Connectivity: An Ecological Paradigm for the Study of Bronze Age

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Connectivity:
An Ecological Paradigm for the Study of Bronze Age

by
Slobodan Mitrović

A dissertation submitted to the Graduate Faculty in Anthropology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, City University of New York 2016
This manuscript has been read and accepted for the Graduate Faculty in Anthropology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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THE CITY UNIVERSITY OF NEW YORK
Abstract

Connectivity: An Ecological Paradigm for the Study of Bronze Age
by Slobodan Mitrović

Advisor: Professor H. Arthur Bankoff

“Connectivity: an ecological paradigm for the study of Bronze Age” addresses the relationship between historic and prehistoric people, and the landscapes they inhabited, moved about, and continue to inhabit. It suggests alternative methodological approaches that have broader ramifications for the discipline of (Bronze Age) archaeology. By engaging the code and innovations stemming from ecology and digital technology, the research questions concern the interface – referred to as connectivity – between the archaeological sites, resources, networks of communication, and the conditions of archaeological knowledge acquisition. Drawing on published and new data, the aim of the project is to put forward a strategy for a geographically and linguistically inclusive research of the Bronze Age Collapse, analyzing landscape connectivity that does not promote culture as a common denominator of archaeological data sets. Topics that are explored: archaeometallurgy, environmental pressures, mobility, pottery analysis - can be distilled to the issue of scalability of archaeological scholarship. The narrower case study focuses on the southeastern Europe 1650-1100 BCE.
Acknowledgements

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Introduction

*Past humans connect with their environment in a vector space. By way of literacy that space appears familiar to current humans and archaeologists, but without the presence of written documents the awareness of a vector space is lost. It is possible to recover it by amalgamating past and current connections. Digital technology aids in the automating of the process of amalgamation.*

The germ for this loose thesis was found in three simple, mapable observations, neither one of which is too novel.

1. The first is that *many Bronze Age pottery forms and decoration styles can be found along communication routes.*

A representative example is the link that extends over 500 miles between the southeastern end of the Great Hungarian Plain in Romania and Serbia—>to the very northern edges of the Plain in Hungary and Slovakia—> to the northern, transalpine, foot of the Carpathians in Poland and Ukraine. For instance, the sites on which such a link can be shown to exist are located along the rivers Tisza and its tributary Hornad. Some of the well known sites can be found as vertices on this path – Nizna Mysla, Barca (Slovakia), Hernadkak, Megyaszo (Hungary), Feudvar, Ostojicevo (Serbia), just to mention few; archaeological knowledge about them comes from at least three different (“small”) languages.

Pottery remains certainly constitute the bulk of archaeological evidence for the study of Bronze Age. As type fossils they are more or less reliable temporal and spatial markers – relative to the extent that any archaeologist is comfortable with using them as such. In the absence or scarcity of other evidence, however scientific or impressionistic,
the study of ceramics gains the most prominent role in defining what we call a Bronze Age culture (in the sense of archaeology and hence anthropology).

Figure 1: Orientation map centering on Tisza and Hornad. Source: Ehrich & Bankoff 1992

Figure 2: Correlations of cultures in time and space. Source: Childe 1929
This is because pottery style distributions routinely overlap with theorized, modeled, distributions over a given landscape. The sherds, due to their ubiquity and survivability, have become so tangled with the Bronze Age archaeology at large, that the theoretical and methodological value of their classification schemes is continually adopted anew, as a legacy.

(II) Following up on the opening statement, the second observation is that the enduring commitment to the ad-hoc or rigorous cluster analysis of ceramics – as a particular, defining characteristic of a given culture – is, willingly or not, reproduced by generations of scholars.

The logic of such an analysis is complemented by analogous illustrations of distribution of metal tools and weaponry, as well as bone and stone implements, and architecture. When overlayed onto some amalgamated map of classification efforts of all these finds, known in the jargon as ‘culture history’ or ‘chorology,’ one sees clear similarities and also gross discrepancies. However basic the method may be, the fuzziness perhaps should have rendered such a method obsolete or in a need of an overhaul, yet it still persists largely intact despite the many questions as to its utility (see Chapter 3).

(III) The third observation is that renewable and finite natural resources, and production centers, when plotted, may point to possible transportation routes that connect sites and areas far beyond the immediate geography of those sources.

Raw materials that leave firmer archaeological traces – like copper, gold, or tin – command attention because certain representative pottery and other artifact distributions may appear to gravitate to them. In addition, the proximity of, for instance, a metallurgical production site may generate idiosyncratic ceramic designs that, to use
printing jargon, ‘bleed’ from one medium to another. Thus metal rivets on a gold cup would be simulated on a clay vessel, where they are unnecessary. The Greek compound *skeuomorphy* is often used to describe this phenomenon.

To reconcile the entrenched culture and culture-history concepts with the amassed evidence that does not fit their classificatory schemes, this text promotes the ecological idea of *connectivity*. It connects in the raster and vector environments both the geographies and scholarship. In the ensuing interpretation connectivity is assigned the role of a widely applicable low level theory (*sensu* Taylor 1949) that can successfully retract the dependency on, the notion of culture. Culture is an important aspect (property) of any system we try to model and interpret, just not the defining one – it is a property just like ‘being connected’ might be. It is argued that Bronze Age archaeology and the discipline in general have become too invested in the reconstruction and modeling of the culturally perceived totality of past lives; so much so that the simple, overly abstracted method cannot be made to work anymore. Far from being a plain replacement (cf Pauketet 2001) or a call for wholesale shunning of a carefully constructed nomenclature (Mitchell 1990), the proposed paradigm is fully respectful of prior scholarship, and essentially argues for more inclusion of fairly fragmented bodies of knowledge. In that sense the continuity of scholarship is stressed to show that, while ‘culture’ as a common descriptor known to ‘culture-historian’ may be rendered obsolete, the scholarship that produced it is not. In fact, it is maintained that culture history as an idea can be utilized precisely by *not* rendering the prior scholarship obsolete. For archaeology informed by
computer programming and ecology connectivity is ad hoc defined as indexical
decoupage\(^1\) \{connectivity=indexical decoupage; C=f(d)\}.

The case studies presented are geographically confined to the Old World
archaeology with its past and present practitioners, and with them the context of local
archaeologies is relatively narrowly focused on “Southeast Europe”. However, it is shown
that the problems presented are not local but extend to the whole discipline (also see
Appendix 2). Practitioners that deal with the Bronze Age come from around the world, and
Childe, for one, has the most international status. The stochastic, more general research
question entertained is: *How do human societies connect*, and what might be the
archaeological biases in recognizing that? As a common answer in archaeology the
renditions of world-system theory have loomed large (Kardulias & Hall 2008), especially
in syntheses. Scholars who offered alternatives have been Crumley (1995), and lately
Kristiansen (2010; Kristiansen and Larson 2005). The former introduced the concept of
heterarchy, “the relation of elements to one another when they are unranked or when they
possess the potential for being ranked in a number of different ways” (Crumley 1995: 3),
and the latter formulated a somewhat undeveloped concept of decentralized hierarchy to
explain power structures in “middle range societies” of Northern Europe. These two inform
connectivity, that in turn puts an emphasis on the environment.

Structural features of the environment, geology, hydrology, vegetation cover, and
climate are related to site-formation processes in Southeast Europe, as are anywhere else. I
discuss them against the backdrop of the issue of scale as pertinent to understanding the
processes of change in archaeology. Rudimentary geographic information systems (GIS)

\(^1\) The close relationship with any narrative (or better for archaeology: history-telling) process is obvious,
but especially pertinent is archaeology’s relationship with the symbolic decoupage of film (see Bazin
1947).
are employed as the method of analysis, as well as the developed notion of connectivity. Adapted from landscape ecology, the concept involves landscape metrics that are employed to quantify the degree to which landscape facilitates or impedes transmission among pieces of land (Taylor et al. 1993).

I propose that the addition of connectivity to the common methodological toolkit would allow for better establishment of links between sites, however loosely defined cultures, distant populations, and modify current interpretations for the better. This would include network analysis, but not in a narrow sense of world-system lattice with nodes and simple links. It is, rather, involving connections across the Bronze Age landscape, as it purportedly was – when places were either connected or disconnected, and could change between the two states depending on the conditions. The concept thus stresses functional connectivity and perception of a given environment. I look at the context of individual sites, cultural development of landscape and technology, differential use of resources, their fading in and out of use, and human movement.

The principal hypothesis of this text is that societies, cultures, and groups – abstracted and recognized as such archaeologically via assemblages – connect over a conceptualized vector space, and not simply over some a-theoretical, “real,” or raster space. Such a vector space allows for richer contextual, functional analysis as it is supposed to correspond with the properties of space that are preserved under continuous deformations – like in the mathematical study of topology.

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2 It is a concept from algebra - in a sense that algebra is a language through which patterns are described. Following this postulate strictly, past humans sans written documents are therefore vectors (cf. agents) => past humans are vectors.

3 The word topology comes from the Greek τόπος [topos] – place. The term topology in geometry includes properties of connectedness and compactness, the qualities that communicate well with the concept of archaeological culture. Deleuze and Guattari (2007 [1980] and elsewhere) have employed topological thinking and formulated their own theory of assemblage (see the discussion about assemblage and becoming...
The Connectivity model is therefore checked against the existing archaeological record and extant literature on cultural connections and influences, from the end of XIX century to-day. Analysis of collected data includes my fieldwork and entrusted archives. Other questions that have driven the research are: 1. What are the processes through which social interactions shape different settlement patterns, and 2. How did Bronze Age populations react to social and environmental pressures across different landscapes? I build on Crumley’s idea of heterarchy, and on some early insights into the Copper Age of Southeast Europe made by Ehrich (1967) and Ehrich & Bankoff (1984). Focus on settlement patterns follows the original definition of the term: “settlement patterns are [...] directly shaped by widely held cultural needs, they offer a strategic starting point for the functional interpretation of archaeological cultures” (Willey 1953: 2).

During the field-walking trips, map surveys and excavations from 2007 to 2012 in Western Serbia, several sites that were previously unknown were registered, including occupation sites in close proximity to copper and tin sources. Fragments of pottery used in the metallurgical process were found on the site by a tin-bearing stream. Vast trade networks, known from written documents, revolved around acquisition of tin (as shown by Muhly 1973, 1985; Sherratt 1981, 1993, 1994, 2001; Pare 2000) – bronze is made by alloying copper and tin – and archaeologists and geologists alike still do not quite know where the tin used for enormous output of bronzes in the Bronze Age came from (Harding 2000: 200-2). Discussion of Bronze Age metallurgy and its specialists – both

[2007: 156-8, and further] that will be echoed in Chapter VIII), and will be referenced here in the text. Also in the humanities, they were followed, among others, by Manuel DeLanda (2006), who is the Deleuze Chair of Contemporary Philosophy and Science at European Graduate School (Saas-Fee, Switzerland). See his pertinent discussion on connectivity and assemblage in the context of scientific nomenclature (2006: 25-35).
ancient agents and current scholars – is presented as pertaining to the issues of connectivity.

This short note leads into Chapter 1 that serves as a proper introduction, outlining the chronological issues, as well as the inherent problems when compiling dates and type fossils from disparate areas of the Bronze Age study. Chapter 2 provides a historical allegory for the fragmentation that exists in the present between different schools and traditions that deal with Danubian archaeology. With the reader’s permission, few such historical similes were employed elsewhere in the text, to demonstrate the parsimonious nature of the extant theoretical apparatus. Taking the cue from the previous segment Chapter 3 focuses on the issues with culture history and provides the summary of important entities for the later discussion. Chapter 4 moves to the locale of the case study, in the extent of the Danube in Serbia and the country’s western environs. Chapter 5 directly communicates with the previous two segments and presents the issue of movement as the vehicle of interpretation. Chapter 6 focuses on the particular style of decoration, as a carrier of the idea introduced in the previous segment. Chapter 7 deals with the archaeological study of metallurgy as pertaining to the topic of connectivity. Chapter 8 promotes the role and legacy of Childe as (obviously) pivotal for the discussion. Chapter 9 further develops the concept of connectivity and brings together a few conclusions.

Originally part of the main text, one whole chapter is relegated to the Appendix (2). It attempts to summarize the systemic restlessness on the theoretical side of archaeology, and propose an easy way out. It is supposed to fit between Chapters 2 and 3, and show that connectivity can be aptly applied to the analysis of archaeological
scholarship and language itself. The selection of scanned images and whole pages from relevant titles is also to be found in the Appendix.

For this text I used the unpublished archives and excavation diaries from three sources:

1. Surveys and small excavations done by the project under directorship of Professor Arthur Bankoff at Spasovine, western Serbia, 2010-3
2. Excavations and archive of the central mound and other mounds at Bukovac, western Serbia 2006-7
3. Partial archive from the tell-site Vinča, near my native Belgrade, of the excavations from 1983-4 of the pits and other parts of the Bronze Age occupation horizon truncated by subsequent activities, kindly provided by the City Museum Belgrade.
4. I also had access to the only partially published archive of excavations at the Bronze Age and Iron Age necropolis Trnjanе near Aleksinac, provided by the Archaeological Institute Belgrade.

As part of my archaeological training I worked at the tell-site Židovar that features strongly in the text, and have since gone back to it twice. I have made the trip to see the site Feudvar which in the region holds the most important stratigraphic sequence outside of Hungary, and in the depot of Vojvodjanski Museum, through the help of J. Koledin, I got to see a part of the big collection of artifacts from that key site. I visited the Mycenaean inflected site Monkodonjo in Istria (Croatia), as well as Mycenae itself, and Knossos, Phaestos, and Chania in Crete. I also had a privilege to work at Vinča as an archaeologist, and was particularly fortunate to be on the team when the remains of the fragmented Bronze Age structures were cleaned and when the pit with whole ‘Kostolac’
vessels was found. In addition, I have gone more than five times to the Museum in Vršac and, thanks to the hospitality of the curator Dragan Jovanović, studied the material in the depot, which is currently going through renovation. The Archaeological Institute in Belgrade kindly extended its archive of their projects in eastern Serbia, at Banjska Stjena, Magura, and the sites in the Danube Gorges. During the course of my preparations for writing the thesis, I visited museums and their depots in Belgrade (only of the City Museum and unfortunately not the National Museum, which is after 12 years still under reconstruction and its depots locked), Bor, Novi Sad, Negotin, Niš (and the locally famous chaotic collection of the Mediana pottery), Pančevo, Šabac, Sombor, Valjevo, Zrenjanin (Serbia), and permanent exhibitions in Ankara, Istanbul, and Konya (Turkey), Ashmolean and British Museum (England), Budapest and Segedin (Hungary), Maribor (Slovenia), Iraklio, Thessaloniki (Greece), Timisoara (Romania), Ulcinj (Montenegro), Vienna (Austria), Osijek, Vukovar and Zagreb (Croatia).

Due to unexpected unavailability of contextual data from the metallurgical analysis presented in Chapter 7, the text is a tad more polemical and bookish than I would have liked, but I hope this will be palatable for the reader. Wherever possible the images were put in the text, with the intention to better illustrate and emphasize the visual element in the perception of the cultural artifacts. Additional material not as immediately relevant for the narrative flow was relegated to appendices, and some choices of images were influenced by their formatting, size, and detail.
I Chronology

In this chapter the focus will be on the issues of archaeological time reckoning and resolution, as well as on the literature that represents two angles of the Bronze Age periodization.

This is a more proper introduction, and as a way of framing the scope of the investigated literature that went into producing this text we would do well to start with the nagging question: why is the Bronze Age cross-chronology so difficult to comprehend? Successful integration of Bronze Age studies has indeed been hampered by persistent problems with the archaeological reckoning of time. Part of the issue is that we have multiple chronologies for different areas, compounded by language barriers between regional scholars. Another part is that it is understood (in archaeological literature [Sherratt 1993a, 1993b, 1994, Stein 1999, Maran 2007, 2011], as well as in more popular texts [Aruz 2008]) that the Bronze Age geographies were clearly connected over long distances, at the scale perhaps unlike that in the previous and subsequent time periods.

The set of problems that will be tackled here are familiar to Bronze Age specialists. To unpack the code embedded in different chronological schemes out there, included is information from the succeeding Iron Age, as well as the preceding Early Bronze Age, and even Copper Age where necessary. I start with a consideration of the passage of time on a large spatial scale, then zoom in on the particular, with a review of fixed points and absolute dates. The rationale for this is that the general picture will provide a more solid framework that appears more meaningful.

The aim of the chapter is to provide the background to better understanding of the gargantuan task of chrono-matching. The chronology outlined here will be then used as a
springboard for the data analysis that follows. The focus stays on the Middle and Late Bronze Age in Southeast Europe, while the place-names and sites mentioned below serve as a more or less complete list of actors referred to – the constituents of the Bronze Age chronology mise-en-scene.

Egyptian, Hittite, and Minoan and Mycenaean “worlds” are the axes of archaeological time for the period. Egyptian and Hittite empires rely on king lists, and the Aegean world relies on phases and sub-phases (like e.g. Late Helladic Ib) generated by pottery seriation. What follows is the history of the period told through genealogies, as they pertain to the thesis. It is the main line of significant events and figures that are deemed important for understanding the larger points of the discussion. In particular, mention will be made of events that would involve many different groups of people.

I.1 Relative and Absolute Bronze Age time

The rich ancient archive makes the overall history of our period into a well known and comprehensively established sequence, but one not without matching problems. It roughly corresponds with the life-cycle of the Hittite Empire, and is best represented by the Egyptian records. Crucial for correlations between Hittites and others is the sack of Babylon in 1595 that was recorded in history as an achievement of the Hittite ruler Mursili I (Bryce 1983). Important are also his previous campaigns on the Euphrates, and the sack of Mari. These events linked in the Hittite kings to the extant archives elsewhere (Bryce 2003).
In Egypt and the Eastern Mediterranean the period is book-ended by two episodes:

1. On the early end is the rule of Hyksos in northern Egypt, starting around 1650 BCE (unless necessary for clarity, henceforth all dates will be without the BCE designation, assuming throughout the time “before common era”).

   Hyksos rule brought new weaponry, like war chariots and superior bow (Van de Mieroop 2011), and this change in the military technology is an important highlight. A good description of the ambition of the foreign dynasty is that under their command Egyptian ships sailed to Cyprus, and exercised their only major overseas territorial pretensions (Bietak 2010). As far as their more secluded expression, like royal representation, it is worth noting that the frescos decorating the palace walls in their capital Avaris (Tell el-Dab’a) show Minoan painting style. It has been postulated that the ruling elite at Avaris was of Semitic origin from Canaan (Bietak 1995, see also Bietak 2000b), and in any event they seem to come from the northeast. While duly recognized as pharaohs in their own right by the official historians of the time, they were disparaged as foreigners (in that sense hyksos would not have been capitalized, it meant foreigners).

Midway through the sixteenth century the Theban rulers of southern Egypt disrupted the Hyksos in the north and started the Eighteenth Dynasty and the New Kingdom. Sixth in the dynasty's line, pharaoh Tuthmosis III (1480s-1430s, Kitchen 200, 2007), who ruled over the biggest territory in the history of Ancient Egypt, during his tenure ventured north up the Levantine coast, fought the Battle of Meggido, and

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4 That this is not a lone correlation was shown many miles across the sea, in Turkey: Leonard Wooley’s excavations at Alalakh (Tell Atchana) recovered pieces of fresco that might bear similar influence (Woolley 1955), see also Qatna (Syria).
campaigned successfully in Canaan and Syria. The settlements in that area went through a massive destruction, perhaps paralleled in time by the Middle Bronze Age abandonment in Europe, caused by the phenomenon often called the "Hügelgräber" groups movement (Haensel 1968, Bona 1992, Tasić 1984).

2. On the late end of the continuum, starting toward the end of the thirteenth century is the historical episode consisting of a series of movements encompassing the whole Ancient Near East and areas of southern and southeastern Europe. It is punctuated by the great destruction of much of the known historic-Bronze Age world, including the Hittite Empire, around and immediately after 1200. Hittite archives add to the archaeological datum, as do Assyrian, Babylonian, Ugaritic, Aegean Linear B, and other writings. Notably the Hittite documents seem to diminish in numbers in the thirteenth century (see Bryce 2003). Geographically closest to Southeast Europe are the documents in Boeotia (Thebes) and the rest of Greece, and in Anatolia. The Aegean epic cycle and other myths from the area, as well as from the Near East provide further references, but these are not firmly set in time and can only be used with caution. They are a rich source none the less and furnish interesting conjectures. Biblical stories and other religious literature constitute yet additional written documents for many areas including the Levantine coast, Canaan and the environs, the coverage of the so called Plagues of Egypt being very intriguing.
I.1.a Fixed points issues

Direct correlations between distant areas are predictably few, but they do exist as more or less convincing links. An example of an Egyptian-Minoan connection is the burial context from the necropolis at Katsambas (ancient Kairatos, harbor of Knossos, Crete) that contained the “Palace style” Late Minoan Ib characteristic pottery together with an Egyptian alabaster vase bearing the name of Tuthmosis III (Shaefer 1991). The Palace style continues till the destruction of Knossos around 1380 (Warren and Hankey 1989, Driessen 1990, see Demand 2011, cf Manning 1995; Wiener 2003; Wiener et al. 2009), so the time sensitive associations like this one are precious as potential anchors for the chronological positioning of other data.

An ostensibly neutral approach could be to define the start of our period via the Thera volcanic eruption, by putting it duly in the 17th century. However, when discussing the Ancient Near East the present work sides tentatively and reluctantly with the middle chronology that dates the catastrophe to the first half of the sixteenth century, closer to the mid-point. The year may well have marked the start of the reign of Ahmose I and the New Egyptian Kingdom (Kitchen 2007), and is easy to remember.

The eruption has long been heralded as a potential chronological leveler of historic and contemporaneous prehistoric societies, but despite recent methodological advances, that has not happened yet (notice the title in Manning and Kromer 2012). The problem is that traditional chronologies from the lists of rulers and astronomical phenomena seem to fit the material record better, even though the "high" dates are plenty and are by now sufficiently consistent to warrant full inclusion (see Wiener et al. 2009).
The issue remains with calibrated dates in the second half of the seventeenth century (the start of our period) and all of the sixteenth century. They do not fit the established relative chronologies. It is the story of science against the perceived wisdom of tradition (personified by Sturt Manning and Kenneth Kitchen, respectively), and the divide is not likely to be bridged easily. Of course this has significant repercussions for the correct consideration of European Bronze Age data treated here, but at least the two chronological schemes do seem to be in general agreement through the fourteenth and the thirteenth centuries.

From the perspective of Ancient Egypt several major historical events were mentioned in multiple written documents. For instance:

- outsiders, Hyksos, who claimed the throne from “indigenous” rulers;
- they (Hyksos) are a century later toppled themselves;
- numerous military/tribute seeking campaigns by different pharaohs;
- rise and collapse of a rival neighboring state.

They constitute a dependable structure of the narrative of contingencies at the time. These events provide temporality to narratives, and Egyptologists and “other” archaeologists rely on them as such in interpretations. There are still problems with synchronization, though, like the date of the start of the long reign of Ramesses II which could be in 1304, 1291, or 1279 BCE. 1291 is acknowledged here (to account for only 14-year long Horemhab's reign, cf. Kitchen 2007), but the later date enjoys respectable support (Bietak⁵).

⁵ Manfred Bietak’s chronological odyssey around the period to which the Avaris frescoes might date is also indicative of the general problems with time-matching. Whether the frescoes are from the Hyksos period, or Tuthmosis I, II, or III remains unresolved, although lately Bietak (2005) favors Tuthmosis III, which is in line with his low chronology.
Even with such discrepancies the Egyptian chronology is indeed the calendar of the era, the arrow of time that other chronologies attach to, with one important caveat provided by material culture. The Aegean pottery (mostly labeled as Mycenaean), similar to Chinese porcelain in later times, validates the general time-reckoning because of its ubiquity. The relative chronology of pots sharpens the incomplete absolute chronology of rulers, and pottery imports serve as fixed points for the matching of dates from different layers of sites that have furnished dendro-chronological samples. As we shall see this is not without its problems, especially in areas where there are only few sherds on record. Mycenaean pottery is perceived as time-sensitive, but this assumption is a major problem (see the discussion in Chapter VI).

In terms of material culture that best relates to the Thera eruption, Cypriote pottery (so called “White Slip 1”) found on Thera thus far has been conclusive evidence for not favoring the high, 14C-based chronology (Wiener 2001). The fact that that particular pottery appears in securely dated Egyptian contexts argues against the acceptance of the seventeenth and the sixteenth century carbon-dates (for summary of other evidence see the papers in Manning and Bryce 2009, Weiner et al. 2009). To make the matter more complicated, the time reckoning for the European continent, unlike the abundantly analyzed Levant, actually conforms to the higher dates for Thera (Forenbaher 1993). It favors at least the end of seventeenth century for the eruption, which would mean that carbon-dates and dendro-dates seem to match across the continent. One caveat is the dendro-series from the key sites linking the Aegean to the Southeast Europe – Assiros and Kastanas – from which the dated wood does not quite support the high Thera date (this is a moot point, cf Wardle et al. 2014).
Help might come from new readings of six medical papyri from the Egyptian archive. The documents could be describing the pulmonary issues related to the pumice from Thera, and the traditional chronology thus puts the eruption(s) to 1603 to 1601 (Trevisanato 2007).

I.1.b Contact-zone issues

Following from this messy patchwork, the present text will maintain the provision of 1550 for the start of Ahmose's reign in Egypt, since it is relatively easy to float it higher, but when the discussion moves to European contexts higher dates will be employed (otherwise references can be easily challenged). The eruption of Thera is out of necessity discarded as a watershed moment. Raising the date for the Thera eruption and thus for Egyptian pharaonic chronology is still feasible if the finds like the aforementioned Cypriote pottery can be complemented by other datums.

Cypriote material is hugely important because it is found around the Mediterranean, and on the island itself associations have been documented between the local, Aegean, Egyptian, Levantine, and Anatolian material (Knapp 1996). Cyprus (whose name bequeathed the word copper) was the most important copper source in antiquity and a facile statement that its central location enabled networks of communication may be appropriate. The bearing of Cypriot material on the European continent is difficult to assess, however a strong notion exists that the island was in communication with the European hinterland (see also Biehl 2008, Sherratt 2000). The term Cypriot pins (zyprische Nadeln) has been used for some time to describe Early
Bronze Age pins from Pannonia, but later research suggested that they may have come from Anatolia (Cypriot pin with a T-head was found in Troy V-VI [Blegen 1950-8, Vol. 3]). The link between northwest Anatolia and Cyprus is instructive, especially for the so-called Yortan culture and its parallels with Troy V (Mellaart 1958: 62). The point is that researchers have been fully aware of a likelihood of contact, but unfortunately new research more readily disputes the old tentative parallels than it provides space for inclusion of older research. It is a familiar story, no context thus far provided unequivocal evidence, and the more impressionistic old literature tends to be discarded and all but forgotten as a consequence.

In Turkish Thrace and in southeast Bulgaria there have not been systematic archaeological projects on any scale. This zone is understood to have evidence of material culture that shows up in the Late Bronze Age destruction horizon and earlier in the Ancient Near East, but the cited literature suggests that somehow the amount of evidence is not enough to warrant narratives of invasion and mass movement (see Best & De Vries 1989, cf. Bailey & Panayotov 1995, Bankoff 2004).

The evidence from the Italian Peninsula, Sardinia, Sicily, and north Adriatic have been supplying a steady flow of data for Minoan and Mycenaean influence (Harding 1984, Harding 2000, Kristiansen and Larson 2005). A frequently cited southern Italian site Scoglio del Tono is aided by new projects from further north and west (Fratesina, Lipari).

For the so-called ‘Handmade Burnished Ware’ (HBW; a particular type of pottery that is noted in different areas but only vaguely understood to signal certain cultural affiliation), the Italian material now provides clues to possible mass movement from
there to the east. Previously, due to typologically established parallels between Danubia and Aegean it was posited that the Bronze Age collapse may have been triggered by the Danube populations (also implicated in the earlier literature in the so-called “Dorian invasion”). In recent years the attitudes shifted to suggest a stronger Italian connection, and less influence from the Balkans. This is largely the consequence of more intensive research in the former zone; the HBW is found in both areas (Garašanin 1979; papers in Alberti and Sabatini 2013).

The two sites in Macedonia, Assiros and Kastanas, that geographically sit midway through the Balkans from Mycenae to the Danube (not implying that such a simple connection ever existed), assume an important role due to their preserved wood samples. Compared to the time-sensitive Mycenaean pottery evidence, the structural timber from burnt layers of mud-brick houses there has been seen to raise the date of the perceived end of the Bronze Age in the locale for at least half a century (Wardle and Wardle 2007, see explanation in Weninger and Jung 2009). While the imported Mycenaean pottery dates the occupation horizons to the middle chronology, their dendro-chronological dates point to higher chronology, in accord with carbon-dates from elsewhere (but the 14C dates from the Macedonian sites tend to be higher than their dendro-dates!, see Warren and Hankey 1989, Newton et al. 2005, cf. newest, robust assessment Wardle et al. 2014).

It needs to be stressed that this problem is of cyclical nature, as is the argument for the validation of European dates by the Aegean and other carbon-dates. They are in fact all carbon-dates that are calibrated by dendro-dates. The problem of tentative time reckoning remains, and is manifold.\(^6\)

\(^6\) In the past the high dendro-dates may have been explained away by the "old wood effect," but thanks to the work of Peter Kuniholm and his circle there is a much more robust scheme from different areas now
After a lot of tinkering and unsuccessful attempts by this student to have one uniform chronology (for a book length attempt see Manning 1999), the unwieldy compromise seems like the best solution given the present state of research. It needs to be said that Aegean specialists are coming up with new dates constantly. Bulgarian, Romanian, and especially Hungarian dating projects are going in the direction of carefully dated sequences (Guma 1997, Gogaltan 1999b, Guba 2009).

**Figure 3:** Chronological chart for MBA as seen in the events across Ancient Near East. Source: [http://www.domainofman.com/ankhemmaat/graphics/chart4.gif](http://www.domainofman.com/ankhemmaat/graphics/chart4.gif)

**Figure 4:** ‘Cypriote’ pin

### I.2 Temporalities

The word *temporality* is fitting for this discussion as the register of its meanings covers several concepts integral to the Bronze Age terminology and the history of research at large. It also points to the above and other epistemological issues that are hard to escape that complements other dating efforts. Unfortunately Kuniholm passed away recently and his work on denro-dates in Anatolia, which would have potentially filled the gap, is not going to be completed any time soon.
in archaeology. One meaning would be the state of existing within or having some relationship with time, where the time proceeds in linear fashion. Another meaning points to the material possessions of clergy, specifically their secular possessions.

As discussed above, in Europe there are only carbon-14 dates as absolute historical markers, and the absence of fixed historical events renders the discussion atemporal (cf Cadogan 1978, Betancourt 1987). This basic paradox is so deeply rooted that it is taken for granted in the literature and is rarely discussed as a genuine handicap (cf Haensel 1968, Bona 1992: 17-8 for the floating of calibrated dates). The time of events and historical figures, and stories, memories, and identities based on them, exists in the Ancient Near East. In Europe, where this “human time” is absent due to absence of evidence like written documents, only the quantitative, scientific time exists as such. In addition, not all areas are equally represented by carbon-14 dates. For these reasons, the scholarship solicits more general considerations of cultures, circles, cultural circles, cultural complexes, cultural groups, cultural parallels, and influences. The emphasis is on the ‘kairological” time, where ancient Greek kairos means opportune moment, tempo, chance, human (akin to weather). On the other hand chronos means arrow of time, absolute time, godly (akin to climate). The nagging problem of prehistoric archaeology is that human time is sought for via absolute time. When such a (sacred-prophane) crossing happens in a church setting it is called liturgy (leitourgia = worship). The religious performance from such a simile is metaphorically close to the reception and legacy of synthetic works (by Bona, Childe, Haensel, Harding, Holste, Garašanin, Gimbutas, Kristiansen and Larson, Sherratt…).
Figure 5: Egypt and the Aegean link. Source: Richard Vallance Janke
In the image above different views of the passage of time serve as ideal types, here labeled as Western and Eastern (just as an idealized structural pair). They map onto the further discussion of fragmented chronological systems and their practitioners. Each type resonates with certain ethos, and with availability of certain data. Oriental time: instead of tackling problems immediately in sequential fashion, one circles around them for a few days or weeks before committing oneself. After a suitable period of reflection, tasks A, D and F may indeed seem worthy of pursuing. Tasks B, C and E may be quietly dropped. Contemplation of the whole scene has indicated, however, that task G, perhaps not even envisaged at all earlier on, might be the most significant.

It is fair to say that the hybrid European time is also the reason why the discussion of the Bronze Age life is, for lack of a better word, more anthropological. It is not
impressed by historical highlights, and it is open to various theoretical considerations that may or may not contribute to the historicity of events. Perhaps for the present text there is an expectation of a scholarship strategy that pushes for historicity to become primary in the archaeological discussion of the Bronze Age. In that regard one could recognize few modes of interpretation for the connections between Ancient Near East and Europe. So, to explain change an archaeological interpretation might favor, in no particular order:

- the indigenist (Harding 2000),
- the external (Childe 1929; Sherratt 1993a, 1993b), or
- the interactionist paradigm (Kohl 2007, Kristiansen & Larson 2005).

For some time it has been clear that the historical processes of the period are much more dynamic (Gardin 1980, Schnapp 1997, Sherratt 1989), and that the simplistic paradigms are indeed just ideal types⁷. As more evidence is gathered, from archaeology, art and ancient history, genetic studies, and philology, the interpretation has become more sophisticated, perhaps best represented by the new emphasis on mobility in the European Bronze Age archaeology (e.g. papers in Barnard and Wendrich 2008; van Domelen and Knapp 2010). Parallels between the European material culture and the robust chronology of the Ancient Near East do provide the proxy time-reference system for the former, however, the parallels are not conclusive, can in theory be centuries removed, and thus the sequence of events is rarely resolved.

A good example of this has been the perceived appearance of Mycenaean influence in the Middle Danubia gathered from the well-known finds of pulley-spiral designed bone-work, like in Vatin, Vinča, Tiszafured, or on the gold bowl from Bihar.

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⁷ This text tries to employ ideal types and structural pairings to expose inclusive ways of synthesizing; the reader will have noticed the influence of subtler dialectics from Raymond Williams’s City and Country.
(Figure 7, below, from Hoddinott 1989; see also Chapter IV). Similar connections have been proposed for the design on the sword from Persinari, and the gold axes from Tufalau (both sites in Romania, from the so called *Apa-Hajdusamson* horizon of metal hoards; Mozsolicz 1967, David 2002). Quite possibly similar designs actually appear later in the Peloponese (Shaft graves 3, 4, 5; cf Lerna “seals”) than in the Balkans (Bouzek 1985, Hoddinott 1989, Otto 1976), and therefore might point to another source – Anatolia (or at least to Troy) or Crete (as seen on the Minoan seals).

I would argue that for the European material we cannot expect to move toward consideration of processes occurring on a time-scale that is below roughly a hundred years. The "barbarian" Europe sits firmly in prehistory, and the Aegeanists, Anatolianists, and Egyptologists would welcome a more referable chronology from the continent, as it could weigh in on their chronological discrepancies. For now the chronologies of Europe are more isolated and more of value as a heuristic (which is the reason why the present text can maintain the separation between the two chronological schemes). This is to a large extent true for the Aegean, too, even though the pottery from that region is pivotal. If proven correct, the high date for Thera eruption would naturally have an enourmous influence on all the schemes by raising the bridge of Aegean dates (see Betancourt 1987, Haensel 1968).

It is an old, thorny issue, exacerbated by the fact that the analogies between the contemporaneous historic and prehistoric societies actually link the Bronze Age studies together. They frame the Bronze Age world, so the better we understand the connections, the better we should understand the processes on the smaller scale. This is not to say that the world then was somehow globalized or dependent in a fashion similar to ours today.
(Aruz 2009, Sherratt 2000), and surely European cultures were in many places isolated from the "main current" of history (cf Harding 2000).

It may never be clear whether or not physical distance was the issue (Garašanin, 1973), or lack of such European elites’ enterprises that would initiate long-distance trade (Harding 1984, 2000), or lack of initiative for regular contact from the historical lot (Kohl 2007, Sherratt 2000), or none of such simplistic arguments.

Figure 7: left - Designs from the Aegean and the Balkans (Source: Hoddinott 1989); right - Apa hoard (Source: Popescu 1944); communication with Mycenaean funerary stelae (Circle A, g V)? Compare Figure 41

The means of communication and connectivity were limited and potentially not traceable archaeologically, but it is also true that there should not be a choice but to continue to integrate as many geographies as possible into a common time-scale. Events involving kings and whole states might connect to European processes, including, for instance, military activity or change on the throne of a state in Ancient Near East. Fortuitous and planned coordination of research agendas between the area specialists has been filling in the gaps over the years. In that regard the Late Helladic IIIc coordination
project, for instance, is particularly important (Deger-Jalkotzy & Bachle [eds] 2007, as well as the prior in the series volumes 1 and 2).

In the next chapter there will be more focused discussion on some of these links, as well as the links to the present scholarship and current political economies that are entangled in a larger epistemological issue. For now, the discussion below will show some of the inter-state relationships of the era. The reader will be encouraged later to spot the similes and similarities between the historiographies between the Bronze Age international scene, feudal Europe, and a “modern” one from the beginning of the twentieth century (below).

Figure 8: Europe in 1914 and 814

Figure 9: Ancient Near East 1250 BCE (Source: Ian Mladjov); 1400 BCE
I.2.a Developed Bronze Age, Late Helladic, New Kingdom

Much of the data presented here pertains to the Middle through Late Bronze Age, jointly labeled as Developed Bronze Age, or DBA in the text. In calendar years it starts around the middle of seventeenth century and ends before or around 1100. It is for the most part paralleled by the Aegean Late Minoan and Late Helladic (and Late Cypriot) pottery designations. Like the still in use Worsae's tri-partite division of time to Stone, Bronze, and Iron ages, the subdivision of the Bronze Age in Europe has traditionally been to Early, Middle, and Late (see Dumezil 1969). Egyptian and Assyrian state histories are divided in a similar manner - into Old, Middle, and New Kingdom, although that division is backed by real genealogies.

Egyptian history accounts for two long Intermediate periods, whereas the Hittite dynastic rule seems to have been more stable throughout, and the phases are perhaps better outlined by the two-part division to Old and New (Bryce 1999: 6; n.b. the tri-partite division is still used). According to this scheme the New Hittite Kingdom starts at the beginning of the fourteenth century BCE with Tudhalias I, who overlaps with Egypt's Akhenaton III. The first half of the fourteenth century (Cline 1994, Demand 2011) is the period marked by a wealth of known communication among powers, from the Amarna archive (Ugarit Forschungen 1979, Cline 1995). The Hittite dominate over their southern neighbors Mittani, and the Assyrian state rises in Mesopotamia. Assyrians also fought Mittani, with the result that Mittani constituted a province of the Middle Assyrian Kingdom after Hittite and Assyrian power prevailed. The Mittani evidence is interesting as it may show movement from farther east into Syria. Mittani kings have a documented ‘Indo-Aryan’ ring to their names, as do their deities – gleaned from their treaty with
Hittites (Thieme 1960), again traditionally dated to around 1380 (Bryce 2003). On the Syrian coast the Kingdom of Ugarit (Ras Shamra) starts around the middle of the century and would be a rich source of documents (Ugarit Forschungen). Emar (Tell Meskene) archive, another rich Syrian source, provides a cross-check for both Mari and Ugarit, and brings an interesting compendium of calamities that can be securely dated.

Figure 10: Minoan fresco with archaeologically recognizable artifacts; Adapted from: Bietak 2000

In the Aegean (Aegean = “Greek world,” including Crete), Crete's economic influence is declining, and the Minoan seems to be replaced by the emergent Mycenaean after 1380 (Demand 2011, Cline 2014). Manning (1999: figs 39, 40; following his high chronology which dates it to fifteenth century) suggested that this change of guard is symbolized on the Egyptian fresco in the well known tomb of Senmut (Figure 10, above). The image depicting Cretan (the word for Crete in Egyptian documents is Keftiu) subjects clad in kilts, bringing gifts, bears evidence that the kilts had been repainted to fit Mycenaean style (Manning, ibid).
The idea of the decline of Crete's maritime and trading role is significant (see Broodbank 2000), as it explains the dominance of Mycenaeans in a straight-forward fashion. It will be argued later in the text that Cretan (and Cypriote) presence may well have continued in the hinterland to the west of Black Sea after the perceived take-over by the Mycenaean power. It is, however, true that many places around the Aegean Sea that have been marked by Minoan imports from the fifteenth century onward record Mycenaean imports instead, but that relationship is not uncomplicated.

I.2.b Battle of Kadesh and its aftermath

The regnal years of Hittite rulers are not as solid as their Egyptian counterparts', for whom we may know the correct days and months of rule via the astronomical phenomena. Egyptian historical dates, on the other hand, provide plenty of "wiggle room." It is fortunate that both empires maintained substantial royal correspondence that help adjudicate the general narratives. The archives are centered on rulers and that is why kingly objects and events tend to resonate with archaeology. They also provide ample clues that may or may not be pursued archaeologically. For instance, the commonplace great Battle of Kadesh in the fifth year of Ramesses II's reign (1286), with massive casualties on both sides, has been perceived practically a stalemate by the numerous literature, but at the time gave both rulers a chance to claim victory.

The Egyptian document describing the context of the battle conveys that for the occasion the Hittite king "left no silver in his land, he stripped it of all its possessions and gave them to all the foreign countries in order to bring them with to fight" (Gardiner
The text is a witness of the pharaoh's boastful sentiment, but effectively gives a good argument to look for connections to these mercenaries (coming from nineteen [19] different allies), as well as for pointers to mapping of the movement, the spread of technological knowledge and taste, and the potential accumulation of wealth in places where the mercenaries came from. Some of the names of these peoples are mentioned for the first time in history, for instance the Da-ar-d(a)-an-ya fighting on the Hittite side. The same ethnonym Homer uses for the people of Troy in the Iliad (and it remained in use via the Dardaneli strait). While they should not be promptly equated with Dardanians encountered later in history (although a decent case has been made for their beginning in the Middle Bronze Age of the Morava valley in Serbia, Garašanin 1979, see also Ljuci 2006), the mention provides a potential link, and a temporality. Some fifteen years after the battle and the residual fighting, a time of peace between the two biggest, bickering powers of the era was eventually ushered.

Figure 11: Perceived movements in the LBA Levant (Source: Kaniewski et al. 2011)
The peace was commemorated by one of the oldest documented peace treaties, which is a fine diplomatic document that in 1970 was donated to the United Nations by the state of Turkey.

Figures 12: Map with names (focus on Anatolia, Turkey). Source: Ian Mladjov

Figure 13: Copy of the treaty in the UN, gift from Turkey. Source: United Nations
A few decades after the Egypt-Hatti peace treaty, later in the second half of the thirteenth century, Beycesultan⁸ - a major religious center in Anatolia that Hittites co-opted from their predecessors, was destroyed (resonating an earlier destruction possibly made by Luwians; Mellaart 1958).

Around the same time the Sea Peoples start attacking the Egyptian coast during Ramesses II, then during Merneptah (1213-04), when these specific groups are mentioned: Shekelesh, Shardana, and Tursha (Breasted, 1962, 243, sec. 579). Those and other Sea Peoples are stopped by Ramesses III at the Egyptian coast (around 1180), but by that time many of the Ancient Near East cities and states have collapsed, followed by the disintegration of state-sponsored long distance trade.

Ramesses III is also remembered as the last strong ruler of the Empire. The “historical” and “prehistorical” worlds clearly collided, and the series of events that are described variously as mass migration, climate-triggered domino effect, slow movement, infiltration, etc. literally brought the two worlds together for a consideration of the ensuing cultural processes.

From the angle of such collision it is no longer possible to maintain separate chronologies, and a uniform one is necessary. Models of the interaction of the two worlds have been overwhelmingly of the center-periphery kind (or alternatively they are perceived in the literature as different universes, even though the case can be made that they are separated as such by the shortcomings of interpretation from ever limited sources, as discussed above). This is true also for the scholarship before the popular borrowing of Wallerstein's center-periphery paradigm by archaeologists (Childe 1937, 1950).

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⁸ Beycesultan is a key site, also interesting for the concept of language succession, and the idea that non-Indo-European speakers are succeeded by Indo-European Hittites. Hittite empire used Luwian as the second official language.
Kohl 2008, Harding 2000, Sherratt 1997). The key text by Mellaart (1958, itself likely inspired by Childe) represents this well. Later Sherratt’s models are an interesting alloy of Childe’s and Wallerstein’s banged out models, in particular his center-periphery-

It would appear that it is only feasible to speak of a geopolitical relationship between the two worlds for the period marked by the Sea Peoples, from the second half of the thirteenth century. Prior to that time the contacts are direct or indirect contacts without anything like a clear sign of dependency that would be mentioned in writing. Mercenary army contingents in, for instance, Hittite and Lybian (and Trojan) service are the closest phenomena that could fall under the current rubric of dependency. Otherwise no recovered written document mentioned specifically the “barbarian” European hinterland and that is certainly the bigger reason why the Sea People events stand out.

