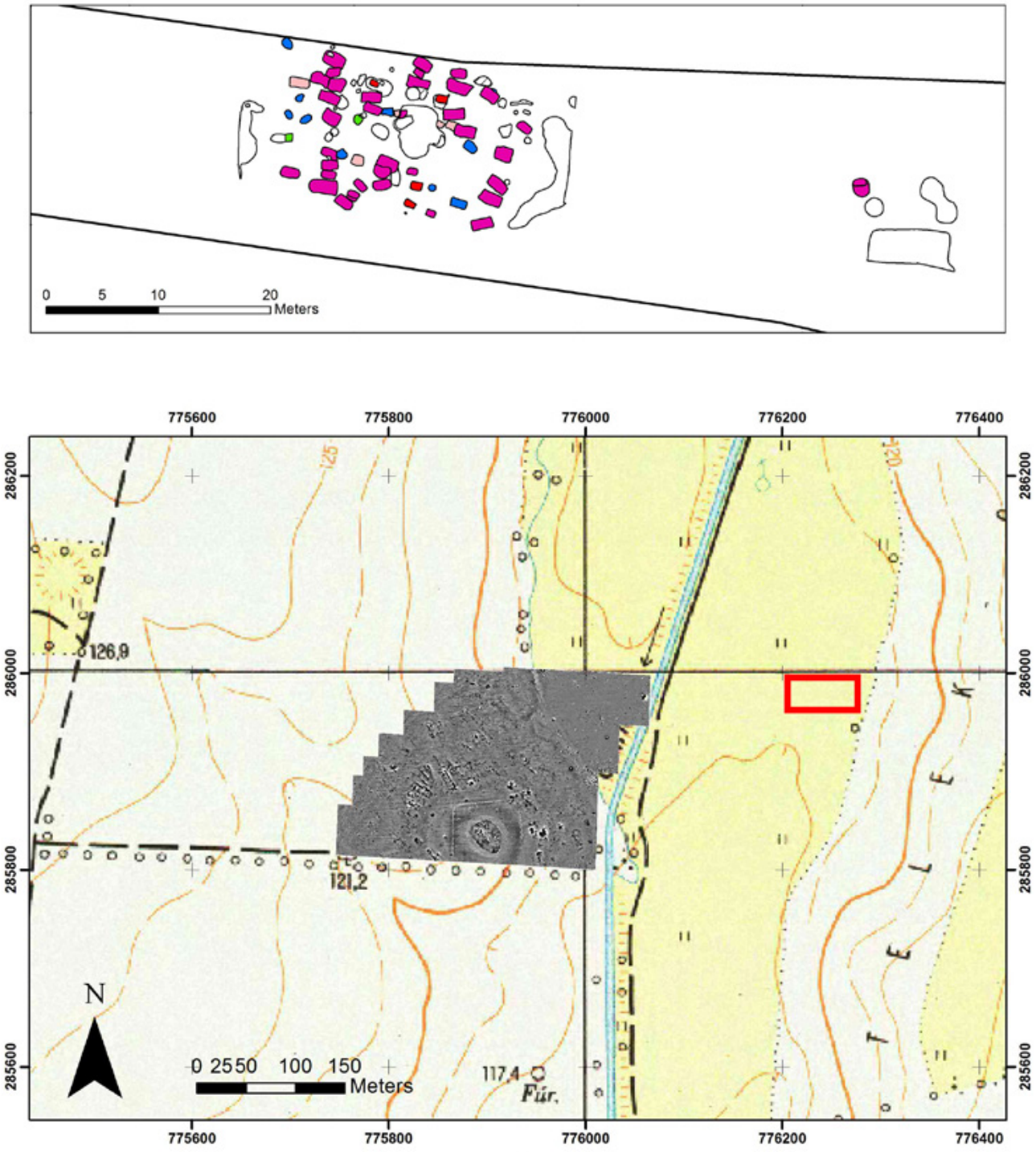


Fig. V-11: Vatta-Testhalom. A section of the extramural cemetery excavated on the far side of the Csincse river as seen from the settlement (after Fischl *et al.* 2019: 233 fig. 3, 244 fig. 12).

Instead, there was broad continuity, both in settlement – as discussed throughout this volume – and material culture more generally, such as when it is difficult to tell Early and Middle Bronze Age pottery inventories apart except for the marked change in the form and decoration of some fine wares that largely define and distinguish these traditions. It is suggested, therefore, that with the variability seen in burial customs and grave goods (pottery) in cemeteries like those at Vatta or Gelej, we are looking instead at the different notions held of appropriate death and burial by those living in the various sections of these sites, and at the various identities in terms of co-residence or kinship groups that together made up these communities. Thus, one corporate group or family may already have been 'Füzesabony' in terms of pottery and crouched inhumation, while another one was still 'Hatvan'. And on an individual level, of course, grandfather may always have been burned, as was done of old, but the pot in which his ashes were collected came from the produce of his granddaughter of course already adhering to the new

Fig. V-12: Vatta-Testhalom. Inhumation burials from the extramural cemetery on the far side of the Csincse river (after Fischl *et al.* 2019: 246 fig. 14).

and lavish Füzesabony style of decorating her (fineware) pots. Identities are always multi-layered, multi-faceted or polythetic. They must not be essentialised, and underneath an overarching village identity in our Borsod communities we always see a segmentary pattern of both the living and the dead variously identified and bound together by notions of relatedness and descent.