1.2.c Inquiry into the hinterland of the Sea People

There are numerous references in written documents to the naval power of the Sea Peoples (Lukka letter from el-Amarna tablet 38). The imagery of their sea-going vessels is found in Europe, the Aegean, Egypt, and elsewhere. The bird-shaped prow, a frequent image, is interpreted as an essential element for the Danubian and Appenine (Urnfield) areas. Bouzek dated earliest Central European bird boats to 1250-1200 (which can now be raised to 1300), as from Somes at Satu Mare, and Velem St. Vid in Hungary, and one from "near Beograd" in Serbia (Bouzek 1985: 177 fig 88: 5). In the Aegean the motif from Tyrins krater (LHIIIC period=Bronze D) carries a rare image of a ‘bird-boat’
(Vogelbarke) on pottery. A generic name like Sea Peoples of course implies that the groups thus designated may not have been related in any way, may have fought amongst themselves, displacing one another, or having joint actions against a common adversary (see the sources in Drews 1992; Sandars 1985).

How are we to date and evaluate the importance of the continental boat imagery? If a date assigned is later than the dated corresponding imagery from the Ancient Near East, what does that mean for the order of events or for the role of the Central European societies in the Late Bronze Age collapse?

There is a general consensus that the Danubian societies move, but do the Central European societies labeled Urnfield follow from the aftermath of collapse (Sabatini 2007), or are they actively contributing to it and perhaps then returning to their "homelands?" Is it even possible to distinguish between, for instance, Urnfield, Hugelgraeber, or Encrusted pottery groups as representative identities (Chapters III, VI)?

Other evidence can be summoned similarly, yet the relationship remains too tentative, and the order of events inconclusive. It is fairly clear that unknown masses of people were uprooted or were moving about, conceivably fleeing, raiding, destroying, settling. The set of responsible archaeological questions might include: How many are they? Is there anything like a domino-effect, in which case, is there one origin or several?

Climatic change can also be easily added as a major factor in any of the mentioned phenomena related to the Late Bronze Age collapse and it maps well onto relative chronologies. Beginning with 1980s proxy evidence to climatic change has been accumulating (Bouzek 1982 and other papers in that volume), but how far can that
evidence be taken before falling into a deterministic paradigm? And is it possible not to take the deterministic angle if such evidence is used?

These are not new questions (see Taylor 1949, Clarke 1968), and they serve to remind of the inherent problems tied to our choice of evidence for interpretation. The example of Apennine Peninsula is instructive: the south of what is today Italy has been linked to the Aegean and the eastern Mediterranean chronology through numerous imports and architectural and stylistic analysis (for instance the introduction, presumably from the Aegean, of the pottery wheel in Taranto signaled a clear shift in style in the region), whereas central and northern Italy is linked to the Cis-Alpine and Balkan groups, and to the corresponding carbon-dates, dendro-chronology, and stylistic parallels.

The old issues with time-reckoning complicate matters: the end of the thirteenth century is when, according to the high (14C) European chronology, metal hoards occur in significant number. Is that the consequence of the initial movement, or is it, according to the lower (culture-historical relative) chronology, that many hoards post-date the Aegean collapse in a different scenario?

The ceramic production in the Aegean following the Late Helladic destruction horizon noted on many sites (Mycenae, Pylos..., the case of Tyrins, etc.) is labeled Late Helladic IIIC, and it has just as wide distribution around the Mediterranean as the preceding LHIIIb pottery. Additionally, it has clear stylistic parallels in the Middle and Lower Danube (Urnfield and Incrusted pottery), but in Anatolia, Crete, Cyprus, south Italy, and Macedonia it is produced locally (van Wijngaarden 2002). It is extremely difficult to address the perceived cultural processes without a clearer temporal scheme,
and LHIIIb and LHIIIc horizons seem to offer the best opportunity to start the integration, and move back in time to chrono-match the regions.

I.3 The view from Southeast Europe

The links to southeast Europe mentioned above are not time sensitive short of the faith in spotty carbondates. Few more such links will be mentioned in the context of local development. Calendar dates are in fact rarely used for continental Bronze Age chronologies, rather a modified old Reinecke's (1924) system is favored Bronze: A0, A1-3, B1-2, C1-2, D => A0-A3 = EBA, B1-D = DBA.

The end of Reinecke A2 (end of Early Bronze Age, except in some areas where there is also an account of A3) is supposed to correlate with the so-called Apa-Hajdusamson horizon of hoards, beginning anywhere between 1900 and 1700 in calendar years (Haensel 1968, cf. Mozsolics 1967, 1973, 1985). This point in time is canvassed in the Carpathian basin with its characteristic spiral decorated objects, gold pieces and fine ceramic ware. It is represented by cultures that map onto geographical zones: Füzesabony/Otomani/Wietenberg, Komarow/Trzciniec, Madarovce/Veterov, Monteoru/Tei, Vatin/Verbicioara (Furmanek et al. 1991, Bona 1992). These cultures form the bulk of the chapter on culture-history and will be treated there in more detail. In summary, there are in fact three to five overlapping ways of time-reckoning:

- Reinecke’s,9
- common culture-historical and local culture-historical10,

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9 plus addendums by Willvonseder, Holste, Torbrugge, cf Haensel 1968, 1976, Mozsolics…
- tell-sites stratigraphy (Beycesultan, Pecica, Szoreg, Toszeg, Troy, Vcelince)
- metal-hoard horizons\(^{11}\) and local products\(^{12}\), and
- absolute time through scientific dating.

The chronologies that come out of the time-schemes and their overlapping have in common that they are partly defined by the complete lack of written documents. The metal deposits, for instance, so carefully brought into the chronology by Mozsolics, have a good chance of being included in the main line Near Eastern chronologies, as the rich archives of Mari and Babylonia further to the east may contain possible clues. Certainly Apa-Hajdusamson horizon in currently valid calendar dates can be seen as parallel with Mari in particular. Mycenaean texts do not really point to any specifically foreign trade and therefore are of no help.

Bankoff (1991) and Biehl (2008) posit that copper for Mycenaeans and their agents may have been the drive of their communication with the European hinterland. While early copper exploitation is well known from the late Neolithic Balkan sources Rudna Glava and Aibunar (Jovanovic 1989, Chernikh 1978), the thrust of Biehl’s piece is that the clues to communication between Mycenaeans and the north is to be found via the symbolic imagery found in the Danubian figurines. This link will be explored later (Chapter VI).

\(^{10}\) E.g. Assemblages recognized as “Nagyrév culture” in Hungary continue only in certain places of a perceived area of the culture, elsewhere new cultural names are used; similar for Vatin and other cultures.

\(^{11}\) Haensel, Montelius, Mozsolics, Schalk, and others have devised careful chorological schemes for closed finds, that are perhaps best represented by Mozsolicz’s Apa-Hajdusamson→Koszider→Forro hoards.

\(^{12}\) Local products, like the metal ones, rely on the metal-hoard scheme – a local axe type will therefore be part of the Koszider horizon – but are more sensitive if analyzed for metal content, which may signal at local sources.
At this point few general remarks will suffice: at the time of advanced Early Bronze Age and the beginning of Middle Bronze Age permanent stratified settlements are hubs of industrial activity (metallurgy, pottery, bone-work, etc.), which in theory is not unlike Mycenaean centers (Maier-Arendt (ed.) 1992, Lazic (ed.) 1997). There also seems to have been an institution of itinerant craftsmen servicing these sites, again in theory similar to, for instance, fresco painters in the Aegean and further (see above).

Connections that the tell- and other stratified sites show for seem to reach far over to the Mediterranean, either circumscribing the Carpathians, or down the Danube to the Black Sea, or via Sava and the north Adriatic to the west. Both the Anatolian and Aegean
influence are well documented in the material culture (Horejs 2001, Maran 2007, Sherratt & Sherratt 2001).

Figure 15: Left: Surčin; Mid upper: Pančevo; Mid lower: Middle Cypriote; Right: Winged pin. Source: Pekovic 2010; Corpus Vasorum Antiquorum; Majnaric-Pandzic 1985

The spread of metallurgical designs after Apa-Hajdusamson (which is centered on the Upper Tisza and therefore including Hungary, Romania, Slovakia, and Ukraine) is punctuated by the next important episode, the so called Koszider (centered on the Danube, and dominated by the Hungarian material, see maps above) horizon of hoards. The convincing information coming from Mozsolics is that early horizon (Hajdusamson) of the hoard phases exists in the NE Hungary, Slovakia and Romania, with many represented types. Subsequent horizons are spread out, and with less actual types in
circulation (Mozsolics 1967, maps p13, 19, 37, 34, 61, 92, see also Schalk summary in English in Mozsolics 1985\(^\text{13}\)).

While Mozsolics produced the chorology similar to the pottery analysis, her material does have a greater geographical sensitivity that potentially points to sources and workshops. The activities do seem to have areas of origin, as well as types that might indicate an origin of a type fossil – and they do not map onto pottery-based chorology, rather they influence pottery types in ways that challenge the whole carefully devised system. Another confusing part from the chronological point of view is that for Koszider the Hungarian material, as mentioned, is seen as the source (see also Kiss 2013). The consequences in, for instance, Croatian and Serbian archaeology, is that metal finds there are called ‘Late Koszider’ (see Figure 28). In Hungary meanwhile that term is replaced by Forro - for the appropriate time-period assigned by Mozsolics and representing the next horizon of hoards. For some reason the term Forro is not adopted in Serbia, even though that would be true to the typology that in the volumes communicates well with, for instance, scholarship of Milutin and Draga Garašanin (1951; Draga Garašanin 1954). Importantly, Mozsolics’s (1967: 21 and later) typology signals at the links that extend to the Aegean, Anatolia, Iran, and Ugarit.

In any event, the Koszider as conceived by Mozsolics begins roughly around the end of Reinecke B1, and is perhaps initiated by the mentioned Hugelgraeber movement from the northwest of Pannonia (Little Alfold) and down the Danube. A poorly understood sequence of events/history seems to be in motion from then on. Sites appear

\(^\text{13}\) Schalk there (Mozsolics 1985: 107) also conveys the fascinating and pin-pointing story about the stolen manuscript. Mozsolics’s last book on metal hoards (from Early Iron Age) was going to be published in mid-80s, but her manuscript was stolen! She then contacted Haensel, who organized for the eventual production of the volume from the remaining notes and photocopies, and with her original vision. More will be said later for this German connection in Southeast Europe.
less stable, and there is more emphasis on the defence of settlements. There is destruction (Kovacs 1988, 2008). Populations seem to be on the move, especially on the Great Hungarian Plain (see Chapter V). This movement is patently not the consequence of transhumance, although cattle become dominant domestic species in the area (see Bokonyi 1988 for Vatya sites).

The process of this transformation, the transition to the DBA, is not clear, but the important sequence needs to be mentioned - the recognized cultural groups that succeed territorially the ones mentioned from the Early Bronze Age are the ones that will continue into Late Bronze Age as Flat Urn Graves (Urnfield) absorb and succeed Tumulus graves (Hugelgraeber14). Zooming in to our locale, one of the recognized cultural groups in the wider scheme of Urnfield groups is called Belegiš in the literature (Benkovski-Piwovarova 1992; Tasić 1974, 1983, 2001, 2002; Forenbaher 1988, 1991). It maps onto the territory of the earlier Vatin culture, with whose latest phase it is contemporaneous. It is found in south Vojvodina, east Slavonia, west Serbia (Jadar), and south of the Sava and the Danube toward Paraćin culture in the Morava valley. It is best represented in Syrmia, and especially around the Sava-Danube confluence.

Few particularities are important for further discussion: at Surčin, near Belegiš, a small single-handled vessel with four feet relates the beginning of the necropolis to Mađarov (Dolny Peter, Dušek 1969; identical pot from Pančevo - Figure 14) and Vatin (Ludoš; Mileker 1905, 1942) cultures, an identical vessel comes e.g. from Regensbrunn in Austria (unknown grave, Wien 1937 [in Childe]), and very similar one from Györ-Menfocsanak (Egry 2004).

14 The confusion, as we shall see later, resides also in the names and therefore assumptions that are used in various locales to describe both the period, and the pottery style and graves, irrespective of the initial meanings.
Then there is the circular marble plate from Surčin just south of Belegiš (Vinski-Gasparini 1973, Harding 1984) with spiral (Apa, Tufalau) design, the so called Vulvenkopfjoge nadeln (in later literature with a less crass, but problematic name Flugelnadeln; Haensel 1968: 82, Balen-Letunić 2006), and numerous other objects, all suggesting a relative terminus post quem in the early B1. It is uncertain how long of a passage of time this implies. The life of the Surcin necropolis suggests a span to Reinecke's Halstatt A and the horizon of hoards from the Late Bronze Age (corresponding with pottery from Beierdorf-Velatice and Piliny; Furmanek 1977, Kemenczei 1984), but there are no absolute dates of sufficient resolution.

The necropoli in Belotić15 in West Serbia show similar connections, and similar span, which will be discussed in Chapter V. A long pin from mound 7 (‘Teppichmuster’) - Bronze C, and two from mound 19 (decorated neck) – Bronze D, show parallels with undecorated pins from Rimavska Sobota (Piliny affiliation; close to Barca). In general the most visible symbol of influence as seen on the Belegiš pottery comes from the North Pannonian Pilinyi culture and its characteristic decoration of burial urns.

15 And Bela Crkva, the eponymous sites of the Early Bronze Age culture that predates and parallels Vatin.
II Geo-political setting

The following survey of the physical and political geography of the study area will serve both as a spatial outline and as an initial topical guide to the wider issues presented in the text. These problems are played out through language and terminology, and through specific cultural attitudes. The map in Figure 1 (Chapter 1) is the template that will be used throughout, in the same scale.

In principle, outlining the geographical area should be reasonably easy with a good inclusive map, however, regarding the spatio-temporal definitions finer points need to be fleshed out early on, in a more comprehensive manner. Issues that will be treated in this segment are very much contingent on the larger issues presented in the previous scholarship, prior definitions, and paradigms. Hopefully a more thorough understanding of these contingencies will go further toward appreciating the complex nature of the archaeological environment presented further below.

The area outlined by the map (Figure 16, above left) can be taken as unchanging, if seen without its political context. The choice of the dataset will only make sense once both the physical and cultural-political elements of the environment are described. Before unpacking the puzzle consisting of pieces that either can or cannot fit, a dreary treatise on the nature of study and its relationship to the naming of regions will be explored.
Figure 16: relief; and the plain as negative space (notice how low/high some areas are).
Source: British Oceanographic Data Center
II.1 Geo-political entities of the ‘Other Europe’

The variety of names that have been tried for the purposes of defining the boundaries and characteristics of this particular area is indicative of inherent ambiguities. It is instructive to list them as part of the wider archaeological narrative. Archaeologists and historians alike introduce their texts with a nod to the problem of identifying the limits of the study. Modern historiographies have been good at outlining the vagueness of definitions of study areas (works by M. Bloch, F. Fischer, P. Horden & N. Purcell, M. McCormick). The game of additions and subtractions is seen as a flexible play of identities for current political and economic purposes. Renfrew and Bahn nod to the game as well, in their much loved archaeology textbook (2004), as does Gamble (2007) in his thoughtful study (Chapter X).

There may never be a consensus as to where the arbitrary limits might be of any study area, and it would be sensible to acknowledge that this arbitrariness spills into and informs the archaeological scholarship and interpretations. It is safe to say that archaeologists have often approached the ambiguities by taking for granted the archaeological material, without necessarily thinking about the connections of that material to the present (cf Bankoff 2000, Bona 1992, Childe 1951, Parzinger 2002). And that is certainly to be expected, as only recently there has been more emphasis on viewing archaeology as a narrative discipline first (Hodder 1992, Schnapp 1997), that communicates with the present and the future, as much as with the (distant) past.

Perhaps reading well researched archaeological problems like “the development of bronze metallurgy” alongside e.g. historico-philosophical texts by Regis Debray,
Gilles Deleuze, Paul Ricoeur and Michael Serres (e.g. *Transmitting Culture, Thousand Plateaus, Time and Narrative, Parasite*, respectively) is to appreciate the value of archaeology for such thinkers. In return their texts communicate with archaeologists, especially as to how much of human engagement with ‘archaeology as history’ is grounded in memory, identity, and raw experience - over an accumulation of layers\(^{16}\) of histories that are ensnared. There are plenty of traps, and histories are easily misunderstood. Allowing for slight hyperbole, the current and historical spatio-temporal definitions are just as integral to our understanding of the past as is the archaeological material itself. It is why this chapter is keen on a thorough exploration of extant definitions.

In particular, for this text’s study area the ‘East Central and Southeastern Europe’ could be the most scrupulous categorization, true to the physical appearance of the area inside the larger entity of Europe. It was proposed in the key text by Ehrich & Bankoff (1992) that discussed the chronologies of Neolithic and Copper Age sites in the area vis-à-vis the Neolithic and Copper Age of the Aegean, Anatolia, and Eastern Mediterranean. The authors provided the list of regions and littoral zones, drainages and watersheds, and pointed to the issues related to language barriers (see also Bankoff 2004). The landmass described there most closely resembles the geographical scope of this text.

\(^{16}\) Note that every mention of “layers” in this text can point to the possibility that they (layers) can be mapped out and overlayed with other information in Geographic Information Systems (GIS).
Historically ‘Southeast Europe’ (or southeastern, as will be used later in the text, without capitalization) has only been in use since 1918 and the end of the First World War. Only few mentions exist prior to this time, none earlier than mid-nineteenth century\(^\text{17}\). ‘East Central Europe’ started being used with any regularity later still, after the Second World War; only few mentions date to between the world wars. Both designations were used basically for European “minorities” and their young states that found themselves between the German and Russian speaking areas. The ‘East’ is supposed to signal distance from the German culture, and proximity to Russia and the communist project.

In the similar vein the designation Southeast Europe was originally used to signal a shift away from the term ‘The Balkans’ (lands south of the Middle Danube bordered by the Adriatic, Aegean, and Black Sea). The Balkans refers to the Balkan Peninsula (which is not really a peninsula as such), and was supposed to be a geophysical term like the Iberian and Apennine Peninsulas. It acquired and maintained more political overtones after the First World War, which in the area followed right after the Balkan wars 1912-3.

\(^{17}\) One of those was by Alfred Russell Wallace to point to the habitats of a duck species.
Anglophone texts then started using the term ‘balkanize,’ to mean ‘to fragment an area,’ inability to cooperate, or inability for peaceful coexistence in an area. Other languages have adopted it, too: French balkaniser, German balkanisieren, Italian balkanizzare, Russian balkanizirovat. The pejorative connotation dented the term Balkans— which is, like many words in the regional languages, an Ottoman legacy. It then ushered in a more politically correct and geographically more practical term Southeast Europe which is still in use, and later East Central Europe, which is presently less used18. Hungary will probably never be on its own in the south-, just as Bosnia will not be in east-central, but if together they might be in the south or the center.

To better keep track below, mentioned so far are:

- East Central Europe,
- Southeast Europe,
- East Central and Southeastern Europe,
- Other Europe,
- Danubia and Transdanubia.

### II.1.a Fragmentation

The motif for the remainder of the chapter is not derived from John Chapman (2000), but from Walter Benjamin’s insight that any history or historical episode is fleeting, and it only comes together meaningfully at a precious moment for the inspired:

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18 At a supposedly world-scale, the United Nations uses more neutrally cardinal-geographical Southern Europe to group Apennine, Iberian, and Balkan Peninsulas together
The true image of the past flits by. The past can be seized only as an image that flashes up at the moment of its recognizability, and is never seen again. […] Articulating the past historically does not mean recognizing it “the way it really was.” It means appropriating a memory as it flashes up in a moment of danger. […] The danger threatens both the content of the tradition and those who inherit it. […] Every age must strive anew to wrest tradition away from the conformism that is working to overpower it. The only historian capable of fanning the spark of hope in the past is the one who is firmly convinced that even the dead will not be safe from the enemy if he is victorious. And this enemy has never ceased to be victorious.

(Benjamin 2003 [1940]: 390-1)

Much has been written about the Balkan and other political fragmentation that might occur for a number of reasons related to identities and power: religious, ethnic, and linguistic. Narratives of historical episodes like the migration of Hungarian (Magyar) tribes in the ninth century are a good example of the complexity of naming, historical circumstance, and definition of the study area as related to geo-political fragmentation (Makkai 1990: 11-14). Several examples from the early Medieval to the First World War (Figure 8, above) testify of ways how fragmentation might affect the interpretation of history and prehistory, they are discussed below assuming that ethnic and linguistic labels remain meaningful.

East Central Europe is populated largely by people that assume Slavic identity, which if nothing else, can be seen as grounded in language. Slavic languages (barring Russian in the east of the continent) reflect to a certain degree the distribution of Slavic people. In East Central Europe only Albanian, Hungarian, and Romanian are non-Slavic19 (Figure 19, below). To discuss such spatial relationships in history, as broken down by language and nationality, may mean to engage with the text and other archaeological

19 Such an affiliation, however manifested, is impossible to recognize archaeologically. Still, culture in archaeology is seen as most similar to the very idea of linguistic affinity. It is proposed here that instead of viewing culture as a system, the way language may be, it is better to treat culture as another property of the system, among many (with access to water, architecture, trade, markets, etc.).
material as clues to ethnicity and its movement. European archaeological scholarship has engaged with origins, and movement, and ethnogenesis in various formats, and it still does. In that sense the literature is manifesting how national archaeologies might appear “pagan” (see litourgia above)

1. Romanian identity, in name as well as in language, has a strong link to the Ancient Roman and pre-Roman times, Dacians and Thracians.

2. Albanian identity (which historically dates to eleventh century C.E.), if not necessarily in language to the extent of Romanian, through mythical past also maintains a deeper historical link – to Illyrians.

3. Hungarian identity has had a different course and no connection to Roman times. Slavs and Hungarians are both seen as late comers on the scene. Slavs, according to the Eastern Roman/Byzantine Empire historians, generally end their process of migration into the area by the end of the seventh century (Constantine VII Porphirogenitus\textsuperscript{20}; Ostrogorski 1995). Minor subsequent movements did happen, but not to affect the familiar bigger picture. The Slavic tribes displaced or absorbed the extant local Roman era populations, their language preserved by herders and mobile pastoralists, some of whom were ancestors of Albanians and Romanians (as perhaps born out by some of the sampled genetic evidence).

Before and after the Slavic permanent settlement from the east arrive Germanic-speaking Gepids, Goths, Lombards, etc. and Turkic-speaking, horse-riding Avars, Bulgars, Huns, Pechenegs, etc.; they blend in or go through and leave. Bulgars establish themselves as a warrior elite among the part of Slav majority, whose language comes to

\textsuperscript{20}Dumbarton Oaks, 1993 translation, Περί θεμάτων Άνατολῆς καὶ Δύσεως [De Thematibus], as part of his De Administrando Imperio (edited by G. Moravcsik)
inform the Bulgarian identity *qua* Slavic. Toward the very end of ninth century Hungarians, ethnically related to Bulgars, arrive in what is now Pannonian or Great Hungarian Plain. Prior to the migration, their name, as Onogurs, is found a century earlier represented by the mixed Avar-Onogur-Slavic population on the Pannonian Plain. They were driven out of there by the Germanic army of Charlemagne in a series of battles and were next noted on the Lower Danube. In turn pushed out of there by Pechenegs, they form a new alliance of people that also included Magyars. The migration across the Carpathians to reach the Pannonian Plain was according to the tradition (Corvinus, see Makkai 1990) led by the Magyar tribe, because they were the last to join the alliance and were therefore supposed to be the vanguard. They also accepted the Onogur leadership of chief Arpad, who inaugurates a powerful dynasty that will rule till the fourteenth century.

Magyars thus come into the Pannonian Plain for the first time, but their name comes to dominate the whole alliance of many different tribes due to their vanguard position in the movement and their leader. For Onogurs it was a second coming into the area that they already once called theirs. Both Magyar and Onogur\(^{21}\) names begin to be used for this new entity on the Pannonian Plain\(^{22}\), and their central presence in effect disconnected Slavic populations which branch to East, West, and South Slavs. The Hungarian migration marks the end of medieval great migrations into the continent\(^{23}\) and completes the picture of ethno-linguistic feudal mosaic that co-exists with the Byzantine (which is mostly rendered as Greek) identity in the region until the final conquest of the

\(^{21}\) Onogur-->Ungri-->Hungarians
\(^{22}\) Or more common name Great Hungarian Plain; Hungarians call it Alfold
\(^{23}\) Cumans and Mongols will in succession have ruled vast portions of East Central Europe, but without significant long-term political trace. Their DNA trace is noted in some isolated areas, like around Niš, but the possible origin of this group is a moot point due to subsequent migrations that were the part of the Ottoman strategy of rule by migrating people within the empire.
Byzantine Empire by another Turkic speaking group, Ottomans. Ottoman Empire then ruled much of East Central Europe and introduced Islam into a mostly Christian religious setting.

To quickly illustrate relationships, in deference to the sources of the time, this is how the Byzantine ruler, doubling as a historian, Constantine VII, paints the backdrop of Russian and Pecheneg relationship in the mentioned text:

The Pechenegs are neighbours to and march with the Russians also, and often, when the two are not at peace with one another, raid Russia, and do her considerable harm and outrage. The Russians also are much concerned to keep the peace with the Pechenegs. For they buy of them horned cattle and horses and sheep, whereby they live more easily and comfortably, since none of the aforesaid animals is found in Russia. Moreover, the Russians are quite unable to set out for wars beyond their borders unless they are at peace with the Pechenegs, because while they are away from their homes, these may come upon them and destroy and outrage their property. And so the Russians, both to avoid being harmed by them and because of the strength of that nation, are the more concerned always to be in alliance with them and to have them for support, so as both to be rid of their enmity and to enjoy the advantage of their assistance.

Nor can the Russians come at this imperial city of the Romans, either for war or for trade, unless they are at peace with the Pechenegs, because when the Russians come with their ships to the barrages of the river and cannot pass through unless they lift their ships off the river and carry them past by portaging them on their shoulders, then the men of this nation of the Pechenegs set upon them, and, as they cannot do two things at once, they are easily routed and cut to pieces.

( Constantine VII [translated by R. Jenkins] 1993: 50)

**II.1.b Shifting boundaries of the Other Europe**

Like the limits of the so-called Southeast Europe, the limits of the entity recognized as East Central Europe have more of a political and cultural significance than a geographical one. Southeast Europe has more geographical traction, but East Central Europe came to subsume it as it related to a bigger area that shared cultural and political traits, as perceived by Western Europe. For practical diplomatic purposes it was a buffer zone between Germany and Russia, which has been especially true during different conflicts.
It was originally defined along the linguistic boundaries, which included the lands east of German and Italian speaking population and west of the Russian speaking former USSR. It therefore should have included Greeks, too, but then this never made sense archaeologically due to different cultural trajectories perceived by archaeologists and the different appeal that the Aegean material had for a wider archaeological scholarship.

Figure 18: Empires (above), Study area overlay (below)
Source: http://theballoonjourney.blogspot.com/2010/05/johann-christian-friedrich-holderlin_31.html; http://projects.inweh.unu.edu/
Greece naturally attracted a great amount of students outside of the Greek speaking population, as did Anatolia, Eastern Mediterranean, and North of the Aegean. East Central Europe was much more confined to local scholars.

To complicate matters, this is only true for the scholarship dealing with the post-Neolithic world, for the so-called metal ages. Another complication follows from the notion that the initial metal age is defined as Copper Age, and this category is indeed only relevant for the Mediterranean, East Central, Southeast, and Eastern Europe, and not for the rest of the continent.

As the geo-political map of Europe kept changing during the twentieth century Southeast and East Central Europe – the Other Europe24 – kept changing their geographical outlines (Figure 18). After each major conflict, and during the Cold War, these shifts also influenced swings in scholarship focus, research designs, large-scale projects, and allocation of funds and resources (papers in Biehl, Gramsch, Marciniak 2002). Upon entering the European union of states (EU) Czech Republic, Hungary, Poland, Slovakia, Slovenia were more regularly grouped into the coveted entity Central Europe or Mitteleuropa25 beside Germany and Austria, as well as with the states east of the Baltic Sea. Bulgaria and Romania, which were next in line to join the EU, began carrying a different label, now belonging to the ‘Eastern Balkans.’

24 The Other Europe is sometimes used for post-communist, non-Russian Europe. In fiction anthologies it is used to signal a group of authors that do not belong to the established traditions of English, French, German, and Russian literary circles. To my knowledge it was coined by Philip Roth for the Penguin anthologies that he edited (Writers from the other Europe)
25 Serbian writer Danilo Kiš distinguished Other Europe’s writers from the Russian block: “[W]ith this strategy of belonging to Mitteleuropa we have succeeded in differentiating ourselves.” (see Jesse Labov ‘A Russian Encounter with a myth of Central Europe, ’The Contours of Legitimacy in Central Europe, St. Anthony’s College London, p. 5) For twentieth century Germany dominating the Mitteleuropa meant fullfillment of its imperial goal [Naumann Friedrich 1917, Central Europe, Knopf]
When in 2013 Croatia entered EU, it left the ‘Western Balkans,’ which currently constitutes Albania, Bosnia & Herzegovina, Macedonia, Montenegro, and Serbia. These states will most likely together join EU at some point in the near future. Then it remains to be seen which parts of Europe will constitute the Other, although Belorussia, Ukraine, and Turkey are already candidates for that title.

The idea of socially constructed, contested areas only partly explains why archaeological outlining has been influenced by geo-political outlining. It is nothing new that the Other Europe appears and reappears, shifting with politico-economic tides (cf. Novakovic 2008). That this process has cultural repercussions can also be taken for granted. It has consequences for the archaeological scholarship, too, which is more difficult to take for granted if one is to adhere to a consistent methodology.
Archaeologists certainly have careers and projects that do not get swayed by daily politics, but the language of politics via the economic network of nation-states has to be accounted for as an influence on the archaeological research. In particular in the case of the Other Europe, however defined, the modern geo-political background is an integral part of the story (for the reasons sketched out on the theme of theoretical polarization in Appendix 1).

Perhaps the above rambling could rightly be labeled as a Balkan archaeologist’s engaged reading into identities that are only intelligible to the people on the inside of the said identities. It is indicative that the most recent fragmentation in the Balkans affected all areas of life, including the scholars and their work. Why not adopt the attitude that space need not be abused by culture? Or alternatively, why not simply state that the Danube drainage would just about suffice as a designation and move on – stick to the physical not to symbolic geography. Perhaps a more matter-of-fact approach would not have bothered to deal with the fuzzy montage26 at this length, as we are not really focusing on archaeology. I fear that would be too reductive and not true to the archaeological reality of the issues tackled here. This is why the old question is repeated: What is in a name?

Even though this and the next chapter might come across as overly fixated on the topic of elusive geographic and symbolic definitions, which are yet to be fully accounted for, by now it should be clear that frequent political changes and fluidity (which in literature is often called ‘instability’) have been the cause for the ambiguities. The history of the area is full of accounts of fragmentation, recent and past migrations, relocations

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26 Also see the new translation and interpretation of Bazin’s concept of découpage (transl. Barnard 2014, Caboose Books), which in French is very close to defining the archaeological interplay between the data and interpretation.
and invasions, and these recognized or deduced (pre)historical events tend to mark archaeological programs, as well. The states or individuals might embrace, as a corporate decision (cf Price & Feinman 1995), any significant moment in history and elevate it to national importance, which then might drive the scholarship.

A careful reader also will have noticed the vague, dallying language that is used in the survey. This is by design. Defining the archaeological environment is taken to mean defining an amalgam of physical, political, and cultural environment – past, present, and future. At the risk of losing casual readers, via a long route I hope to keep and ultimately reward the attention of that careful reader, as the more traditional archaeological considerations will be better understood later on.

II.1.c Other Europe’s Empires and their influence

At present the area outlined above encompasses territories of these states: Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Greece, Hungary, Kosovo, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine (the references to archaeological material in the text would also include Cyprus, Egypt, Iran, Iraq, Israel, Italy, Lebanon, and Syria). With the exception of the much larger states of Germany and Poland27, the sheer number of

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different European states suggests that the area is more balkanized than before, not only due to the most recent conflicts in former Yugoslavia.  

As mentioned, the physical space maps roughly but not completely onto the Danube river basin and its drainage network, however the new political arrangement needs to be traced back to the disintegration of Habsburg (Austrian, later Austro-Hungarian; Austro-Hungarian will be used in the text) and Ottoman empires and their relationship to the then British, French, and Russian empires. The Crimean War (1853-6) that involved all of them in the aftermath of European revolutions of 1848 can in easy hindsight be taken as a prescient/watershed event of the imminent collapse that came some sixty years later with the First World War. The Crimean War – the Black Sea conflict – crucially involved the Balkans and/or East Central Europe, too, having opened the path toward independence for the small European nations.

Ideological debates at the time about statehood and emancipation revolved around the idea of self-determination. Leon Trotsky’s writing just before the First World War is appropriate and below is his quote from Karl Marx’s who penned these lines at the beginning of Crimean War:

It may be said that the more firmly established Serbia and the Serbian nationality is the more the direct influence of Russia on the Turkish Slavs [sic] is shoved into the background. For in order to be able to assert its peculiar position as a state, Serbia had to import its political institutions, its schools ... from Western Europe.

Trotsky, L. 1914 (Bolsheviki and the world peace)

Marx echoes an episode from Serbian history in which the high state official Ilija Garašanin, ancestor of the most distinguished Serbian archaeologist Milutin Garašanin, proposed English and French governance models for the Serbian state in 1850s. He was

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28 Which brought the term ‘balkanization’ back in vogue, recently used by former UK prime minister Gordon Brown referring to the separatist movement in Scotland.
deposed under Russian dictate, and Trotsky argued that sixty years later the situation did not change, the area was fully caught up in the Realpolitik of bigger powers.

State-building involved territorial expansion at the expense of the Ottoman and Austro-Hungarian empires, but the Balkan nations eventually fought each other (the original balkanization)! Archaeological institutions thus created furthered the goals of young states’ nation-building endeavor, while the language of scholarship bore political influence. The anecdote told by Martin Gilbert in his biography of Churchill is enlightening. Toward the end of the Second World War a meeting in Moscow occurred between Churchill and Stalin. It produced the list of balance of influence in liberated countries. Churchill referred to it as a ‘naughty document’ (Davies 1996: 991-3):

- Bulgaria 90% Russian, 10% West
- Greece 10% Russian, 90% West
- Hungary 50% Russian, 50% West
- Romania 90% Russian, 10% West
- Yugoslavia 50% Russian, 50% West

This “balanced situation” continued through the Cold War.

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29 History: Romania, which bordered Russia and its influence, sought leverage in Austro-Hungarian empire. Serbia allied closer with Russia after it got in conflict with Austria over Bosnia. Bulgaria sought expansion into Macedonia that was claimed also by Greece and Serbia, and it fought Romania over their lower Danube territory. Bulgaria and Greece claimed Ottoman territories, whereas Romania and Serbia claimed Austro-Hungarian ones. Austria meanwhile supported Ottoman Empire’s presence in Europe against the ambitions of young nationalist movements (Trotsky in the work quoted above called Austro-Hungary the Ottoman Empire of Central Europe).

Alliances followed from these interests and formed the framework for state-building, so the institutions that were being created were being primed for certain models (see Palavestra 2013, Sherratt 1993), while exposed to the political clout of whichever power the state was closer to, along the lines of the German/Russian divide. To counter German and Russian imperial pressure Other European prominent figures kept proposing self-determination via some sort of Danubian league or Central European league [e.g. Masaryk], which never materialized. Yugoslavia did however become the founding member of the Non-aligned movement, which was financed partly by the US.
It is well documented that purposeful archaeological practice follows nation-state building particularly in the ‘Old World\textsuperscript{30},’ and so the process of collapse of the empires happened to coincide with the nascent states’ trajectories including the establishment of academic work in the area (papers in Kohl & Fawcett [eds.] 1995, Klejn in Taylor 1993). The young states have been reasonably successful at amassing data and the work on the Great Hungarian Plain has furnished the most information. Although, besides Realpolitik the challenge has been the number of in fact different\textsuperscript{31} languages used in the states listed above – there are around fifteen. Predictably the literature in so many languages has been difficult to parse for common (scientific) goals, even if some of the Slavic languages are similar and can be relatively easily understood between speakers. Hungarian, which would in particular have been tremendously useful as the Bronze Age lingua franca, has not been adopted outside of Hungary and its immediate bilingual vicinity.

Opening up of the region after the Cold War promoted English that has since the 1990s functioned as lingua franca for the new generation of scholars. Still, problems toward integration of national strands of study persist and the fragmentation lingers on (cf papers in Biehl et al. [eds] 2002, Harding and Fokkens [eds.] 2013). Intellectual traditions of the Other Europe (OE) are practically non-existent prior to the end of twentieth century. In the point of circumstance the category of the intellectual historically has been tied to the Habsburg/Austrian/Austro-Hungarian Empire. For East Central (non-Germanic) Europeans this has meant discouragement from wider synthetic or theoretical work. Larger international projects did pool scholars from the area, but mostly in the role

\textsuperscript{30} Donald Rumsfeld used ‘New Europe’ to differentiate states that supported US involvement in Iraq, versus ‘Old Europe’ that did not, represented by France and resulting in ‘freedom fries.’

\textsuperscript{31} While politically separated, Bosnian, Croatian, Montenegrin, and Serbian languages are not distinguishable on linguistic grounds; in former Yugoslavia they constituted a single Serbo-Croatian idiom.
of specialists that parse the local data. Two types of OE scholars have emerged from such an arrangement: one that indiscriminately adopts models and theories from the already established western thought (cf Babic 2004), and the other that does descriptive work confined to the locale (cf Drulak 2012, and other papers in that volume). This is not to say that any such work is inferior, but to suggest that there are not many exemplars\(^\text{32}\) for the kind of work that would address complex processes at different scales.

Many issues revolving around money are not stressed here – academic archaeology, as well as other disciplines, has been, by necessity, conditioned by the state’s economic power for publishing and research funds. The momentum of industrialization, especially, has driven funds for exploration, yet Other Europe’s in-between or marginal position, however ideological it might be, is also tied to important archaeological questions. Some of those concern the spread of farming, study of archaeometallurgy and the issue of the collapse of Late Bronze Age societies, all of which attract substantial attention in the field.

Quoted in Milisauskas (2002: 2), Jiri Neustupny (1998: 23) argued that beyond the language issue: “It is difficult to imagine how an archaeological community in a country with several million inhabitants and a poor economy could flourish.” He gives an example “that Britain houses a mainstream community, the Czech Republic a minority community, and that Polish archaeology is heading towards mainstream status” (Neustupny 1998:14).

Academic life has been typically swayed by the political course of the state and by the great powers, at times violently so. Milisauskas reminds that the Polish

\(^{32}\) Fully respectful of the authority of polyhistors like Berciu, Bouzek, Garašanin, Kalicz and others.
archaeologist Tadeusz Sulimirski\textsuperscript{33} and the German Gerhard Bersu\textsuperscript{34} fled to Britain to avoid antisemitic torment in Nazi Germany. The Spanish Civil War drove P. Bosch-Gimpera to Mexico to escape the Franco’s fascist state.

\textbf{II.2 Europe’s fault-lines}

Norman Davies (1996) in his \textit{Europe: A History} mapped what he considered to be the symbolic characteristics of European geographical fragmentation as a result of demographic and crucially other culture-historical processes. He called them “historical fault lines,” and provided abstracted maps to illustrate his point. The six ‘fault lines’ are (Figure 20):

1. Physical division of West and East (From Nordkapp in Norway to Cape Matapan in Greece), this is the only ‘fault line’ that makes some physical sense;

2. Roman \textit{limes}, marking the extent of the Ancient Roman Empire suggesting its influence on subsequent time, drawn from Hadrian’s Wall in Great Britain and following the Danube into and around the Black Sea, coinciding closely with wine-producing areas;

3. The divide between Catholic and Orthodox Christianity that formally started with the schism in 1054, with Greek Uniate sub-line to account for Belarus and Ukraine;

4. The greatest extent of the Ottoman Empire, showing also the extent of Islam in the continent;

\textsuperscript{33} He left Poland in 1939, and in 1958 was appointed professor of Central and Eastern Europe at the University College London.

\textsuperscript{34} Bersu left Germany in 1935, and when the war ended returned to Germany and in 1950 became again the Director of the Römisch-Germanischen Kommission in Frankfurt, the same position he held before the Nazi regime stripped him of professorship.
5. Line that shows the wave of industrialization demarcating early adopters in the west, the segment furthest to the east divides Czech Republic from Slovakia;
6. And the ‘Iron Curtain’ line that shows the latest divide between East and West via the extent of communist regimes.

Figure 20: Europe’s faultlines (Adapted from: Davies 1996, p. 18, p. 48, p. 1238)

Davies’ abstractions may be called arbitrary, yet are iconically suited to organize the complex geo-historical dataset that is neglected when defining archaeological study areas. The elegance of the fault-line map is in the common-sense simplicity it espouses. It serves as a fine visualization of some of the more arcane points of the discussion above, and uses ideal types responsibly.
There is also a huge potential for tinkering and fine-tuning to tailor different agendas. The list of fault lines can be conceivably enlarged to include some other historical currents and circumstances, but the basic model is thoroughly edifying. Superimposed on more traditional archaeological maps of culture-historical information Davies’ map adds a layer of interpretation that can contextualize archaeological and geopolitical agendas. For a decent start, it definitely accounts for the geo-politics sketched above. Additionally, Robert Ehrich (of Brooklyn College) left a legacy of tracing of boundaries through the social history of this part of Europe. In two of his late papers he showed a keen affinity for showing that the boundaries and fault-lines persist due to real, qualitative geomorphological features.

A whole separate map (see Figure 19) can be made for language families and literacy, but it cannot be neatly represented as the above fault-lines. This might be the reason why Davies shied away from it, even though he pays attention to the language distribution and adoption of writing at length. The issues around language relate directly to the archaeologically pregnant questions around Indo-European identity, to the archaeological category of culture, and to the role of place-names in research. This is well documented through the history of the discipline in the development of Kossina’s thought (1912) by Childe (1930) and Gimbutas (1963), and the ensuing commentary (Trigger 1986, Harris [ed.] 1992, Sherratt 1997 [1989]).

This chapter aimed to expand on the idea that outlining the study area is never a straightforward process. It is argued that recent historical phenomena have a big role to play in determining the scale and possibilities of previous scholarship, as well as the

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35 His examples follow from an intriguing study of the Una-Kupa watershed (present-day Croatia) done in the tradition of human geography (Ratzel, Cvijic).
dynamic of interpretation. Hermeneutic standards might differ over time, and through better illustration of historical data interpolated with archaeological data we can start addressing this issue. I invite the reader to leap from this chapter’s history to the subsequent chapters’ prehistory, allowing for the pedestrian concept of connectivity to be slowly developed as the guiding method (Chapter IX).

II.3 Bernhard Haensel’s relative chronology for the Middle Bronze Age

Below is the summary of Beitrage zur Chronologie der Mittleren Bronzezeit im Karpatenbecken, the great early work by Haensel that in large part charted his whole career. This bit perhaps would be a better fit for the Chronology chapter, but it is posited that it actually better communicates ideas of language and physical barriers.

In the late 1960s Bernhard Haensel tried to introduce a new relative chronological system for the entire Middle Bronze Age of the Carpathian Basin. His is still the most comprehensive system to date, as in its entirety covers all of the Bronze Age. Beyond the reasons of language barrier, judging by methodological reasons alone, it is not clear why Haensel’s has not replaced Reinecke’s in the Carpathians and Danubia (or for that matter Childe’s, Bona’s and Mozsolics’s, D. Garasanin’s, etc.). It is robust and reliable and, like Mendeleev’s periodic system, it anticipated new findings that have over time successfully slotted in place (Todorovic 1977, Haensel and Medovic 1991, Lazic (ed) 1997, etc.). To be fair, local archaeologists have mentioned Haensel’s system together with the respective local ones and the ubiquitous ‘Reinecke,’ but it seldom transpired that Haensel’s could be a significant improvement. Rather, especially for continental
syntheses, Reinecke (who was conveniently not around anymore) was preferred, likely as a legacy effect and due to the lack of local longer carbon date sequences. For the Carpathian basin itself Hungarian schemes managed early on to “defeat” Haensel’s efforts (see the Kalicz 1971 review in *Acta Archaeologica Academiae Scientiarum Hungaricae* 23), on the strength of the rich Pannonian research record and the stature of Bona and his successors (T. Kovacs, N. Kalicz) – which is perhaps why Haensel’s chronology has not had more traction after its initial publication. Only later on, since the 1990s, this scheme saw a proper resurrection, thanks in large part to Haensel’s methodical ongoing projects in Greece and former Yugoslavia, as well as the work and network of his students.

In the two volumes Haensel sought to fulfill four basic conditions with his scheme, framework of which at the time postulated that no work toward independent chronological scheme for the Carpathian arch had been successful. His four conditions were:

1. Capturing the full cultural sequence with all the so-called ‘turning points;’

2. Being as neutral as possible and therefore able to replace whichever regional cultural terms – his new tri-partite scheme thus remained open so that other local chronologies can attach;

3. The new chronology was supposed to incorporate as much as possible from the existing subdivisions of the neighboring areas (Austrian, Bohemian, South

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36 The Soviet political and cultural invasion of Hungary since late 1950s may have had something to do with the cold-war politics behind the innocent archaeological problem, see the chapter on Norman Davies’s history of Europe.

37 Vol. 1 with the text and three summary plates, Vol. 2 with the standard German lists of sites as mentioned in publications, a thorough site register, material plates (58 in total), metal-type distribution maps (30), and temporal distributions of metal and pottery (13), capped with the period-site breakdown, all according to his new periodization.
German) especially since Reinecke periodization originated in that corpus, and the established fact that due to the wealth of secure finds it could be taken for granted;

4. The universal terminology for the area was the last condition, and that way it was supposed to correspond with long-in-use terms such as Minoan and Helladic.

Throughout the text Haensel refers to various publications by his advisor Vladimir Milojcic, and there is an understanding that the mentor started the periodization work in the 1940s and 50s, which his student – Haensel – was to continue toward its logical conclusion. Hence the impressionable reference to the talk in Zurich in 1950, when Milojcic turned to the question of “irreconcilable dates for the Bronze Age between the Hugelgräber [Reinecke] and Toszeg [Childe] sequences” (p. 1). Only a detailed comparative analysis of closed contexts could be the cure, and Hansel therefore took this

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38 While this scholar was hugely important at the time and remains so in Germany, it should be mentioned that German PhD theses were supposed to show such due deference to the mentors. Haensel complements the routine deference and holds Milojcic in high regard throughout. See also: ‘Vladimir Milojcic 1918-1978 - Ansprachen und ein Gedenkvortrag (von Karl-Friedrich Ruttershofer)’

39 For Yugoslav, and in particular Serbian archaeology, Milojcic’s figure is fascinating because he left the country (which at the time only had a spot for Garasanin, secured perhaps due to his stately privilege, see below) and became an esteemed professor in Germany. He was born in Zagreb in 1918, and in Belgrade was, just before and during the war, together with Garasanin, Miloje Vasic’s student. His work on the Vinca realm was attracting attention – it is a minor tragedy that his work at the Neolithic mine Suplja Stijena could not continue – and he got the Humboldt scholarship to work with Menghin in Vienna. His doctoral thesis on ‘The Early Neolithic in Serbia’ was finished in 1944. After the war, under Merhart, Milojcic worked on his habilitation thesis – the condition for a German professorship. The title of this work was Beiträge zur absoluten und relativen Chronologie der jüngeren Steinzeit und zum Indogermanenproblem. Milojcic was a polyhistor of Childe’s ilk, whom he often sparred with in publications, but had a somewhat unfortunate yet historically amusing episode toward the latter half of his career when he embarked on the path of criticizing C14 method (Milojcic 1957). Carbon dating went on to become the archaeology standard, and the old guard represented by Milojcic did not do itself favors by opposing it – even though this conservative stance at the time came from a valid methodological ground. Milojcic’s work is still influential, and through his students he remains relevant. Like Haensel, arguably, he suffered the language barrier between the Anglophone and German scholarship (see also the Coles and Harding [1979: 70] failed prediction). Milojcic was a professor in Munich, Saarbrücken, and lastly held the prestigious chair post in Heidelberg. There he founded the "International Commission for the Study of the history of the Balkans," the seed of Haensel’s work. Milojcic’s excavations in Thessaly, which were supposed to provide the stratigraphic link between the Mediterranean and the Balkan hinterland are underused. Blagoe Govedarica, once of Zemaljski Muzej in Sarajevo, after the Yugoslav civil war, became a professor at Heidelberg (now at Freie Universität in Berlin).
particular problem on. The text that was published in 1968 had come from his PhD thesis defended in 1964.

In the preface we find out that the author relied on the Austrian and Yugoslav museums for the immediate corpus of his material. “Despite best efforts,” he could not visit Hungarian museums⁴⁰, instead he held correspondence with Hungarian, Romanian and Slovak colleagues. Sketches of Milojcic, J. Holste, W. Dehn, W. Kimmig and J. Werner were used as relevant illustrations.

Haensel’s influence on the subsequent scholarship is massive, but hard to evaluate without appreciating German publications. For the current text, too, suffice to say that it would not be possible without the ‘Haensel 1968.’ For Haensel, who in the volumes, out of necessity, puts greater emphasis on the metal finds, Great Hungarian Plain was an intermediary between the Mediterranean and Russian steppes⁴¹ (and these two metallurgical areas). He is also aware – on the trail of the aforementioned preface proviso – that the Hungarian main culture-historical sequence of finds is the key, and that any idea of interrelationships must come from closed finds.

His methodological assumption is that the Plains inside the arch could be seen in the future to have their own independent sequence that can be worked out as history without having to include outside or adjoining areas. The comparisons are drawn then with the South German material, Bohemian, and Austrian – in the chronology developed by Paul Reinecke. However, some equivalent regional center or background framework like the Hugelgräber in Mitteleuropa, that was the focus prior to Haensel, was lacking (it was clear that Toszeg could not be it). He nevertheless made an attempt to present finds in

⁴⁰ „...leider war es trotz großer Anstrengungen nicht möglich, die ungarischen Museen zu bereisen.“ (p. 1)
⁴¹ This point is also a nod to the work by Gimbutas.
their own geographical setting. In lieu of a methodological central place, particular assemblages were promoted and certain frequent types singled out as carriers of the sequence.

Use life, developmental trends, variability and distribution of each metal type was to be worked out, and ‘non-closed finds’ were only used when strengthening the point as to the distribution and variability. Following Milojcic, the accuracy of settlement finds assemblages – used by Childe and Hungarian archaeologists – was consistently contrasted, with the conclusion that the ceramic types cannot be used with certainty, but are usefully listed as a comparative and independent reference collection42.

The various metal finds were broken down by type and put together geographically, ordered in type lists. The 58 plates in the volume 2 are comprehensive and wonderfully legible, and as such should be used side-by-side with the famous Bona’s volume. In that regard, Hampel’s *The antiquities of the Bronze Age in Hungary* (1886-1896) deserved the author’s special mention as the indispensable material basis for any investigation to the Bronze Age in the Carpathian Basin.

Haensel divided Carpathian Bronze Age to Early, Middle, and Late, with the attached moniker ‘Danubian,’ to be legible together with Minoan and Helladic. So his periods became Fruh Danubische (FD I-III), Mittlere Danubische (MD I-III), and Spate Danubische (SD I-II) Bronzezeit. Crucially for our study area, his MDIII relates to Reinecke B2 and C1, together, and SDI corresponds to Reinecke C2 and early D. The oft reproduced chronological Table 2 from p. 21 shows Haensel’s own scheme and parallels

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42 In fact the pottery corpus from Haensel (1968) is still the compendium from which the Balkan archaeologists draw their relative chronological parallels; in addition to the Supplement plates 7-11 in Vol. 2, the illustrations of the material from Dolny Peter and Majcichov are instructive (Vol. 1, Table 3, p. 79). For the metal finds key are Supplement plates 1-6, as is the shorthand Table 4 on page 162, representing MD I and II types.
with Reinecke, Mozsolics, and Bona. The latter two were to modify their periodizations, but at the time the most glaring difference was the Bronze B3 period (Mozsolics) and Middle Bronze 2-3 (Bona) that paralleled all of final Early Bronze III (FIII), Middle Bronze I and II in Haensel.

For the Vatin and Dubovac sequence (and Zuto Brdo and Belegis) few of the Haensel’s observations are crucial and still relevant:

1. Various metal molds (for pins and axes) parallelize the stage FD III with the phase Reinecke A2; ceramic finds carry the information we recognize as cultural groups.

2. The full-grip sword (Vollgriffschwert) is the new weapon characterizing FD III as opposed to the rest of the Early Bronze\textsuperscript{43}.

3. Childe anticipated with his proto-Lausitz horizon a Middle-European phenomenon of Middle Bronze Age groups that include Vatin and others. However, Childe and Tompa based lot of their information on unpublished finds that were difficult to check subsequently.

4. Excavations by Foltiny around Maros enabled the final link between tell-sites and Urnenfelders to be established, by showing parallels that were otherwise missing (as admonished by Milojcic in Zurich 1953[1950]; see Foltiny 1955, Muller-Karpe 1959: f 326).

\textsuperscript{43} There is the seed of the Haensel – Hungarian standoff. In his 1968 publication Haensel maintained, with reservations as to the lack of archaeological context, the Mycenaean shaft-graves as the influence (also for the Wietenberg hearth), and the Fruhe Danubische III – Late Helladic I link. This will be later adjusted by C14 dates, but it is still far from a resolved issue. “Unglücklicherweise stammt weder eine der Rapierklingen noch ein in mykenischer Manier verzierter Gegenstand aus einem geschlossenen Siedlungszusammenhang, der eindeutig innerhalb der erarbeiteten Kulturabfolge zeitlich fixiert werden könnte, so daß es schwierig ist, die Chronologieschemas der beiden Länder zu parallelisieren.“ (p. 160)
5. Fuzesabony culture cannot be successfully compared with the two horizons of metal finds – Apa and Koszider for there is no metal to compare (that relationship is key; Pl. 5—6)

6. Dunapentele-Koszider has no stratigraphic framework (no deep settlement associated)

7. The term horizon (Koszider) is therefore wrong, and both Mozsolics and Bona make Koszider too much of an event.

8. Instead, Sögel horizon (Sögel-horizont) from northern Germany can be juxtaposed to the famous swords of Apa/Hajdusamson (Hachman 1957; Lomborg 1959).

9. From MD I onward there is a marked east to west metallurgical influence, and rarely the other way around,

10. Closed finds were missing from much of Banat (now somewhat offset by the hoards published in Jovanovic 2010 and other material in Lazic 1997; the new finds fit the extant scheme), making this important transit area difficult to position chronologically.

11. As per Otomani sequence, phases and transitions there and elsewhere did not signify the same phenomena or the same time from region to region.

12. Fourth phase of Otomani may just be geographical varieties.

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44 Haensel was thus true to Childe’s and others’ observation that Banat and Central Balkans were less important as a transit area from Early Bronze Age on, and this is something that Sherratt will explore further. The bigger problem for the archaeology of Banat, and therefore the Romanian and Yugoslav archaeologists, is that the shaft-grave influence does arrive, and is felt in Banat, so without the way to resolve the fine layers of time it is indeed impossible to follow the south Pannonian sequence meaningfully. In particular, this is the reason why the Vatin and Belegis positioning is so tentative. “As long as no new, secure stratified finds have come to light in the northern Greece, Bulgaria, southern Romania and Yugoslavia for this period, it will remain impossible to provide the boundaries of the two stages FD III and SH I in a secure relationship.” (Haensel 1968: 170)
13. Piliný and Egyek decorations are not the same as those from Toszeg D (see also Milojcic 1959: 76).

14. Toward the developed Urnenfelders (SD II), it becomes more difficult to fix “the end” of the cultural groups.

Vatin (Tasic and others later differentiated Belegis) and Dubovac according to the scheme last from MD I to SD I (Vatin is later pushed up into FDIII). Dumitrescu’s excavations at the Cirna necropolis confirm the Dubovac-Cirna correspondence (Supplement 12), with the pottery material from Cirna dominated by long-lasting types VI, VII, and VIII. Type III on the other hand, according to Haensel, anchors the Vatin sequence. Via the typological parallels with the grave from Vrsac (Pl. 15: 1-3) the type of smaller spherical vessel with a short cylindrical neck and four lugs on the greatest extent of the body and a ring stand can be dated in the stage MD I.

The grave from Ilandza (Pl. 48: 4-8), dated to SD I, contains a cup shape that was frequent in Cirna - a funnel neck on a spherical body and a base ring; with a handle crowned by a high above- the-rim single, thumb-rest appendage (Pl. 48.6).

For the Encrusted Pottery sequence Haensel said this (pp. 133-4):

The richly decorated Bronze Age pottery from the area of the western Oltenia to Slavonia has attracted attention of various researchers since time immemorial. Their activity has not gone beyond collecting and occasional assessing of the find-spots. Closed-find relationships were published only in the rarest of cases. So, one stands today before the unfortunate fact that, although a wide variety of vessel shapes are known in a multitude of variants, their development and interdependence are not clear. The sparse dating information comes from metal finds compiled by M. Garasanin45. His work reveals vividly how little is known about the development of the Middle Bronze Age pottery in the southern Carpathian Basin today. Some recent discoveries from Ilandza, Belegiš, Cirna and Belgrade-Karaburma permit the still patchy but consistent picture to be grasped more precisely.

Groups like Madarovce, Otomani, Vatya – that communicate the Early Bronze traditions – end some time in MD I. The rich ornamentation of the Danubian Encrusted disappears, and the more streamlined (metallic?) forms are frequent. The Otomani influence has a wide reach, and the bi-ritual necropoli at Dolny Peter, Majcichov, and Streda nad Bodrogom perhaps correlate to this. From MD II the similarities between the south German Hugelgräber and Hungarian finds are striking, and from MD III the metal production in Carpathian basin is rather similar throughout. With SD I hoards as closed finds are much more abundant, both in volume and metal types.

Figure 21: Haensel’s periods with local sequences. Source: Haensel & Medovic 1991

In absolute terms Haensel recognized his Middle Danubian Bronze Age to cover the end of the 16th century to the beginning of the 13th century. For each of its three sections (MD I-III) he assumed a roughly equal lifetime, around 60 to 75 years.
It is clear that Haensel’s careful dissection of metal-finds makes his scheme germane for the Bronze Age study. Finally, it is important for the current text to mention a particular term from Haensel’s text: Ausstrahlungskraft. Strahl can be translated as *beam* or *ray*, then Strahlung as *radiation*, Strahlungskraft as *radiation force*, Ausstrahlung as *emission* or *broadcast*. Ausstrahlungskraft is perhaps best translated as *charisma*, although that same Greek word can be found in German. From Greek, kharisma (χάρισμα) translates roughly as ‘gift of grace,’ and the same idea is in *charm* (kharis=grace, with divine connotations). Max Weber (1947) uses the term to great success in his historical and economic analysis. Charisma may well be the term to describe the vector-like influence of certain forms, decorations and symbols that we see radiating or communicating certain ideas that without texts are impossible to decipher.

Going over some of the historical episodes that affected both the scholars and the areas that they studied, I intend to show that the Late Bronze Age world external to the written documents can be fruitfully approached from such an angle.

The next three chapters will have provided a review of some theoretically cumbersome ideal types – informed on the culture-historical background – and deal with individual archaeological cultures. Tighter focus in those segments will be held on the material from Serbia, Romania, Hungary, Bosnia & Herzegovina, Croatia, Greece, Bulgaria, Turkey. Zooming in on the map of Europe more spotlight will be on the Drina, Jadar and Kolubara valleys, Southern Pannonia, and the Velika Morava valley. In the chapter that introduces the case studies these locales will be prominent.
Figure 22: Danube River Basin water bodies (above); Population density (below).
Source: European National Mapping Agencies; United Nations Development Programme
III Culture history of Localities and Regions

The two stratigraphic events in Anglophone academic archaeology were the onsets of processual and post-processual archaeologies, respectively. Their well-outlined face off for fortune and glory marked the theoretical debates in the 1980s and 1990s, with numerous papers showing or finding allegiance one way or the other. The archaeological mêlée ran in parallel with the fresh ideas of center-right political structures that came to be known as neo-liberalism. For the rest of the archaeological world it was not as exciting, more business as usual, including there the third major tradition, the powerhouse of German scholarship.

European archaeology is naturally influenced by the flow of money, but German history of research and steady output hold sway. The paradigm, insofar as there is one, is culture-historical (cf Parzinger 2002).

A practicable and hopeful chronological system enabled by the continuous focus on recognizing cultures has been pieced together for the wider study area (Bona 1975, Garašanin 1983b-g, Tasić 1984, Vinski-Gasparini 1983a-b, Gogaltan 1999, Szentmiklosi 2006). For a long time the individual national matrices were functioning at a local level before a concentrated effort of institutions like Prähistorische Bronzefunde and Römisch-Germanische Kommission, and regular conference meetings between prominent practitioners ushered in a more integrated approach that brought loose ends closer. The relationships between the beloved chronological system of Reinecke and the periodizations of archaeological cultures of neighboring regions have also been explored
by Anglophone authors that start contributing to the synthesis from 1950s (Bankoff and Greenfield 1985; Harding 1984, Ehrich and Bankoff 1992; Gimbutas 1965, Pigott 1965).

In former Yugoslavia as elsewhere linguistic evidence has been used organically to aid archaeology in linking history and prehistory. Popular themes like ethnogenesis of Bronze Age cultural groups (Benac and Čović [eds] 1983, Garašanin [ed] 1984, Papazoglu 1978), and tighter typological series of artifacts have been established with varied success (see the recent summary Ihde 2002). Technological and stylistic properties of the material culture have been favored for analysis for obvious reasons, lately increasingly aided by more methodical scientific acquiring of data, through, for instance, neutron-activation, x-ray fluorescence, isotope and DNA studies, etc.

Thus a solid basis for programming large scale research has existed for some time, but the new obstacles like civil wars or old ones like language barriers (Chapter 2), hampered the design and execution of methodologically more challenging work. Another problem crept in with the loss of tempo: the new generation of scholars is brought up with English as its lingua franca, but the use-value reality is that the more wholesome research is written up in German.46

In a sense this new cohort skipped a step and left the old generation to its own. At the extremes of the group, young scholars looking for a career may perhaps choose either to engage in impressionistic post-processualist induced studies that Hodder and Shanks may have abandoned (Palincaș 2010), or to go processual anew (Porčić 2011) and do

46 Indeed French is not mentioned here. For what it’s worth, I entirely neglected all but the theoretical-historicist Francophone scholarship, and used it only while it had traction for anthropology, historiography and philosophy, less so for archaeology. Of course we use histories and philosophies in our interpretations so it is incredibly useful to know French, just, dare I say, not as crucial here. The best rebuttal to this view would be to read Gardin (1980), Stozckowski (1994) and Schnapp (1997), or remind of the literature on the Paleolithic (Bordes, Leroi-Ghuran) and material culture study (Latour, Lemmonier).
science. The third or in-between option is neither, but might come with the stigma of ‘nihilism.’ A simple reduction like the one sketched here probably never fully existed, but a fault line clearly exists.

III.1 Beyond localities and regions (valleys, hills, and tunnels of scholarship)

Bronze Age of the Other Europe is not best documented on a larger scale, in terms of the data-like spatial distribution and environmental records. However, at the root of this apparent lack of data is rather a lack of representation. To mention just a few veterans: Bouzek, Chernych, Hänsel, Kristiansen, Mozsolicz, and a slew of German pre-war scholars and others have been thoroughly occupied in creating meaningful connections across landmasses and disciplines. Specific research projects that target settlements and evidence of environmental history (Alberti and Sabatini [eds] 2013), novel approaches to ancient knowledge and technology (Kaul 1998), comprehensive surveys (Gojda [ed] 2004) have become the norm. One long term archaeological umbrella project, formed around the core of chemists and biologists, looked at pottery sherds from early agricultural sites to garner information for better understanding of the beginnings of dairy cow farming (Evershed et al 2004). It took around ten years for the conclusive evidence to crystalize. From hereon we could expect a more concentrated effort to tackle the bigger issue that preoccupied Childe, like the spread of farming. Encouraging results are being regularly published (Skoglund et al. 2012, etc.).

47 The remark is not entirely fair. It is actually in the demeanor that the divide and new attitudes become ostensible.

48 Appendix has additional pertinent material for this chapter
As a further note on the state of big research questions from the archaeological agenda, the issue of the ‘spread of farming’ may yet be clear about the obstacles in obtaining the necessary knowledge, as much as is clear that it (the spread of farming) was a long process happening at different scales and perhaps with violence involved. ‘State formation,’ arguably a much more dynamic process, certainly involved violence everywhere, as well as a strong dose of what would count as terrorism in current political parlance. Paradigms that would take state formation as a starting point for further questions rarely discussed violence and/or terrorism in context. Or when they did it was to promote any number of lasting ideals. Waking up to Marxist and feminist critique (see Hodder 1991c, Patterson 1995), and in a lengthy process internalizing aspects of both, eventually freed researchers not to take state violence for granted. That story could repeat for a number of processes that “spread” or “diffuse.” At which scale would violence be visible for the question of the spread of agriculture?

More to the point, we could agree that questions of origins are always going to be easier to control than questions of becoming.49 We could then also agree that unions between experimental and social sciences are very beneficial for archaeology (if not necessarily so for humanity). On the other hand research questions like the state formation involve multiple social constructs and active remembering and proactive forgetting. Researchers in those cases haven’t much to experiment on, which means that the research group is likely to be made up of archaeologists and maybe other social scientists. Or it might only be us as historians=narrators. In which case what is the language that is used in the story and how might it be used, or worse not be used, by power structures?

49 Assumed for the big ontological ones, too.
These little issues called big archaeological questions are brought up because of a specific agenda. I shall argue below, in a pedestrian manner, that it would also be useful to consciously recover the forgotten literature and pull up as much content as possible, especially maps and mappables, and that we would do well to have such efforts as normative. Evidently being archaeologists we examine prior scholarship as part of the day’s work, yet we might call it natural, and I certainly came to believe, that the promise of new data takes away from engaging deeper with the old data and “obsolete” research. This happens most detrimentally at the level of media that we use at work. To what degree this is a function of corporate culture in all areas of life is anyone’s guess and we might as well deal with it responsibly.

It is to be expected that novel research agenda is going to be favored for immediate exposure and limelight, especially if that agenda can be used toward a political goal. It takes tremendous effort to start anything and follow through, not just because money is involved, but because it comes with the pressure to be efficient (practical). I am making an easy argument that projects need to be rewarded more for digitizing and properly rendering all available information that they would otherwise gather as relevant to the project. A stipulation like that would enable a swifter integration that crucially would not give an upper hand to the scholar in the vicinity of dispensable capital. In addition, it would restore the capital used for archaeology back into circulation quicker.

Convincing the funding body therefore takes less political skill and restores prior work to a more respectable place that does not solely depend on Google or Hathi Trust for continuation. Finally, it makes the data available to non-practitioners and enthusiasts, and starts the dialogue that can only benefit all, with minimal ethical considerations. If
the reader would pardon the manifesto tone, the clear weak link that one can spot may be the looters, or rather the potential for looting. Publicly surveilled conversation would take care of that over time anyway, and conversely, looters are long overdue a chance to represent themselves in public and thereby self-expose systemic issues.

I invite thoughts to the contrary, and maintain that such a move seems like a straight-forward utilitarian endeavor that would underscore the position of the academic archaeologist as the steward of past, bridge the generation gap(s), and enfranchise ambitious young scholars without having to go through the cycle of ‘creative destruction’. The present moment is opportune as any other, but suffice it to say that getting a job is becoming more difficult, and losing one or losing funding becomes easier.

III.2 Danube in Prehistory

With hope that the potpourri above has been mildly entertaining (and with a job application due shortly!), my plea is directed toward the same goals that the text has been so far proposing: more concentrated effort to go beyond Childe’s apathy. Ruth Tringham, a student of Stuart Piggott, who was Childe’s student, suggested the reason for his eventual loss of interest in the Danube and Prehistoric Europe:

“I have my own theory about Gordon Childe in reading his publications; he came up against a barrier in knowledge construction. He wanted to investigate many ideas about social transformation that were inspired by historical materialism. He had all these ideas pertaining to the development and transformation of the construction of knowledge and people transforming themselves by applying knowledge in social practice. But the challenge was how were you to do this using archaeological data, unless, as in the Near East, you had the support of written documentation. How was one to do this for prehistoric Europe? (Tringham 2013: 312)
Sixty years have passed since Childe’s suicide and one could say that, for good or bad, the state of affairs is not as bleak. We have a more complete set of methods and technologies that can be employed for gathering data and vastly bigger archives from around the world. Archaeological methods and models include more sophisticated measurements, and many particularist foci can be used for comparison relatively smoothly. Notwithstanding the ever present Malthusian argument, the particularist focusing is encouraged precisely because of the discipline’s sound methodology and decent awareness of limitations of the data. Instead of having one polyhistor working without the net the current funding bodies encourage bigger projects made up of several experts from different countries (eg. CiNBA).

The new buzz word ‘crowd-sourcing’ reflects the change of tune. It appears both prescient and ironic that Childe in his time would praise archaeologists in the Soviet Union and criticize colleagues in the United States for helping one another and for being fragmented as a group, respectively. The way our society adapts to the financial and moral crisis of the present seems to lead toward more communal strategies. Perhaps the interesting story for the academic consciousness is going to be in the relationship between the scholar/public intellectual who works without the net and the system that is less keen to support the scholar unless hse finds or creates a supportive net. As we shall see below, connections between scholars across time and space constitute a good database of a net and its relationships.
III.2.a On origins: An origin of connectivity

The laid out path to discussing the origins is to advance two simple notions in order to better address the archaeological issues at hand.

First is ‘connectivity’. The word suggests both the ability to connect to and to communicate with across time and space, as it might pertain to a computer. Connectivity thus means a potential for communication over diverse landscapes, past and future, and better recognition of communication obstacles. It makes the case for heightened awareness of arbitrary and constructed scales of interaction, as well as for monitoring of media involved in periods interpreted including their life cycle in the present. It is informed by the medley consisting of different aspects of work by Regis Debray (2004), Friedrich Kittler (1999), and Brian Cantwell Smith (1996).

Second is ‘vulnerability.’ The word suggests uncertainty and insecurity, and implies challenges with living in the present. On a systemic level it implies the embrace of possibilities with an active life, and a composed relationship toward entropy. Vulnerability is seen as something crucial for becoming human and compromising that together with connectivity profoundly shapes social lives. It is informed by the economist Albert Hirschmann (1970, 1977), and by fiction-writers of other Europe represented by Danilo Kiš50.

Movement and mobility are common to both of these notions (connectivity and vulnerability). Following from them is the call for a resolute shift in the attitude toward movement. It is argued that sedentary, fixed living environment is often assumed for

50 see translation of his Grobnica za Borisa Davidovića – Tomb for Boris Davidovich in the aforementioned anthology by P. Roth.
prehistory, even if data suggest otherwise. Building on the arguments put forward in previous chapters, movement and travel receive more focus here. For Danubia in the Bronze Age seeing the connected world as being in flux helps to understand the past processes (see Bauer’s [2006] fluid communities). Because such slight paradigm shift also unsettles the system that produced the previous paradigm it is difficult to fully embrace the new concept. Hopefully the case-study that emphasizes vector-like movement across a rasterized environment is therefore going to be convincing to the reader as it was for me (smiths vis-à-vis culture). For having arrived at any such understanding at all I owe the greatest debt to the gentle ghost of Gordon Childe (see Sherratt 1997[1986]: 38-66).

III.3 Culture history as routes

In this segment more room will be dedicated to physical aspects of archaeology and geology. The long expose will start with general considerations of relief and communications. Then culture groups, as perceived in the literature, called Hatvan, Otomani, and Vatin will be discussed. The discussion assumes only a basic understanding of traditional terms like culture manifested through entities Otomani (Boroffka 1994) and Vatin (Gogaltan 1999, Vasić 2006). The influence of Hatvan, Otomani, and Vatin on Belegiš will be treated in a separate chapter together with Trans-Danubian Encrusted group. For now it would be good to mention that in the present text connectivity (Chapter IX), movement and mobility (Chapter VI) are considered to have just as much interpretive power as culture, culture area, and group. This contemporary reading owes the debt to
Childe and relates to the present moment in archaeological scholarship that promotes the study of movement. In his tidy style Childe wrote that:

We find certain types of remains – pots, implements, ornaments, burial rites, house forms – constantly recurring together. Such a complex of regularly associated traits we shall term a 'cultural group' or just a 'culture'. We assume that such a complex is the material expression of what today would be called a people. (Childe, 1929)

And:

Every human community or people adjusts its way of living and thinking to its present environment and its own traditions—ancestral adjustments to often very different environments, as when the English ruling class takes its top hats and frock coats to the semitropical country like Queensland. The sum total of these adjustments—houses, clothes, ways of getting food and myths to account for droughts or diseases—constitutes what archaeologists and anthropologists term culture... (Childe 1929).

Seeing this in the light of his other dictum “Futility of typological divisions” one might render the two as contradicting. However, like his current colleagues, Childe did not argue for seeing organic unity between people inside of such a group, but looked at the assemblage only at the level of material remains. I think present archaeologists would agree with Childe, the colleague, but somehow the idea that these ‘traits-as-culture’ assemblages are not ‘traits-as-people’ assemblages gets routinely confused in the Bronze Age literature. Culture comes to equate people, and in turn a people might start having identities in the present. The classic logical error informs such a present.

Consider now this geographical scale: In Serbia north of the rivers Sava and Danube and in the east of the country, then in Bosnia & Herzegovina to the west of Loznica and in Croatia to the northwest, the discovery of Bronze Age sites – mostly cemeteries and occasionally settlements – and the excavations since the end of the nineteenth century allowed the investigators a good look at those archaeologically rich areas (Tasić 1983; Čović 1983, Vinski-Gasparini 1973). South of the river virtually no
settlements were documented (see discussion in Garašanin 1973, 1983b-f; Babić and Tomović 1994; for update see Koledin 2004, 2008 with maps and literature), except in eastern Serbia. The investigation of the relationship between the few known settlements of contemporaneous cultures in the areas around Loznica county (Belegiš, Glasinac, Paraćin, Brnjica) has not been done in the way that one might seek evidence for. It is more an impressionistic, local understanding, or very cultural understanding.\(^{51}\)

Archaeologically, there remains a huge unexplored area in the Loznica county and the Jadran valley. Locating metal-bearing ore sources and nearby sites, and cross-checking that data with material culture studies, including some existing studies of trade and imports (Palavestra 1993, Horejs 2007, David 2002), provides a starting point. Promising research is going on in the neighboring areas, and the new work has a potential to drive the scientific discussion of archaeometallurgy in later prehistory in the Balkans and beyond (see also Rađivojevic et al. 2010).

In culture-historical terms the Maljen slopes around Valjevo and the Drina drainage, that includes the Jadran drainage, is the heartland of the Belotić-Bela Crkva Group in the Early Bronze Age, while the Middle to Late Bronze Age in the same area is represented by the so-called West Serbian Vatin Culture (first mentioned in Garašanin 1959:95-103, see discussion below). Sites in the Jadran region, such as Belotić, Paulje, Spasovine (Figure 24), point to a possible tin transport route along the Jadran river from the vicinity of Valjevo to the confluence of the Jadran and the Drina, then down the Drina to the Sava. There it would reach the stratified site Gradina on the Bosut. The fine flat land skirting the northern edge of the Cer Mountains would have made it unnecessary to follow the Drina all the way to its mouth.

\(^{51}\) Perhaps comparable to the way a good satire can only be appreciated locally
This route would then proceed into Srem (southwestern Vojvodina), crossing the Sava at Gomolava near Hrtkovci and continue into Banat via a route which followed the right Danube bank to Slankamen, where following the loess, it would branch off up the river Tisa to Feudvar or east to Židovar, and down the Danube to Belegiš and Surcin. An alternate route linking highlands and lowlands would ascend the Kolubara north of Valjevo and proceed up to the Sava. The regions around Kragujevac in Central Serbia further southeast connect with the Pannonian Plain via a route running down the Morava and utilizing the valleys of its eastward-flowing tributaries, such as the Lepenica.

A route to the north and northwest connecting Loznica to the southwest Pannonian Plain also goes along the river Sava. Strong links have been noted between
Jadar and Slavonia, along the Sava river into Croatia and south of the Sava in northern Bosnia (territory of the southern Urnfield group [Vinski-Gasparini 1973]). Durman (1997) already pointed at the area around Slavonski Brod (brod means ship, in this case barge to cross the Sava) as a possible hub for the tin transport that would go back to Vucedol times.

Figure 24: Spasovine site in the study area

Evident from material culture studies in the last three decades of the twentieth century (Brukner, Jovanović i Tasić 1974: 234-249, Vinski-Gasparini 1973, Tasić 1983: 85-96, Garašanin 1983f, and more), the territories of Jadar, northern Bosnia, Vojvodina, and Slavonia have been in direct contact (especially visible at the necropolis near Idjos [Tasić 1983: T. XXI; 2003: 29]). Recent finds of bronze production at the Late Bronze Age settlement Mackovac-Criskovi on the river Sava in Slavonia, may be the case in
point, and Croatian archaeologists also point to western Serbia as the source of tin (Karavanic et al. 2002).

**III.3.a Culture history as chronology**

Relative chronology would place the West Serbian Vatin burial mound cemeteries in the Reinecke Bronze B2/C-D period, traditionally dated to 1500-1150 BCE. The conclusive information for the end-date comes from the analysis of Gomolava stratigraphic sequence (Chapman 1981; Tasić 1988, 2001, 2002). The variety of objects made of bronze and the strong presence of amber in burial contexts, especially in the Drina and the Jadar valleys (Palavestra 1993, Canić-Tešanović & Gligorić 2001) distinguish West Serbia from other areas in the region in the Bronze Age (representative are tumuli A and K at Paulje; Madas 1990, Canic-Tesanovic and Gligoric 2001; see Filipović 2008 for more details). Such a trade involving metal going in one direction, and amber in the other has been documented elsewhere (Muhly 1985, Kristiansen and Larsson 2005:122-127), although the relationship of traveling materials and their co-travelers is completely open, and the 1:1 model is merely machine-readable. Also of note are the long pins made of bronze, some up to a meter in length, found in the West Serbian graves. Thirteen of these have been recorded; and while they have some parallels to the later Central European finds (see Novotna 1980: 49; Tasić 1983: 87), they are not found elsewhere (Vasic 2003). Another distinctive characteristic of the grave mounds in our area are the fire installations found inside the burial circle (cf Zotovic 1985: 62).
To understand the nature of previous research and the impact of culture-historical paradigm on the Balkan and Southeast European archaeology, and to realize the full potential for further study from such a base, it is necessary to unpack the complex culture-historical picture of the area. As mentioned in terms of the traditional cultural groups of Serbian archaeology, the West Serbian area in the Bronze Age is occupied by the Belotić-Bela Crkva (Chapter V) culture of the Early to Middle Bronze Age (approximate dates from 2000 BCE to 1600) (Garašanin 1983g), followed by the West Serbian variant of the Vatin culture. Through metal finds such as pins, swords, bracelets, and pendants, the tumulus cemeteries of West Serbia can be brought into somewhat neat chorological connections. More consistently it could be called the variant of Belegiš culture of the Middle and Late Bronze Age that chronologically overlaps and follows Vatin [approximate dates somewhat before 1550 to around 1200 BCE (cf. Bogdanovic 1996; Filipović 2008; Garašanin 1973, 1983f; Benkowsky-Piwovarova 1992; Majnaric-Pandzic 1984; Forenbacher 1993; Tasić 2001, 2002, 2003). The old classification of the West Serbian facies to Vatin still persists. It is indicative of vagueness that surrounds western Serbia as a locale and the unclear relationship between the Vatin, the Belegiš, and the rest (see Vasic 2006). With (assumed contemporaneous) settlements and cremation cemeteries of Belegiš I (Tasić 2001, 2002; Ehrich and Bankoff 1992, Vranic 2002 [ed.]), Paraćin I (Pekovic 2007, Garašanin 1983c), the Dubovac-Zuto Brdo culture of the Banat (eastern Vojvodina) and Middle Danube, and earlier phases of Donja Brnjica on the river Morava. Stratigraphic and chronological relationships between these are not clear (see Chapter V).
Three settlements that were excavated before and after World War II – Dubovac, Dupljaja, and Usje-Grad – were either not published at all or were mentioned in literature in passing without proper publication due to a loss of archives during the war (Garašanin 1983c, Tasić 1984a). In a similar vein, the relationship of Paraćin and Brnjica settlements to Belegiš I is not clear due to the absence of dates and summarily published stratified
deposits (Garašanin 1983b,e; Stojic 1998). A close relationship with Belegiš I is visible in the ceramic typology, especially connecting the beakers with “volute handles” with those of the Belegiš I pottery assemblage (Vranic 2002:Fig. 46; Tasić 1983:Fig. 57b).

Ceramic and metal analogues also exist in the assemblages from cemeteries found on the left side of the Drina in Bosnia (Kosoric 1976, Covic 1965b), and Slavonija in Croatia (Vinski-Gasparini 1983b, Majnaric-Pandzic 1998). In Belegiš II certain links extend over a much bigger area centered on Srem and the confluences therein of the rivers Drava, Sava, Tisa, and Danube close to Belgrade (“Belgrad confluivium”).

Figure 26: Extent of “Belegiš II” material (Source: Forenbacher 1991)

Now consider this scale: Western Serbia is the physical continuation of the Great Pannonian Plain south of the Danube, and marks the border of the plain and the hilly/mountainous region to the south and to the west. The mark is conspicuous above the abri of the Petnica cave, where the line of the Anceint Pannonian Sea is still visible.
Several regional groups known in the archaeological literature occupy the areas north and south of the Danube in the Bronze Age (Figure 27). The cultures\(^5\) are seen either as discrete or continuous in the previous research. The game encompasses a span of narrative assumptions that can be roughly described by Anglophone authors’ synthetic works (e.g. Childe 1929, Coles and Harding 1979, Harding 2000, Kristiansen and Larsson 2005) that emphasize spatial continuity and similarities, and local archaeologists works that maintain the appearance of discrete cultural groups and geographic limitations (works by Garašanin, Tasić, Vinski-Gasparini). The scholarship united under German idiom pays attention to both currents (Maier-Arend 1992 [ed], Tasić [ed] 1984).

Figure 27: Perceived culture-history of the study area in MBA (Source: Bona 1992)

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\(^5\) Their names as they appear on the map are *West Serbian variant of Vatin, Belegis I, Dubovac-Zuto Brdo, Paracin, Brnjica*, different groups of Slavonia and northern Bosnia belonging to *Southern Urnfield* [Covic 1983; Garašanin 1983a-f; Vinski-Gasparini 1973, 1983; Bankoff 2004; Forenbaher 1991, Tasić 1983, 2003])
Without much room for a deeper concentrated analysis into the particularist scholarship thus far (see the sections in Benac 1983 [ed]), cultures and culture areas indeed exhibit several similarities in types of material culture in terms of burial site and settlement layout, as well as the organization of subsistence activities (Feudvar, research by Bokonyi and Kroll). This allows one to characterize them as part of the same tradition, and belonging to the “Bronze Age world system” (Sherratt 1993b, Hall et al. 2011, cf Stein 1999), or not (Harding 2000). At the same time it is possible to differentiate along any or all of the common axes of analysis – burial site, settlement site, material culture; and focus on continuities Vs breaks. To relate to the chronological aspects of correlations would mean to employ whichever of the fragmentary chronologies that might be available, preferably of metal finds from closed and in situ settlement contexts (Mozsolics 1957, 1967, 1973, 1985; Figure 28).

Similar to the wide “Bell-beaker phenomenon” the two-handed beakers of the Vatin and post-Vatin type (Belegiš I) spread over a wide territory. Burgess and Shennan (1976) used the term cultural package to denote such a spread of certain items in an assemblage including ideology. Sherratt (1987) interpreted the spread of similar drinking vessels (‘cups that cheered’) as fundamentally a distribution of lifestyle. In the Mediterranean an interesting new take on the relationship between the contents of vessels and the trajectory of the transformation of their shape comes from Bevan (2014).
Pottery, metal, and other portable items of the respective groups, as well as burial practices, speak of contact and interaction between what are today geopolitically discrete areas. On closer inspection connections are seen to be unstable and often shifting, especially the relationships revolving around the supply of metal (Muhly 1973, 1985, Pare 2000, Hoddinott 1989, Tasić 2002, Gillis et al. 2003).

Theoretical frameworks may concentrate on acculturation (Kristiansen 1984), diffusion (e.g., Bouzek 1985), boundaries (O’Shea 1996), transformation of cores and peripheries as a part of a large historical narrative of a “world system” (Sherratt 1993a,b; 1994; cf Kohl 2007), or ‘containerization’ (Bevan 2014). As a minor point of departure
this work takes connectivity in a fragmented or continuous landscape and implications thereof (Taylor et al. 1993), and contrasts that data with the well established material culture and metallurgy studies.

III.4 Pivotal Bronze Age cultures

In the following pages the text will continue to use consistently and respectfully the proficient idiom of culture-history nomenclature. The texture of interpretation is meant to be traced from the dynamism of space-time sensitive culture history, processual, and post-processual thought. The present interpretations bleed through onto the canvas of perceived prehistoric identities. Interpretive and geographical scales of research are seen to uphold one another.

III.4.a Otomani

An Early Bronze Age culture dating roughly to 2000-1500 BC, shows connections with Early Unetice and the metallurgical activities there. It is the equivalent of the Hungarian Füzesabony group in the central Hungarian sequence, Gyulavarsand in the east Hungarian later sequence, and akin to the contemporaneous Wietenberg in Transilvania53. Many of Otomani (Hungarian spelling Ottomany) settlements are artificially or naturally

53 Otomani and Wietenberg are separated in the literature by tradition, but it is held here that the similarities warrant the merge of the names. I will be using only the first part, as proposed by Gimbutas (1965), although perhaps Otomani-Füzesabony-Wietenberg would be proper.
fortified (Barca [Kabat 1955], Bekes-Vardomb [Banner et al. 1974], Spišsky Štvrtok [Vladar 1975], etc.), often by the use of water.

Tell-sites are frequent. The eponymous site\textsuperscript{54}, near Marghita in northwest Romania, close to the border with Hungary, is a citadel overlooking the eastern edge of the Hungarian plain. Black burnished ware with bossed decoration on one-handled cups is the most frequent pottery type. At a certain time the ceramics start featuring large, pointed bosses that resemble the architecture of metal vessels. Metal artifacts are elaborately ornamented. Stratigraphy of the settlement site Včelince (Furmanek and Markova 1992) in eastern Slovakia can be used to situate the culture chronologically\textsuperscript{55}:

Hatvan => Hatvan-Otomani => Otomani-Füzesabony => Koszider Horizon => Piliny

(from early to late)

\textsuperscript{54} which is not the type-site, provokes the Hungarian-Romanian naming game
\textsuperscript{55} Several other chronological schemes will be used below in the same chapter, assuming that they somehow match, Harding (1984) expounds this problem.
### Table 1. Dating results of bone samples

<table>
<thead>
<tr>
<th>Lab. code</th>
<th>Sample’s location</th>
<th>δ¹³C (‰, PDB)</th>
<th>¹⁴C Age (BP) Cal Age (BC) (95.4% conf. intervals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bin-5557</td>
<td>Vcelince Pit 73/85</td>
<td>-22.3</td>
<td>3225 ± 44 1550 - 1430</td>
</tr>
<tr>
<td>Bin-5558</td>
<td>Vcelince Pit 11/85</td>
<td>-22.3</td>
<td>3200 ± 32 1500 - 1430</td>
</tr>
<tr>
<td>Bin-5559</td>
<td>Vcelince Trench II-D-6/II-C-6, Layer III</td>
<td>-22.6</td>
<td>3329 ± 30 1600 - 1550 1640 - 1500 1570 - 1520</td>
</tr>
<tr>
<td>Bin-5560</td>
<td>Vcelince Trench II-D-7, layer VII</td>
<td>-23.1</td>
<td>3710 ± 30 2200 - 2170 2150 - 2100</td>
</tr>
<tr>
<td>Bin-5561</td>
<td>Vcelince Pit 73/88</td>
<td>-23.1</td>
<td>3518 ± 37 1890 - 1750</td>
</tr>
</tbody>
</table>

Atmospheric data from: Baev et al. (1999), OxCal v3.8: Bronk Ramsey (2003), col-h-cbl-02-03-22-09

### Fig. 8. Calibration of dating results with the program OxCal v3.8. The confidence limit of the smaller, hatched boxes is 68.2% and of the broader boxes 95.4%.