V.2 The Study of the European Bronze Age: A Personal Note

This book has been long in the making. Too long perhaps, due to other projects and obligations. During this process the emphasis has shifted, and not everything has been accomplished that I had taken aim at originally. Thus, for example, the nexus of practice theory and phenomenology remains largely unexplored, and the potential of both to further an understanding of tell-living in 'experientially resonant' terms has not been explored to my complete satisfaction (Schatzki 2010: 146).

This book, too, comes in a period of my own profound unhappiness with certain prominent strands of Bronze Age research, and a young generation lured by projects and graduate schools like the 'Forging Identities' to believe in a flashy, bellicose and globalised Bronze Age world, perceived along the lines of political economy and centre and periphery. Vere Gordon Childe had already, towards the end of his life, critically reflected on his earlier diffusionism and his particular account of Europe and the Orient, where the European Bronze Age, in particular, invariably had become '[...] the foundation of European Civilization as a peculiar and individual manifestation of the human spirit.' (Childe 1925/47: XIII). Why is it, then, that such grand narratives still attract us so, and go largely unchallenged by reference to the actual material evidence in the ground, and the specific quality of the archaeological remains at our disposal to provide a glimpse at past lives as once lived?

Alternative approaches have long been outlined, and the Bronze Age past obviously *can* be conceived along different lines. In this book I have made an attempt to draw attention to just one such body of theory that may help us pursue this aim, namely practice theory, and its potential to accommodate an interest in specifically human agency firmly tied to a material world and able to make a difference. The result is not as comprehensive as I had hoped for. Still, I hope this is of interest to some readers, and may become the starting point for a more complex and exhaustive account of prehistoric tell-living by those like me who take a genuine interest in this fascinating way of life.

As has been repeatedly stressed above, none of the approach outlined here is entirely new, but I firmly believe it is a widely held misconception in current academia that we have to turn to a new paradigm every five years, and that archaeological theory – and, of course, beyond – should not be cumulative and continue to explore the full implications of what has been thought before – in this case an approach to sociality, space and materiality informed by practice theory first outlined by Anthony Giddens and Pierre Bourdieu, explored in archaeology by John Barrett and others, and 'updated' with the more recent account by Theodore Schatzki.

This misconception, of course, is deeply rooted in the fabric of prehistoric archaeology as such and in the social context of the academia we are working in. Starting with the *New Archaeology* of the Anglo-American world, through the explosion of competing post-processual approaches in the 1990s and into current so-called post-humanism we are urged to denounce what had come before. And all too often, of course, this is related to the quest for funding, reputation and, at best, a permanent position. Under the current neoliberal ideology governing the public sector and academia this becomes accelerated under outside pressure. But on a more fundamental level prehistoric archaeology as such is predisposed to such paradigm shifts due to its somewhat unclear standing and dual inheritance from the sciences and the humanities. It is for this reason that we see the pendulum swing from the realisation that kinship is a cultural resource and a social category to genetics, or that we succumb to the temptation of scientific provenance studies as if knowledge of the ore vein it was produced from told us anything about the recontextualisation, the use and meaning of this dagger or sword in local 'indigenous' social practices anywhere in Bronze Age Europe.

Archaeology, as it is conceived here in line with certain approaches derived from the 1990s, should not operate on a generalising level. We should also not rely on 'big data', nor seek to identify this or that social structure or 'type' of social organisation. There never was an ancient, static reality out there to be uncovered. We are always looking at a dynamic record of past human actions, organised into and oriented by practices. As such it was invariably bound to practical understandings and manipulations of a material world that was permanently constituted *and* drawn upon in the unfolding of social life and practices.

As argued at some length above, this is a call for the fine-grained reconstruction of the particular engagements of past human beings with their historically specific material conditions in social practices. An interest, that is to say, in how knowledges and understandings were produced and reworked in discourse and the material world; and an interest, too, in how material culture as a structuring medium enabled and constrained the doings and sayings of those involved.

This is also an archaeology, of course, that imposes much higher demands on the archaeological data at hand than previous 'checklist'-type archaeology or current macro histories largely aloof from the actual material remains of the past. It takes aim at a contextualised understanding of social practices and their material conditions. As such it requires the most fine-grained excavation techniques, and it is here, too, that scientific analyses find their appropriate place.

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