### Table 2. Comparison of the absolute and relative chronological sequences in Vcelince

<table>
<thead>
<tr>
<th>Layer</th>
<th>Culture</th>
<th>Location</th>
<th>Sample code</th>
<th>¹⁴C Age (BP) Cal Age (BC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer II</td>
<td>Pšilin culture</td>
<td>Pit 11/85 Bin-5559</td>
<td>3200±32</td>
<td>1550 - 1430 1530 - 1430</td>
</tr>
<tr>
<td>Layer III</td>
<td>Kost dol Hor.</td>
<td>Bin-5559</td>
<td>3328±30</td>
<td>1690 - 1650 1640 - 1580 1570 - 1520</td>
</tr>
<tr>
<td>Layer IV</td>
<td>Hatin culture</td>
<td>Pit 73/88 Bin-5561</td>
<td>3518±37</td>
<td>1890 - 1750</td>
</tr>
</tbody>
</table>

Figure 30: Dates from Vcelince. Source: Gorsdor et al. 2004
Boroffka, a German\textsuperscript{56} scholar, who wrote the seminal study of Wietenberg (German name for the town Sibiu), the Transilvanian part of the culture (Boroffka 1994), in another text (Boroffka 1995: 221) uses the language of the culture area well to describe the geographical extent of Otomani (translated):

Otomani-Füzesabony had a long life cycle in the basin of the Tisza and neighboring regions in west Romania, east Slovakia, northeast Hungary, west Ukraine, and south Poland. Culture name comes from the places where it was first noted in Romania and Hungary. In Slovakia the population existed in the Košice basin and along Hornad came close to Poprad. Its traces are also found in the vicinity of Humenné and Bardejov. This population displaced by other cultural groups passed through the Carpathians and settled in the basin of the foothills Dunajec Wisłoka, Wisłok and San interacting away to the north.

\textsuperscript{56} This year marks an interesting moment in time in Romanian history, the winner at the presidential elections is an ethnic German.
Thanks to the detailed studies by Boroffka, Furmanek, Gogaltan, Horedt, Ordentlich, and others, Otomani culture is a rare Bronze Age entity known from several points of view of its perceived totality in the Carpathian basin. It is as such less fragmented due to familiar issues with academic borders. It is argued here that all other chorologies and typologies discussed below relate to Otomani, both through archaeological analogies that involve shapes, materials, and decoration of pots and metalwork, and through the symbolic value that the idea of this entity represents in the literature – due to its affinity with Apa-Hajdusamson and metalwork, that strongly influences ceramic morphology (skeuomorphy). The Vatin culture, that carries the apropos symbolic significance but only on the scale of the Serbian archaeology, is here significant primarily for its links to Otomani.

In the language familiar to the “Carpathian basin archaeologists” the first partition into phases for the Otomani culture was proposed by I. Ordentlich (1971, 1972). It was used and validated for the territory of modern Romania. Phasing of cultures is a curious relic of the antiquarian tradition, but as such it communicates with the phasing of Mediterranean states (Chapter I). At a more recent present not everyone is keen on establishing relative chronologies by phasing cultures, especially not without abundant settlement material, which has often been the case in Central Europe. However, instead of dropping the scheme, the loaded heuristics are simply reproduced.

Ordentlich’s sequence was based on his own older work, the studies by J. Hampel, K. Horedt et al., A. Mozsolics, I. Nestor, D. Popescu and M. Roska (who will be later mentioned for Pecska), as well as the stratigraphies from Otomani-Cetatuia,
Otomani-Cetatea de pamant, Salacea, Socodor, Tószeg, Varsand and others. He concluded that there were three phases (I-III), which he dated to the:

Early (I = Reinecke A1-A2),
Middle (II = Reinecke B1-B2; transition II-III = Reinecke B2-C) and
Late (III = Reinecke C-D) Bronze Age.

Bona (who uses the term Otomani for the early stage only, Bona 1975: 18-9) later came to a similar tripartite chronology, using mostly Hungarian finds. A short time after this T. Bader again treated the evolution of the Otomani culture in his dissertation on the Bronze Age in northwestern Romania. In general he accepted the model of Ordentlich, but added a last, fourth, phase, which he dated to the Reinecke D period of the Bronze Age on the account of connections to the groups of Berkesz-Demecser, Egyek and Hajdúbagos. This last stage has not been generally accepted and some of the finds attributed to it by Bader (1982, 1998) have now been placed in new cultural groups. The understanding of the situation in the Middle Bronze Age and in the Late Bronze Age of western Romania and eastern Hungary has been further complicated by the proposal of the cultural groups Badeni III-Deva, Biharea, Csorva, Igrita and Piscolt-Cehalul (Boroffka 1994, 1999).
Since most of these phases, assemblages, and groups have several common aspects, considering the Transylvanian material in the later phases, two details are
important, following Boroffka’s minute typological instructions. On the one hand it is the 1. *arcade and curve* motif that appears in the developed Otomani culture and, on the other, a kind of 2. *channeled knob*, which may also be explained as derived from the Otomani tradition.

According to Boroffka (1999), whose study is parsed below, the arcade and curve decoration consists of incised arches and curves, corners of which are filled with hatching (Figure 32, 33). The ornament is mostly found on open bowls with an outward curved profile. The arches, with long points, usually begin on the shoulder of the vessel and stand in opposition to inverse curves on the lower part of the bowls. The rim is often drawn to four small lobes, such as are well known in the Carpathian Tumulus culture (Gimbutas 1965) and Piliny and Belegiš-Cruceni. This cross-presence gives it a chronological position in Reinecke B2/C1 (Hänsel MD III; Mozsolics B III/IV, see Chapter 3), and later.

In the Otomani culture bowls with this arcade motif are known from phase III on the eponymous settlement of Otomani. Other examples from contemporaneous contexts have been found in Andrid A, around Békés: Gáborján-Csapszékpárt II and III, Tiream, and Varsand. The genealogy of this decoration may be seen to originate in isolated hatched arches or curves (sometimes in combination with spirals), which also appear on other pottery forms in older Otomani phases.

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57 He does not include Wietenberg finds the way this text does.
Figure 33: Otomani vessels. Adapted from: Boroffka 1995

Undoubtedly, if one follows the culture area grammar, one might conclude that there can be no doubt the decoration originates in the Otomani culture itself. Further south, in the Periamos (Mokrin) culture, fragments of vessels known from the latest layer at Pecska (Roska 1941, O’Shea 1996), whose late date (Reinecke C-D) is, among other signs, confirmed by the stratigraphical position and the pottery sherds decorated with small pits surrounded by dots (the so called “solar imagery”).

Figure 34: Cirna, Dubovac, Akrotiri; Source: Museums in Bucharest, Vrsac, Museum of Thera, Akrotiri
Whether this type of bowl (including the specific decoration) was still used in phase IV of the Otomani culture is not clear from the finds themselves. It is rather indicated by the examples in Transylvania, where fragments of this type have been discovered in contexts with Wietenberg C and D pottery.

The Otomani ←→ Wietenberg separation (Fuzesabony and Gylavarsand are included as Otomani here, too) is done by discriminating the treatment of the body in burial practices, and not by the material culture alone (see Soroceanu 1984). One is dominated by the skeletal burial the other by cremation, respectively, although there is an asymmetry in the way each one is represented via burials – Wietenberg are comparatively rare. The beginning of the Wietenberg C stage, synchronous with Otomani III (which only makes sense in Romania as a time designation, Hungarian archaeologists use Gyulavarsand), should be sought at the transition from Reinecke B2 to C, while the Wietenberg D stage, parallel to Otomani IV and the Igrita, exists well into the Reinecke D period. The bowls with arcade and curve decoration should then be dated into the stages III and IV of the Otomani culture and the time of Reinecke B2 until D, with the open-ended beginning.

This chronological position corresponds to the general view taken by the Romanian archaeologists, but seems too late in comparison to the views in Hungary and Slovakia. One possible explanation for this would be a survival or recidive of Otomani forms in an area, where finds of the Hugelgraeber (‘Tumulus’ culture, Hugel=mound, graeber=graves) appear less frequently, since the bowl type discussed here is spread only along the eastern and southern edge of the full Otomani distribution.
It also should be mentioned that in some of the Romanian sites the late Otomani material is connected with vessels that clearly show influences of the Tumulus/Hugelgraeber culture (cf. Belotić-Bela Crkva and the ‘West Serbian variant of Vatin’).

The other decoration, channeling and channeled knobs is discussed below. The Transylvanian material comes from the contexts with Wietenberg C and D pottery, partly the same contexts as the arcade-decorated bowls discussed above: Badeni, Chintelnic, Cicau, Ciceu-Corabia, Cluj-Manastur, Cluj-Someseni, Corpadea Cugir, Deus, Deva, Hunedoara, Mahaceni, Nicula, Unirea and Vistea (Boroffka 1995). The motif is not limited to bowls like above, but also appears on one-handled cups or larger vessels. The ornament is seen to have evolved from older spiral-knobs of the Otomani culture. The development from spirals in phases I-II to spiral-knobs in phases II-III, knobs with channeled arches below in phase III to knobs with channeled curves above in phase IV may be followed to reach a conclusion of organic evolution.

In the perceived distribution area of the Otomani culture the late channeled knobs are found at Bekes-Vardomb, Cehalut, Crasna, Otomani-Cetatea de pamant, Piscolt, Streda nad Bodrogom, Suplacu de Barcau, Tiszaalpar and Varsand. A separation of this pottery from the Otomani culture has been done in Hungary, and in Romania the fragmentation to Piscolt-Cehalut and Badeni III-Deva groups is sometimes favored (Nemeti 2009).

The known culture area includes the slopes of the Tatras, across the Dukla pass in Poland, Hron valley in southeast Slovakia, northeast Hungary, northwest Romania between Cris and Somes, all in the upper basin of the Tisza. The final stages of the
known Perjamos (Moris) and Vatin cultures to the south see the influence from Otomani. Gaborjan-Csapszekpart (BLN - 3641-3680 + -75 BP, two sigma calibrated 2290-1870) and Vésztő-Magor (BLN - 1629-3700 + - 60BP, two sigma 2280-1900) provide the oldest dates (Gogaltan 1999, Gorsdorf et al. 2004, Kienlin et al. 2010).

At the eponymous site the horizon of culture Nyirse or Nyir precedes Otomani (Ordentlich 1970). Elsewhere Hajdúbagos, Kyjatice, and Igrita Cehalut mark the end of it (Boroffka 1999). Otomani assemblages do not seem to expand to the west of Tisza perhaps due to Vatya and Hugelgraeber. Some of the sites are Barca, Nyzna Mysł'a, Spišský Strvtok in Slovakia; Berettyoujfalu, Füzesabony, Jaszdozsa, Tiszafured, Tőszeg in Hungary58; Otomani, Sacuieni, Salacea, Cehalut Vida, Socodor, in Romania; Maskowice, Trzciniec in Poland.

Barca (Figure 29) had a clear right-angle layout of rows of houses (Gimbutas 1965: 202-3). At Salacea a sanctuary of sorts was discovered (Horedt 1960, Ordentlich 1970, Coles and Harding 1979: 77-8) with altars, that was related to the megaron-type structures in the Aegean. Askoi (bird-shaped vessels) are present, as well as pyraunos vessels that are found in Vatin and Hatvan, too.

The development of bronze metallurgy visible on the tell sites of Otomani culture and its proximal position to the ore bodies (Figure 48) suggests control over a route that may have served different commodities and purposes. Sava et al. (2013) also show the proximity of copper sources to the Pecica complex. The sulphidic copper ore (Fahlerz) found in the Carpathian arch came to be known as ‘Otomani metal’ (Sherratt 1997: 215; see Appendix), for this group seem to have mined it. The skeuomorphy in the pottery

58 Full names of the sites are: Berettyoujfalu-Szihalom, Füzesabony-Oregdomb, Jaszdozsa-Kapolnahalom, Tiszafured-Asoythalom, Tőszeg-Laposhalom.
forms and the influence on surrounding areas that this entity’s material has performed suggests that there is more to the story than just being a culture.

III.4.b *Outposts and frontier communities*, a narrative

The stratified sites and other settlements that are recognized as Otomani locally can be found to define some territory over time, but the finds labeled as Otomani take on a life of their own, get copied, turned into local types in other areas, etc. The finds of metal work-shops at Pecica and Feudvar have been the founts of information, but the recent discovery of a pottery work-shop next to a metal workshop at the site Sagu (Sava et al. 2012, Sava & Andreica 2013: 69, Figures 21-3), and the fact that the decoration seen on metal types gets routinely reproduced on pottery and perhaps other materials like wood (and vice versa), suggest other processes. Otomani may well be considered a culture only because of its life in a certain space. Otherwise, like Unetice, it seems to be a motley of different traditions coming together in a joint venture.

I would argue that with Unetice (which resides in copper and tin rich areas called Ore Mountains along the Czech-German border), and in sync with the so-called “mobile” cultures like Mako and Nyirseg (Bona 1975, 1992; Kalicz 1984), we may see settlements that start up as outposts. Some Otomani and Belegis-Cruceii settlements are carefully spatially ordered, with houses in clean rows (see Barca both occupation layers’ plans above).

The aforementioned Tell Dab’a (Avaris) was analogously set up to communicate the mining route to Sinai (Bietak 1996, Demand 2011). Amenemhet I may have built it
and introduced the Canaanites who settled there. The layout was orthogonal with two rows of 12 identical houses, but the original layout, made legible by the empire, changed with use. We then know that the Canaanites ruled Egypt from Avaris as Hyksos.

The unknown of the frontier may have, for instance, necessitated a specific use of the land. Unlike a settlement that may have traditionally been occupied for agricultural and defensive purposes alone, outposts explore and develop (a good analogy would be a current small start-up company). Like the network of tells, the outposts at the frontier might all have their own agenda and prospectors, and could at the same time be linked to the agenda of the larger frontier (see also Vicze 2011: 47-8, for her discussion of Vatya graves she interpreted as ‘foreign’). Risk and growth invite brave individuals, and an opportunity for reinvention. The access is free to whoever would be wanted or would want to be part of it. New specializations spring from the novel creation of opportunities, and caution might be exercised more and more so due to the control of resources.

III.4.c Hatvan (with consideration of Nagyrev, Nyírseg, and Vatya)

The type site is located northeast of Budapest in Hungary. It falls in the second stage of the Hungarian Early Bronze Age, as defined by the stratigraphy at Tószeg. It fits between and overlaps with the Nagyrév and the Otomani-Füzesabony cultures, in the early first half of 2nd millennium. Many of the Hatvan sites are on tells in the Great Hungarian plain, although enclosed hilltop sites are known in the Carpathian foothills. Cremation burials in pits are frequent. Hatvan settlements commonly produce quantities of fired clay zoomorphic figurines and vases, as well as, like Otomani, Vatin, Wietenberg, cartwheel
models. The links between Hatvan, Vatya, and Encrusted pottery cultures are important for the discussion of the latter in Chapter VIII.

Figure 35: Nagyrev vessel. Source: Bona 1992

The manifestations of this culture and Nagyrev deserve much more room than will be allotted in this text. The Early Bronze Age Nagyrev, in particular, because of its characteristic decoration, and the ability of that decoration to construct a language of images is still awaiting a reading. Its predecessor, Nyirseg is important because of its link to the Eneolithic culture Vucedol, known for its metallurgy and incrusted pottery. Nagyrev starts earlier than otherwise contemporaneous Hatvan (which starts on the “territory” of Mako, northeast of Nagyrev, and therefore between Nagyrev and Otomani). Originally it was thought that the culture started on the Tisza (where the eponymous site is), but new work showed primacy of the Danube (Szabo 1992, especially plates LVI-LXVIII and LXXXIV). Another compelling note is that Nagyrev settlement layers are destroyed when Hatvan develops, but then built anew by Hatvan according to the previous groundplan (Kalicz and Raczky 1984, Maier-Arendt (ed.) 1992).

Hatvan seems to appear earlier, but is generally considered to be contemporary with Otomani. As at Vceľince above, overlaying the Hatvan horizon often are Otomani finds. The succession also coincided with hoards in which bronze weaponry, amber beads and gold finds were deposited at Barca, Tiszafüred, Jászdózsa, and other tell-sites that feature both layers.
Figure 36: Top left Hatvan, right Nagyrev (and ‘poppy vessel’); Below left Kisapostag with Nagyrev décor, right Vatya; Source: Bona 1992; Gimbutas 1965

Hatvan exist in the upper and middle Tisza, on the south slopes of the north Carpathian arch, bordered by the Danube to the west. According to Bona (1992: 22-3) the Hatvan constituents did not allow Nagyrev to establish themselves in the middle Tisza.

Vatya is considered to be in the genealogical line with Nagyrev. Neighbors Vatya and Hatvan show plenty of common characteristics on either side of the “border” at the Danube’s bend, and it is sometimes for this non-Hungarian archaeologist difficult to differentiate (cf O’Shea 1996: 292-3). As part of the process of “invasion” of the so-called Kisapostag culture from the west of Danube, Vatya fully succeeds Nagyrev in the territory between the Tisza and the Danube. Material from Hatvan and Otomani (Fuzesabony) in the upper Tisza is similarly not easily distinguished.
A curious component of the Hatvan entity is that across modern Hungary and beyond Hatvan horizons have been registered, and many sites and tell-sites represent the whole Hatvan sequence. There are not that many burial sites to accompany the settlements, which makes the picture more puzzling, having to account for possible mobile pastoralism and movement in general. Many animal and anthropomorphic figurines have been recovered from Hatvan sites, and in some contexts many animal figurines are found together. A slight outlier is also the higher presence of horse bones on Nagyrev sites (Bokonyi 1992), which may relate to the Ada type of Vinkovci-Somogyvar (Horvath 1984, Grčki-Stanimirov 1996, see also Parzinger 1984, Schier and Drasovean 2004). For pottery forms, the plastic barbotine decoration on bowls is idiosyncratic. The only burial rite is cremation. Askoi, piraunos, cartwheel-models, footed-vessels are found, like in Otomani and in Vatin.

The Middle Bronze Age stratigraphy of Carpathian tell-sites has been jointly labeled as “tell-cultures.” They are seen as stable, permanently occupied. The quote below can perhaps be used to show the intuitive position of archaeologists that tell-sites signal the leap in complexity of a stable organization:

Der Tell ist ein mehrschichtiger, aus dem Flachland emporragender Siedlungsrest. Damit die Schichten entstehen, müssen sich nicht unbedingt mehrere Kulturen an derselben Stelle ansiedeln, doch kommt das wegen der günstigen Lage oft vor. Die Tells stammen von Bewohnern, die seßhaft waren, vornehmlich intensiv wirtschafteten und Mehrfelderwirtschaft betrieben. Zu ihrer Entstehung ist also die Kenntnis der Mehrfelderwirtschaft notwendig.
(Istvan Bona’s definition of tell59, 1975: 16-7)

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59 Rough translation: The Tell is a multi-layered settlement, towering over the rest of the lowlands. Thus, because of its convenient location, the occupation layers are formed at the same place but they have not necessarily settled several cultures. Tells arise from residents who were sedentary, and primarily operated an intensive and well managed system. For the formation of tell, the knowledge of the multi-field system is necessary.
Such complexity, as defined for our purposes by Strum and Latour (1987:796), is close to Renfrew’s (1972) multiplier effect, Gregory Johnson’s (1982) corporate decision tracks, as well as Hirschman’s (1970) thoughts on access and Anatol Rapoport’s (1986)

*clustering*: “Once individuals are aggregated and choose not to avoid each other, there must be a secondary adaptation to a new competitive environment of conspecifics” (Strum and Latour 1987:796).

Hatvan, Otomani, Periam, Vatya groups make use of fortified, enclosed spaces, whereas, for instance, Encrusted Pottery culture does not. Otomani and Periam show up on many more tells than other cultures (Kovacs 1977, 1988, see Figure 39), and their material has a wider, ubiquitous distribution. Childe (1929) originally related the settlements of Tószeg, Nagyrév, Füzesabony, Pecica, Periam, Szoreg, and others with the so-called terramare from northern Italy. It was Tompa (1936) who associated the multilayered settlements in Pannonia with those in the Ancient Near East, giving them the same general term of tell-sites. They are concentrated along the high terrace of the Danube, on the lower course of the Mureș river, the lower plains of the Tisza, Berettyo, Hortobagy, and Er rivers, the Gödölö hills northeast of Budapest, and the slopes of the Bükk mountain. The distribution peters out from that catchment area.

As mentioned, Bona emphasizes the southern origin of the Hungarian Bronze Age. This is manifested by the south-Pannonian Vinkovci-Somogyvar culture that is seen as intrusive, and once established it remained the longest along the Danube south of Budapest where Nagyrev will have formed. On the other hand, the Perjamos (Periam) culture is influenced by Bubanj-Hum III that comes from southeast. The perceived speed of movement by which Vinkovci-Somogyvar (in fact its idiosyncratic sub-type Ada,
which perhaps hails from Vojvodina, where the typesite is) crossed the landscape is attributed to horses (Bona 1992: 19). The settlements of this culture were found on tell-sites, too, which complicates the notion of transitory occupation.

Figure 37: Left Ada-type (Vinkovci-Somogyvar); Middle Klarafalva, Szoreg (Periam); Right Kiskundorozsma (Hugelgraeber, note the related lunular metal items). Source: Horvath 1984
Figure 38: Piliny left; Tape right; Source: Gorsdorf et al. 2004; Foltiny 1941
Figure 39: Toszeg section from 1974 (Source: Bona 1992: 109, Fig 71); Below – After Kovacs 1977.
III.4.d Vatin (& Bubanj-Hum III)

Vatin is difficult to define because there is no consensus over the issues of territory, decoration, or forms of pottery. Like Otomani, Vatin therefore came to represent a certain style (see Vasic 2006) that researchers outside the core area (southwest Banat) recognize when they see it. I know much more about Vatin than about the above, however that knowledge subscribes mostly to culture-historical aspects. Although it could be grouped together with the tell-cultures, the history of scholarship united by the term Vatin - long and convoluted – is instructive for our argument and is treated separately.

The role of the famous curator of the Vrsac museum (Banat), Felix Milleker, in the history of Serbian archaeology has been unimpeachable. A German national\(^6\), he worked tirelessly in amassing the finds for the museum, and worked with collectors to make the private objects available. His excavations were indiscriminate, not systematic, but decent for the time, and he published religiously. He first coined the *Vatin culture* (1905), and Serbian, Romanian, and Croatian archaeologists followed after him.

How Vatin relates to the Yugoslav Bronze Age chronology and how it can slide up and down, as well as its expanding and shrinking geographical reach, and how it relates to Western Serbia, Belegiš, and Encrusted – have been perennial topics at the meetings of Serbian Archaeological society.

\(^6\) Milleker (1858-1942), by own report, had problems with his double identity, that of a German expatriate in a south-Slavic land (Palavestra, *pers. comm.*., see also Medakovic 2008). These problems became acute during the WWI and early WWII, as Germany (and Austro-Hungary) were the aggressors. He would slavicize his first name (Felix=Srecko), but otherwise spoke all languages of Banat – German, Romanian, Hungarian, Serbian; The local adage is that in Banat even the dogs bark in four languages.
It is certainly the Bronze Age culture that produced the most appealing finds for the period of (national) prehistory, the way Vinca did for the Late Neolithic. The Vatin occupation horizon at Vinca is discussed later in the segment.

Figure 40: Periam-Pecica pottery. Adapted from: Sandor-Chicideanu & Chicideanu 1988
Childe (1928: 53) saw that Urnfield pottery from upper Danube relate to the Urnfield pottery of Belgrade environs and south Banat. He proposed a local sequence that has Dubovac-Zuto Brdo and Belegiš post-date Vatin, but admonished that any such sequence is purely theoretical and that “somewhere in Serbia one needs to find another Periam to control the stratigraphy.” There is still no such site.

Grbic (1939, 1953) tried to focus more on defining Vatin throughout his career, and Garašanin (1959, 1973, 1983b) later did much to achieve that goal. Tasić (1974, 1983) and Majnaric-Pandzic (1984) added to the knowledge by separating Belegiš from Vatin. Lately Gogaltan (2004), Vasic (2006), Bulatovic and Stankovski (2012), and Ljustina (2011, and also in her unpublished PhD thesis) have been more active in that regard.

At the multi-layered hillfort Gradina-Bosut, the Vinkovci culture is succeeded by Vatin according to Tasić (1974, 1984a), and at the near by tell-site Gomolava he noticed the same relationship. At the necropolis Stojica Gumno in Belegiš Tasić noted the oft-cited Vinkovci or Nagyrev grave (Tasić 1974: 190) and also early Vatin graves followed by Belegiš graves. This information solidified the position of Vatin as the Early to Middle Bronze Age, that communicates with other entities in Central and southern Europe. It should be mentioned that at the site Kravlji Do-Izvor Vatin ware was found together with Paraćin types (Stojic and Jacanovic 2008: 310).
Kantharoi, or double-handled beakers are typical for Vatin (Bona’s group term is “kantharos culture;”) but smaller types like the ones from Vatin would be called *depas amphikyppelion* in the Aegean and the Troad, and the bigger ones would be called tankards) and Vatin inflected late Periam, and there are good parallels between Mycenaean gold finds and those from the eponymous Vatin site, and others that belong to the culture. In particular the local small *kantharos* is diagnostic. The form may have come from Macedonia (Vardarophitsa), Aegean, Bulgaria (Thrace), Anatolia. The near-by Armenochori culture of Macedonia, and the finds of the so-called “Bubanj-Hum III” (of Bubanj-Salcuta-Krivodol “complex”) culture from Nisava and Morava valleys promote it.
At the site of Luljaci in central Serbia near Kragujevac, kantharoi are a frequent find. M. Bogdanovic (1986) who excavated and published the site argued that the early occupation horizon should be viewed as “proto-Vatin” since the material sealed the layer with the Periam-like vessel known from Pecica, and was below Vatin-proper layer.

At the site Vatrogsni Dom in Pancevo (there are several recognized Vatin sites in this town at the confluence of the Timis and the Danube just across from Belgrade) the kantharoi identical to those found on the Romanian site Sanpetru German can also be dated to pre-Vatin period (see also Ostojicevo at Giric 1987, 1995). Some vessels at that site show characteristics of Nagyrev and Hatvan pottery (Grcki-Stanimirov 1996, Uzelac 1996).

Figure 42: Luljaci-type; Bubanj Hum III and Luljaci. Source: Corpus Vasorum Antiquorum; Bogdanovic 1986.
A convincing case can be made for the vessels that resemble sauceboats seen in the Aegean and Anatolia (see also Zlotska pećina and Gladnice, Tasić 1995: Pl. XXIV/1, 2). They have a wide distribution in the Aegean starting in Early Bronze II (EHII). One of the expected paths of this type would be through Macedonia, and indeed they are noted in local production in Servia and Armenochori (Heurtley 1939: 190, fig. 312; p. 198, fig. 368). They are found also in Hungary (Bona 1975: 187-9).
For the type of Middle Bronze Age kantharoi that are labeled as ‘Vatin style,’ seen also in Belegiš (graves 92, 154; Vranic 2002: 97-9), in Ostojicevo (Giric 1996 – otherwise Periam group), and in Gerjen (Bona 1975: 179, 1987-9 – otherwise Gerjen group), it is clear that they have a wide distribution. Small clay tables, “fish vessels,” double vessels, and pyrauoi, familiar from the “tell-culture” to the north, and also from the Aegean and Anatolia, are seen as the part of Vatin assemblage. There are also likely parallels with the material from Troy IV, V, and VI, and it seems that the intensity of Aegean, Anatolian, or any other “external” links could have provided the waves of stylistic influences. For
instance, the spiral-pulley design on the bone plate from Feudvar, so close to the design from Mycenae, is seen on bone plates in Madarovce, Vatya, Otomani, Vatin, and also in Beycesultan, Kanesh, Hattusash, Alalakh (Kull 1989: 65-72) – earlier, as well as in the Aegean – later.

Figure 46: Židovar\(^{61}\) left (left object H: 8cm), After Lazic (ed) 1997, Troy II-V right (Source: Blegen); depas types in the middle, see Djurdjevo (Tasić 1974) for the local analogue of 825.

Boroffka (with an echo of Childe) describes the Otomani side, in an attempt at communicating with local scholars:

[…] the Otomani pottery continued its evolution during the Koszider period and probably even after that. Some details could have contributed to the formation of Final Bronze Age and Early Hallstatt phenomena. Whether we name these finds as phase IV of the Otomani culture or with other denominations is only a question of terminology. Taking account of the fact that the evolution does not show any radical interruptions, it appears unnecessary and even misleading, to separate the material culturally. In this respect finally the question may be raised, what exactly we mean archaeologically by "culture", "group", "aspect", "local group", "variant" etc. Two proposals are made by me: firstly we can avoid the problem by simply speaking of ceramic styles (especially since most "cultures" in eastern and south-eastern Europe are only defined by pottery); secondly we should take account of settlement forms, funerary habits, tools and weapons and possibly other aspects (as far as they are sizable spiritual-religious expressions, social

\(^{61}\) The little (H=8cm) cup on the left is possibly in communication with the metal cup from Mycenae above, but they also might be 150 years apart, Zidovar being older. Similar cup from Feudvar (Haensel and Medovic 1991) is another example of the likeness.
structures etc.) when defining "cultures". Only if several of these elements come together and can be defined in a clear temporal and geographical space should we really use the term of "culture". In this order of ideas, isolated objects in foreign cultural surroundings (so-called imports/exports) can not be used for the definition of the distribution of such cultures. (Boroffka 2000)

The quote speaks against essentializing pottery types, but states clearly how we could use the extant terminology. It is an outside perspective, though, that challenges local typologies, but retains the use of culture grammar. The same orderly sentiment is found in the Aegean archaeology that has a similar scheme of art-historical analysis employed in seriation (Manning 2010: 13-6, in the role of Boroffka from above). By way of diachronic juxtaposition, toward the end of the Early Helladic II archaeology records many more metal types, and Anatolian elements are frequently found on the Greek sites (Bossert 1967; Broodbank 2000: Fig. 102; Wilson 1999: 95). The potter’s wheel arrives at that time, seen on both the local fabric and the direct imports, although its widespread use only comes toward the end of Middle Helladic. True bronze arrives, too (Renfrew 2010: 89). In the pottery style there is a skeuomorphic design change that Renfrew (1972: 338) attributes to the ‘Metal-shock’ phenomenon.

The interim phase preceding EHIII is the so-called Lefkandi I or Kastri (Cyclades). Similar to Otomani and Wietenberg, Kastri has a strong affiliation with metallurgy. It is peculiarly difficult to grasp as a culture, and suggests a mixture of influences from Anatolia and the Aegean (Stos-Gayle et al. 1984). The end of it is marked by the burnt debris layer, like the one in Lerna or at Eutresis in Boetia (Caskey

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62 style in material culture is dynamic, and different aspects change or do not change at varying rates within any society and among different groups and places and at different times for many reasons, thereby affecting scales from individual actors to wider regional settings (including processes linked with biography, status, gender, and ethnicity as much as wider group values, technology, trade, and so on). (Manning 2010:16)
1960, Caskey and Caskey 1960, Rutter 1995). Tumuli appear on the Greek mainland, and the Anatolian types cannot be mistaken, but the ensuing creolization of newcomers and their hosts that is conceivable in EHIII is an open-ended debate (see Broodbank 2000: 312, Rutter 2008). Like Boroffka’s argument that Otomani decoration and types can be perfectly well recognized as an internal evolution and not due to external forces, the analysis can also suggest that ‘newcomers’ may not have been as influential since the local typology accounts for changes in the material culture.

If we forward to the other, Late Bronze Age collapse – LHIIIc is succeeded by SM or sub-Mycenaean, which reintroduces single burials and abandons tholoi. Long pins are new finds. Local customs persist, but newcomers are visible over time. Cremation, for instance, starts only after a while, and then becomes dominant.

An echo of the aforementioned Early Bronze Age movements in the Mediterranean, with similar manifestations, is likely seen in temperate Europe through finds of Ada type, Vinkovci, and Nagyrev. Calibrated dates support the dating of the beginning of “tell-culture” around the Lefkandi I/Kastri. Further, in EHIII, the fine gray burnished ware appears in the shape of kantharoi, “Bass bowls63,” and two-handled tankards (Rutter 1995). These were the only types almost exclusively made on wheel at the time (Choleva 2012 and references), which may be conjectured as a reason for its popularity to the north.

Similarly, with the perceived disintegration of Vatin toward the end of Middle Bronze Age of that particular scheme in Danubia, the local groups were seen as either continuing from Vatin or not. Vatin culture itself naturally had its own sub-regional characteristics that were conditioned by the ceramic production of neighboring cultures

63 Named after George Bass of Uluburun fame.
and the openness of landscape. Ihde (2002) provided the most recent chorology (see also Ljustina 2012, Gogaltan 2004):

1. Slavonia-Srem group – angular incised decoration, little circular depressions, “solar” imagery
2. Pancevo-Omoljica group – (seen as the nucleus of the culture) spiral decoration, no solar motifs
3. Cornesti-Crvenka group – incised arcs, hatched arcades (like Otomani)
4. Morava group and West-Serbian variant seem to be later manifestations and can only be classified spatially, and not stylistically as they share different characteristics with the previous three.

Figure 47: Feudvar – left, middle; Vatin right; Source Hansel and Medovic 1998; Milleker 1905.

In the field there is no such clear distinction on individual sites (e.g. Belegiš has characteristics of the first two groups), however, only a crude geographical separation that may or may not be true to the evidence on the ground, like the Kovacs figure above.
During the most recent excavations of that rare\(^{64}\) Serbian Bronze Age tell-site Feudvar on the Tisza near Mosorin (Haensel and Medovic 1991, Falkenstein 1998), the German-Serbian team produced a series of book-length publications that dealt with pottery and architecture among other aspects of research that included a dedicated study of animal bones and archaeobotanicals. The hugely promising work was cut short due to the Balkan wars in the 1990s, and the bottom of the horizon contemporaneous with classic Vatin has not been reached. Feudvar did provide the most used set of dates for the period in the area, and Omoljica and Ljuljaci add to it for earlier levels, putting the brackets on Vatin span to 2000-1500 (Gogaltan 1999).

The impression that this reader got from the published material so far (the original finds and archive are still in Germany), shows an interesting dynamic between Vatin and Encrusted Pottery entities. Indeed, some meaningful blend of these two as registered at Feudvar is expected for the position of the site.

In the similar regard, M. Roska, who excavated the important sequence at Pecica, proposed that Socodor (Hungarian Szekudvar) may belong to Vatin culture (Roska 1941). Bona, on the account of distance, classified the same site in Otomani (Bona 1992). The site is far away on the border between Romania and Hungary to the northeast, near Arad, and likely manifests the metal-induced communication route that was intensive at the time of “tell-cultures.”

It is interesting for the further discussion that Socodor is south of the river Feher-Koros (White Koros, see Marsigli map below - Figure 48), and Varsand north of it, 6

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\(^{64}\) There are other tell-sites, like Zlatica in Omoljica near Pancevo, but the only one other than Feudvar that has a somewhat representative excavated Bronze Age sequence is Zidovar (and compared to Feudvar it is poorly recorded). Notice the –var (town) in the names Feudvar, Szekudvar, Varsand, Zidovar (see also Fidvar near Vrable in Slovakia, Tocik 1986). At Feudvar the Encrusted style is frequent, whereas at Zidovar it is not recorded at all.
miles apart – the former exhibits the Vatin characteristics, and Varsand (Hungarian Gyulavarsand) the traits of Otomani (Gogaltan 1999: 56).

Despite all that has been said there is no clear link between Anatolia and the Aegean and the Balkan hinterland. The found “Homerian” boar-husk helmet pieces just like from the Iliad notwithstanding (Koledin 2007), little can be used to unequivocally collate the areas. Bona’s elegant charts (Appendix 2) show that depending on where we date the European Bronze Age, all the typological and stylistic variants that do suggest, e.g. Mycenaean connection, still need to be put through the test of sealed deposits and stratigraphy.

Figure 48: Adapted from Marsigli 1726; the highest concentration of mines by Feher Koros; cf Figure 99 below, and Sava et al. 2013

Whether the already perceived connections are accidental and only live in the minds of archaeologists – or are synchronized and feasible – depends on when one dates the Mycenaean expansion (see the Mycenaean floating of dates above). Sherratt (1984),
following Childe (1958b) was willing to see Anatolia and not mainland Greece as the chief influence on the Balkans and Carpathian arch.

Figure 49: Vatin zones (Source: Ihde 2001)
IV West Serbia in the Bronze Age

Archaeology in Serbia starts with the efforts of an empire’s subject Felix Kanitz. He first noted the now well known Bronze Age finds from West Serbia – the hoard from Konjuša (brought into the National Museum [Narodni Muzej] in Belgrade in 1869), and bracelets from Gučevo. He did so for many other archaeological notables around the country at the time (Kanitz 1861). He was an Austro-Hungarian Jew who later converted to Christianity; an ethnographer, traveler, draftsman, a writer, and the first custodian of the Anthropological-Prehistoric [Anthropologisch-Urgeschichtliches] Museum in Vienna.

The first Serbian archaeologist and the first custodian of the National Museum, eager to fill the depots, was a Serbian of German descent Mihailo Valtrović (Michael Walter). He published the finds from Konjuša in 1890, which were lost during the First World War, having disappeared from the National Museum. Another early important find was the Joševa material, published, among other people, by Paul Reinecke in 1900.

Valtrović was particularly committed to work in West Serbia, around Valjevo and Loznica, and further south in Dragačevo. These projects were contemporaneous with the work done at the Glasinac plateau under the auspices of Viennese archaeologists (Austro-Hungarian empire controlled Bosnia and Herzegovina at the time). Glasinac excavations in the XIX century were a minor sensation in the social life of Europe (Munro 1900). The site attracted the leading scientists from the empire and further: Joseph Hempel, Oscar Montelius, Josef Szombathy, Rudolf Virchow, Salomon Reinach, and others. The Austrian presence in Bosnia and the archaeological campaigns in Glasinac (a mostly
Serb-populated area northeast of Sarajevo) were practically mirrored by Valtrović’s yearly campaigns in West Serbia.

Indefatiguoble Valtrović was publishing the results of these campaigns, albeit in some cases rather selectively. Some excavated tumuli from some necropoli were published and some not. He did leave detailed descriptions of locations and hints about the general method (mostly digging through the middle section of a mound), which made possible conjectural taphonomic interpretations. In 1892, while Franz Fiala and Ćiro Truhelka excavated many mounds at Glasinac (Fiala 1892), Valtrović excavated the reported total of 46 mounds. Near Valjevo - in Bukovac, Golubac, Klinci, Krčmar, Rajković, Robaje, Žabari, Zarube – he did work on 19, and near Loznica and Osećina he did work on 27 mounds: in Brezjak, Brezovice, Kozjak, Lipnica, Slatina, Tolisavac. In the report he suggested that there are more mounds in the latter area (Valtrović 1893: 84).

Subsequent work done by the husband and wife team, Milutin and Draga Garašanin, continued Valtrović’s work after World War II, and revisited the same sites, on which they tried to assess and document the previous work. Garašanin points to the mound 13 from Šumar, which was assessed to have been dug in the middle and then cut by a diameter long trench (Garašanin M. and D. 1951). Alojz Benac and Borivoj Čović at that same time are continuing the early work at Glasinac by excavating tumuli there.
IV.1 Archaeological cultures and other labels in West Serbia

For the sake of better legibility the Garašanin D., Garašanin M., and Garašanin & Garašanin in-text references will be omitted hereafter in the segment due to plethora of sites and referable information mentioned. These are the texts that published the data from which the narrative is here constructed, and follows the outline sketched in Garašanin 1986: Garašanin M. and Garašanin D. 1951, 1958, 1962, 1967; Garašanin M. 1955; Garašanin D. 1979). In Serbian and the Balkan archaeology the most important information from the 1950s and 1960s was later republished several more times (Garašanin M. 1973; 1983e,f, g, h; 1986), and is well established and cited often.

The tumuli in the part of West Serbia called Radjevina are distributed along the crests of low lying hills. One group can be traced from the old cemetery in Mojković (itself lying on a prehistoric mound) to Bela Crkva sites Cerik and Bandera (Figure 50), then Belotić sites Šumar and others, through to the Bastav village site Crkvine. None of these groups of tumuli contain more than few relatively contemporaneous burials. From mounds at Cerik and Bandera three belong to the Early Bronze Age, and two to the Developed. Šumar’s more than twenty mounds count three from Early Bronze Age (10, 12, 15), and the rest from Developed Bronze Age and Early Iron Age.
The second recognizable group of tumuli runs from the other cemetery at Mojković (two mounds, one of which is capped by the cemetery itself) to Tolisavac and through to Likodra and the site Banjevci. To the south of this area mounds are also on the hill-crests (similar positions of tumuli are recorded elsewhere, too, notably in Slovakia, Vladar 1977). From the site Višić in the village Vrbić, to the north and the site Vinogradine, then the site Aluge in Tolisavac (two mounds – one of DBA, one of EIA), through to Despotovica cemetery and Vrbić village-cemetery groups. From Višić toward the Krupanj road there are tumuli at the site Sredjevo, then on the sites Jovanin Breg and Četeniste in Tolisavac. In the same village are tumuli by Popovica cemetery, itself built on one of these, like in the Mojkovic case. Another group is noted next to the Masalović households, also in Tolisavac.

There are no true necropoli with many contemporaneous burials, the kind familiar from Glasinac or Pannonia, only localized mounds from different periods. In that these
prehistoric features resemble the present day distribution of graves in the area, which are found often in groups of two, three or four, right by the households to which they belonged. The major difference is that the houses of the prehistoric populations have not been located archaeologically to this day. For this reason, of negative evidence, transhumance as a way of life has been proposed, as a way of making sense of the lack of architectural remains. This idea lingers in the literature (cf Hatvan above, Garašanin in Babic and Tomovic 1994, cf Gogaltan 2004).

The area is clearly not one traditionally connected with transhumance, the way Glasinac altiplano has been through to the early twentieth century. There is an altitude of 300 to 500m in Radjevina and its surroundings cannot be characterized as friendly to seasonal herding, however without architectural remains it is perhaps not prudent to challenge the notion that transhumance was indeed practiced there.

IV.1.a Belotić-Bela Crkva

The label Belotić-Bela Crkva culture, used in the local and wider European nomenclatures, has been applied to some of the Early Bronze Age finds from the mentioned tumuli. Materially affiliated to Šumar (Belotić) and Cerik and Bandera (Bela Crkva), similar groups of tumuli and individual mounds have been noted as far as Ladjurine in Kozjak-Loznica, Žabari near Valjevo, and in Dragačevo to the southeast, with the finds from Negrišori and Markovica.

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65 The area of some international reknown for its brass music festival in Guča
The finds from Lučani should be included too, as well as Vranjani near Uzička Pozega, and the find from Priboj on Lim (see Zotovic 1985). The Early Bronze Age finds have not been noted in the tumuli to the west of Drina in Bosnia (Padjine, Ročević, Trnovica; Kosorić 1971), the area that is otherwise strongly affiliated with Jadar, Radjevina, and West Serbia in the subsequent Developed Bronze Age.

Some of the defining characteristics include the mound architecture. Mound 1 from Bandera at 23m diameter was slightly bigger than other mounds that range from 15 to 20m in diameter. Bandera-1; central mound at Bukovac (excavated in 2008; Filipovic et al. 2008); Sumar-10, 12, and 15; Cerik-4; and a few mounds from Dragacevo all were build over stone circles. In mound 15 at Sumar, the center of the mound inside the stone circle was filled with red earth, and the central mound at Bukovac had a big lump of red ochre connected with one of the urns.

Burial practices include incineration and inhumation, with incineration being perhaps more culturally regulated, especially in Sumar (mounds 12, 15) and Vranjani where pyre was constructed on site before the mound construction, as well as in some mounds at Lucani and Dragacevo (also in Zotovic 1985). Skeletal burial was practiced at Sumar (mound 10), Bandera (mound 1), Cerik (mounds 2 and 4), and Banjevci. Further, stone coffin was constructed at mound 10 in Sumar and at Dragacevo all mounds contained skeletal burials mostly lying on their right side and many of them were in stone coffins (ibid).
Among these, mound 1 at Bandera could readily be interpreted as belonging to a family, with graves 24 (a female and an infant) and 25 (a male) likely interred at the same time. The sequence of events can be reconstructed thusly: pyre with a possible feast involving burnt animals => mound construction => burial in the middle. The lower lying grave 25, was of a man in his 40s, with a pottery vessel next to his feet. Above it came the grave 24, so that the top of the head from grave 25 pointed to the abdomen of the
female in 24. By the knees of the female from 24 was a pottery vessel. Toddler’s milk
teeth were close to it, too, as well as another three pots. The whole grave was covered by
a flat piece of wood. Southeast of the two central burials was the grave 10, of a child 8-10
years old (Zivko Mikic, for a long time the only physical anthropologist/archaeologist on
call in Serbian archaeology, performed the analysis of the skeletal material). All three
skeletons were in crouched positions, central internments on their right side, lateral on its
left. Deposition of the grave 24 did not disturb the grave 25 below.

In the mound 2 at Cerik, lying on the base of stone tiles were three interred
individuals. Male grave, No. 3, was located in the center. Below it were another male
burial, grave 1, and grave 2. The lower graves’ heads from each side pointed toward the
abdomen of the grave 3 above. All three were lying on their right side, and were covered
over with stones. In mound 4 at Bandera at the base were remains of a pyre, covered by a
layer of stones, over which was a skeleton lying on its right.

It is clear that there is a strong similarity between graves here, as well as with
Banjevci (layer of stones, right side), and Dragacevo. Another similar grave, with the red
earth and ochre context, to the one in the mound 15 at Sumar was also noted in Tariverde
(Comsa 1978) in the Danube delta region (Romania) on the Black Sea coast. One could
also point to similarities with Transylvania (Kalicz 1968:15-22), Slovakia, and even
Caucasus. From Sumar-15, the small pot from the central stone structure and the richly
ornamented bigger pot from the periphery of the mound both show strong similarities
with the Kosihi-Čaka material from Slovakia, which does not otherwise feature the stone-
layer context.
The only, and very patchy at that, evidence of an occupation horizon related to the aforementioned burials has been found at Likodra, on the hill-fort Ostenjak (Garašanin D. 1979, Bulatovic et al. 2013). Directly above the Eneolithic layers there, and below the wall dating to the Final Bronze Age/Early Iron Age a small surface with a group of Early Bronze Age finds was documented. The site has not been systematically researched, but the trenches that otherwise yielded much Neolithic, Eneolithic and later material, suggest that there may have been a building dating to the Belottić-Bela Crkva horizon there. Draga Garašanin (1997) tentatively argued so.

As was the case with the material culture analogies from the burials, a fragment of a pot was found at Ostenjak (ibid) decorated with dotted bands. Nothing similar was found associated with this, but pots from Mound 5 from Ražana by Kosjerić, to the southeast of Radjevina midway between Valjevo and Dragacevo, and definitely contemporaneous with Belotić-Bela Crkva, show the identical decoration.

The discipline of archaeology suggests that this is indeed a culture, or a cultural group, or a group, or cultural practice, with influences and contacts from afar and near by. It also points to the movement of people that may or may not have been tied to cattle herding lifestyle. It is also fair to say that Milutin Garašanin in his interpretations of the Belotić-Bela Crkva phenomenon talked about transhumance the way Childe talked about wandering smiths, as cultural vectors. The difference being the geographical range, the former is ‘local,’ and the latter ‘international.’ In the more popular perceptions of archaeological evidence, scientifically incomprehensible notions like gestalt, collective unconscious or cognitive types might be evoked as well.
In any event, Belotić-Bela Crkva culture is tied to the academic career of the eminent Serbian archaeologist Milutin Garašanin, and as such has been taken in all existing paradigms as the first Bronze Age culture of West Serbia. It is contemporaneous with Somogyvar-Vinkovci culture to the north in Srem and Slavonia (dotted bands decoration and identical vessels), and Glina III-Schneckenberg culture in Romania with its very similar vessels with one handle. The burial mounds from Verbita and Apuseni mountains in Romania (Berciu-Roman 1984, Ciugudean 2011), as well as from Somogyvar (Garašanin 1983g: 463-6, 1983h: 705-9) in Hungary in particular show strong analogies.

**IV.1.b West Serbian variant of Vatin**

The finds from Dobrača by Kragujevac and Joševa (see above), from both sides of the Drina river near Loznica and around Osecina and Valjevo, and their perceived similarities with the material from Srem and Banat enabled Garašanin to follow up on his establishment of the Belotić-Bela Crkva. Succeeding, Middle and Late Bronze Age finds from the same area he labeled as *West Serbian variant of Vatin culture*. Sites Četenište in Tolisavac and Jovanin Breg in Banjevac researched by Garašanin, and the work done by Milica Kosorić (1976; Kosoric and Krstic 1972, 1988; see the plates in the latter). Zvornik and Drinjača toward Vlasenica added to the material known from Belotić and Bela Crkva tumuli. More recent work done around Čačak (Dmitrović and Ljuština 2007) to the southeast completes this picture.
Similar to the portrait of Belotić-Bela Crkva, the settlements are rare finds, in fact much of the knowledge comes from one site – hill-fort Ljuljaci near Kragujevac. At this site the other eminent Serbian archaeologist of the post-war period, Dragoslav Srejović, in many ways Garašanin’s Other and a competitor, organized the project through which multiple buildings horizons were noted, but contextual information to this day is difficult to assess (Bogdanović 1986).

Burials under tumuli continue in this period, also in smaller groups, often on the same locations as in the previous epoch. Again, there are no true, large, organized necropolis that one finds in Pannonia. From Šumar in Belotić Mounds 6a and 11 would fit at the beginning of the Middle Bronze Age (Reinecke B1), Mounds 9 and 16 follow in Reinecke B2-C, mounds 7, 8, 14 to Reinecke C, and mound 19 to C-D. The last in this sequence shows direct parallels with Jovanin Breg, as well as with two mounds from Ćetenište. At Cerik (Bela Crkva) the other two mounds belong to Reinecke B2-C, one is with inhumation, the other with cremation.

The dimensions of the tumuli remain the same and the appearance of either one of these does not signal a particular period. The stone core of the Dragacevo style mentioned above for the earlier epoch is also noted for this period, like in Banjevci (Tolisavac). At Šumar-14 the inner core of red earth served as a platform for a grave, and at the same site the stone-circle was noted like in the mound 8.

Biritual burial practice persists, too. At Šumar-16, at the level of the ground at the time, before the mound was constructed a skeletal grave was set, with a vessel resembling the one from Joševa, from Paulje-A (Canić-Tešanović 2001), and the one from Šumar-9.

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66 Although there are other known settlements, like Ostra (Dmitrovic and Ljustina 2007) and Djurdjevo (Tasić 1974).
Sealing the lower burial, the pyre was later constructed for another individual, whose remains were deposited in the urn sitting on the pyre (this vessel is similar to the other one). The mound was then constructed. As was the case at Bandera-1, according to the excavators, there were no indications of disturbance (Garašanin and Garašanin 1962).

A comparable situation was noted at the Šumar-11, the earliest in this sequence. At the basal layer of the mound there was a pyre and human bones in situ, without an accompanying urn. Paraphernalia were also burned, except for the bracelet with both ends in the shape of a stamp (see Appendix) that helped to tentatively date the deposit. Above this burial there were three skeletal graves that can be seen as contemporaneous by their grave goods. Above these, in the center, was a double skeletal grave with parallel, stretched individuals, inside a stone frame that resembled a coffin. The last two appear as main event. At the outer perimeter there were another two (Sumar-11, graves 3 and 4), grave 3 was covered by a flat piece of wood (like in Bandera-1), and was also lying on a plank below. Grave 4 was poorly preserved so only the skull and paraphernalia remained. The whole arrangement resembled the context from Bandera-1.

Stretched out skeletons from Šumar-11 are possibly the earliest of the kind on the burial ground that otherwise saw only crouched interments. Subsequent burials continue with this practice, as in Šumar-9 and Šumar-19.

Parallel with Šumar-11, in mound 6a, which is also particular for its smaller dimensions, another group burial was documented. One skeleton lying on the back had legs flexed at knees and to the side. At an angle from this one was another skeleton whose head reached the abdomen of the former, like at Bandera-1 and Cerik-2.
The so-called stone-coffin burials were documented at Šumar-14, at Jovanin Breg, and at mounds 4 and 5 in Ćetenište. These would have been similar to the burial at Joševa, as well as the sites on the other side of the Drina. Smaller pieces of stone or gravel served as the surface for the crouched individual, framed inside the stone enclosure. Individual burials were documented at Šumar-14 (red earth base) and likely at Joševa. Burials from Jovanin Breg and Ćetenište might be a century or two younger if judged by the accompanying material alone.

At Jovanin Breg three large stone coffins were constructed in parallel lines. Two lateral burials contained female individuals with rich metal inventory, whereas the central male grave had no other finds. In Ćetenište-4 two female individuals were deposited in parallel coffins, but the male coffin burial without paraphernalia was in its own mound, Ćetenište-5. At this mound another idiosyncracy was noted: the gravel base of the coffin showed traces of intense fire, but the body none at all.

Cremation still seems to have been more uniform, at least judging from whatever is left behind. Šumar-11 shows the difference from the cremations connected with Belotić-Bela Crkva period in that the bones upon burning were not deposited in the urn. A similar context was noted in Vranjani for a later period (Garašanin 1983h). At Šumar, in the mounds 7 and 8, on the other hand, burnt remains were deposited in the urn that was left on the pyre layer. Some urns were closed with a smaller vessel and some contained additional artifacts, often with a carefully constructed encasement for the urn itself made from pieces of stone. At Cerik-3 (Middle Bronze Age) a box was carefully constructed of slabs of stone for the urn. In Later Bronze Age, at Dobrača near
Kragujevac, bigger encasements were the norm resembling the earlier one from Cerik-3, but analogous to the Urnfield finds from Pannonia.

Objects made of bronze and multiple pieces of amber were fairly common in the cremation graves, while weapons and tools were much less frequent (Figure 25, above).

Much of the small finds like bronze beads and coiled wire and Koszider style heart-shaped pendants, with direct similarities with contents from Paulje, cannot be dated with accuracy. They start appearing as early as Šumar-11 (grave 4) and continue throughout. In the same vein amber objects are chronologically not sensitive, but by sheer presence – more so than elsewhere in the wider region – point to specific connections that this area may have had. The path of amber, by proxy and taken together with other analogies already mentioned, likely communicates with Slovakia, Moravian gate or Dukla pass and Poland from there. The Dniester route is another feasible conjecture (Bankoff, Gimbutas, Palavestra, many others).

The hair ornament from Šumar-6a is worth mentioning, as well as the Sombor-Smolenice type sword from Joševa (Garašanin D. 1954), both dating to Reinecke B. Two sets of pincers found by the head of the individual in Šumar-14 relate to Reinecke C (see also Figure 52), as well as the circular appliqué with the characteristic thorn from Cerik-3. Bracelets from Jovanin Breg and Ćetenište contain the type identical in shape to Šumar-14 (here placed on the ankles), but are younger according to the typology established for the particular incised decoration.
The idiosyncratic metal find from this area are the long pins found in the graves. The one from the Late Bronze mound Šumar-19 is 110cm long, and other similar finds are only slightly shorter. Such pins only exist in the locale and the sites closer to Drina (Paulje, with the richest of all mound-K). They are fairly securely dated by the Šumar-19 individual that carried on the ankles bracelets of the Gučevo type.
Morphological analogies for the pins do exist elsewhere in Central Europe, but those are shorter by more than half a meter. Together with the emphasized presence of amber and other bronze objects, the pins might point to the local industry that would have had access to the local tin mineral, which will be discussed in Chapter VI. That the tin content is commonly higher in pins adds weight to these finds (Lapithos, Alambra (Cyprus); Stos-Gale and Gale 2010 and elsewhere).

IV.1.c. Paulje and Brezjak

Rich central burial from mound K (Canic-Tesanovic and Gligoric 2001) at Paulje connects this site to the more lavish burial at the mound 19 at Sumar, with both burials containing the 100cm long pin and other comparable finds (like the aforementioned bracelets and lunular pendants of different types; the sword from mound 10 at Paulje, of Aranyos type [Loznica museum, unpublished], relates to the wider area, but is not very time-sensitive). The open pot with little knobs has an interesting incised decoration that can be traced to Danubia. The small urn has a lid and an overall appearance familiar from Troy to the Danube.

Another rich burial from the site, mound A (Madas 1990) affords similar conjectures, with the metal bracelets, pins and pottery. Pottery, biritual tumuli, kilns as the part of the mound architecture (see Zotovic 1985, Filipović 2008: 164-5), long pins, define the Paulje site, and relate it to the near by Belotić, Bela Crkva, and the ones in Bosnia (Padjine, Rocevic), as well as Valjevo/Mionica mounds (like at Bukovac; Filipovic et al. 2008). Amber pieces from Paulje are plenty compared to other areas in
Serbia and beyond at the time. In the locale they are also registered at Bandera, Banjevac, and Sumar (Palavestra 1993), but the quantity at Paulje suggests a more permanent preference (with Harding’s [1984: 25] proviso that all amber pieces found in the Bronze Age contexts of this part of Europe could have been once a part of someone’s little pouch and simply distributed from there).

The Paulje mounds are excavated roughly one every other year, by the archaeologists from Loznica museum. The funds for this expedient tempo of research are provided by the town and the international mining company that looks for the new mineral jadarite in the area. The site has had up to fifty registered tumuli thus far, but there may have been more, as attested by destroyed tumuli in the surrounding forest (Madas 1990). The time-span of the necropolis is from late Reinecke B2 all the way to the end of Early Iron Age. Valtrovic started excavations there in 1892, and more than twenty tumuli have been excavated so far.

Potential findings of the settlement, for which there are few random signs (Filipović 2008: 101-3, Madas 1990: 44), will provide more comprehensive data. Otherwise the tumuli are not mapped and are published ad hoc. The unpublished masters thesis by Filipović (2008b) is for now the most detailed account of the site (see Canic-Tesanovic and Gligoric 2000, Madas 1990). In this volume the author proposed the name Brezjak culture for the phenomenon encompassing Paulje, Proriste, Kozjak, and other mentioned sites. Instead of the unfortunate West Serbian variant of Vatin, the new name elevates Paulje as the type site and pays homage to Valtrovic, while addressing the inconsistency with the way Vatin’s life-cycle has been argued by Garašanin. Effectively Tasić (1974) defined the Belegiš culture, co-opting it from Garašanin’s periodization of
Vatin, and in West Serbia as a corollary, instead of having ‘variant of Belegiš’ there is
now a new label for the entity (Filipović 2009).

The visible material connections that exist between this area and the Belgrade, Cacak, Sabac, Valjevo, and Zvornik environs, as well as those with the wider area through metal finds belonging to “late Koszider horizon” (e.g. lunular and heart-shaped pendants) point to connectivity that is not as straightforward.

IV.2 Analogies

The Vatin culture of Banat has had such a prominent role in the scholarship that subsequent cultures are considered to have a significant link to the Vatin tradition, and they are called jointly “post-Vatin cultures” (Ljustina 2011, Bulatovic and Stankovski 2012). Pottery vessels from all the sites mentioned above point to similarities in decoration with the pottery assigned to Vatin, but for the sake of consistency the closer reference will be the Belegiš culture. Garašanin thought of Vatin culture as having a long life, encompassing Belegiš as one of its phases. The third eminent archaeologist from the post-war generation, Nikola Tasić (distant fourth being Borislav Jovanovic of the Rudna Glava fame), ushered the term Belegiš culture, to suggest that Vatin culture’s life-cycle is not as long as previously suggested by Garašanin.

Tasić did what was the common desire of his generation, he named an archaeological phenomenon. To what degree this is warranted by the evidence remains to be seen (compare Bankoff’s assessment in Bogucki & Crabtree [2004] or Childe’s concept of Danubian pottery [1929], as well as Sherratt’s rendition of it [1993a]). Tasić’s
view is accepted in the updated cultural history of Serbian archaeology and very much so in European nomenclature where it is known as Belegiš-Cruceni to account for the similar desire of the Romanian colleagues. However, the name West Serbian variant of Vatin remained in use (i.e. it has not changed to West Serbian variant of Belegiš), even though that culture would have been contemporaneous with Belegiš, and would exhibit Belegiš traits, and not Vatin, which is earlier.

In the view of the present author, this confusion only goes to show that the nomenclature is too much taken for granted. It is absolutely clear that what Belegiš culture represents in literature should be seen as a culture inside the extant classifying system, still widely used as the only show in town. The pottery fragment from Spasovine, which effectively dated the Bronze Age horizon there, is similar to the vessels at Paulje, Dobrača, and late Šumar. The finds from Ljuljaci and even Troy VIIa can be brought into the picture. This would put it in the period of Tasić’s Late Belegiš I culture, but slightly different appearance of the burial pottery here compared to the material from Srem, Slavonia, Belgrade environs (“core Belegiš area”), has prompted other authors to suggest yet another name.

Most recent literature therefore promotes the new: Brezjak culture (Filipović 2008, 2008b), after the site Brezjak with the biggest group of burials at Paulje near Loznica (above) at which excavations have taken place for the past decade or so, continuing from early efforts by Valtrovic. This goes to show that the paradigm is alive, and more will be said about it in the chapter on movement.
IV.2.a A narrative from the most recent work

The above breakdown of finds per context and per period is a usual practice in our trade, so much so that it rarely gets questioned. Similar surveys have been done each time a new monograph on Bronze Age gets published in Serbia and elsewhere. At this point it would be good to cast a light on few episodes from our most recent fieldwork in this same area of interest, that with any luck might redirect the attention to some other concerns.

During the first campaign that the team around Professor Arthur Bankoff conducted, the dig-house was our hosts’ house that was originally built over a tumulus at Sumar. Vlado, who was born in the house, married Vesna, from the same village, half a mile down the road – as we were told by the couple. Few days into the campaign I took an afternoon walk to visit the sites in the vicinity known from the literature, Cerik and Bandera, that belong administratively to the modern village Bela Crkva. On my way back to Sumar, passing by a house at the Cerik location, at the foot of the hillock with tumuli there, I heard Vesna and the two kids say hi. I would only ever see her at Vlado’s and her house in Sumar, so did not expect to see her there. She explained that the house she was in was the one that she was born in.

So Vlado was from Belotić and Vesna was from Bela Crkva. But, really, their respective birthplaces were less than half a mile away, and they happened to coincide exactly with the location of the eponymous Bronze Age sites. Perhaps I would not have noticed that were it not for the path we took on the day, which led us from one to the other hill-crest, hoping to retrace Garasnins steps and ultimately the Bronze Age steps.
Upon returning to Sumar a few minutes later I went to check the two graves next to Vlado’s house and thought about whether Vesna’s birthplace/identity would be somehow marked if their own graves end up by the house they live in at present. Later during the campaign I found out from interviewing the elders that they specifically would want to be buried close by their houses so that their kids thus conditioned do not sell the estate, and rather stay on the land out of respect for their ancestors if for nothing else.

To what degree we can talk about culture from material remains we find in the ground has been a debate for a long time in archaeology. For reasons all too familiar (Childe 1956, see the recent accounts in Roberts and Vander Linden 2011) it has been difficult to come up with viable alternatives, however it seems that a decent start would be to consider the movement of people. Short trips, long trips and everything inbetween might add up to this idea of mobility as constitutive of what would otherwise be labeled as culture. In the next chapter I will hope to show that this would be methodologically useful, and not simply replacing the old paradigm with the new.
V Movement and mobility

Bankoff et al. (1988), Bouzek (1985), Garašanin (ed. 1980), Heurtley (1923), Vladar (1973), Maran (1998, 2004, 2007), Susan Sherratt (200), and others have written much about the links between the Balkan hinterland, Carpathian belt, and the Aegean world. Bankoff suggested the role of slaves, the people otherwise not visible to archaeology, Bona and Bouzek focused on the Mycenaean decorations, Circle B shaft-graves and potentially corresponding finds in the early and middle Bronze age, and Maran argued for a migration of the population of the Eastern Adriatic into Greece. The scholarship has been defined by this linkage, recognizing the Europe of the time as de facto periphery, that is imprinted by some sort of cultural echo or awe that is copied, imitated, consumed, etc.

In the other direction, the notion of an influence from the North, from Europe into the Aegean or the Ancient Near East is seen as either passing through the Balkans or not.

Toward the Final Bronze Age it is often evoked as the migration followed by destruction. This is due to the evidence at hand, and due to the paradigms that we have adopted or are stuck with.

In this chapter I attempt to show that the sources referred to in the paragraph above do not represent an automatically correct or a faulty view. I shall argue that what is at fault is the static picture of sedentary life, and that movement is not accounted for in the local, regional and continental histories. The scholarship around the idea of movement and mobility in archaeology is quite fashionable at present (see Kahn, J. 2012), some sated with buzzwords informed by machine processing like task-scapes
(introduced by Ingold 1993; see Michelaki et al. 2014) and affordances (Gibson 1979, see Keane 2014) – perhaps not unlike ‘connectivity.’ Although ‘migrations’ are suspect (see Childe 1950, also Jockenhovel 1991), following up on the chapter that dramatized processualism and post-processualism, I hope to show that the new can be reconciled with the old without exclusions. One example, provided by the traveling Arthur Evans, illustrates an apropos historical analogue:

During his trip through the Balkans, Evans (1883, 1885) describes the remainder of the Ottoman Empire, and juxtaposes it with the ancient sources.

Figure 54: A grave inscription fragment. Source: Evans 1883

He quotes (1885: 128-140) Marcellinus Comes who described the earthquake that hit Scupi (present capital of Macedonia) in 518, and said that the quake destroyed so many Dardanian cities and strongholds, but the inhabitants were saved because they were fleeing anyway in front of a barbarian invasion. He goes on to refer to a distant connection embodied through the inscription in which a citizen of Methymna (Lesbos) commemorated, who died in Scupi at the age of 80. The distance is 450 miles, and also, on the basis of evidence, a possible connection existed between these locales in the Bronze Age. Evans talks about other travelers, like the bishop of Scupi, one of two Dardanian bishops (the other being Macedonius of Ulpiana) to have attended the Council
of Serdica in 347. Toward the end of the 4th century St. Paulinus of Nola (Italy, Campania), mentions Scupi among the Illyrian cities that St. Nicetas of Remesiana would visit from Italy to Dacian See. Other historical sources (Constantinus VII) testify to other pertinent moves, like in 695 when Slavs come, the refugees from Dardanian cities go to Thessalonica on the Aegean coast.

Other proxy evidence of movement exists. In recent science the example of targeted research (Skoglund et al. 2012) shows parsing of the DNA sequence from 5000 year old remains. The study of three hunter-gatherers and one farmer retrieved in Scandinavia found that the farmer is genetically most similar to extant southern Europeans, contrasting sharply to the hunter-gatherers, whose distinct genetic signature is most similar to that of extant northern Europeans. The reported results suggest that “migration from southern Europe catalyzed the spread of agriculture and that admixture in the wake of this expansion eventually shaped the genomic landscape of modern-day Europe” (ibid). In archaeologically very real terms this paper suggested that the Neolithic female body found to be similar to Sardinia or Cyprus, was found as far away as southern Sweden (Gokhem parish, Gok4 site; idem).

For this text the potential links with Sardinia or Cyprus are interesting also from the point of view of metallurgy (former a known tin source, latter the biggest ancient copper source), but the labeling of the woman as a farmer might take away from this possible connection (see Lo Schiavo et al. 1985). To what degree perceived social roles and ideas of specialization preclude certain interpretation will be explored below. There are more examples to the notion that people in antiquity traveled freely and frequently, from isotopic studies performed on German sites (Price et al. 2004, 2012). Similar to the
Swedish research, they concluded that the individuals analyzed did not come from the area in which they were found archaeologically.

The question that needs to be asked here is: What may have been involved in a proposed movement that linked Southern Germany (Drassburg, Denmark, or Scandinavia; see papers by Douglas Price and others) across the Balkans – to the Mediterranean? Additionally, what would be the archaeological techniques for understanding the way we might know which phenomena set the people in motion? What does it compare to? One of many methodological problems with answering those might be that, short of conclusive data like the Skoglund study above, it is challenging to talk about the scale of the movement in the Bronze Age, especially in the area where, for instance, cremation dominates the burial ritual (and the bones are all but lost).

As a background to these questions sits the key issue that has been addressed by the efforts of Kristian Kristiansen and scholars around him: How did the distant cultures communicate? What would be the archaeological model that would best represent this?

V.1 Harding and Kristiansen, the types of Bronze Age study

Kristiansen has been the pivotal figure in compiling arguments for considering a lively exchange of ideas, knowledge, and objects in the Bronze Age. In an important volume from 2005, *The rise of the Bronze Age society*, he and Larsson put together a state of the art narrative of the past, but without sufficient evidence. It was welcomed by the growing number of practitioners who recognized the shortcomings of the old paradigms, but was derided by the old guard that insisted on only basing interpretations in hard
evidence. For the latter view particularly telling was Harding’s review of the Kristiansen and Larsson book (Harding 2006b). In it the doyen of the Bronze Age synthetic work, Anthony Harding – who with Coles in 1979 published the first major synthesis since Childe, then updated it in 2000, and with Harry Fokkens this year published The Oxford handbook of The European Bronze Age – seems to be talking to an enemy.

It would not be far off to describe the tone of the review as vitriolic, a precious rarity in an otherwise civil realm of archaeological critique performed in the (academic) public. Harding accuses the Swedish duo of making things up and admonishes against such a practice. Beyond the dictum to study the context he does not suggest a viable alternative to the extant, and by many accounts (cf Sherratt 1994), too cautious and ultimately less and less productive approaches.

In a certain system of thinking about these issues Harding could be seen as absolutely righteous in his attack, but little evidence that Kristiansen and Larsson do bring to the table is overbearing. However scant the evidence may appear, in the view of the present author, it is more meaningful to follow the Danes and their imaginative transgressions.

As for Harding, it is not entirely clear why he would be so upset by the speculations. It is fair to say that his position has been clear and remarkably consistent - the insistence on evidence and chaine-operatoire scaffolding as the advisable narrative structure (Harding 1984, 1995). The issue also seems to be that he and Kristiansen are in a somewhat hostile feud and do not agree as to what the acceptable evidence might be. Their evidence grammars are different.

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67 I think the seed for this duel might be in Harding’s 2000 volume, on p.420-1, where he discussed Kristiansen’s work on the core-periphery models.
The one substantiation that tipped the scales of the debate for me toward essentially supporting Kristiansen and Larsson as model for the future was the Figure 82\(^{68}\) on the p. 192 (Figure 55) showing the signet ring from Tyrins from the fifteenth century BCE (right) and a scene from one of the cist stones of the Kivik “King’s grave” (left), dated anywhere from fifteenth to the eleventh century BCE.

![Figure 55: Adapted from: Kristiansen and Larson 2005; overlayed four figures on the right (from the signet ring) with four figures on the right of the middle row (Kivik) to show the similarity in form.]

That, and the data that have accrued of a potentially massive movement from the Balkans, Apennines, and the Aegean. Such evidence has been discussed since at least the beginning of the twentieth century, especially in the context of the Bronze Age collapse and the so-called Dorian migration. However, just as it is acknowledged it quickly is neglected for the perceived lack of conclusive indications. More impressionistic (art-historical?) interpretations data often get qualified in such a way, and often for the right reasons.

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\(^{68}\) Whether or not anyone would want to see otters (Lutra Lutra) in captivity in this image (Kruuk 2008), is beside the point if we agree on semiotic grounds that we analyze signs as we perceive them.
Harding’s writing is clear, the language is precise and easy to follow, with sensible conclusions. My generation has learnt much from his *The Mycenaeans and Europe* (originally PhD thesis) and the mentioned European Bronze Age series (of which the first one, Coles and Harding 1979, is still a good reference, and arguably better organized for presentation than the later two). Compared with Kristiansen, archaeology for Harding, if the reader would allow this facile evaluation, requires specific means and a final analysis.

The tone is measured compared to Kristiansen and Larson’s:

The Bronze Age ‘world’ was, according to how you look at it, very large or very small. The general approach of this book, that of treating Europe as a whole, tends to give an impression that Europe was one large canvas on which unified picture was being painted by the artists of the Bronze Age, but in fact this cannot have been so. The scale and size of settlements, and the territories inferred from them, show that the overwhelming majority of groupings in most periods before the latest part of the Bronze Age were small, numbering a few hundreds or thousands and extending over some tens or hundreds square kilometres. Most people’s perceived world would not have extended much beyond the land occupied by those linked to them in kinship bonds, or the local area over which the products of smiths and potters spread. (Harding 2000: 429)

For his school of thought generalizations are not trivial as long as the evidence exists to support them. These are all the reasons why Harding’s study is on firmer grounds, but also ultimately teleological (however much the same can be said for many archaeological interpretations, as expounded ad nauseam in the chapter/addendum on theory). In the present text structural opposites are meant to represent dialectical points of view (following the method of Max Weber and Raymond Williams). The line that is here represented by Harding in the final analysis amounts to the kind of interpretation that one is expected to follow given a certain data. That interpretation is loyal to the paradigm of
evolution as used in archaeology (pace Shennan 1999, 2008; see Trigger 1991), but its line of reasoning does not allow for a basic concept of *mutation*. This is a paradox of evolutionary archaeology\(^69\) in general.

With the addition of the so-called Secondary Product Revolution model, it has been advisable to look at more complex scenarios like *pathways to inequality* (Price and Feinman [eds.] 1995, 2010). The appropriate example of abstracted linear progression in an historical presentation of an expected state of affairs comes from Bogucki (1999: 215, Figure 6.2):

A model of downward social mobility among competing households. At time A, all households in the community are relatively equal along some baseline of accumulation; at time B, two households have fallen below this baseline; at time C, still more households have dropped below the earlier standard, leaving three that have retained their wealth; at time D, only one household remains at the earlier baseline of accumulation and wealth, while others have fallen below to some degree.

![Figure 56: Adapted from: Bogucki 1999 (Fig. 6.2)](image)

The elegant Bogucki’s model is also something potentially reproducible by a machine, given the expectedly linear data that are fed. Inevitably, models are posited as if

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\(^{69}\) Shennan (2011, see also Shennan 2008) addresses this issue, through assessing Childe’s contributions. The paper touches on the issue of invention, so important to Childe, as if invention might be in the category of mutation, but it is perceived linearly.
they exist in a controlled environment and a finite context, or in a finite game (as Carse [1987] would call it). Seen in this way the processual and post-divide is the divide between the perception of a finite game and an infinite game, as the play vis-à-vis the past. A local culture-history scheme is one such finite game.

On the other hand, for Kristiansen, contingencies are the stuff of archaeology, and the nature of what constitutes admissible evidence changes over time, the game is infinite (Carse 1987, Keane 2010; also see Harding 2013, Harding and Kavruk 2013). What makes Kristiansen less palatable for Harding types, I think, are his more abstract models (Kristiansen 2013), and not his at times impressionistic analogies.

It is useful to see these two titans of the Bronze Age scholarship as types representing the old polarity between sciences and humanities (or “the arts”) that C.P. Snow wrote about, or that played out as mentioned drama in the history of recent archaeological thought.

The glaring omission in the newest synthesis of European Bronze Age (unlike Harding’s previous syntheses, Fokkens and Harding are an edited volume), is the absence of Kristiansen’s text in it. Perhaps he was never in the plans, or one would expect that there has to be a story about it, but we may never know. Perhaps to conclude that an important opportunity may have been lost would read too much into a simple choice that the editors had to make.
V.2 Across the plain

To connect now with the very beginning of the text, a few geographical issues will be explored below.

Working out the possible routes has been a favorite exercise of Bronze Age scholars. However, figuring out the entry and exit points is easier than knowing the exact routes and their physical context. For instance, the gaps in the Alps chain are few:
- the Danube gap in Bavaria from Passau to Krems which links north and south,
- the Elbe gap in Bohemia that connects Bohemia and Germany, and
- the Morava gap in Silesia that has been the natural path for eastern migrations to flow to Pannonia.

In the Carpathian part there is only the narrow and treacherous:
- the Danube gorge (Iron Gates), and the narrower still, more of a mountain pass itself,
- the Olt gap, and several other passes, like Dukla and the other ones between Poland and Slovakia today.
On the other hand, the physical (and cultural) context of the plains beyond the mountain passes presents fuzzy boundaries. For instance, the three simple sentences below make sense archaeologically, and a similar arrangement can be transposed for many syntactical relationships that are assumed to come out of typologies.

1. Left bank tributaries of the Czecho-Slovak Morava (Germ. March) communicated with Carpathians through mountain passes.
2. Vltava runs through Bohemia in the direction South to North, Morava runs in the other direction.
3. Veterov culture ends the perceived Early Bronze Age culture history in the area, and it is due to the noted southeastern influences that this group is labeled as a separate culture.

Figure 58: Date sequence. Source: Forenbaher 1993
For the southeast end of Pannonia this can be said:

1. Both big rivers of Vojvodina (Danube, Tisza) flow north to south and have their origins in Central Europe to the north.

2. There are several geological faults at the edges of Pannonian basin, which is still sinking, and there are earthquakes.

3. Tectonic activity is one of the reasons why Tisza is so volatile, and perhaps why the Danube changed course toward Tisza, even in the recent past, between Sabadszallas and Kecskemet, in XIX century (Treitz 1903).

These three sentences, pointing also to geographic realities, arguably make less sense archaeologically because the perceived human agency is missing, while the lack of fine dating resolution precludes narratives that would include such data.

The two sets of examples are brought up here to suggest that the information from the latter is not nearly as employed as the former. Instead, all of these layers of information could potentially be represented in something like a Geographic Information System project.

**V.2.a Unanswered research- and other questions**

Traditionally, the primary focus on artifacts took away from the interpretative potential of similarly informative geologic phenomena. A good example of this would be the hoard horizons (Apa-Hajdusamson, Koszider) of the Early and Middle Bronze Age. The questions that might follow are: What is considered a Koszider horizon in a local sequence? What is considered Apa-Hajdusamson, and how much can these essentially
novel, supernovae objects and technologies be related to other technologies, other materials, the ebbs and flows of wealth in the settlements or movement between them, or climate?

To the north of the Carpathians the culture Trzciniec of Little Poland starts perhaps around 1500 (or around 2000 if one were to stress continuity). There is a break in the sequence when Otomani start showing up (Gedl 2001). What is then the relationship between Trzciniec with the two hoard horizons? What is its relationship to Otomani culture that encircles the sites of Apa and Hajdusamson, and to Vatya culture that seems to relate to Koszider? Koszider hoards further signal the demise of tell sites and centers like Barca and Bekes (Banner 1974: 10-13).

Problems start to pile up when one considers the chronological sequence. For instance: the dates for Veterov and Nitra-Mierzanowice (Slovakia/Poland) have been known for some time (Forenbaher 1993, Bona 1992, Gancarski 1998: 152-160) and have been an anchor of European Bronze Age chronology. They frame the chronology to the point that far away places like Belegiš are brought into connection. Would these dates be as useful for the typologies of Little Poland? The matching is a standard archaeological practice, similar to the schemes for Mediterranean and the Thera dates, except there is no dating protocol and therefore it is not the wiggle-matching of the kind Manning and Kuniholm did. It is much more impressionistic and subjective, related to the place that one knows well.

The local, locale, has always had its more or less stable cultural history. The history of local museums, their collections, exchanges, and collaborations offers an outlook that naturally complements archaeology. It adds the touch of the ethnographic. If
museum collections can be made to connect not only across space, but also across time, and with overlapping sequences, perhaps a more meaningful chronology, as well as a better framework for understanding movement would follow. Barring that, the problem may be abstracted as being about defining space and place. The former follows the absolute (chronological) time and the Ancient Near East with the Aegean. The latter follows kairological time, and remains local (Chapter 1).

If we consider the position of the Belegiš culture (or Belegiš folk) vis-a-vis other groups, where does it fit? What does it look like in the assortment of "cultures" from the time? What region do “start-ups” like Belegiš inhabit in the space of all actual (or possible) cultures? I ask this question from the point of view of real people, and not automatons or computers that exchange bits of information.

Humans are corporeal creatures with origins and roots, found inside the social world, running programs that have deep history, insecurities, and needs.

Figure 59: Corded Ware from Hungary and Serbia; note middle left pot analogy to the Belotic pot (Garašanin and Garašanin 1958), more importantly a basketry motif; Oszentiván, Szeged (Unknown site), Kiskunfélegyháza, Srpski Krstur, Békésszentandrás, Öttömös = sites near the Tisza (centering on Szeged), except 5 to the north on the Körös (Tisza tributary). Source: Tasic 1995a
Nikola Tasić defined Belegiš culture several times (1971, 1974, 1983), and finally (2001) in Lazarovici Festschrift. Belegiš is his culture. The network of meanings behind the term Koszider horizon is what Tasić outlines as preceding directly and influencing considerably the Belegiš-Cruceni culture (see Morintz 1978: 40). Ksenija Vinski-Gasparini used the Belegiš material from the larger area of Belgrade environs (Surčin) in her important volume on the Urnfield culture in Croatia (1973).

The nucleus of the Belegis culture is Srem, Eastern Slavonia and Baranja (Croatia), Belgrade environs, habitable parts of swampy Backa, and Banat, both in Serbia and in Romania. Three elements contributing to the archaeological identity of the culture are delineated by Tasić and Majnaric-Pandžić (1984), mostly through typological pottery study, as Vatin, Danubian Incrusted (Szeremle), and Litzenkeramik styles. Litzen is chorologically perceived to follow from Wieselburg and Corded Ware (Benkovski-Piwovarova 1992, Encrusted from Nagyrev and Kisapostag, Vatin from Szoreg-Perjamos, Otomani and Bubanj Hum III.

Toward the second phase of Belegis II a big part of the identity could also be the intense contact with Central Europe, Appenines, the Aegean, Anatolia, and the Near East world, as seen through the same pottery material, best represented through funerary urns and their imagery. This is not addressed in the literature as much for lack of conclusive evidence (see Foltiny 1989, Forenbaher 1988).

Benkovski-Piwovarova ([1981], Slovakia), Majnarić-Pandžić ([1984], Croatia), Kiss ([2004], Hungary), Szentmiklosi ([2006], Romania), following Tasić, all suggest

70 And Morintz’s if called Belegis-Cruceni. Svetlana Vranić's publication of a part of the eponymous necropolis Belegiš-Stojića Gumno that came out in 2002 is actually Tasić’s own work.

71 The material from Surćin had ended up in the Archaeological Museum in Zagreb (Croatia), which is why Vinski-Gasparini (a Croatian archaeologist) was able to publish it.
that it was understood in the literature prior to formulating the Belegiš culture that Vatin, HGK, Szeremle, and Litzen overlap in Srem. Additionally it is posited that it is especially difficult to differentiate between them in south Pannonia at the beginning of Bronze C and further, on sites like Cruceni, Dubovac, Foeni, Surčin, Vatin, and so on. It made sense to propose that a new entity started from the admixture.

To the present author it makes just as much sense to:

1. co-opt Belegiš indiscriminately into the larger Urnfield phenomenon, or

2. to argue that it may have been the continuation of the Vatin phenomenon (Garašanin 1983b, e; Bogdanovic 1986), or

3. that the decorations known from Late Helladic IIIA through IIIC point to mutual influences with the general area of what is perceived to be Belegiš and Szeremle cultures. I propose that the study of connections that may have lead to propagating of such influences can also reveal the movement implicated in the Bronze Age collapse. The Balkan component of the migration-destruction is an old idea, however it is not pursued as a bigger research agenda.

Worthy of note is that late Belegiš I and Belegiš II group or this Late Urnfield horizon that starts in the Belegiš area shows remarkable uniformity. It propagates thence its style to the north to Poland, to the west to Italy, to the east to Ukraine, and to the south in the Morava valley (Figure 26 above). The uniformity on the continent is mirrored by the new material uniformity of the contemporaneous sites in the Aegean, following the Bronze Age collapse.
V.2.b Danubian potters

Urnfield pottery, however, is not unified, because any urn-type would do for a burial (the material from Cincar Jankova Street site in Belgrade was uniform and organized in a straight line, but the material from Belegis and Surcin much less so). Urnfield is a phenomenon that does not seem to promote a single ceramic style, but a most general burial practice, so it breaks down regionally by pottery styles, as well as burial types. It is much easier to follow the Danubian Encrusted pottery or Szeremle culture (or style) as it shows up in the graves - it has curious ties to both Urnfield (urn graves) and Hugelgraeber (pottery origins). In the Developed Bronze Age typologies no other group is defined as convincingly, both in time and space. It is also one of the key ingredients in the Belegiš identity.

Areas included in the consideration of Szeremle are all in the littoral zone of the Middle Danube from Hungary through Bulgaria, except in the triangle between the Danube, Drava, and Balaton, and in Serbia where the distribution continues south along the Morava valley. The term Szeremle is adopted here, following the rationale of Christine Reich (2006) who in her pottery decoration study concluded that the ornament (or rather the technique) is uniform throughout the phenomenon. Otherwise Szeremle has been used for “South-transdanubian encrusted” (Danube’s bend at Baja in Hungary through Bačka in Serbia), whereas there is also “North Pannonian” (earlier, perhaps originator of decoration) in northwestern Hungary and into western Slovakia (Ma’darovce horizon of the layer 4 at Male Kosihy; Tocík 1981), Bijelo Brdo–Dalj in

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72 It is tempting to see some movement from the east as bringing the wholesale incineration ritual. Perhaps even one could let the thought go fancifully toward the assumption that an early Zoroastrian influence can be imagined.
Croatia, Dubovac-Žuto Brdo in the rest of Serbia, in North Bulgaria Balej-Orsoja, Cirna-Girla Mare in Oltenia (Serbian-Romanian compromise is also used: Dubovac-Cirna and Girla Mare–Žuto Brdo). Kisapostag, Vatya and Litzen have been outlined as Szeremle predecessors in the Early Bronze Age. Childe (1929: 284) called it Pannonian ware of his Danubian culture.

For Hungarian archaeologists (Bandi and Kovacs 1974) Szeremle group proper is confined to the territory between the Danube and Tisza south of Budapest, the area that became conspicuously populated with the appearance of what is known as Vatya culture (recall the volatility of the Tisza). The same area is not as populated in the earlier period and very sparsely in the later.

The Szeremle site is on the left bank of Danube, opposite the Baranya hills which end there. Szeremle culture or ‘pottery style’ in Serbia initially shows up sporadically in Vatin provenanced horizons (Feudvar, Gomolava), but becomes dominant around the Danube, and the sites like Dubovac and Dupljaja in Banat on the left and Žuto Brdo on the right bank toward the Romanian border and Cirna in Oltenia are considered to be the southern centers of the style later on. The beauty of this encrusted pottery is not just in its intricate, appealing decoration and anthropomorphic plastic, but also in the sense of southerly movement along the Danube that ultimately defines the group’s geographical extent.

73 Just to the south was the battle of Mohacs in 1526, a major conflict between the armies of king Louis II of Hungary and Bohemia, and Ottoman sultan Suleiman. Francis I of France at the time went into alliance with Suleiman to stop the onslaught of Habsburg power (representing the Holy Roman Empire, which also controlled Spain) onto north Italy and France. Suleiman the Magnificent wanted to attack the Holy Roman Empire, and he had to go through Pannonia. Before the battle Hungary lost the key strongholds in the south – Belgrade (then part of the Hungarian state as Nándorfelévár, a straight translation meaning White City) and Sabac near Cer (placename Tekeriš originates from the same Hungarian rule in this part of Serbia), which opened Pannonia for the Ottoman march. Spread of Protestantism and colonization of the Americas parallel these events in absolute time.
Time can be reckoned by this movement (especially from the site Szeremle downstream), and in many ways this chronology would be more precise than the averaged carbon-dates. The movement, or rather somewhat violent movement as perhaps evidenced at Čezavy (Blučina, Moravia) (Bona 1992 above, Coles and Harding 1976: 360), is often cited as the impetus for the Szeremle journey, but it is not clear why, except perhaps for the conjecture relating destruction layers on Slovakian and Hungarian tell-sites (e.g. Barca, Toszeg) and the number of well made swords and other ‘warrior culture’ paraphernalia. The dominant narrative (Gimbutas 1965, Tasić 1983, Bona 1975; see also Bulatovic 2009) is that Hugelgraeber supposedly move southwards from the Rhein and Westphalia. When the invaders reach the more populated area viewed as controlled by Urnfields, things happen, as in Čezavy and Velem (Hrala et al. 2000, Salas et al. 2012, Harding 2007), where supposedly the in places later Urnfield population may have been done away by in places earlier Hugelgraebers. Except that it was never clear who were Messieurs Urnfield and who Messieurs Hugelgraeber (culture as ethnicity or territory creeps in). The material is rather mixed, especially so the more one looks to the south Pannonia. Why and how the gentlemen reconcile and get buried together later is not clear either, although scenarios from more recent history can be recognized as types to justify the interpretation:

- Celtic invasion and retreat from Greece in the 3rd century BCE is one such episode and it maps nicely onto the notion of Hugelgraeber drive.
- Avar-Slavic invasion in the 7th century looks the part, too.
- Otherwise a meta-cultural conjecture for warrior burials found in Huizinga’s (Homo Ludens, 1938) imposing study on the idea of play and the notion of war as play is
instructive, although not quite cited as such – not even by Kristiansen and Larsson who
employ some of the same imagery as the Dutchman (Scandinavian cave art). The reason
for a perceived migration might never be known, of course, however this rationale is
taken for granted as non-theoretical (cf. Childe 1950, 1958a) or ascribed to the climate
usual suspects (cf. van Geel et al. 2007) – which is perhaps pertinent to the present day
migration crisis. As far as I know no feminist reading of the period challenged the
cultural paradigm, the way Simone Weil\textsuperscript{74} did for the Iliad, the Trojan War, and the
institution of war in general.

In the similar vein, the Litzen pottery style, noted as a component in Belegiš
together with Hugelgraeber (which somehow quieted down over time and gave way to
Urnfields), continues to live on in the Belegiš area, after its disappearance elsewhere in
Slavonia and west Pannonia in general (cf BenkoVinski Gasparini 1983, Majnaric-
Pandzic 1984, Benkovsky-Piwowarova 1992, Kiss 2012). Questions that can be derived:
1. Did Litzen carriers move to Belegiš?
OR
2. Did Belegiš folk just like their pots better?
It is a typical archaeological conundrum, and there must be other scenarios not
accounting for, but in the culture guessing game culture is consistently winning.

Hugelgraeber simply means burial mound or tumulus and therefore is
conceptually similar to the umbrella term Urnfield. Both differ across areas and both have
chronological values that might be particular to specific areas (Hugelgraeber earlier,
Urnfield later). Insofar as the term that labels an intrusive entity is accepted as

\textsuperscript{74} Actually Weil’s study (2005 [1939]) is not ‘feminist,’ but a philosophical essay that happened to be
written by a woman.
meaningful, for its stratigraphic relation with the Koszider horizon in the region it also relates to metallurgical knowledge and to craft (Bona 1958, 1975; Mozsolicz 1957, 1967; Haensel 1968, 1998). Novotna (1980: 77), when talking about the type *pechatkopfnadeln* (seal-head pins), suggests that they were introduced in Reinecke B2 by Hugelgraeber. For our locale we should note that at Pecica (site 14), there are 2 of those pins that resemble the ones from Ravnajica and Milina (Vasic 1998, Stojic 2002). For the Ravnajica and Milina pins it is further important to mention that at Ravnaja there is an abandoned limonite (iron ore) mine, which also contained cassiterite (Brasina mine geologist, *pers.comm.*), which was confirmed by recent sand samples.

The particular Hugelgraeber pottery-metallurgy connection may have been based on researchers’ experience or merely on a feeling for the materials inside some contexts, including at Belotić and Bela Crkva and Vatin and Židovar. For me the link got a stronger validation by the find near Senta in Bačka of a burial with the typical pottery surrounded by metalsmithing moulds\(^\text{75}\). Senta lies 12 km to the north of Ada (Figure 60), close to Čoka (Vulić and Grbic 1937) and Ostojićevo (Girić 1987).

In the literature the term Hugelgraeber has been definitely related to the term Koszider horizon (Mozsolics 1967, Kiss 2013), and therefore potentially to the perceived technological knowledge and development that the latter stands for, but the notion of *knowledge* apparently could not compete with the idea of *culture* – that co-opted it.

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\(^{75}\) Senta Museum curator’s and J. Koledin’s *pers. comm.*, I am yet to see the finds in person, however.
In 1929 Childe argued against a simplistic cultural interpretation, calling it out as “Futility of typological divisions” on the grounds of rarity of genuine closed finds and longevity of very many types. This prophetic admonition – it is still futile – was heeded by Anglophone scholars, but did not sway the local scholars united by the German language. This is very slowly starting to change with the wider adoption of English, as seen in the recent archaeological work in Hungary by Anglo-Hungarian teams (Berettyo [Dani and Fischl 2010], Pecska [O’Shea 2011]). The already stated problem (Chapter 2) is that German scholarship is then somewhat negatively selected for which initiates a new problem of exclusion of dissenting concepts.
V.2.c Students of Danubian potters’ pots and idols

Over 150 sites in Serbia registered the Encrusted pottery style (Pekovic 2010, unpublished PhD thesis), but few of them have been thoroughly researched, and there are no known tell-sites that belong to the group. There are at least 50 sites in Croatia, several hundreds of sites in Hungary, and so on (Reich 2006). Naturally, the existing Bronze Age groups around the Danube and in the hinterland can be related to Szeremle and then to the Carpathian basin taken as a whole. The ornamentation reaches its most elaborate (‘baroque’) forms at the very end of the region’s Bronze Age, roughly some 600 years after the style started at the end of Reinecke A2 (or regionally used A3).

Peković (2010) compiled the existing and unpublished data on more than 180 figurines belonging to this style, from over 60 sites. The First World War casualty, but oft reproduced in print, the idol from Kličevac (Valtrović 1890) and the bird-drawn cart from Dupljaja are better known to the literature. In Serbia encrusted pottery was most studied by Nikola Tasić who pointed to the Hugelgraeber connection (1971, 1974), which in turn helped define the Belegiš culture.

Perceived groups Dubovac-Cirna-Zuto Brdo and Belegiš I-Cruceni are completely contemporaneous. Belegiš II/Gava and channeled black-polished pottery in general mark the temporal end, whereas a Romanian rendition of Belegiš II, Bistret-Isalnita group on the Lower Danube, seems to both spatially and temporally signal the final petering out of the encrusted pottery style phenomenon, which continues to exist in some isolated environs like Insula Banului (Szentmiklosi 2006). A telling pit context at the site Ušće Slatinske Reke (the mouth of the Slatinska river into Danube) in east Serbia, originally
noted by Kanitz, contains an undecorated black polished figurine, together with encrusted and channeled pottery (Pekovic 2010: 240, f. 497).

An undergraduate student of archaeology in Serbia (and former Yugoslavia) and in other academic environments mentioned above learns much about the major sites in the region, pottery and metal types. The labs available are the pottery sorting labs. She comes away from that experience with a solid knowledge of ceramic styles and typological schemes that function as chronological and geographical schemes and help recognize types in the field. Most recent synthetic work on the continental scale (Fokkens and Harding [eds.] 2013) is still organized by country and a region but with less typology and more interest in ‘materials science’ and social organization.

Garašanin and Tasić are the local authors that get talked about the most in the milieu of Bronze Age study. The cultures that they formulated then are talked about in other countries in reference to the two scholars. The concept of culture is deeply embedded in all those texts, and it does not really leave room for much other imagination. An amazing resource in its day, and a testament to the organization of the Yugoslav academia, the massive five-volume *Prehistory of Yugoslav Lands* reads as Who’s Who of the local archaeologists, writing about the local archaeological cultures.

Those that did not make it into whichever important publications had an incentive to do better, maybe even to institute cultures to write about. There was much competition in this regard, which is written about by both Garašanin and Tasić (Babic and Tomovic 1994, Tasić Nikola and his son Nenad, *pers.comm.*). One represented the department of archaeology at Belgrade University, the other the Archaeological Institute and the National Museum. Only Garašanin made it into the Bronze Age volume of the *Prehistory*
of Yugoslav Lands, perhaps by seniority, so with him in the book the West Serbian
variant of Vatin was favored to Belegiš. Tasić’s astute argument to the contrary was that
the eponymous site Vatin was of Belegiš culture.

I was that student of archaeology in Serbia in the 1990s. Civil war time in
Yugoslavia throughout the decade isolated the country culturally, but there was work
being done and I worked with people who worked with and talked a lot about Garašanin
and Tasić76. The two titans each published an incredibly long list of articles and books,
and visited all the important museums and collections in Bulgaria, Czechoslovakia,
Hungary, Poland, Romania, Ukraine.

They had a luxury of representing the “mild” Yugoslav communism that financed
the travels of its messengers, inside the more oppressive Eastern block at the time when
all those countries supported archaeological conferences that attracted Eastern block
scholars. German was the preferred language that the abstracts were translated to, and the
concept of culture was more taken for granted – in a sense that it demarcated a territory
and an (ethnic) identity (see above). A pottery style defined that territory, and if the
territory is archaeologically perceived to shrink or enlarge due to presence or absence of a
style, it was because the people-pots whose territory it was were doing something about

76 And on one occasion, at the classical site Šarkamen, I worked for the aforementioned third post-war titan
Dragoslav Srejović, actually just before his past away in 1997. I am emphasizing this because I/we, the
students at the time, if hand-picked to work on projects – there were no field schools – were in awe as one
might be in an authoritarian environment. I did not give it much thought before my arrival in the US, where
the relationship seemed more free-flowing and less deferential. Milutin Garašanin passed away in 2002, but
retired from academic life before I entered the university. Nikola Tasić is alive and well, and committed to
institutional leadership, since the late 1980s did not see to a great deal of fieldwork. Incidentally,
Garašanin, Srejovic, and Tasić, all were general secretaries of the Serbian Academy of Arts and Sciences in
the past three decades. Further, Srejovic and Tasić attended the Kragujevac Gymnasium at the same time.
Illyrians, Thracians, and Greeks move about in the historical period (Papazoglu 1978), and their ancestors (Urnfielders and Hugelgraebers) are perceived to move in prehistory:

In the wide area between Czech Republic and Middle Danube, Alps, and Carpathians, the majority of Incrusted pottery groups disappear (north-Danubian, south-Danubian, Szeremle, Late Vatya, Veterov, Madarovce, etc.). In its thrust from the northwest, the north, and the northeast toward the Danube and Sava, the wave of the [Hugelgraeber] representatives of the new style was petering out, so that it stopped at the mouth of the Tisza into Danube, forming that way the zone of “Carpathian variant of Hugelgraeber culture,” that encircles almost all Backa and northern part of Banat. […] It would appear that hypotheses are not unfounded that large movements of tribes of Hugelgraeber culture indirectly led to the “great Aegean migration,” which may have been the reason for disappearance of Mycenaean civilization. One should look at Belegiš culture in Srem and Banat as a part of those general, wider populational movements, as well as south of Danube at the Paracin culture in the Morava valley and Medijana culture in the Nišava valley (Tasić 1983: 86-7).

Figure 61: left-Vatin, Verbicioara, Paracin, Source: Kapuran 2009; right-Paracin, Brnjica; Source: Bulatovic and Stankovski 2012

The necropolis at Dobrača (Chapter V.1) is an example of a potential local ‘stable’ evolution of traits or a local ‘mutation’ given that it has urns lined with stone slabs under tumuli – a unique mix in the area.

Burial practices are buttressing the idea of culture and culture area, but that is seldom clearly spelled out. Perhaps because burial practices are such unique personal choices that the living make for the dead, and that ultimately may have been made post-factum. In that sense the burials represent the choices of the living and of the deceased.
These after-the-fact decisions, influenced by anything that takes the shape of debt in the society only then start the story of which they are the end. Many of the inconsistencies that traditional interpretation suffers in the process have not been relevant however, as despite them *culture* made sense inside the specific grammar.

Movement and mobility have been treated valiantly, when the finds were unequivocally pointing to them and when they were coming from the east (Yamnaya/Pit-Grave culture), which meant horse-powered (a good case in point is Tasić’s [1983] synthesis *Yugoslav Danubia from the Indo-European migration to the thrust of Scythians*). Otherwise cultures were painted as territorial and static unless warring, not unlike the small warring feudal estates of Europe. This state of affairs was a regional emulation, a local mirror of the influential German scholarship’s established and more nuanced concept of *kultur* there⁷⁷.

Alternative concepts that account for a mosaic-like quality of influences and traditions have not been used with any consistency. Arthur Bankoff in his study *The End of the Middle Bronze Age in the Banat*⁷⁸ relayed the concept of “co-tradition”, from W.C. Bennett’s work in the Andes, but then even to Bankoff (1974: 182) it seemed out of place in the texture of culture areas that have been the dominant heuristics:

The entire question of “external” relationships of the Banat and its surrounding areas in the Middle Bronze Age would seem to be at least as complex as any heretofore mentioned. The close typological resemblances between the ceramic inventory of the Danube area and that of the Szeremle Group to the northwest on the Hungarian Plain, the resemblances between northern Banat and the Otomani region, or the Zagyvafalva-Piliny group in northeastern Hungary and Slovakia have recently been subject to

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⁷⁷ See eg. Kulturkampf, or in another example, Bevölkerung, which means roughly *population*, the root is *Volk*, or *people*, as well as, *masses*. Whether of national or some other identity it is not clear, and a ‘mixed’ population may well be a denotation. However, German (see Luria, cf Sapir-Whorf’), unlike English, can derive meaning and therefore mental images from productive words like Volk, because of its prefixes and suffixes that modulate the root word.

⁷⁸ unpublished PhD thesis
scrutiny. Thus the northern Banat shows links to the Otomani culture further to the north, as well as to the cultures of the Danube to the south, probably via Karaš. The southern Banat seems to be more influenced by contemporaneous cultures to the west. On a very low level of abstraction, this diversity illustrates the use of the “area co-tradition” concept.

The names of cultures have been recognized as heuristics numerous times, only to be taken up and for granted anew:

Looking to the location of late Wietenberg sites, it is obvious that most of them have a different position than the ones belonging to previous phase (III Chidiosan or C Boroffka). These small-scale movements in the habitation area could be connected to the Noua penetration in Eastern Transylvania. However, the high frequency of Suciu de Sus and/or Cehalut pottery imports also points towards North-Western disturbances, maybe associated with the expansion of the Carpathian Tumulus Culture. It is important to stress the fact that only Suciu de Sus incised pottery is present in most of the Wietenberg IV sites […]. It is not easy to make a clear distinction between the Suciu de Sus and Cehalut pottery often mixed in late Wietenberg complexes from central and South-Western Transylvania. However, a Suciu de Sus biconical pot with incised decoration and protuberances could be identified in the Geoagiu de Sus pit, with parallels both in Suciu de Sus I and Otomani IIIb sites. (Ciugudean 2010: 162; see also the plates)

Childe’s notion of wandering smiths, or some such partial movement (see Chapter VIII), did not quite see the popularity it enjoyed in the Anglophone world, although people read him, and knew him personally (M. Garašanin, and Miloje Vasic before him). The concept was a little too fanciful then, maybe to the same degree that it might be now. It was also tacitly understood that if one can recognize an archaeological culture, one can get archaeological traction. All of this persists to-day, first done by the generation succeeding (Lazić, Stojić) the post-war titans, as seen in the promotion of Gamzigrad group and Brnjica group. After the next two cohorts and more cultures like “local Bell-Beaker culture” (Koledin) in Vojvodina, it is eventually done by my own generation (Filipović 2008), with Brezjak group.
The Balkan geography is indeed fragmented and lends itself to isolation in many areas, this is absolutely apparent to even a casual traveler, but the fragmentation through culture cannot possibly be the full story, and arguably never was. The problem of evidence is still off-putting, though, and makes the reproduction of the old seem instinctive (see Bulatovic 2009). Of course the situation is compounded by the paucity of deeply stratified and undisturbed sites, and even fewer that can secure funds for systematic research. Another reason could be the lack of high resolution dates and the lack of scientific analysis of materials, both of which might change for the better soon.

Figure 62: Cultures. Source: Kiss 2011 (compare Kovacs above; Bona 1975, Bona 1992)

One set of evidence, actually closer to the nature of evidence advanced by Kristiansen and Larsson (2005, see above), that I think can be favorably used to challenge the one-party rule of the concept of culture, comes from the Encrusted pottery style. It is not nearly as persuasive as Harding would ask for, and I am not sure that it would ever catch on yet might appeal to the reader to consider it. If we look at the map that has legible details for both topography and geo-politics, the mosaic of cultures can be thought
of profitably as mosaic of *communications*. Few patterns transpire: rivers March, Danube, Tisza, Sava are navigable. Openness of landscape is conditioned by the forest cover, rivers, swamps, hills, cliffs. Possible routes meet at certain places. In Austria and western Slovakia they converge on Wien and Bratislava, in central Slovakia on Rimavska Sobota and in eastern Slovakia at Košice; in Hungary at Budapest, and in Serbia near Belgrade. At Belegiš near Belgrade, following the course of Sava and Drava come Litzen pots, from the Danube come Encrusted and HGK, and from Tisza – Trzciniec and Otomani.

Historian Howard Zinn (*A People’s History of United States*, 2005) talked about and looked in history for those events and individuals that due to whichever circumstances start defying extant systems of thought because these are sated with inconsistencies. Kristiansen’s work definitely falls into this category, and hopefully the European Union funds that his projects get will continue to trickle. In the following chapter I hope to show that Danubian pottery shapes, imagery, and analogies with the material as far as Denmark, the Aegean, and the Apennines, can be used to complement Kristiansen’s.
VI Encrusted Pottery decoration

Encrusted pottery, a unique style first noted on stratified sites in Slovakia, Hungary, and Romania (Ma’darovce, Pecica, Toszeg, etc.) has had a very long history of research. Its attractiveness as museum objects immensely helped the academic appeal. The anthropomorphic idols related to the style, from Kličevac, Dupljaja and elsewhere, are prized as exhibition pieces, and large museums like the National in Budapest had bought them for their collections from Yugoslavia (e.g. the one from Vinča, Kovacs 1988).

The decoration of the pots is idiosyncratic, white paste like material filling the incised lines to create a nicely contrasted white on dark impression. The paste was made from lime powder and ground bones and perhaps involved not just one specialization (Roberts et al. 2008). Christine Reich’s (2006) exhaustive compilation of the decoration patterns provided the kind of breakdown of ornaments that the meticulous effort of Furumark79 made for Mycenaean pottery (Appendix 3). The similarities continue between the two areas, as we shall see, and Bouzek and others have written much about it. Anthropomorphic idols belonging to the encrusted style have been particularly studied for possible likeness, as well as potential signs for an idea of an ideological koine that may have existed in the wider area of southeastern Europe.

The difference in the approaches is curious, however, even if we allow for historical particularity in the trajectories of two fairly separate traditions in scholarship.

79 It is instructive to compare the Furumark and Reich studies side by side, as that would potentially show how ideas may have been transferred and transformed. On the other hand, as pottery connoisseurs around the world know all too well, decoration and shapes are shared across time and space without the necessary contact. Maybe it is just as instructive to stay away from such impressionistic analogies. Never the less one could imagine that the painted decoration style of the Mediterranean potters through some medium communicated with their Danubian counterparts.
Art-historical methodology of decoration analysis and description is acceptable for Mycenaean pottery (French 1963, 1971), but less so for the prehistoric hinterland. The lack of archaeological evidence to that end basically applies to the identity of the hinterland (Prehistoric archaeology) and not to the Aegean (Classical archaeology). It would appear that impressionistic analogies can be salvaged in the painted pottery of the Mediterranean. To what degree this might imply that potters there operated on an industrial scale, presumably unlike the Danubian potters (Chapter VII), remains to be elucidated by a large targeted study of the latter. Students of Southampton University brought into Kristiansen’s project are working toward that goal. Part of this big project (Creativity and Craft Production in Middle and Late Bronze Age Europe CINBA) also includes the study of craftsmanship as observed on the Belegiš pots from Surčin that ended up in the Archaeological museum in Zagreb, Croatia (before that research gets published Vinski-Gasparini 1973 is still the authority even though she only summarily published the finds for reasons that they were mostly without context).

**VI.1 Paint and incrustation**

Decorations on the Encrusted pottery come in many shapes and patterns. They might be linear, dotted, and can appear well executed or sloppy. They are striking in all renditions compared to other pottery material in Southeast Europe, especially if juxtaposed in a burial context with other, visually less exciting, objects like burnished ware.

The technique of encrustation in the region dates to Eneolithic times, and continues into Early Bronze Age. F. Romer (1876) called the pottery Pannonian, and also
coined the term encrusted pottery, and as Encrusted pottery culture it was first recognized by M. Wosinsky in 1904 (who also argued for the geographical separation of regional styles; see plates from Vucedol, Bosnia, and elsewhere). Childe (1929) adopted Romer’s term.

It is small wonder that many scholars tried to provide chronological schemes and typological tables to unify or fragment all the sub-regions in the Carpathian basin that contain the style (Bandi 1967, Bona 1975, Foltiny 1989, Milleker 1891, Mozsolics 1957, Tasić 1987, etc.; the list is much longer). The history of the term Szeremle group has been particularly interesting, the issue revolving around whether or not it should be regarded as a separate group. This is another reason why it is adopted here, as to the present author, following Reich (2006), it is reasonably neutral. The term Szeremle style thus refers to all but the North-Pannonian Encrusted (Madarovce) sub-regional group (see Chapter VII).

VI.1.a Boats

The pottery motif that is most expressly related to the present study is found on Szeremle vessels. For as long as there has been interest in this pottery there have been discussions of ornaments, on typological and stylistic grounds. To my knowledge there have been no readings of any of the Encrusted motifs as representing boats/ships – sea and river going vessels. In what follows below I would like to show some of these motifs, juxtaposed with images of boats, interpreted as such in Scandinavian contexts.
Figure 63: boat design on a razor. Source: Cinba.net

The detailed study by Fleming Kaul, titled *Ships on Bronzes. A Study in Bronze Age Religion and Iconography*[^80] made this connection possible. Kaul compiled images and data from rock art and metalwork representations of boats. The razor-blades of Late Bronze Age Denmark are particularly interesting here. The resemblance that the Danubian Encrusted pottery style (and Vatin style, see above) shows with the images found on the razor-blades in Denmark could conceivably pass as inconsequential, but that would be missing the point. The ‘doctrine of the similar’ (from W. Benjamin) and ‘relevance theory’ (Sperber and Wilson 1987) are much more relevant here, as we shall see later. The rich pictorial idiom is there to be put in the context, if not immediately archaeological, then artistic.

[^80]: Also, incidentally, reviewed by Harding, but to a much more approving beat than the other one mentioned above.
Figure 64: Above: oft cited scene from Medinet Habu (Egypt); Below Left, right: The Danish razor-blade decoration, types – XI-IX centuries; Middle: Razlog (Bulgaria). Adapted from: Kaul 1998.
Figure 65: Scandinavian razor-blades left, rock-art right; Chronology. Adapted from: Kaul 1998.
Figure 66: drawing – Source: Louis Nebelsick; photos - Dupljaja, Dubovac, Vrsac, At. Source: Vrsac Museum, photos by the author.
VI.2 Other shapes and motifs made by Danubian potters

Birds as pottery shapes are a presence in the Balkans since at least the Vucedol phenomenon (they appear in the Vinca Neolithic realm, too). Otherwise they are a frequent motif in Crete and the Aegean, Cyprus, or as far away as Iran. The bird-prow ships (Vogelbarke) that exhibit the link between birds, horses, and ships are important as the design of ships recognized from Mediet Habu that may be related to the Danubian pottery designs. An art-historical, subtly argued study of Protogeometric and Geometric motifs conducted by J. L. Benson (1970) shows convincingly the trajectory of imagery that revolves around birds and horses in the Aegean. It could be said that Benson’s analysis suffers from having no firm archaeological context, even if the author is clear that the method employed is favoring arts.

He follows and Gombrich’s and (1961: 24) incentive: “[…] art is born of art, not nature […] the time seems ripe to approach the problem of style once more, fortified by this knowledge of force of traditions.” Artists and craftsmen are seen as needing pieces of art as a footing or common ground onto which to create new types or rebel against, or reinscribe with new meaning. In this context we can see not only boats, birds, and horses, which are fairly obvious, but also other communicated ideas and symbols. One of those is the octopus from the Aegean, which itself has many local variants in the Mediterranean.
Figure 67: Rhodes left and middle (LHIIIC1), Orsoya (Romania) right. Source: Louvre, https://en.wikipedia.org/wiki/Helladic_period#/media/File:Stirrup_vase_Rhodes_Louvre_CA2906.jpg, National Museum Bucharest

If we compare the imagery from the Aegean with the Danubian Encrusted decorations we could see the striking resemblance of the motif, that found its way in the north. Other shared pictorial representations can be spotted (see below).

Figure 68: Mycenae XIV-XIII, Mycenae and Rhodes. Source: National Museum Athens; Louvre
Figure 69: MMII Minoan, Mochlos, notice the beak (left, Source: National Archaeological Museum Athens); Dupljaja (right, Source: Vrsac museum); former is (much earlier).

Figure 70: Vajuga (left, Source: National Museum Belgrade); Midea LHIIIb (right, Source: National Archaeological Museum Athens); assumed contemporary
Figure 71: Left: Source: Furumark – Mycenaean (painted pottery); Right: Source: Lower Danube (encrusted pottery). Source: Bailey and Panaiotov (eds.) 1995. Prehistoric Bulgaria. Prehistory Press, same for the following three images.

Figure 72: Lower Danube, Bulgaria and Serbia; 147 through 162 incidentally also resembles Caucasus Bronze Age decoration, and Cretan ship decoration.
Figure 73: Left - Lower Danube; Right - Odzaci above, Source: Karmanski 1969; Rakhmani II, Lianokhladi (Greek Macedonia EBA, after Heurtley 1939)

Figure 74: Left: Dubovac, Middle: Bulgaria unprov, adapted from: Bailey & Panaiotov (eds) 1995, Right: Lengyel mold, Source: Bona 1975.
Figure 75: Left: after Kovacs 1996; Right: above Nagyhangos; below Tolnanemedi. Source: Bona 1975

Figure 76: Source: Furumark 1941, pp. 62, 39
None of these proposed correlations may have been meaningful in antiquity, but one finds a grammar in the pictures that is hard not to juxtapose. While the similar imagery to the above has been duly recognized as communicating somehow with the Aegean (Wosinsky 1904; Garašanin 1983c; Bouzek 1985; Biehl 2008, etc.), the very images have not been reproduced in print with sufficient quality, which is perhaps why these symbolic analogies may not have been exposed earlier and rendered conclusive. Another problem
is that the insecure dating brings a conundrum as to which images may have influenced which and at what time? Do the boats, octopusi, palmettes and birds exist independently, or in some general all-encompassing ideological framework? Are the potters reflecting the stories of travelers to the south or returners to the north? The metal finds from Great Hungarian Plain are better suited for cross dating, so hopefully these pictorial affinities are yet to fit in a narrative. More will be said about this in the chapter on connectivity.
VII Fieldwork: Metals and mining

Ores, metals, prospectors and smiths best capture the aforementioned idea of vectors.

Starting from the initial work that commenced in 1969 and was conducted in yearly campaigns till 1974, cassiterite (SnO₂, tin mineral) and other minerals were noted in the sediments of the rivers Milinska (Lesnica) and Cernica. It was concluded early on that the total ore reserves including different minerals potentially constitute millions of tons in that interest area (Živković 1996). The data below and the summary of campaigns go to show the extent of work done over few decades on and near the site Spasovine at Milinska Reka.

The probes and later mechanized digging emphasized consistently the point that the geological engineers had made in the 1960s - industrial extraction of cassiterite in the south slopes of Mount Cer is worthwhile and desirable. When using simple panning tools and Russian engineers’ methodology they found areas with considerable amount of the tin mineral. Latest reassessment of that potential (Huska et al. 2014), done at a smaller scale, confirmed some of their conclusions through a series of analyzed samples and more sophisticated technological apparatus of the present time.

VII.1 History of mining at Milina (West Serbia)

Archaeological finds from the site Spasovine at Milina that have been recovered so far clearly point to the mining and metallurgical activity in antiquity. These are the stone tools – hammers and implements, a single pin-mould fragment, and several objects of
smelting paraphernalia – crucibles and a possible tuyer fragment. On the river, at the spot where it bends toward the west there used to be an Ancient Roman bridge, and some of the pottery finds recovered during the survey date to that period. Finds of Bronze Age pottery, and the mould – which is not too time-sensitive but by analogies likely from the same period – point to Late Bronze Age and local casting, but no archaeological context has been found. The closest to a context at Spasovine we have been in the season 2012, when a find of local Hugelgraeber-inflected diagnostic sherd coincided with a crucible fragment.

Three archaeological campaigns, a thorough ground survey and very limited targeted excavations (Bankoff et al. 2013) have revealed that the spread-out pottery material, stone tools and pieces of daub all show signs of heavy wear and tear. The concentration of the material is highest in the valley by the road. Written documents from as far back as few decades ago provide clues as to why. The impetus for ore prospection and later assessment was connected with the production of gutters in the factory “Zorka” in Šabac. In 1960s a new type of gutters were conceived which would have an amount of tin in them. The reported and theoretical knowledge of tin from 19th century geological maps led to sending a team of professionals with the goal of researching the area’s potential for tin.

Archaeologists only later learnt about the work that went on for a few decades unnoticed. At the rare academic conference that gathered archaeologists and geologists in Serbia, the former found out about the tin story in west Serbia. The report by one of the geologists involved in the exploration was picked up by Aleksandar Durman.

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81 Živković, pers. comm.
82 Durman, pers. comm..
archaeologist from Zagreb, Croatia who published the locations of tin rich alluvium in Lesnica and Cernica as reported at the meeting in Donji Milanovac, Serbia (Croatia and Serbia were two of the warring parties in the recent Yugoslav civil war). The news spread fairly quickly and the find was described elsewhere (McGeehan-Liritzis & Taylor 1987), but any archaeological project had to wait till after the war years, and our first visit to Spasovine was in 2008. There, near the new village cemetery on the plateau overlooking the Milinska River, a few pottery sherds, flint tools, and pieces of daub were collected. In search of archaeological context we kept coming back in three more campaigns but without success in finding substantial traces, which may well have not ever been there.

Geological work listed below did not continue after 1990s for the reasons of war, as well. Prior to the conflict a Japanese mining company (Živković 1996) sent the Yugoslav state the offer of a joint project which never materialized. Below is the summary of the works that were done on the site, and the illustration of modern disturbance of the potential traces of the older activities.

VII.1.a Modern mining

In 1990 mechanized digging was done in the ore rich alluvium at the rivers Milinska (west of the village Joševa it is known as Lešnica) and Cernica. Some 1000m3 were processed, and 650 tons of sandy, gravelly ore was transported to separation facility in the antimony mine Brasina (probably the biggest such source in Europe, see the papers in Filipovic [ed.] 1996) to the west. The assessment of ore source was done in situ, with a
total of 9 probes in the alluvial sediment and one from a "well" in Lešnica. The last work was done from August 20-31 1990 (civil war started in early 1991).

The assessment\textsuperscript{83} of the metallic raw material were listed as follows: 3,696 tones of cassiterite (SnO2), or 2713 potential tons of tin (Sn). Other minerals’ quantities were anticipated:

Tantal-Niobium (also known as columbite) 960 t
Titanium (Rutil) 10,000 t
Zirconium 7,000 t
Monacite 3,200 t
Garnet 450,000 t.

The complex ore body was found to also contain Wolfram, Bismuth, Rubidium, Caesium, radioactive Uranium and Thorium, Rare earths, and other. From non-metallic materials noted were: Apatite, Quartz, Feldspar, Silimanite, Diste, and others.

The then corporate assessment suggested relatively easy commencement of operations if the finances were to be secured. The argument was made that if the industrial work started then the agricultural soil there would have to be bought out. This disturbance of soil over a larger area would then regenerate the soil after being used for mining. This is a key point for any present assessment of the site Spasovine, for when a mining campaign at Milina had started mining, the soil that was processed in that year was being redeposited in the following campaign.

\textsuperscript{83} It was difficult to track down the source of this information. I first went to the mining company that currently owns the claims ("Zajača"). The second person I spoke to happened to know the man who did the original research, and told me the street that she remembered he lived on. Due to professional discretion she could not otherwise comment on the research documents that her current company owned. Thanks to a couple of his neighbors I found Sreten Živković (born in Šabac, worked and retired in Loznica), who kindly gave me the original reports to look at and publish.
From 1960s through 1990s digging was done reportedly on five different occasions (Zivkovic 1996). Finer level assessment was being done every campaign year.
Geophysical examination was performed as well, including the hydro-geological analysis of the water courses.

The first work included the cross-section in Lešnica (Milinska River on the map in Figure 80) whereby more than 100 cubic meters of ore were panned in situ. For further technological examination 32 shallow "wells" were dug along the axis of the ore sediments. Then, more than 100 cubic meters of material was shipped to Belgrade to be tested in the Institute for Nuclear Materials.

In the 1970s the alluvium of Lesnica was assessed by 50 soundings of total length of 200m (profile= f-165mm). In one campaign there was a specific focus on getting the Tantal Niobium (Ta-Nb) concentrate of market value.

Trying to finalize the list of absolutely important sites for industrial exploration, in 1984 some 20 sounding probes were dug: in the Lesnica alluvium (12) and in Cernica (9), totaling 90m3 of material processed, transported and panned in the facility "Riš" in Arandjelovac, which was in the vicinity of another tin rich area, the mountain Bukulja (Durman 1997).

Different technical reports from all five occasions suggest that the research clearly showed potential for the extraction of market value of cassiterite, tantal-niobite, and somewhat less so for zirconium and garnet – the latter also being found in the Bronze Age pottery collected at the Spasovine and Kamenica sites.
A long-term projected research additionally suggested that certain amount of cassiterite and Ta-Nb could be valuable from other areas in the vicinity: on the slopes of Iverak in Ribarićka Reka (10km away from the original interest area) and Jarebica (5km away); then on the eastern slopes of Cer – in Dobrava (30km), Radovašnica (25km), Bela Reka (22km), and Nećaja (20km).

Further, metallic ore potential is noted in deluvial-proluvial sediment both on the left and the right bank of Milinska and on the right bank of Cernica, where cassiterite content was deemed to exceed contents noted in the alluvial sediment. This work, as it maps out on the present terrain likely disturbed any traces of archaeology that may have been there. In addition there is a reported erosion of the Spasovine slope.
In fragmented, mio-pliocene littoral sediments basal crude clastic (rock made of detritus of other rocks) mineral layers were noted, which further recommended the area for extraction. The reports of the people involved in these operations naturally stressed that the geological examination up to that point in fact included secondary sources of rare metals. Through making of a 1:10,000 geological map\textsuperscript{84} of 150km\textsuperscript{2} surface the work showed that the original source of tin and other rare metals associated with processes of albitization and greisenization (geological formation processes) exists in the dome of Mt Cer granitoid massif, in its numerous beds and veins of aplito-pegmatitic texture.

Examinations of endogenous phenomena of rare metals within the Cer granitoid and its sedimented cover were projected for the near future, which never materialized due to the civil war conditions in the country that invested in the prospection. The new country, Serbia, has opened to privatization that saw multiple claims owned privately that may or may not be worked on, depending on the available money and political ties by local politicians to the state government funds.

\textit{VII.2 New analysis of geological and archaeological samples}

The most recent analysis, done by Huska and Powell (2013), and continued by the author of the present text, Powell and the staff of the Natural History Museum, has corroborated the initial findings of Zivkovic and Durman, and others, and added new information to create a good base for elemental and isotopic analysis of bronzes from the area. The laboratory analysis of the finds from Spasovine, the two pieces of crucibles (Huska et al. \textsuperscript{70} Still unavailable to the present author}
2014), has yielded promising results that will be juxtaposed with the analysis of the samples from fifty bronzes, archaeological finds from different museums in Serbia, collected in 2014.

Figure 81: Placer cassiterite abundance (Source: Huska et al. 2014)
Figure 82: cassiterite occurrence from recent assessment, source: Huska et al. 2014
Figure 83: analyzed crucible fragments from Spasovine (Crucible 1,2). Photos: Natural History Museum, New York

The reasonably complete picture emerged from SEM-EDS analysis of metals in the Spasovine sherd with a coating of copper-rich glass on the outer surface (Crucible 1, based on initial XRF analysis, below). The results are consistent with the interpretation of it as a crucible that was used to smelt bronze.
In the initial probe done by Bruker XRF represented by the graph above the concentrations were calculated from multiple analyses of the same glassy surface on the fragment from Spasovine. Copper is relatively high (up to about 2%). A quantity for Sn was not calculated but the broad peak at 19 keV (kiloelectronvolts) corresponds to Sn (the peak left of the second vertical line from the right).

The selected images above and below and partial analyses are from back-scattered electron images – light intensity is a function of atomic weight so Cu, Sn, or Pb-rich areas will be white whereas low-metal glass appears grey to black in the photos.
Figure 85: Two Electron images of selected samples inside and outside surface; signals Cu-Pb inside, Sn outside. Courtesy: Natural History Museum, NY
Figure 86: Summary of crucible analysis findings; cassiterite abundance per stream. Courtesy: W. Powell
Key findings are:

1. Minor glass is present on the inner surface.
2. The inner surface glass is rich in lead throughout, and also contains minor quantities of copper. Spot analyses of crystals in bubbles within the glass indicate the presence of both copper and tin metal (Figure 86).
3. A relatively thick rind of glass is well-preserved on the outer surface.
4. The outer surface glass contains minor quantities of copper throughout (~1-3wt%).
5. Locally the outer glass contains significant amounts of lead.
6. In lead-rich areas copper is present as clusters of micro-spheres.
7. Tin is present adjacent to copper-rich areas.

The archaeo-metallurgical project in the Jadar valley (Bankoff et al. 2013) was started with the idea to carry out a chaine-operatoir sequence-type analysis that might show ore extracting or metallurgical process. Bronze Age finds would have been specifically valuable as the proximity of few sizable necropoli with bronzes as burial accoutrement were seen as the group possibly engaging in the extraction of ore. Of special interest are the traceable characteristics of the tin in long pins, unique to the west-Serbian Late Bronze Age. Unfortunately for this text, the results of those analyses will only be available next year.

The project so far located several Eneolithic (Begluci), and Paleolithic (Trbosilje) sites, and three Bronze Age sites. Two of them, Kamenica and Spasovine are next to the tin-bearing streams, and the third is the summit of the hill Cikotski Gradac. The archaeological picture of the area is being rapidly enriched as the project progresses. We
are getting a better look into social relations surrounding the metallurgical production in the Bronze Age. A distant expectation is for the bronze samples to address the relationship between this small production areas and any potential markets.

In 2012, my last season in the field, test excavations took place at three locations. 1. At Spasovine, which was tested also the year before, a test pit measuring 4 square meters was exposed that recovered the said diagnostic sherd and the crucible fragment (#1) and added to the known finds from the site. On excavation, no preserved architectural features were encountered. However, the exposed area, chosen also for its concentration of surface material, recovered artifacts that securely date the site to Late Bronze Age and show characteristics related to other known sites from the region, especially Paulje and Bukovac (Madas 1990, Filipović et al. 2008, Bankoff et al. 2013). A thorough pedestrian survey of the site area resulted in further evidence of metal work and production (photo, drawings, Figure 89), ground and chipped stone tools, diagnostic pottery sherds, and evidence of architecture (out of context). No pyrotechnical installations were discovered thus far, but the finds of Belegiš-type (Hugelgraeber-inflected) pottery, crucible fragments, and stone hammers and abraders attest to the importance of the site.

Five more 2m X 1m test pits were done at the perceived expanse of the site. One by the road, two on the flattest part of the plateau, one to the west of the highest concentration, where survey showed traces of same-period material, and one at the summit of the hill, by the two graves marked by the fir tree. The year before a test pit to the east of the highest concentration was opened. The pits were georecorded and yielded
some recognizable material, the one by the road having by far the most finds of all – which was to be expected from the survey and the slope of the terrain in that direction.

The locality known as Spasovine is perched on top of a gently sloping plateau at the bend of the tin-bearing river in the village Miline. As the road curves from Trbosilje toward Loznica, the first visible plateau is Spasovine. It overlooks the valley of Milinska River (a Jadar tributary). Flanked by two mountains, Cer to the north and Iverak to the south, the valley terrain on the site’s side of the Milinska is flat and open toward the west, all the way to Loznica. The lower of the two mountains, Iverak, runs east-west along the 44th parallel, and lies between the valleys of the Milinska to the north and Jadar to the south. Spasovine (a site that shows habitation signs) and Paulje (a tumulus cemetery) are on opposite sides of Iverak, some 15 km apart.

Figure 87: View from the highest point of the site looking southeast, Iverak to the right. Photo by author
Figure 88: Looking north, toward Kozji Hrbat peak and the Milina valley to the right, photo by author
Diagnostic sherd, part of rim of vessel

Abrader, stone tool

Figure 89: Finds from Spasovine, pottery, stone abrader, pin-mould. Photos by author
2. At Kovačevića Pećina (pećina=cave), we excavated a test-pit which showed an interesting stratigraphic sequence with a massive Iron Age layer and a sequence into the Stone Age, but no Bronze Age. The cave is visible from the opposite side of the Kovačevića River, from the hamlet of Kovačevići in the village of Cerova, Krupanj region, some 5 kilometers due west of Likodra, and 10 kilometers south of Cikotski Gradac. To get to the site it is necessary to go through the hamlet’s property and across a hanging bridge. The cave may have been used from the Paleolithic, as evidenced by surface finds from Upper Paleolithic, Neolithic, Eneolithic, Iron Age, Classical period, and Middle Ages. The cave temperature stays at 16 degrees Celsius, which makes it one of the warmer caves in Serbia. The team hopes to gain a better understanding of the paleoclimatic context from the recorded layers (Boger et al. 2013).

3. At Cikotski Gradac, we tested with three 4 sq. meter pits at a location with higher surface concentration of material. This site was known from the team’s field-walking, literature (Vasiljevic and Trbuhovic 1985) and the Museum of Jadar (Loznica), and near the summit showed signs of fortification. Located at the confluence of Cernica and Jadar rivers, Cikotski Gradac towers over the Jadar valley. In the 2012 season, part of the site was investigated at an opportune location for evidence of occupation architecture. A wall-like structure close to the summit was noted, but no architecture was found in situ, although the site showed a sizeable use area at the summit of the hill, with many stone tool artifacts, cores, blanks, and debitage (roughly estimated at half a tonne raw material on the surface alone), as well as Eneolithic, Bronze Age, and Iron Age pottery. On this evidence, it seems that the site was used for extracting chert for stone tools, and the
sampled raw material and pottery was collected with the view of checking for similarities with the material from other sites. In 2013 excavations continued, but so far (including the 2014 campaign) with no trace of architecture in situ and without clear indication of the material earlier than latest Bronze Age (Early Halstatt).

The archives of the Museum of Jadar in Loznica indicate that within a 5 kilometer radius of Cikotski Gradac are Neolithic, Eneolithic, Bronze Age, and Iron Age finds – in Donja Badanja, Draginac, and Stupnica (unpublished surface material). The forementioned tumuli of Paulje are three kilometers to the east along the road.

**VII.3 Tin metallurgy in archaeology**

Bronze metallurgy, that toward the end of Early Helladic becomes widespread, implies a specialization. The aged issue of specialization has been analyzed archaeologically with chequered success and through different models (Childe 1929, 1930, 1958b, Wailes [ed.] 1996, Kienlin 2007, 2010). In Late Bronze Age burial contexts one could potentially recognize specializations in a pedestrian manner, by making assumptions from burial paraphernalia. Cases in western Serbia have been mentioned, and such a case could be for instance the grave 472 in Tápé (just north of Szoreg, at the confluence of Maros and Tisza), with one bronze awl and a deer antler scoop found in the tomb of an adult woman (Trogmayer 1975, see also Foltiny 1941). From the same necropolis is the tomb of a mature man (grave 157) with the funerary inventory that included an awl similar to that found in tomb 472. An antler scoop was found in tomb 512, belonging to a man, while a scythe tip was discovered in the tomb of a juvenile. In grave 462 (adult male) there was a
pair of pincers and a small awl, and similar pincers deposited in tomb 604 (unsexed youth), two in 680 (adult male). Graves at Belegiš and at Belegis-culture site Kaludjerske Livade have similar finds (Vranic 2002: 45, 57; Petrovic 2006: 43).

More concrete would perhaps be the aforementioned grave from Senta, or moulds in a pit from Szoreg C (Kovacs 1994). A compelling find comes from the site Sagu-A1 on the Maros in Romania where thirty moulds were found in 4 pits (Sava and Andreica 2013: 69), as well as the pottery kiln that preserved its last charge. A possible clay extraction pit was right by the kiln. The Sagu scenario would have a potter and a metallurgist in close proximity, or maybe a single individual doing both activities that require pyrotechnology.

Many other finds can be seen as proxies for the sundry of activities pertaining to mining. At Paulje an unpublished find\(^{85}\) of a 1.2 kg lump of lead that came from the Late Bronze Age mound-N potentially testifies to such connections in the area. Clearly a metallurgical tradition can be deduced from such an artifact or by-product, however no contextual information exists (in Bosnia a similar find of a lump of galena in a tumulus was recorded [Covic 1991]).

Kienlin (2007) used the metal-smith’s workshop at Feudvar (Haensel and Medovic 1998) as a methodological exercise to distinguish between a part-time and full-time specialist. This information in turn would point to possible changes in the sphere of social relations, as focused on metallurgy. In his view there is no evidence to suggest that the bronze-smith would have been much more than a partial or seasonal specialist that is confined to his own group. Communication and mobility are for Kienlin assigned with mechanisms for the spread of a new technology like tin-bronze production, but not

\(^{85}\) J. Canic-Tesanovic at the Loznica Muzeum kindly provided access to the lead artifact.
necessarily of metallurgists themselves (see Dietrich 2012: 216, ff. 66 for the gist of the
debate; see also Trigger 1994: 22). Kienlin looks under the microscope at the very
metallurgical process visible on the artifacts in context, but his exacting study also points
to assumptions and expectations that have since Childe accumulated around the issue of
importance of metallurgists in the Ancient Near East and the European hinterland.

The archaeological record south of the Danube in Serbia paints a slightly different
picture. In eastern Serbia (where the Bronze Age archive is much richer than in the west
of the country), in the graves assigned to Paracin culture at the necropolis Trnjane
(Jovanovic and Jankovic 1996), the metalsmith’s identity may have been emphasized –
the bodies contained traces of metallurgical activity, which suggested to the excavators
that perhaps metallurgical kilns were being used for the cremation process (Kapuran and
Miladinovic-Radmilovic 2012: 149-50). Additionally there seems to be a separation
between rituals of the “local” population and that of the metallurgists (ibid: 150).

VII.3.a Prior tin research

In his magisterial study James Muhly (1973: 88) listed Tell Judeideh, Tepe Yahya, Troy
I, and Thermi as early tin-bronze producers. It is not clear whether any of these are older
than the 3rd millennium; the early tin-bronze in Europe starts around 2000 (Pare 2000),
and then as if in a ‘selective sweep’ (Palaisa et al. 2004) replaces other alloys (As, Sb). In
Romania, Serbia, and Slovakia there is some occurrence of tin, but nothing on the scale
of Erzgebirge, which is why the sites there eagerly await confirmation that the ore was

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86 That article starts with the memorable quote by Sherratt that echos Max Weber and Anton Chekhov:
“Prehistory is still a dialogue with the ghost of Childe.”
worked in antiquity, and not only in the Middle Ages. Additionally, the evidence is anecdotal, being conveyed by word of mouth since the firm record does not exist. In theory panning is recognized as the method of obtaining the metal, and as such tin may have been even related to pottery production, for cassiterite (SnO2) has low melting point (~500; tin itself 232), and conceivably potters would recognize it (see Gillis et al. 2003; also the scenario from Sagu, Romania; Sava et al. 2013).

Perhaps more likely gold prospectors would have found tin in the streams as they were panning for gold, given that the technique of finding gold and tin pieces and nuggets seems identical (see Pliny, f 157 on lead and tin). It also helps that relatively close to the confirmed tin locales there are gold find-spots and that could be where some quantities of tin were coming from for the local production.

The trade in tin seems another matter completely, and Muhly deals with that aspect, too. Otherwise the ancient transactions that have been recorded in written documents provide fodder for imagining the non-marine, overland network with inherent perils:

From Ikun-piya and ... to Ennam-Aššur: 50 kutanum-textiles, 25 minas of tin, 1/3 mina 2/3 shekel of silver, 2 donkeys - you sent all of this to me. Thereof, 25 kutanus were sold at 13 mina each, 25 kutanus were sold at 12 mina each. 18 minas of tin were sold at 10 minas each, 4 minas less 15 shekels at 9 minas each. The rest of your tin: 3 minas 15 shekels, they bring to you. 55 minas was the price of your donkeys, 31 minas the price of the silver Dan-Aššur's possession - the total of your copper: 15 talents 24 2/3 minas of washed copper ... We paid 18 minas of good copper as the transport tariff on your copper and your donkeys. One mina per talent was missing during the breaking up. We depoisted 2 1/2 minas of good copper out of your copper and gave it to Ab-šālim for the carriage of Ab-šālim's and Dan-Aššur copper. We did not give them anything for expenses and food. (AKT 6, 348 [I.18] after unpublished translation by M.T. Larson, mentioned in Barjamovic 2011: 254-6; ff. 972-4)

Prospectors, smiths and traders would potentially have interesting cultural roles as a consequence of the range of the movement from very early on, as seen in the document
above from the Assyrian economy in Anatolia. Still, historical episodes that may have thwarted the flow of tin and other valuables could have had wider effects than we are ready to accept. Thus, when Hammurabi in 1758 destroyed Mari, confirmed through documents as the big market for tin in the Mediterranean (Malamat 1971), the resource could not have come from there any more and had to be sought elsewhere. Without accurate time reckoning such shifts cannot be accurately recognized, or will forever float, but it pays to hypothesize about them (Demand 2011 is a good compendium of conjectured fluctuations).

Otherwise, the local production from as late as the Late Bronze Age points to the supply of local markets, maybe on the scale of western Serbia. An interesting aside is that pins – pivotal for the tin issue in the Jadar valley – commonly had higher tin content than other artifacts. This is true for Central Europe (Dolni Peter), and also for Cyprus where Lapithos pins, as well as Alambra pins show a significantly higher content than bronze objects from the same hoard (Stos-Gale and Gale 2010: 398; see also Pernicka et al. 1993).

Tin-bronzes were made not only in ore-rich areas, they would have existed in places situated at opportune locations like Lipari and at Feudvar (Hansel and Medovic 1998), for instance, the convenience of a transport hub may have been chosen for the nucleus of metallurgical activities. This reasoning points to the kind of technological habituation that would have involved more than a specialist, and perhaps would elevate the status of specialists since they would have directly upheld the importance of the place.
We have seen that in Crete in MMI, tin and broad metal demand could have been administered not only from the centralized (palatial) authority, but also at the level of a larger entrepreneurial household (Papadimitriou and Kriga 2008: 14). Lively movement of Cretan craftsmen was demonstrated, too (Preziosi 1983). Broodbank’s (2000) emphasis on sailing as an invention that starts around the same time would indicate that perhaps new markets were easier to access. Further, when Mycenaean city-states dominate the trade and in LHIIIa greatly extend their network to the hinterland, we see the pictorial communication of analogous imagery between the Aegean and the Danube. The Macedonian sites Assyros, Kastanas, Thessaloniki Toumba receive their direct imports from the Argolid (see Haensel 1989, 2002) then, and by LHIIIc this transmission will be loaded with iconic similes to the north, few of which are presented above, and more to be found in Addendum 4.

An engaging Byzantine medieval account (brought up in Tozer 1881: 244-5) shows that Thessaloniki in the XIIc CE was a major fair town. The Greek Timarion, character in the story describes long rows of merchants at the fair grounds outside of the city walls, bringing their goods from the Balkan hinterland (Moesia), Phoenicia and Genoa. Perhaps anything like a fair town would be difficult to pick up archaeologically, however historical accounts substantiate such models. Stoianovich (1960) in his study of the Balkan merchants from High Middle Ages traced out several well trodden routes, some of which would have definitely been candidates to have started long time ago. In particular, the institution of well endowed pottery peddlers that frequent certain routes (still active in some corners of the world), could easily explain many of the fossil distributions, albeit ever without direct evidence as no written documents. This is the
challenge with the aforementioned Harding type (although see the welcome change of tune, Harding 2007b) – that regardless of how plausible the model, in the archaeological lawsuit the burden of proof is with the new model even if the extant model is base and unproductive.
VIII The past and present role of Gordon Childe

Apart from being the eminent ‘historian of prehistory,’ Childe's figure is predictably towering in the study of Bronze Age archaeology, especially that pertaining to the Carpathian arc. It is posited here that his thought can be more respectfully represented through a selection of quotes. His work and stature are utilized here also because the Australian promotes both:

1. the idea of culture and chorology:

Our dumb relics and monuments can never reveal the names of prehistoric chieftans, the dreams of seers or the issues of individual battles. But they can disclose the economic organization of a people and a period... The study and appreciation of a culture from this angle impose fresh obligations upon the archaeologist. He can no longer be content with merely describing and classifying the objects he uncovers, he must ascertain how they were made and whence the materials for their manufacture came. To do that the archaeologist must enlist the co-operation of geologists, botanists and zoologists, of practical farmers, artisans, and engineers as well as ethnographers... (Childe 1935:10)

2. and the idea of movement and the moving agents, like prospectors or wandering smiths.

The metecs in Athens, the wayfaring journeyman of the Middle Ages, and the migrant craft unionist of the nineteenth century are the lineal descendents of the itinerants just described. But so were the Natural Philosophers and the Sophists in Classical Greece, the traveling scholars of medieval Europe, and the natural scientists who from freely exchanged information and ideas by publication, correspondence, and visits regardless of political frontiers. (Childe 1958b, 173)

These two aspects converge over Childe's notions of craft specialization and diffusion, and his method of contrasting Europe and Ancient Near East. His thought will be sketched through further quotes from the point of view of this second role. A recent work by Clive Gamble (2007) will be presented as an antithesis.
VIII.1 Still reading Childe

Both sides of the coin of fame mark the reception of Gordon Childe's thought. The most recognizable name in archaeology, not least because it features in the Indiana Jones film, Childe also gets scrutinized much more than anyone else individually. Childe's work has been incredibly popular during his lifetime, both in academia and among the lay public. During the 1960s and 1970s Childe's texts fell out of trends, as did much of the scholarship of Childe's contemporaries and elders. The swing of the new generations of scholars turned to positive science, than to self-reflection (and now swinging back to subdued positivist paradigms for different reasons, see Chapter X), as caricatured in the Appendix chapter on processual and post-processual divide.

Childe as an influence came back into focus in the 1980s and 1990s (Sheratt 1997[1989], Harris (ed.) 1994, Wailes (ed) 1996, Trigger 2006). Bruce Trigger was a champion of Childe's late work and together with Sherratt the theoretical heir, writing critical texts laced with appreciation for Childe's thought. Andrew Sherratt was the successor in the way he would connect distant geographies, build on the behavioral concepts like skeuomorphy and urban revolution, and emphasize nodes and vertices of communication (like portages or the Brenner Pass, Sherratt 2004, Sherratt 1997).

Sherratt’s seminal idea, the so-called “secondary products revolution,” is an extension of Childe’s own thought:

Under suitable conditions we can learn a great deal about the mode of production as well as the means of production. The role of secondary and primary industry and trade can be estimated from observed facts. The extent of the division of labor and the distribution of the product can be inferred with some confidence. Plausible guesses can be made as to

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87 Although we are yet to see whether someone like Lewis Binford, Jacques Cauvin, Kent Flannery, Ian Hodder, or Colin Renfrew will have come close to achieving the similar attention of a greater audience
the existence of slaves, the status of women, and the inheritance of property. Even the ideological superstructures can be the subject of cautious hypotheses... (Childe 1951:34).

Trigger and Sherratt read Childe through and through, and were gracious in their assessment (Sherratt 1997, Trigger 1994), with clear acknowledgement of their intellectual kinship. Much of other critical reading took Childe's “revolutions” to the task, often not too kindly. His notions of craft specialization and itinerant smiths and prospectors were equally scrutinized as if they were complete models and not heuristics (Wailes [ed] 1996).

It is instructive to see this dynamic as one between generations of archaeologists on the one side and Childe the person, the historian, and the archaeologist, on the other. As perhaps is expected in any relationship so asymmetrical – in a sense that there is an image of a person of certain stature on the one side and a present and engaged audience on the other – the fame of the former teases out divergent impulses in the latter.

It has been commented that the reception of Childe's thought was at times in the shadow of the reception of Childe's politics (although perhaps more so in the UK, US, and USSR than elsewhere) (Trigger 1980, 1984). This was kept in check and somewhat awkwardly corrected in the later, post Cold war critical volumes (eg. Wailes [ed.] 1996), but I feel we have arrived at the moment when Childe's thought need not be presented as separate from his politics. Indeed we would do well to consistently see it in the light of his politics, and my removed impression is that he would have liked it that way.

The theoretical volumes in the latter half of his career, if seen as part of the trajectory of a prolific scholar, are incredibly important as pieces of self-criticism (Childe 1956, 1958a). In retrospect they are actually in agreement with the thrust of the criticism
that was to come three decades after. Childe soberly acknowledged, as early as 1939 (The Orient and Europe paper), the incompleteness of the record he relied on, and the precarious chronological pegs that slowly released their grip with the publication of carbon-dates and the ensuing "Renfrew’s accordion." The two “late style” (cf Said 2004) quotes below reflect that sentiment:

[The Prehistory of European Society] exemplifies better than any work I know how what everyone will accept as history could be extracted from archaeological finds: whether the particular extract be accepted or not, it should help confirm the status of archaeology among historic disciplines. At the same time it illustrates what scientific archaeology ought in my opinion be like.
(Childe 1958:74)

Now I confess that my whole account may prove to be erroneous; my formulae may be inadequate; my interpretations are perhaps ill-founded, my chronological framework—and without such one cannot speak of conjectures—is frankly shaky. Yet I submit the results were worth publishing.
(Childe 1958:78)

The problem for subsequent generations (and the present author) is that the publication of carbon-dates and the interpretation of the new chronological implications by Colin Renfrew (1969, 1971) and others, opened the professed way for wholesale believing in the power of scientific dating (cf. Milojcic 1953, 1957) and science in general. I use the word belief carefully, to signal that in the act of creative destruction "the C14 revolution" judged the culture-historian old guard, and Childe, too harshly. This was not necessarily the intention of e.g. Renfrew; on the contrary, he indeed recognized that Childe could hardly have done differently, given the context of archaeological methodology available (Renfrew 1973). On another occasion Renfrew suggested that Childe was naturally influenced by predecessors, and singled out Childe's once professor
Arthur Evans, whose work at the well stratified Knossos provided guidance for using Vinča, the tell-site on the Danube, as the pivot for Childe's chronological scheme (Renfrew 1994: 128).

Trigger (1990, 1994, 2006) repeatedly called for more attention to be paid to the late essays by Childe because of the style of writing and the conciliatory epistemological inconclusions. Late writings in a career are interesting for that quality of wrestling with own legacy. In his own late essay, Edward Said confesses that:

"[a]n increasing number of us [...] feel that there is something basically unworkable or at least drastically changed about the traditional frameworks in which we study literature. I myself have no doubt, for instance, that an autonomous aesthetic realm exists, yet how it exists in relation to history, politics, social structures, and the like, is really difficult to specify. Questions and doubts about all these other relations have eroded the formerly perdurable national and aesthetic frameworks, limits, and boundaries almost completely. The notion neither of author, nor of work, nor of nation is as dependable as it once was, and for that matter the role of imagination, which used to be a central one, along with that of identity has undergone a Copernican transformation in the common understanding of it."
(Said 2001: 64-65)

Thought about that autonomous aesthetic realm presupposes stable, and ultimately traditional, conceptions of the self, the nation, of identity, and the imagination. Given those as a vantage point, the critic can interpret texts and thereby explore the autonomous aesthetic. Without those, now fractured concepts, that autonomous aesthetic realm is but a phantasm of critical desire, like Benjamin’s moment in history. The so-called post-modern, post-structuralist, criticism has dissolved things into vast networks of objects and processes interacting across many different spatial and temporal scales. Recent archaeology may or may not choose to interact with them (see Harding and Kristiansen above).
VIII.2 Network as interpretation

Marilyn Strathern (1996: 521) argued that network is an interpretation. A concept of some network is an argument about history that flows between parties through time and space. Strathern adds that networks need to be cut somewhere otherwise they might include everything. Clive Gamble (2007: 19-20) uses her notion as a literary tool:

The best way to view an intellectual project as complicated as the Neolithic Revolution is as a network that brings into focus concepts, arguments, data, personalities and contexts for the production and consumption of the past in the present. The network includes myself while writing this book as well as archaeological ancestors, such as Childe, whose ideas I am drawing on. […] Neolithic Revolution acts as a pair of scissors to cut the conceptual network, taking the continuum of archaeological time and snipping it into a big, but manageable, problem. Then our archaeological imagination can get to work. Such cutting is particularly suited to an approach that looks for the origins of elements in the Neolithic Revolution such as villages, weaving, polished axes, pottery, crops and domestic animals. These were the diagnostic elements in Childe’s (1935:7) package, but an even better example came with his later Urban Revolution.

Instead of an answer in absentia, here is Childe on history, similar to the Benjamin quote earlier88 (p. 51), which in advance already upsets Gamble’s thrust:

The order of history is much more subtle than that of any painting, the integration far more complicated than in any living creature. No general formula nor abstract chart will disclose that order fully: that can only be reproduced in the concrete whole of history itself, which no book and no library of books, however vast, could contain. Fortunately some aspects of the historical process exhibit its order more simply than the rest, and Marx pointed out just these aspects are the most decisive[...] Now the most simplest aspect of historical order is [...] the progressive extension of humanity's control over external nature by the invention and discovery of more efficient tools and processes. Marx and Engels were the first to remark that this technological development is the foundation for the whole of history conditioning and limiting all other human activities... (Childe 1947: 69-70)

88 Whose work is also sprinkled with awkward, dogmatic references to Marx and Engels.
Gamble’s exegesis is about the vagaries of the idea of origins in archaeology, and he utilizes Childe’s texts as a sparring partner. His choice of sources is limited, though, and his reading of Childe has an agenda. It is not clear why Childe epitomizes the use of origins, given the complexity of his thought and the longevous output. He updated his synthetic work regularly and added new prefaces, in which he was addressing inconsistencies and that gave his books an incredibly long shelf life.

Methodologically, Childe’s famous 10-point checklist (the *Town Planning Review*, 1950) for recognizing a city is a well argued model, but Gamble sees in it the seed of the trouble that in archaeology and elsewhere leads to the fetishizing of origins.

This chapter does not intend to rescue Childe from Gamble or write a new hagiography, but to show that the (ab)use of the former by the latter belies a deeper problem than Gamble would acquiesce. Here is Childe on simplistic observations and labels:

[...] it is an old fashioned sort of history that is made up entirely of kings and battles to the exclusion of scientific discoveries and social conditions. And so it would be an old fashioned prehistory that regarded it as its sole function to trace migrations and to locate the cradles of peoples. History has recently become much less political— less a record of intrigues, battles and revolutions— and more cultural. That is the true meaning of what is miscalled the materialist conception of history— realistic conception would as Cole says better— it puts in the foreground changes in economic organization and scientific discoveries. And clearly there is scope for a realistic conception of prehistory and ample opportunity for the archaeologist to co-operate with the historian on the cultural and economic side... (Childe 1935:9-10)

To attempt to communicate with the earlier quote by Ruth Tringham (p. 83), I think that alongside Childe’s progressive disillusionment with the nature of the data, it is the relationship between his texts and the wider collegial archaeological public that has precluded sanguine readings of Childe’s thought. The ideological references to Marx and
communist social organization, and his in-between genre make him an easy target, however dense the thought might be, like here in his description of a particular method:

[...] account is in fact termed 'dialectical materialism'. It is deterministic in as much as it assumes that the historical process is not a mere succession of inexplicable or miraculous happenings, but that all the constituent events are interrelated and form an intelligible pattern. It is the business of historical science to discover the pattern, to find out by observation of what has been done or happened, the general principles relating to events. For Marxists regard history as science. Marxist history is materialistic in that it takes material, biological fact as the first clue to discovering the general pattern underlying an apparent chaos of superficially unrelated events. It starts from the obvious truth men cannot live without eating. So a society cannot exist unless its members can secure food to keep alive. (Childe 1979[1949])

In a broad sweep, Gamble then singled out Childe as a carrier of the paradigm that needs to be replaced: “Archaeologists have generally adopted an instrumental approach because, like Gordon Childe, they follow Marx, changing hats as it suits them to be either a historical determinist or a dialectical materialist” (Gamble 2007: 163). For Gamble, the starting point is the way Childe epitomized the concept of “revolution” in archaeology. Given the context it definitely has a “communist” ring to it, but by Childe’s own disclosure it may have also been a good public relations move, to attract readers. Gamble’s course is to discuss how the rooted idea of revolutions in the past has influenced the archaeological notion of change:

The context [Childe] set is rarely acknowledged beyond his interests in the Neolithic and Urban Revolutions and the distinctive contrasts between Europe and the Orient. Those who have followed have concerned themselves more with the transfer of elements, most notably livestock and crops, the regional variations on village and urban settlement plans and the local development of metallurgy and other craft skills. These are changes in the sense of novelties that appear for the first time but they are not changes in that bigger political sense which should be commanding our attention. The archaeology of change personified by Childe is therefore the subject of international relations. (Gamble 2007: 25)
Gamble’s judicious remark above summarizes neatly the most general patterns of Bronze Age archaeology: they are still by default bolstered by the international relations. This is true for the Ancient Near East and for Europe, though the latter did not produce recorded royal lines. *Culture* and *culture circles* supply the customary framework where prehistoric continental archaeology as a whole is effectively reduced to a semblance of international relations that exist elsewhere in the Mediterranean. This is especially true for the tell-sites in Pannonia that function as islands in the sea of swamps, flooding rivers, grassland, and woods (Gogaltan 2004, 2010), just like their Mesopotamian counterparts do in their environment.

The idea of a static archaeological culture is seen by Gamble as misleading, although for some reason he recognized Childe as the vector of its appeal. Several substantial points are made in the following quote:

Our continuing reluctance to discuss what we understand by change means we have already fallen into the presentist trap. We have produced imaginative archaeologies that only make sense when related to the structures regulating the interaction between different cultural worlds. The way to avoid such pitfalls is to understand better the cultural context in which this archaeological knowledge has been produced. The paradox of change in the past is that nothing changes unless it has significance for the present. Gamble (2007: 26)

The last sentence almost sounds like a tautology, and conceivably can be applied to all of archaeology’s notions of change. But it is not clear why Gamble would shelve the role of memory and the value of the past for the present. Kierkegaard would thus alternatively claim that "It is not worth while remembering that past which cannot become a present" (quoted in George Steiner 1987: 36). The difference between Gamble and Kierkegaard is that the former is angry (or maybe needs an easy topic for a book that is due for tenure or
a similar milestone). In the latter reading there is no paradox, but the problem that does ring true is the legacy effect of culture-history and its chorology. Academic departments, museums, institutes, collectors, looters all are schooled in the same language of the territory and essential characteristics that apply to it.

**VIII.3 Childe’s network**

The quoted Gamble’s work, titled *Origins and Revolutions*, is well argued and emphasizes the perceived issue of separation of mind and body through certain points and figures in the history of archaeology, and through the language of archaeological writing. I originally picked it up for its examination of change in reference to ancient potters and their language, which informs the previous chapter. There it was suggested that the idea of potters’ language was manifested by the use of symbolic imagery that had a distant source (the Danube and Greece). Gamble used David Wengrow’s study (*Changing face of clay*, 1998) of pottery from the period of first cities in Mesopotamia to explode the symbolism and dispel the origin myth. Potters’ clay is said not just to be obviously functional, but it creates pots that were potters’ stories, memory, and imagination:

In Wengrow’s opinion, the advent of pottery should not be used to mark a Neolithic Revolution. Instead it illuminates a continuous story through its changing applications, and these in turn provide access to the interplay between ‘symbol and practice, meaning and means.’ (Gamble 2007: 198)

Later Gamble (2007: 206) summed up his discontent: "So, did agriculture change the world? The answer, I will argue, is no in the expected sense of villages, crops and gods
and goddesses, but yes in the novel sense of a changed primary metaphor for constructing identity: growing the body." The evidence and the metaphor for the growth is thus found in archaeology: “Growing the body can be demonstrated by the sheer consumption of the material world and where eventually rules had to be followed and as a result we became engineers as well as bricoleurs.” (Gamble 2007: 274)

He defined the archaeological issue of change in a fresh and for the present discussion useful way:

So, what I now realize is that my starting definition of change as ‘organization based on novel social premises’ needs to be re-phrased as ‘experience articulated through novel material metaphors’. It is the importance of material metaphors, as simple as a stone tool, rather than just the forms of social relationship, that have to be appreciated as the basis of a relational identity. (Gamble 2007: 278)

Perhaps it can be gleaned from the quotations that the book is a programmatic, polemical work that introduces a plethora of thoughts otherwise familiar from structuralist and post-structuralist texts, like bricolage, primary metaphor, and relational identity (in the works of Goffman, Levi-Strauss, Derrida89). It argues against the concepts of origins and revolutions as detrimental to archaeological research potential. The inclusion of Childe as the archetype of diffusionist theories and narratives of beginning appears too opportunistic given the passage of time. It takes away from otherwise careful dissection of prior relevant literature, and shows why Childe can be dismissed by agitated readers. The Australian was not around when the “New Archaeology” hailed the methodological rigor and archaeological context, yet he is judged by the new standards.

89 A key influence on these ideas is Nietzsche. In Gay Science the philosopher argued that the identity, or Soul in his parlance, is a fluctuating network of different drives that is changing over time. Gamble’s relational identity therefore is close to Nietzsche’s thought, too. The keyword is Gegengeschichte or counter-history.
When discussing technology Gamble is intellectually close to the aforementioned Debray and Kittler, and the gist of his argument could be abstracted to the abused McLuhan’s credo ‘medium is the message:’

In my view any account of the prehistory of technology depends for its form on an understanding of human identity, which is why I refer to a social technology, that ‘universality of the process of simultaneous embodiment and production of meaning by a technique (Lemonnier 1993: 4)’. Techniques, as anthropologist Pierre Lemonnier points out, are not something to which meaning is added. Instead they involve from the start the incorporation of wider symbolic considerations precisely because technologies are always social constructs. (Gamble 2007: 163)

The nuisance for Gamble and us other prehistoric archaeologists remains in that technology is the medium is the message⁹⁰. Technology is like a network of interfaces between the people and their culture, and the things. It is impossible, however, to separate the study of technology from the paradigm that it belongs to and is actively shaping. Technology as information is perhaps an intuitive resolution, but since intrinsically without evidence it does not have a conjectural grip. Malafouris (2004) adds that technology refuses to be read even as a narrative inside the hermeneutic approaches of the more recent archaeological theory.

Parochial geographical foci of research and insulated methodological agendas focusing on one component of a “system” or a type of material bar the more challenging task of uniting the study of technology with the study of evolution. Tools and paraphernalia had been used and revered, and like language they display the texture of evolution, industrial design, ruptures as well as continuity, genealogies and leaps, they mutate or exhibit equifinality. Parzinger’s (2002: 48) insight is therefore encouraging:

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⁹⁰ This is a shoddy retort to David Clarke’s ‘archaeology is archaeology is archaeology.’
Für die weitere Zukunft unseres Faches wird es entscheidend sein, wieder vorbehaltlos aufeinander zuzugehen und die Pluralität der Denkansätze in Europa nicht als Konsequenz wild wuchernder Fehlentwicklungen, sondern als Chance zu sehen. Diese Einsicht mag eine Binsenweisheit sein, blieb bislang aber trotzdem ohne konkrete Folgen.

As declared previously in this text, and without getting into the specifics of anything we could call structuralism, archetypes and primary metaphors are used liberally to show the drama of diverging points of view in archaeology and history in general. Childe has been celebrated already, but the main reason why the whole chapter should be dedicated solely to him is because his later scholarship throws in the water the musty concept of culture. The itinerant, as an agent, is seen as transient and mobile type. The way the perceived cultures (at least judging by the pottery) are then open to be affected by such an agent speaks directly against petrified archaeological cultures; and petrified assemblages (see also Deleuze and Guattari 2007, DeLanda 2006)

Of course, for Childe and others (see Roberts and Vander Linden [eds.] 2011), culture is a legitimate part of the toolkit, "not as a dead group of fossils or curios but as living functioning organisms." The theoretical aspect of it that consistently works against its interpretative potential is the inherent territoriality of the charged term. Cultures are simply seen as territories, so much so that archaeologists specialize in cultures. Indeed, cultures exist only on maps and by necessity are delimited by carefully studied boundaries (see Bona 1992, Kovacs 1988, Tasić 1983 above). The casual and systematic peregrinations, the movements at all scales and body-counts, for which by now there are plenty of evidence, can be surmised for Hatvan, Otomani, Vatin, Belegiš, Encrusted

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91 Rough translation: “For the future of our profession, it will be crucial to meet each other again without reservation and not to see the plurality of approaches in Europe as a consequence of rampant failures, but as an opportunity. This insight may be a truism, but so far remains without concrete effect.”
pottery, … etc. As soon as we can consider accepting a simple assumption of a traveling craftsman or a prospector, the culture concept has lost its footing.

For Childe (see also Rebay-Salisbury 2011) there are other assumptions that represent nuances in conceptualizing the basic idea of culture, which is why it persists as a functioning nomenclature:

Every human community or people adjusts its way of living and thinking to its present environment and its own traditions—ancestral adjustments to often very different environments, as when the English ruling class takes its top hats and frock coats to the semitropical country like Queensland. The sum total of these adjustments—houses, clothes, ways of getting food and myths to account for droughts or diseases—constitutes what archaeologists and anthropologists term culture... (Childe 1929)

One of those assumptions is that culture locks into the idea of history (or time):

[…] the terms Paleolithic, Neolithic, etc. should be regarded as indicative of economic stages. In adapting as one method of classification by economic stages, archaeology would not be abandoning that historical character which I claimed the concept of culture gave it. We shall continue to distinguish cultures and to assign each its proper place in a framework of absolute chronology. Only then shall we consider the economic stage to which a culture should be assigned on the 'functional-economic' classification. The latter step constitutes a comparison between the material equipment, economic organization and scientific knowledge of one prehistoric people with those of others...(Childe 1935: 9).

Although, in a practice, it is the space, the province, that defines culture. In turn the occupied space gets defined as people (assuming ethnicity, race…) that will be seen as moving if the pots move. This is an epistemological hole without repair and here again presented as the biggest problem of the Bronze Age archaeology, one which cannot be escaped as long as the culture maps onto the territory. Somehow such culture concept remained unscathed by the post-modern blowing up of the fluid category of identity that Gamble is talking about. The body of work labeled as hermeneutic and claimed by post-processualism, that uses tools like Derrida’s deconstruction, came and went without visible mark because it cannot get funded.
In cultural anthropology, on the other hand, the deconstructive apparatus has been put to work. Thus Tuhiwai Smith (2006: 2) added to Edward Said’s critique of Western academia as constructing ‘Other’ for the sake of its own identity, by arguing for “research as a significant site of struggle between the interests and ways of knowing of the West and the interests and ways of resisting of the Other”. In such a view the research and scientific paradigms are deemed to create and reproduce the hidden code of colonialism and similar lop-sided power dynamics.

For archaeologists the itinerant craftsmen or travelers move around the landscape indiscriminately and the Mediterranean record shows this unequivocally. They can be employed and can employ themselves, can settle down, spawn new itinerants, ingratiate themselves, become local rulers, or start a new settlement. Their potential influence on the locale is immeasurable for all the reasons that are found in the Odyssey, Iliad, or other peripatetic narratives. History is replete with examples of outsider success stories like the impostor-king Lažni Car Šćepan Mali (? – 1773 CE, king of Montenegro), Jovan Zapolja (1487-1540 CE, king of Hungary), Hattusili I (1586-1556, king of Hatti), or some unnamed Mycenaean ruler. Why then is movement so feared?

**VIII.3.a Diffusion, migration, and other peregrinations**

Childe developed his ideas over the span of his career, and early on the diffusionism is rampant:

In our period it is not possible to identify a single vital contribution to material culture originating in Europe outside the Aegean area. And, if it be argued that this poverty in
material culture was counterbalanced by an inherent spiritual superiority, we can point to the cannibal feasts of the Knoviz peoples and the human sacrifices depicted on the Kivik tombstone. Certainly bronze age burials suggest a monogamous family and a high status for women. But, after all, few Orientals could actually afford a harem, and the queens of Egypt were buried with sufficient pomp. It would be silly to say that Scandinavian decorative art was superior to Babylonian or Minoan. And no one in their senses will compare the Swedish rock carvings with even poor Egyptian base relief of the Trondholm horse with a Summerian bull of 3000 B.C. (Childe 1930:238-239)

Gamble would have been right to condemn such simplistic views, but Childe changed with the times and with the available evidence. His death came at the time when archaeology was in the process of transforming itself into a more veritable scientific exercise. Carbon-dates and particularistic model-building and Willey’s (1953) settlement pattern analysis did not quite eclipse him. Therefore, Childe could be more productively evaluated as the last exponent of the culture-history paradigm and its language, while it was still meaningful. Later scholarship unfortunately judged against all of the paradigm indiscriminately. The creative destruction performed by the New Archaeology made for harsh readings of their elders’ texts.

Childe and his generation read their predecessors with more acknowledgment, perhaps also for reasons of more respectful deference that came with the times. This is represented in Childe’s mentions of Kossina, from early and late in his career:

[… ] unmistakably the most commanding figure among German prehistorians and has exercised a more profound influence on archaeological research, at least east of the Rhine, than any individual since Montelius. Owing to the polemic style of his writings and certain nationalistic idiosyncracies in his speculation, his true greatness is perhaps not fully appreciated in this country. Yet it is much to have raised the study of local prehistoric remains to the status of an officially recognized school, both of experts and laymen, devoted to its advancement. (Childe 1927: 55)

Like Gustav Kossinna I came to prehistory from comparative philology; I began the study of European archaeology in the hope of finding the cradle of the Indo-Europeans

92 Particularly helpful for this connection has been Ulrich Veit’s text from 1984.
and of identifying their primitive culture... This search – naturally fruitless – was the theme of my B.Litt. thesis at Oxford. (Childe 1958:73)

In the second quote above, the language link is emphasized, and in turn the whole subsequently criticized package that implies a unity of culture, race, and geography. It seems to have been the time of an overall positive reception of predecessors, perhaps because there were not that many topical books published to begin with, and those around were read thoroughly. Childe was also appraising diffusionists Elliot Smith, Perry, Peake and Fleure with appreciation, and was reading them contextually. Gamble was not willing to do the same for Childe, but I think that is the sign of our times in which much more information is around and much is then filtered out. This promotes the practice of curated references that get used in the present for different agendas. The information that is filtered out is then difficult to reintegrate as it suffers from legacy effects of being lumped together with the paradigm. Childe offered a way out of the vicious circle: “Now if history be not following a prescribed route but is making its path as it proceeds, the search for a terminus is naturally vain. But a knowledge of the course already traversed is a useful guide to the probable direction of the next stage of the way.” (Childe 1947: 68; emphasis mine)

It is the same advise that could be heeded as related to the reception of German scholarship described in Chapter II. Prior scholarship just is not tagged for our, digital age, but once tagged its potential is vast.\footnote{By now well known for its never-ready product, the Information Technology project Xanadu was built on the promise of digital tagging and source-pointing of \textit{everything}; so the blueprint exists. Also, Alyson Wylie (Rathje et al. 2012) mentions that such a project that utilizes all of extant scholarship in the way promoted here is secured for the American Hopewell studies. Hopewell is also interesting as a parallel to the Danube Bronze Age scholarship, as it is centered on the river - Mississippi.}
Beyond producing the seminal Danube study and other contributions to the general European prehistory, Childe was working on local issues that made the scaffolding for his syntheses. He spotted likenesses in decoration and shape and new the game of stylistic relating well. He spotted similarities between the Knoviz and later Belegiš, as well as between Vatin and Periam, or Vucedol and Mondsee (Switzerland). For the discussion of the Bronze Age archaeology in Serbia and the role of Vatin and Belegiš in it Childe suggested the sequence that is still in tune with the finds. He based the scheme on his understanding of Pecica, Periam, and Toszeg stratigraphy, but stressed that there is no site that carries the sequence of Vatin and Belegiš, and therefore his understanding may be off before “another Periam is found in Serbia” (Childe 1928: 53, see Chapter IV). Indeed, this is the reason why Vatin, and Belegiš, are interesting for the present study.

On a larger scale his views on movement in prehistory do not limit themselves to diffusionism. Especially toward the end of his career the significance of travelers, prospectors, and smiths became the mainstay of his interpretations. Upon seeing the film *First contact* (R. Anderson and B. Connolly, 1982), I would surmise that the potent idea of a traveling prospector may be commonplace for an Australian. Three brothers Leahy are presented in the film that includes the old footage from the brothers’ prospecting trips in 1930s Papua New Guinea. They go from village to village and spread invariably both the technology and anxiety. They were looking for gold, but the cultural items that they brought with them and then left behind weaves a stunning narrative.

The footage includes episodes with an airplane, a gramophone and a plastic doll as they are first seen by the natives. The fear of the gun and of the authority of brothers is
captured well, as well as the cultural appropriation of metal goods, like making of a tin-can into an elaborate head-gear. The 1980s testimony of the natives that saw Leahys in the 1930s betrays also the high esteem that the brothers were seen in and continued to be seen. In fact the eldest, Michael, who was the leader of the pack, enjoyed universal, god-like respect. The women in the village respected him, too, but for different reasons. He was not a god to them, but a man, and they knew it because they bore his children. One of those kids is the subject of the sequal to the First Contact.

![Figure 90: Natives & gramophone; introduced headgear; stills from the film. Source: R. Anderson and B. Connolly, 1982](image)

Nowhere in the archaeological literature (see Wailes [ed] 1996) is the prospector’s role so close to what Childe was describing. Without the Middle Range Theory, like the movie First Contact – the paradigmatic prospector is purely theoretical, but having vicariously seen the pace and surface covered by the Leahys, this author came to believe that the concept of the traveling agent is essential (see the opening essay and further in Clifford94 2002). The prospector, a confident expert in the foreign land, can have great power. The

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94 Clifford maintains that movement is the constant, stability is ephemeral, cf Deleuze and Guatari 2007; and that certainly rings through for the present ‘nomadic’ time.
upshots of this minor switch in the cognitive apparatus will be explored in the next chapter.

Figure 91: Adapted from: Sherratt 1997. Proposed networks of influence; Argive plain left, Carpathians right.
IX (New/Digital) Connectivity

The representations and implied connections above are not empirically grounded, and thus far have existed merely in subjective and heterogeneous temporalities. The goal of the present chapter is to tie the discontinuities together through a proposal for a slightly different approach that would stress the undivided, unbroken scholarship, and the visual dimension.

As a guideline I shall advocate a pedestrian understanding of connectivity along the lines of Tobler’s (1970) law that laconically stated: "Everything is related to everything else, but near things are more related than distant things." Tobler’s law is prescient for the proximity in cyber space, too – discances between digital tags work as if in physical space (vectors!). The only addition to the geographical reckoning of space would be that things near in time are more related than things distant in time. The supplement owes to the thought that predates the Anglophone anthropological interest in things as agents, and it comes from a Swedish geographer who quipped that “[t]he importance of the social world is perhaps reasonably well understood. But to my knowledge, our ‘communications’ with things and what things mean as agents in social situations are rarely examined” (Hägerstrand 1984: 10). The intellectual kinship of Hägerstrand and Marcel Mauss’s (2000[1924]) now ancient treatment of the gift and material possessions is obvious, but not direct. Both titans produced a body of work that scales so well that it could be said it is not theoretical, like for instance the work of the Annales school (see papers in Knapp 1992). It was the Swede who originally drew me to anything like Geographical Information Systems (Hagerstrand 1967, 1976, 1984), and an
analysis that treats space and time as equally important (his ‘time-geography’). His late work on ecology (2001) and the training I received at Hunter College, especially on the archaeology of delicate ecosystems, shaped my thinking about the environment.

I have used up much text to argue polemically against the grain of culture in the archaeological study of the Bronze Age. While, following Roberts & Van der Linden ([eds.] 2011), I agree that it is a useful concept we would do well to preserve and use to collective advantage, it would only be responsible to conclude at this juncture that the dear concept is too adulterated by past and current identities, fears, and insecurities. Cultures seem to have a quality of becoming someone’s over time. When that happens, and it always does, the identity (possessions, stories, fears) of that someone or a group stamps itself on the culture as an artifact. The game is only human and very old, and Herodotus can be aptly quoted to describe it, otherwise in anthropology we call it ethnocentrism. The historian (note his ethnocentrism, too) was trying to explain the reasons for the Persian ruler Cambyses’s hubris upon his conquest of Egypt:

If anyone, no matter who, were given the opportunity of choosing from amongst all the nations in the world the set of beliefs which he thought best, he would inevitably — after careful considerations of their relative merits — choose that of his own country. Everyone without exception believes his own native customs, and the religion he was brought up in, to be the best; and that being so, it is unlikely that anyone but a madman would mock at [the sacred tradition]. (Herodotus III/38)

In Bronze Age archaeology described thus far scientific method of consistent rigor precludes overly descriptive narratives, which is why a well funded archaeological project from a well to do country might not fall back onto culture history easily (see also Shennan 1978, cf. Rebay-Salisbury 2011). Elsewhere culture history provides a scientific
pretense that keeps practitioners honest by participating in the same value system and
upholding each other’s work. I understand that saying so would get me dangerously close
to echoing the ineffective dictum: ‘that which is not measurable is not science,’ or my
personal favorite: “All science is either physics or stamp collecting” (quoted by Birks
[1962] in Rutherford at Manchester). For the sake of the present argument I would only
add that the culture history group, for good or bad, values and respect its predecessors
more due to inherent conservatism.

Earlier I have made a somewhat arbitrary separation between Anglophone and
other scholars to make few cheap points. I shall continue to do so. The increasingly more
rigorous and conscientious methodology shapes the way we do archaeology, and, as
Alyson Wylie (2013) suggested, one who of necessity seeks new avenues of
interpretation must not degrade prior efforts, but find a way to include it in the attempt to
come up with more meaningful reading. In that regard, taking a cue from another
geographer, Don Mitchell (1995), the following few pages will hopefully answer the
challenge of how to heuristically switch away from culture as such.

The easy way, argued here, is to defer to terrain and connectivity, without falling
back to the safety of the territory under control. It has already been done around
numerous research questions that use environment/climate as their paradigm. While such
concerns are absolutely necessary and desirable, for this study of Bronze Age it would be
a little too uncomplicated and conditioned by a given scale of research.

The body of work that goes back to whole careers of A. Sherratt, Mellaart,
Mellink, D. Clarke, Wooley, Childe, Evans, Kossinna, Montelius, Schuchardt,
Schliemann, and further, has had such an amazing run that any work not based in hard
science has to qualify itself vis-à-vis their efforts, be that synthetic or particularist inquiry, bashing or respectful.

Figure 92: Comparative climate in time (Source: G. Wiesenber)

I have so far lionized Childe as an archetype of erudition willing to sacrifice the respect of his peers in order to promote the ‘right’ values. The other reason is that for me Childe represents an opening for the confrontation with ubiquity of culture as the conductor of rhythms of archaeological assemblages. I am of a generation that has grown up using computers for every imaginable archive and research question, and I have come to take computing for granted. The internet – the network – and its mapping capacity, is its forceful extension (‘everything is connected’). Seeing an equivalent

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95 A compelling argument was made by Sherratt (1989: 181) that Childe was closer to the recent carbon-dating, but defaulted to the old and secure traditional dating due to the many already established links in scholarship that made referring possible and collegial.

96 Gavin Lucas (Critical approaches to fieldwork, 2001) further dissected the concept of assemblage.
dependence on an entangled network that may have existed in the past is therefore the
biggest interpretive bias that I am willing to be aware of. Yet it feels awkward not to see
the links – that supposedly present themselves across space and time. For this reason I
find the concept of culture problematical97: it inevitably appears too static, too inflexible
to compulsory interpretations of change, or any rendition of consistent Heraclitean logic
which snubs the world that does not consider possibilities as they may have existed in the
foreign land of antiquity.

Childe was not the most consistent in his method or interpretations, and arguably
one would need to accept the burden of fundamentalism/nihilism to truly do so. Yet, he
was loyal to the idea of possibilities, variety, mutation, and a notion akin to Kant’s
categorical imperative to regard humanity as a goal, not as means. In that sense Andrew
Sherratt carried the same optimistic torch, and suffered similar criticism as the Australian
(Shennan’s Obituary). A telling account of this is Sherratt’s own commentary on Stuart
Piggott’s reception of the ‘Secondary Products Revolution’ (Sherratt 1994: 156). It was
Sherratt’s texts that prodded me in the direction of looking at broadest questions,
however difficult those might be, because he communicated so well with the inimitable
Childe.

In retrospect, the chapters on Childe and geo-politics in the present text may well
have been dialogues with Sherratt’s opinions. They can be fairly summarized with his
lucid statement that Childe “stands halfway between the heroic age of later nineteen
century prehistory and the autonomous professionalism of the present–day discipline” (A.
Sherratt 1994: 63–4). In any case, from my vantage point the erudition and output of
those two seems abiding. The way I hope to build on their exhaustive grasp of European

97 The excuse that it is a convenient heuristic is fine, but no longer tenable, as discussed earlier.
prehistory is to propose to move just a little farther, and at least temporarily forgo the
culture trope in order to gain in narrative coherence.

Assuming that the epistemology employed thus far holds its own, and that the text
appears wholesome enough so it can be sewed up in the last chapter, only a few more
explanations are in order.

**IX.1 Ecological paradigm**

Landscape ecology in its nature-management efforts uses the term connectivity to point
both to the physical properties of the environment (structural connectivity), and to
species’ perception of a given environment (functional connectivity) (Tischendorf and
Fahrig 2000, Belisle 2005, Leitao et al. 2006: 5-12). Similarly, the context of individual
sites, cultural development of landscape and technology, differential use of resources,
their fading in and out of production and consumption, and movement – are all included
as parts of the analysis of connectivity that this outline insinuates. Knowledge about the
archaeology of sites within the landscape is therefore applied to the model for both
quantitative and qualitative reasoning (see Lock and Harris 2006: 52).

Kevin McGarigal and Barbara Marks (1995) convey that landscape metrics
measure the geometric properties of landscape elements and their relative positions and
distributions (composition and configuration). For ecology and ecologists the landscape
structure has a close relationship with biodiversity, and such a view sits comfortably in
the minutiae of the evolution paradigm. The great Ernst Haeckel introduced the term
ecology in *Morphologie der Organismen*, 1866) when it was supposed to mean

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knowledge of the household, as opposed to economy which is management of the household.

Ecology is thus concerned with the interactions between organisms and their environment and how those interactions determine the distribution of both plants and animals. It focuses on the study of ecosystems and on topological relationships between different components of ecosystems, such as climate, water, soil, bedrock, flora, fauna. ‘Landscape ecology’ supplies theory and evidence that enables scientists, planners, and policy makers to understand and compare different spatial configurations of land cover types (Leitao et al. 2006).

Drawn from ecology, landscape connectivity denotes a scale-dependent threshold phenomenon – a spatial continuity of a habitat across a landscape (Turner et al. 2001: 232-245. Habitats are either connected or disconnected, and can change between the two states depending on the conditions. Habitat connectivity is measured through landscape metrics that have been developed over the last two decades in ecological and planning scholarship. Applied here in the context of archaeological sites, landscape facilitates or impedes transmission among pieces of land (known as “patches” in landscape ecology).

Vertical relationships are topological, and horizontal are chorological. Crucially, human activities are considered part of the ecosystem, not as separate component, while landscape – not humans – is the principal unit of study. This is where my study departs from strictly ecological endeavor; human activities are certainly our focus, however the spatial and temporal configurations of those activities are too laden with theory and

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98 As mentioned earlier, Topology in mathematics is concerned with the properties of space that are preserved under different conditions including stretching and bending, but not tearing or gluing (think Mobius strip or Euler’s ‘Seven bridges of Konigsberg’). This includes properties like connectedness, continuity, convergence, and boundary.
history when we take culture/kultur as the basis of chorology. Landscape is treated here as geographic surface units, focusing on natural components including water, hills, fields, and forests, and human activities are mapped onto it to assume center stage.

Initially for this text I tried using McGarigal and Marks’s excellent program *Fragstats* to come up with a set of suitable landscape metrics. It does indeed work well on the neutral background of a mute environment that it was designed for (forestry). However, I have not been successful in applying it to archaeological sites due to the issues of spotty record and unpredictability of human decisions. I did have moderate success utilizing the engine of the game Railroad Tycoon 3 (Figure 93 below), which can be rigged to recognize slope, aspect, boundary, and other features of European landscape, but short of sequencing screenshots cannot be made into individual images. Nevertheless, the notes and data from that exercise found their way into the current text.

Figure 93: Gradient from the game engine; lines can be drawn anywhere on the digital elevation model map, to simulate route; Szeged-Timisoara grade is 0 (null) in the shortest path. Water bodies are underrepresented. Source: *Railroad Tycoon 3*, Gathering of Developers.
IX.1.a Ecology as history

To follow Childe and Sherratt means to be resolved to write history, and in that the present text tries to heed to Pinsky (1989: 91) who advised that:

*a critical historiography must be grounded in the details of past history in as full a context as possible, archaeologists can and should investigate that history through their own contemporary historical lenses guided by their own theoretical commitments and questions. Writing history is neither a simple procedure of suspending judgment about the past, nor of imposing those theoretical commitments in such a way that they prevent an apprehension of the past. Rather, it is a continuous dialogue between past and present, and present and future.

Like in the essay *Storyteller* by W. Benjamin (and developed above in the introduction), death starts the dialogue. The Late Bronze Age collapse provided the end of the story against which all the other events leading up to it may be measured. Death communicates the story. Italo Calvino (1986) similarly uses the metaphor of “rowing a boat” to suggest that we see our lives passing by as if we are rowing a boat past it; only at the end we can relate the loose ends to one another. What used to be a random collection becomes a coherent narrative, and perhaps the arc of the tale is not much different from that describing the route from the past antiquarian to the present academic (see Schnapp 2007).

Historian E. H. Carr mused that: “People do not cease to be people, or individuals individuals, because we do not know their names” (Carr 1961: 44). In his programmatic volume answering the question ‘What is a historical fact?’ Carr (1961: 11) proposed that facts come to pass through a prior decision of the historian. In its totality the meaning then is the arrangement of the facts as gleaned from the evidence, and promoted by the
The challenged assumption, to which the young Childe was loyal and less so the late Childe, is that history can be an objective compilation of facts. Carr’s interesting thought is that the ‘logical’ criticism – that history is thus reduced to a subjective account of the historian’s intellect – "is much less of a problem than any hard-nosed reconstructionist might fear. It is in fact the way in which human beings operate in everyday life, [and therefore a] reflection of the nature of man" (Carr 1961: 29). This dialectical turn, together with Benjamin’s essay on history quoted at the very beginning, bails out Childe from the concerns that Trigger raised (2006: 524). Our view of the past society is influenced by the view that we have of the current society, and we ought to estrange ourselves from it.

To situate this anxiety in the awareness of language, and thus move from strictly history to a more general anthropology, we could start with the quip by the Russian formalist linguist Roman Jakobson, who looked for literary facts and said of literature that it is "organized violence committed on ordinary speech" (quoted in Eagleton 2008: 299). Just like in the anthropological method that to understand culture seeks to estrange the familiar and vice-versa, Jakobson (1990), drawing on Sanders Peirce, saw the analysis of literature as the necessary vehicle for understanding language (which the data-driven digital technologies are now confirming for the humanities). Literature and poetics provide the estrangement. Out of the same necessity, connectivity is merely proposed to

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99 See also Jakobson’s seminal structuralist text ‘Two Aspects of Language and Two Types of Aphasic Disturbances’ in Jakobson and Halle 1956: 55-82.
estranged against the automatic familiarity and routine of culture history language and method.

In Bronze Age archaeology many research questions, including the ones here, concern the interface between archaeological sites (mostly burial and settlements) and networks of communication across landscapes. Burials and settlements provide the base for the understanding of a given culture and the territory it occupies. In western Serbia burial/necropolis sites are a frequent find, whereas there are only a handful of known settlements. This discrepancy is commonly attributed either to the mobility of past populations or to the lack of a thorough survey. However, many other areas of the world suffer from a similar archaeological problem (graves in the American Southwest, no Unetice settlements, Wietenberg graves, etc.) – one type of site is often well known and intensively researched, and the other virtually invisible archaeologically.

The problem with this partiality is that it produces partial interpretations of the past. By having data that only come from burial contexts, our whole perspective of the particular period and region is reflected through burial material, which is the case in the Balkan Bronze Age. Pottery, plant and animal remains, and jewelry come from graves, with very little knowledge of the same type of remains from domestic contexts. Partiality is of a reversed order in the periods preceding Bronze Age in the same area, for instance in the Neolithic settlements are known while necropoli are unknown, which is the case with hundreds of Vinca sites. Connectivity as a reasonably neutral research model can be applied to the study region not only in the particular time period, but also to different periods, and more importantly to the other areas of the world. This is not in order to find
locations of the type of site that is missing from the archaeological record, because those might not be anywhere, but to visualize the things, materials, resources, and landscape.

To show the extent of connections over space and time archaeological wisdom has been to ‘turn on’ all the areas with, say Middle Bronze Age presence, and going over the extant scholarship sees which surveys and excavations contributed material. This has grown into a fascinating, almost endless set of data that waits to be mined. The problems of context are numerous, and where there is lack of context only chorology can be employed. The method of culture history (chorology) is not employed when it is instructive to see movement and mobility like in nomadic or semi-nomadic practices, as well as exotic objects, metal or otherwise. The ramifications of the influence of movement and exotica on a given outlined territory of a culture is consistently kept in check by piggybacking onto chorology. This predicament is exacerbated in the nation-state institutions. The necessary insistence on legibility (see Scott 1999), that any functioning state employs starting with a census, produces unwanted fragmentation of knowledge (see also Kohl 1998, Biehl et al. 2002, Bankoff 2004). Further, an academic department is fragmented from an archaeological institute, from cultural resource managers, or from national and local museums. Museums and occasionally academic departments and institutes are repositories of archaeological objects and ultimate destinations of presentable artifacts. New interpretations need access to finds, otherwise they become self-serving and fanciful.
Conclusion - Inconclusive case-study (is true belief knowledge?)

In the present case study, to look at the crucial material from tells of southeast Hungary, for instance, one needs to go to museums in three different countries. Each is going to have a set of distinctive practical issues that may or may not be obstacles. A bigger obstacle is the local language and ‘Sapir-Whorfian’ quirks that come with it. The situation is not so bleak when one already belongs in an equivalent institution, and therefore shares part of the identity, but the fragmentation does not stop at the national level.

Finds of the perceived set called Perjamos culture, or even just those from the locale of Pecica, might be in the museum in Arad, Timisoara, or Resita – all in Romania (easy version); or they might be in all of these, as well as in the museums in Szeged, Bekescsaba, or Budapest (Hungary; medium difficulty), then in Vienna, Berlin, or Moscow (hard). With everyone speaking English, or German, or both, things can get done still fairly quickly, but the information that each museum has at its disposal is not used to advantage. So much is lost from the little context there may have been originally if the local museum is not studied in all its past and present aspects. On the other hand, new excavations are desirable, but short of including the old data, specific interpretations from those are short-lived and perform to pay lip-service to the funding bodies.

Compare, as a metaphor, the translation algorithm from Google. It compares a corpus of words from one language with the same corpus of words translated into another. Entries sharing similar statistical properties are considered equivalent.
another algorithm that auto-generates dictionaries it is an endless stream of data that is
constantly communicated, while translation is being self-perfected (see image below).

Figure 94: Language mapping tool as Translation tool (Source: Google, Inc.)

Otherwise one could show that Periam graves are uniformly furnished by assemblages of
two or three vessels, often just a cup and a bowl. The anticipated problem is that
chorology dominated by pottery makes the cups and bowls into the moving agents, and
not the people. Metal finds are similarly assigned to a Balkan-Anatolian or Carpathian
arch ‘complexes.’ Alternatively if the isotopic and DNA study is employed they take over
and chorology is either squeezed out of interpretation or taken at face value. Museums
and collections could instead be the dictionaries, translating from the vector space of
images to one of words; see another example from Google translation below.

Figure 95: Convolutional Neural Networks (CNN) to Recurrent Neural Networks (RNN)
– image to text. Source: Google, Inc.
Simple consistent maps that can function as layers of information in a time series are nothing new, but the internet is. The overhaul of culture history is therefore not radical, but simply an adaptation to the accessibility of the information that comes with our age. Museums and universities, and people that work in them have business hours, but the web is still free and always on. It comes with photos made by lay and professional people that have gone to museums as tourists and archaeologists and have taken good photos and put them online. These photos are invaluable (and free!) because they do not exist in academic publishing that maintains certain antiquated treatment of data and the ethos of maximum output for job security. Expensive monographs with decent photos can only be made in certain circumstances, but the takers of innocent color photos on the web do it as part of their own curiosity about the past. A good example are the oft seen finds from Olympia in Greece – the site that shows surprising influences and parallels between the Aegean and the Balkan Adriatic hinterland, as far away as the Drina valley, 6km away from Lesnica (at the site Anište; Govedarica 1989: 132). In interpretation, it probably speaks of seasonal movements of herdsmen from the hilly terrain of the east Adriatic coast. Maran (1998, 2004) has published the three characteristic pots from there numerous times, but in simple line drawing (below, right). Otherwise, that one and other connections that Maran has been consistently showing over the years would conceivably be better presented with appreciation for the texture of the object. Without the photo one would need to go to Olympia. Even just for the photo the record appears more meaningful.
Parallels between these pots and those from Hungary, Romania, and Serbia (Hatvan, Verbicioara [see Kapuran 2009], or earliest Vatin, also reminisce of Mondsee in the Alps) are easier to spot now for the local Serbian archaeologist (with all the provisos accompanying superficial pottery comparisons). Then he would find information that at Radalj, just above the train tracks there, an archaeologist in the Institute for Heritage Preservation in Valjevo during one of his surveys found Vatin-like pottery. This could now either extend the “territory of Vatin” to the Drina river, or show a connection of some other kind.
Similarly, in Chapter V the links between Vatin and Hungarian/Romanian border were mentioned. Roska (1935) once proposed that the site Socodor might be of Vatin culture, Gimbutas (1965: 208-10) also mentioned that Socodor and Varsand levels contain Vatin-like pottery, and Serbian archaeologists in a certain historical moment agreed (Tasic 1974, then Uzelac 1996, Ljustina 2012), on account of the analyzed pottery and accessibility of literature. Alternatively we could point at the map, and see that the Romanian town Socodor sits on the modern local road 709B, which connects Socodor and Arad some 20 miles to the south, in a straight line. From Arad to Timisoara runs the regional road 69, another straight line. From Timisoara to Vrsac and Vatin runs the international road E70, in a straight line. The river Temes runs directly from Timisoara to Feudvar, too. To go from Timisoara to Belgrade one needs to go through Vrsac (though Vrsac is centrally located for travels to Belgrade, Novi Sad, Timisoara, and Resita – in all cardinal directions), and from there take the local road 10 that reaches the Serbian capital by crossing the bridge at Pancevo. From Pancevo the local road goes to Omoljica, 5 miles south. The distance between Belgrade and Socodor is some 120 miles, or three archaeological cultures.

We need not stop there, from Socodor to Varsand (Gyula, as it is known on the Hungarian side, eponymous of Gylavarsand-Otomani culture above) runs local road 79a. If the reader would recall the importance of sites around Bekes, we could point at the local road 44 that runs from Varsand to Hungarian town Bekescsaba and from there continues to Kunszentmarton (site of the footed Otomani vessel) and Kecskemet. Bekescsaba, Bekes, and Mezobereny are all a short distance away on the local road 470. Otherwise, from Varsand to Bekes one could just follow the river Koros.
From Arad in Romania to Battonya on the border in Hungary runs road 7B. To the north of Arad, toward Oradea runs E671 in a straight line, and from there road E79 goes across the border to Berettyoujfalu, 15 miles away. From Berettyo to Hajdusamson to the north there are some 20 miles, straight line. In the other direction to the northeast from Oradea is Otomani, 20 miles away on the road E671. From Otomani to Salacea, road 190c runs for only 2 miles. If we go back to road E671 we get to Satu Mare on Szamos (road ends there). From Satu Mare to Apa runs local road 192 for 4 miles.

West of Arad local road 7 runs via Pecica to Nadlac where it crosses the border to become E68 and reach Mako (Arad – Mako = 25 miles), and from Mako road 43 goes to Szoreg, Tape and Szeged 20 miles away. On the south side of Maros from Arad to Sanpetru German (‘Vatin’ site) runs road 682 to Periam, and ends at Beba Veche. From Periam to Mokrin in Serbia runs 682B (20 miles) and continues as 112 to Senta on the west bank of Tisza.

Figure 97: Map of Banat and Backa with dates of finished roads and railroads (Ujvidek = Novi Sad). Source: www.zeleznice.in.rs
The assertion here is that representations based on empirical approaches assume an objective and continuous notion of time, but not of space. What then to do when time is not certain? The answer has been chorology, but that way space paradoxically takes priority. If we take place AND space as a way of understanding (Cresswell 2004:11), the rich chorological tradition need only wait for the connections between sites to be recognized and classified in a data-driven paradigm. As is, culture history (except on the level of the local museum) assumes that such a step is not necessary (cf Ehrich 1967, Ehrich and Bankoff 1984).

Indeed, Madarovce, Vatya, Otomani, Vatin (Reinecke A2-B1) might overlap in time with Beycesultan, Kanesh, Hattushash, Alalakh (Kull 1989: 65-72), but what if they were actually communicating, or if prospectors, smiths, or slaves were communicating (see Bankoff and Winter 1984, Bouzek 1994)? The proposal is therefore to forgo using cultures completely before establishing connections on the level of individual sites. The improptu road map listed sites by such an affinity. Horizons of sites around Kanjiza, Szeged, and Pecica do exhibit characteristics that connect them in a way that culture
labels Perjamos, Pitvaros, Gornea, and Mokrin do not. In culture history the same connections are made over time, of course, but they follow a certain mechanism of yesteryear: local Hungarian archaeologists excavate a site and publish in Hungarian. They find other sites in the vicinity with similar material and name a culture. Write papers. Serbian archaeologists do the same on their side, name the culture differently, have less money, employ shoddier methodology. Write papers. They communicate with friendly Romanian archaeologists (Hungarian not always as friendly, but warm up) who discovered the similar sites there. Serbs and Romanians realize that the culture is the same. Write papers. Both groups get jobs at museums or universities and start attending the same conferences. Hungarian archaeologists start attending them too, and finally everyone can visit each others’ museums. Write new papers. Meanwhile none of them went to Ukraine and do not know that some material there is related to Hungarian and Romanian material. Childe knew it all along because he visited all the museums (as did Gimbutas, Haensel, Sherratt). He is the sympathetic Australian, an outsider uninterested in the daily politics, with enough money to travel, and speaks local languages. He could be called a prospector, too.

The itinerary exercise contra the traditional time-dependent archaeological papers, in a nutshell, is the method. It is aided by the mapping of known and historic resources like the copper and gold in Slovakia, Romania, and Serbia, salt in Austria, Poland, and Romania, copper in Austria, Romania, Serbia, much tin in Germany and Czech Republic and some in Bulgaria, Romania, Serbia, Slovakia, etc. (Appendix 3). Because the road from Vatin to Satu Mare just happens to be the path across which ‘Vatin’ and ‘Otomani’ communicated. Apa, at the end of the above itinerary, simply opens toward copper
sources in northwest Romania. The anecdotal sketch of national archaeologists is an only slightly distorted representation of reality that has repeated itself since the ‘schools’ were established, for different historical periods and different cultures.

In what is now known as digital humanities the vast accumulated archives of Bronze Age scholarship could shine. All it takes, it seems, is computerized language tagging of different content – in the mould of Jakobson and Peirce – regardless of the national language. Any past interpretation, however silly it might appear to our current eyes, has a lot to offer if the people who wrote it saw and touched the material they wrote about. That information becomes part of the context that is otherwise lost. The published maps and typologies, in German and local languages, only suffer from their specific ties to respective cultures’ ties, otherwise they are ready to be contextualized.

In the chapter that presented the data from western Serbian Bronze Age graves I attempted to paint the picture of diverse origins of materials that cannot be abstracted to culture. It stretches the concept of culture too much, to the point that cultures from the flat lands appear as different species compared to the cultures in, say, ore-rich lands. The issue of mobility and simply presented connections can hopefully remedy this.
For the issue of Encrusted pottery in the Lower Danube I attempted to show the potential for unpacking the rich lexicon of the potters and decorators. Never the less, it may have been my own fantasy to retroactively see those groups float down the Danube and destroy Mycenae and Ugarit. Historical paralles to such a movement exist, of course, the fleets of light boats that went up and down the Danube, Tisza, Sava, Maros, Drava, Vah, Raba (Popovic 1990). They were mentioned in the chronicles of 10th century AD,
and existed till XVIIc, as part of the defensive system against the Ottoman Turks and fought important battles (Kolundzija 2008: 326). Similar navies were set up north of the Black Sea among Kossacks to fight the Ottomans on the coast, too. Ultimately, regardless whether the images represent history or romance when applied to antiquity, they do seem to look the part.

In the process, the language of old scholarship will hopefully change to include mutually intelligible classifications. At the present moment practitioners in the Aegean archaeology speak the language of painted decoration on wheel-made pottery, whereas in the European hinterland the language is of incised or encrusted decoration. Handmade burnished ware (HBW) is the type over which the two could converse.

HBW comes almost exclusively from settlement contexts (except at Perati, which is also interesting for its biritual burial). Urnfield bronzes come from burials, and they are not altered to Mycenaean shapes, they remain true to their origin that most likely is from around northwest Adriatic and Padania (Fratesina) (Lis 2009). The bronzes are found on the west coast, whereas HBW are found in Argolid (much of it in Tyrins), Attica, Boeotia, Euboeia, Lokris, Messenia, Thesaly – all on the east coast, then on Chios, Crete, Cyprus, in Troy, and in Syria at Tell Kazel (Badre 2003, Jung et al. 2011). While some of the material resembles the carinated bowl type from southern Italy and otherwise has an affinity with south Italian Gray Ware types (Dimini, Tyrins, Chania; Lis 2009: 154), it is actually produced locally in the Aegean and in variety of shapes. The ubiquitous tankard shape particularly resembles Balkan types100.

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100 Another compelling observation has been made by Watrous (1992) who suggested that big jar types were connected to the shipping of metals, which would perhaps favor the Italian side.
Figure 100: Pottery from Kastanas level 14a, similes with Banat (see above), note the Szeremle/Dubovac motif (1, 4). Source: Haensel 1989.
The traditions of scholarship are deep seated, however, and even though they might be talking about the same image, they cannot be classified accordingly. As a random example, Reinhard Jung’s (2003: 135) language is indicative of the bigger issue:

There is one new motif which is quite important: the simple hanging horns, which in fact seem to be a typical northern Greek creation with good parallels as far south as coastal Thessaly. In my opinion this motif cannot be seen as having derived from the approximately contemporary Minoan standing horn motif, for the position of the horns on the vessels on Crete differs from that in Macedonia.

Now, the simple hanging horns (history, art history, classical archaeology) could translate to volutes (prehistoric archaeology), or in the parallel arbitrary vein, what the hinterland would perhaps call bird images from Croatia to Ukraine, the Aegeanists might call a “frieze of pendants” (see images from Midea and Mycenae below). This is not an unusual case (“degenerate octopus” [Mountjoy 2007: 226], “quirk motif” [Jung 2003: 133]) for the vast, invaluable archive that has been put together by classical archaeologists working on the material from Late Helladic IIIc.

For our purposes the three volumes spanning LHIIIc suffer from having linear drawings of the kind Classicists prefer. The time period is crucial for understanding any possible links between the Aegean and Danubia. Again in the words of Benjamin (The Work of Art in the Age of Technical Reproduction, 1988 [1936]: 237), “the history of every art form shows critical epochs in which certain a art form aspires to effects which could be fully obtained only with a changed technical standard, that is to say, in a new art form.” Such rationalization has been at the center of my interest in the Encrusted and Belegis pottery as related to movement. At this juncture only a net of scholars united around a targeted research project can tag the material and language digitally.

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101 The list, of course, is endless: “undulating wavy line,” “disintegrated fine line groups,” “reserved banding,” etc., it is all part of the well established vocabulary
Figure 101: Upper left: Nagyrev decoration, After Kalicz 1968; upper right: Kition tomb 8, area 1, see below; Middle right: Kumane pumpa, after Pekovic 2010; Cypriote white slip vessel ~1500; Source: Christie’s

Figure 102: left Enkomi EIA. Source: British Museum; right - EB Nagyrev pot from Belegiš grave. Adapted from: Garasanin 1959.
Finding parallels and material analogues across time and space will continue still, and connections can be seen in far away places, notably between Cyprus and European hinterland (Fuzesabony-Yortan-Cyprus bird figurines/rattles and Cypriote and Danubian figurines and images on the pottery). Neither Yortan nor Cyprus have context. Without addressing the possibilities across the traditions together the data will remain impressionistic and inconclusive. For earlier times an idiosyncratic shape of Vucedol (Late Eneolithic) pottery, the hollow three-part vessel, shows unmistakably a Cypriote design. Copper and metallurgy may have been the vector there, but there are no other clues. It is a bit of a mystery why these links are not pursued (then how would they be pursued?), as I am not aware of reports of boat imagery, and Vucedol-Cyprus
juxtapositions except in theory. Then again, there is much Hungarian scholarship that I have not seen.

Figure 105: Battonya, Kisapostag grave 897 (boats on No. 1, Litzen pot No.4), adapted from: Bona 1975; Right: Šajka (XVIc), Source: Wikipedia.

Figure 106: Left: Vršac pot Bronze D (Source: Vrsac Museum); Middle, Right: Troy VIIb, linear + photo (Adapted from: Blegen)

Figure 107: LHIIIc pottery: Midea, Mycenae; Pendants = birds? Source: Deger-Jalkotzy & Bachle (eds.) 2007
Figure 108: Floating the Mycenaean time against the Middle Bronze Age Europe, C14 left, C14 calibrated right (adapted from: Bona 1992, cf Haensel 1968)

Figure 109: Pakozd left; Trnjane middle; Dupljaja right (cf. Kastanas and “octopus”). Source: Jovanovic & Jankovic 1996; Source: Vrsac Museum

Figure 110: Left: Kostolac; Middle: Vršac; Right: Tumanska Reka types and tools (Serbia); strong affinity with Cypriote figurines, centuries apart. Source: Pekovic 2010
The issue of language needs also to be probed for the differences between the Ancient Near East and European hinterland in terms of literacy (see appendix for the quote on the Late Helladic IIIc of the key site Tyrins). One of the pioneers of cognitive science,
Alexander Luria\textsuperscript{102} through his fieldwork in the early 1930s illiterate Uzbek and Kyrgyz populations (Luria 1976: 33-7), showed systematically that images have rather varied

Figure 114: Vučedol pottery; almost identical to Cypriote types and decoration (left and right (see also types from late Bodrogkerestur pottery for the analogues with the pot on the left). Source: Muzej Vucedolske Kulture, Vukovar.

Figure 115: Cyprus, Mottled Ware EBA (idiosyncratic local Cypriote pottery), left, middle; Red polished incised EBA, right; (notice the Nagyrev imagery, compare Aniše above). Adapted from: Morris, D. 1985. \textit{Art of Ancient Cyprus}, Phaidon Press

\textsuperscript{102}Both R. Jakobson, and A. Luria have had enormous influence on cognitive and neuro science scholarship in Europe and US, Jakobson by immigrating, Luria through Oliver Sacks and Walter Ong. As history would have it, Luria was a member of the so-called \textit{Culture-historical psychology group}
reception between literate and illiterate populations (Luria 1976; see also Goody 1976 for literacy, and Ong 1982 for different coding of ‘literate’ and ‘oral’ cultures).

Figure 116: Plank figures, EBA, Vounous. Adapted from: Morris 1985 (see above).

Figure 117: Left: Christies; Right Kition, tomb 8 (area 1), red polished on plank combes; EBA. Adapted from: Morris 1985.

The meaning of images may or may not be intelligible across the board. This seems to apply to archaeologists of different traditions, too, and results in anxieties that manifest in fragmentation of knowledge. On that note Freud (1989: 488) stated:
…that the problem of anxiety is a nodal point at which the most various and important questions converge, a riddle whose solution would be bound to throw a flood of light on our whole mental existence. I will not assert that I can give you this complete solution; but you will certainly expect psycho-analysis to approach this subject too in quite a different way from academic medicine.

As is, the patchwork of different scholarship traditions is much like an orchestra that is only playing 12-bar blues in various formats, but has a capacity to be a full symphonic orchestra that tours the world and can play anything, anywhere. There is nothing wrong with blues scales, and everyone understands them almost viscerally and can dance to them with or without a musical education, however there are many more scales and rhythms that the blues does not account for.

In order to carefully construct the argument for adoption of an arch paradigm, a good part of the text has been dedicated to showing practical problems with methods and theories, and the fallacy of pottery-centered art of chorology. Chorology itself is seen as incredibly useful, only not the way it is commonly used in the manner known as culture-history. Culture-history is incredibly useful too, however it is argued that the methodology utilized has been reductive for a long time, and while its scientific rigour was never necessarily a problem (see Gardin 1980), the reductiveness has hit the wall of new evidence and technology, in the face of which it is not possible to continue with the old paradigm. In that sense the thesis attempts to be somewhat radical as it is asking for a gentle overhaul. The critique is also aimed at the unwillingness to deal with the concrete issue, which is the incongruity of chorologies and their derivatives with the variety of evidence, the current sophistication of technology vis-à-vis the antiquity of the method, and the rich record of the past and its archivists.
Appendix

1. Archaeological theory, old style

Once a chapter in the previous versions, and since excluded from the main text for its conversational style, this segment focuses on the somewhat dated, but still significant divisions that exist in the way practitioners employ theory in the process of interpreting the past. It should be read after Chapter 2, as it develops the idea of conditioned knowledge, but across time, as opposed to space – and therefore connectivity across time.

There will be a fair amount of (uncalled for) generalization, and a debate over the archetypes’ longevity. Ideal types are used as heuristics throughout although they carry an inherent and easy criticism – they are not the reality. Still, well-organized thoughts are more important than a perceived reality at present, and the types below advance this goal. Or rather, the mental model presented here is a representation of reality. Having said that, the reader will see that the segment and other mention of types and mental models are more of a fairly pretentious literary exercise in an attempt to be true to the form and the medium it is assessing.

It is posited that outlining these two easily recognizable ideal types (perhaps similar heuristically to various platonic pairs like Tonnies’s Gesselschaft and Gemeinschaft) will have served as a metaphor for the ensuing discussion and the similar dramatic relationships that exist in the archaeological literature and in the field. ideological and other divisions happen for different reasons and around numerous identities that overlap. Similar to the logic of the topic in the previous chapter (the Empire), much of this division is due to specific trajectories that academic archaeology has had across different traditions.

In the previous segment the geo-political and therefore cultural fragmentation was been highlighted, and in the present chapter - through the similar discourse – the scale of the fragmentation is more inclusive, and it deals with the particular grammar103 of scholarship.

To take the case of the three assertive strands: it is assumed that American academic archaeology is decidedly a part of anthropology, German archaeology made a fairly strict division into classical (immersed in art-historical) and prehistoric archaeology (emphasizing chorology), while British archaeology remained overall more flexible and reasonably integrated. It is likewise indicative that American schools that house separate Anthropology and Classical Archaeology departments show German (and European) scholarly influence.

The ungainly fragmenting of the discipline along the Atlantic (Renfrew 1978, see also Miliasuskas 1998, 2012; Sherratt 1994b) might be exaggerated, but historically it can be related to some of the divisions that have existed to day. The segment is meant to argue for a unified and vibrant discipline rather than a science made of imagined competing packs in the form of processualism versus post-processualism versus culture-history that are additionally divided by geography.

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103 Grammar – language rules (γραμματική τέχνη /grammatikē technē/, art of letters)
Applicable to the time of ascendancy of political polarity in the public conversations, or the time when a conversation between disagreeable viewpoints is simply lacking, the important thing to realize is that all of these divisions, if entrenched, may at once direct a person/scientist and may continue to do so throughout his or her professional life. As up and coming archaeologists we are often encouraged to find or carve ourselves a scientific niche where we could prosper (laws of the market equally apply to archaeology as to any other field, needless to say), find a suitable career or simply do things that not many people do. This in turn confines us to certain paradigms and certain avenues of research that work well in that particular niche. So in training our guns solely on, for instance, studying hazelnut or amphibians, we probably risk missing a larger target - not that there is anything wrong with investigating any of those topics (cf Flannery, Teotihuacan).

At this point I would like to present a little disclaimer by saying that throughout this segment I am using phrases like "paradigm shift" or "change of concepts" or words like "processual" and "post-processual," thereby just perpetuating the idea that there indeed are different static camps in archaeology, and that there were revolutions throughout history of archaeology that are to be seen as static phenomena. The chapter merely offers a plausible narrative that is supposed to address, on a largest possible scale of archaeological scholarship, how ideal types inform and create certain values. Providing fresh signifiers and descriptions of events and trends in archaeology falls beyond the scope of this text, however, and as such it is open for critique – but again, the idea is to show that the differences between camps and paradigms are embellished and are put forward due to the lack of appreciation for one another and ungenerous reading of what came before. Combing archaeological monographs and syntheses (e.g. Banner 1974, Bogdanovic 1986, Bona 1975, Tasić 1984, Brukner et al 1973, Uzelac 1999, etc.) and excavation diaries (e.g. Vinca 1970s, Paraćin 1990s, Spasovine 2012), in an infinite search for funds and allies, archaeologists overlook or misrepresent certain “other” ideas and “other” archaeologists, asserting that scholars before them got it wrong. No ‘tradition’ is immune to this. While certain datedness of information and worldview may be rightly criticized, a wholesale rejection is too radical and simply detrimental. This potential for rejection, potential for a demarche, always exists (the example used here is Gamble 2007, as a critic’s critic).

There is a growing number of papers considering these arguments, and I shall only mention few (with references therein) that point in a direction of resolving the tensions. They mostly belong to scholars that have started their careers in Europe, write in several languages, have worked on international projects and have had opportunities to travel to international conferences. Theirs is an international, unifying agenda, engaged but apolitical, unless we consider world-scale archaeology political on a global scale. Late Andrew Sherratt’s epitomizes an academic whose career blazes the integration path (Sherratt 1991, 1994, etc.). Kristiansen has been another force of integrating efforts, and his recent projects promote such efforts successfully (Kristiansen and Larson 2005, Kristiansen 2008, Kristiansen and Earle 2010, etc.). Biehl, Gramsch and Marciniak

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104 Recent work in neuro-science recognized that ‘wiring’ (and possible ‘re-wiring’!) of brain matter by necessity resonates with other bodily and thought processes. While this by no means confirms pedestrian understanding of paradigm shifts, it does give pause and invites broader emphasis on recognizing connections in previously seemingly fragmented realms.
(2002) edited an important volume that pooled views of traditions and addressed historical trajectories of fragmented historical thought. Hopefully many others will follow suite (Horejs [ed], Alberti and Sabatini, etc.).

**Overview of History of Archaeology**

For the sake of the argument the following rundown of archaeological concepts is a gross reduction. To reinstate what may well be a truism: museums and other collections – functioning as lasting contact zones of objects, published or not, in absence of and beyond written documents – keep informing us on things about the past. Recent emphasis on material culture in my view somewhat essentializes objects, especially through the troubled concept of agency. It is museums, as hubs of objects, that drive the scholarship concerning the relationship between humans and their objects 105. Continuing to produce new “–scapes” (pace Appadurai’s ethnoscapes, etc.), museums and curated exhibitions coevolved with academic archaeology and propelled the swing away from antiquarianism, towards modern-scientific archaeology. Hardly a shift in paradigms in Kuhn’s (1962) sense, but still a very important departure from an adventurous affair, a hobby and a passion - to a full-fledged discipline (Schnapp 1997, cf Kosso 1996, McGuire 1995).

The early scientific paradigm gave rise to the so called ‘culture-historical archaeology’ that over time became seemingly too pessimistic about archaeological endeavor to reconstruct the past. In fact, as gradually more and more archaeological projects are conducted, it is clear that culture-historical models, for all their emphasis on diffusion, have been seen as deficient and parochial only because there was never enough data to test and add to them. From the pathologist Wirchow to the linguist Kossina, through Montelius, Braidwood, Leroi-Gourhan, numerous other notables, and the indefatigable Childe, the ideas that get filed under the rubric of culture-history effectively built the framework for academic archaeology proper. They would get easily dismissed in part due to their deficiencies and ideological underpinnings, in part due to the fact that they are not read in the context of their time. The often misused concept of culture persists, as it seems to be a good if inescapable heuristic (Roberts 2010) for archaeologists and anthropologists alike, but the term ‘culture-historical approach’ has a blemished reputation for the misuse of persons in twentieth century’s political projects.

**Arche** Processual

Colin Renfrew (1983) in his address to the Society for American Archaeology in 1983 reminded the audience that the time of great intellectual revolution leading up to the publication of Darwin’s *Origin of Species* and Morgan’s *Ancient Society* was crucial for archaeology, and that those decades could only be comparable importance-wise to the

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105 Digital media today function as per excellence worldly museums, but a visit to a museum is indispensable for an archaeologist, as well as for lay enthusiasts. The issue of funding for museum institutions is therefore archaeological researcher’s most acute problem, with repercussions for academia as well as the growing cultural heritage and tourism industry.
conceptual revolution that started in 1962 with the publication of Binford’s article “Archaeology as Anthropology”\textsuperscript{106}.

In the address Renfrew also credits Braidwood, Clarke, Flannery, MacNeish, and Willey for the emergence of this conceptual revolution – even though not all the mentioned authors would necessarily like to be aligned with Binford. The thrust of Renfrew’s argument is that only with the New Archaeology do we have a wide concern for theory in archaeology (after supposedly the “long sleep” from 1880 to 1960 [Renfrew 1982]), and he is keen on showing that the sixties with all the figures involved brought a somewhat dilapidated archaeology back to life.

Lord Renfrew’s talk betrays the generational larger-then-life macho demeanor of old guard processualists, epitomized by Binford in the US and Renfrew in UK. This has been recently remarked upon by Joyce Marcus (2013), whose focus is in early Prehistory. In a less formal setting she reminded that Renfrew likewise argues that in the history of human consciousness, as gleaned by archaeologists, interesting phenomena happen only with the onset of the settled life in the Neolithic. The fact that He worked largely in the Neolithic context and She in the Paleolithic might explain the tension.

Reflecting on twenty years of scholarship, in a note of deference, Renfrew did suggest that although the revolution started with Binford it did not mark the beginning of a new paradigm (Renfrew 1983). If processualism is still very much “alive and kicking” (see Smith 2010, Pauketat 2010), it is not entirely clear what came to replace the old, culture-historical paradigm. Neither was “the old” paradigm a unified set of ideas, nor did it stop existing with the loud arrival of processualism. European archaeology, British included, arguably still arguably sticks to its culture-historical roots (Roberts 2011, Bruck 2013), and post-processual critique is almost a natural continuation of this tradition (Collingwood; Hodder and Hutson 1992). North American archaeology on the other hand definitely witnessed something of a revolution. The dynamic between the two continues to shape the discipline somewhat, but is not in the headlines the way it was in the late 1990s.

The Origin(s) banter

The story of an origin or a proud new beginning could go something like this: The moribund discipline, as Binford (1962) saw it, needed a strong shake, and the same enthusiasm that gave the dynamism to the “hard” sciences permeated archaeology. New Archaeology and Binford as its forerunner pushed for archaeology to become a “harder” science. And indeed instead of the previous alleged stale state there was tremendous confidence that archaeology could satisfactorily reconstruct the past. Archaeology, and in particular anthropological archaeology was taking the responsibility for that reconstruction.

To set it in a historical context (or an oft repeated, taught, and learned linear story that is ripe with memories punctuated by emotions): the time of the rise of processual

\textsuperscript{106} Thorough definitions of any of the mentioned archaeological traditions will not be presented in the text and therefore various theoretical strands will not be served due justice; it is assumed that a reader has a notion of what the presented concepts are – defining them yet again would take away from the focus on the unity of the discipline.
thought was also the time of enormous optimism that came with the breakthrough in methodology with carbon-dating. Archaeologists were able to employ computer programs for their statistical analyses, and encouraged by the advancements in sciences like physics, came to regard archaeology through a more rigorous scientific lens. This meant that New Archaeology strongly emphasized the evolutionary paradigm, the culture process and cultural adaptation, as seen through the studies of environment, technology, and material culture.

The optimism\footnote{These important works were being published in the lively 1960s, and the optimism has a hippy ring to it, too. Additionally I came to believe that opiates as an influence on academia is not precluded from consideration, as well as – for American archaeology at least – Vietnam War and ensuing mobilization, a project that launched military thinking in many areas of life. This is particularly relevant for the present moment, when military thinking, exemplified by John Boyd’s ‘Observe, orient, decide, act’ (OODA) loop is finally reassessed while also being promoted as a paradigm by computer engineers. Archaeological papers on decision making processes attest to this (Gregory Johnson, Bogucki, etc.).} is represented in the notion that archaeologists as scientists are responsible for explaining the past, because past is knowable (Clarke 1968) – we “only” need to bridge the gap between raw data and the people that the data stand for (Binford and Binford 1968). These ideas implied a lot of generalization, endless formulations of hypotheses and constructions of complex models. The change in paradigm from culture-history also brought ideas of sampling and the need to answer specific questions economically and functionally. But by the mid-sixties processualists turned derisive against the term culture-history and forgot that their culture-historical predecessors had a similar interest in cultural processes (O’Brien, et al. 2005). As Binford (1962) himself acknowledged, albeit only for the part of scholarship that fit his paradigm – schools of thought do not come to light out of a void – they develop on what came before them.

Ideas about reconstructing the past thought (cognitive processes) were cast off as speculation early on (Binford 1968, Clarke 1968). That dismissal would come to constitute the major frustration inside processualism (Leone 1972), and eventually would generate the foil of post-processual criticism. However, no interpretation is clear on the thought issue.

Now, to think that Binford\footnote{Five quotes from Binford 1969, 1978, 1989, 1999, 2008.} and others dismissed, for instance, the reconstruction of the past thought only because they were more interested in the ecosystem would be facile and would not do justice to the body of Binford’s work. Consistent with his scientific model and methodology, he simply did not see how past thought could be reconstructed through data, but he would make an attempt to get to the cognitive via his immensely important work in ethno-archaeology and what came to be known as “middle range theory” (Binford 1977; 1978; cf Binford 2013 [Archaeology in the making]). It is necessary to emphasize that Childe (1956, 1957) before anything New began in archaeology persuasively insisted that cognitive processes be studied. In that sense he may have reconciled processualism and post-processualism before the debate even started (Trigger 2006: 349)\footnote{Middle range theory as a concept is still absolutely valid, and in a way the present text attempts at something like a reasonably novel middle range theory for the Bronze Age Collapse.}.

The self-styled cognitive turn in processualism with Flannery and Renfrew attempted to bridge the gap for which Binford was held responsible. Processual
scholarship of the 70s and 80s, like the emerging post-processual branch, incorporated linguistic paradigms and Marxism, critical theory and structuralism, but still stood by the ‘scientific’ (or ‘machine-readable’) roots. Criticism of the machine-readable, functionalist model is at the center of the new train of thoughts, as well as reflexivity and multivocality – the introduction of these is certainly not the effort of a single person or a school, though. It is simply present in the archaeology’s theoretical fabric of the time.

Processualists lay bare the critique that they themselves ignored individual beings – and that simply saying that culture adapts to changing environment was not a satisfactory explanation (O’Brien 2005:118). Leone and others (1972) suggested that reconstructing of past life-ways through science was impossible, and that the study of past culture was yet to be conceptualized (after all that promise!). Renfrew argued that writing laws of culture is an impossible goal that may confuse what constitutes a valid scientific explanation in archaeology. This fresh conceptual self-criticism overlapped with the so called post-processualism and introduced novel concerns. Looking back there is a familiar notion that people read similar theores and are informing themselves in similar sources.

On the face of it, post-processualism is embracing the differences and imbues its theory more in the historical disciplines, studies of ideology and material culture – whereas processualism, as a school of thought keen on scientificity and testability, informs its theory more in the scholarship of hard sciences (Hodder 1995; Johnson 1999; O’Brien, et al. 2005; Trigger 2006). At the same time, if we read texts from either pack - they have narrative, reflexive and scientific qualities - it seems today that the difference is simply in certain emphases and semantics.

Beginnings of archaeology, like of many other disciplines’ maybe, were somewhat confined to the particular field. Only when the interdisciplinary approach prevails do we begin to talk about archaeology as a science. This does indeed happen in the 1960s, and not only in New Archaeology, but in archaeology in general. Certainly only in cooperation with other sciences archaeology becomes a scientific discipline, able even to test and measure – and this is why, I feel, one must accept as true that processualists did believe they were shaping a science. Binford was held in reverence by devotees like a rock-star (O’Brien, et al. 2005), and maybe the high-flying is part of the problem why processualism is seen as a static paradigm.

What started in the early nineteen sixties as a group at Chicago University that managed to carve out a place for themselves in the archaeology firmament, in the decade that followed the ever enlarging group came to (re)define the discipline. Binford’s and processualists’ place in history of archaeology is as complex as their role in it, by virtue of the fact that there are two distinct foci to their scholarship – functional and cognitive, and also by the extraordinary longevity of their influence (people are still alive and well). They, too, became a tad arrogant and dull in their scientific pretense and ready for a shake.

Gavin Lucas (1995), of a younger cohort, pointed at the hubris of proclaimed new archaeologists. Facetiously calling on the references to innocence in Binford, Clarke and Renfrew, Lucas proposed that “apparently before the 1960s we were all sleeping virgins. Somewhere in those days, we lost our innocence, and awoke to a new state of consciousness.” His cynicism is to the point, because New Archaeology did not only present itself as new, but cockily presented the scholarship before it as less significant.
Over the years the whole concept of the original processual thought changed and begot many new faces due to self-criticism and assessment from the outside, but still maintained a vital interest in the Scientific Method. It is only around this issue, it would appear, that the processual Vs post-processual debate is still productive – in every other alley common ground and a blurring of borders has been reached. Shanks and Tilley (1987a) in their controversial and radical critique maintained that to do science means also to oppress people in the post-colonial world, in step with the then fashionable track beaten by the critical theory. Their seniors R. Watson (1990) and Patty Jo Watson (1990) in turn reminded that this kind of relativism is dangerous and unproductive, a pessimistic cul-de-sac.

The very relativism is precisely what ties post-processualism to its parent – processualism. The transgression of post-processualists is always inextricably related to processualism, otherwise there would not be anything to transgress, hence still the patronymic in the name (Lucas 1995:38). But Shanks and Tilley need to be given benefit deserved for the ‘Young Turks.’ Their view of science as always open to doubt and arguing for the abjection of positivism needs to be contextualized in the discontent aimed at an authoritarian. Two titans, Binford and Hodder, show for similar leadership: much like Binford, who with a charisma of a Southern preacher-man spoke mythically of the ‘origin’ of processualism as if somehow the whole science emerged from the ocean foam like Botticelli’s Venus, so did Hodder talk about the “exciting beginnings” of post-processualism in England [Hodder 1982].

Post-processual

Post-processual thought came to encompass quite a few different theoretical stances, all of which had in common the critique of processual paradigm. As other “post-modern” traditions united by aspects of Nietzschean philosophy (there is no truth), post-processualism does not seem to have a nucleus, but is simply defined against what follows the prefix. To contextualize the post-processual tradition we need to bear in mind the whole, connected world, and its shift toward “post-modern” paradigms in a range of disciplines. Art world and the academic milieu alike in the (post)colonial aftermath looked for different ways to explain for complex phenomena that previous paradigms did not have data for, were not able to, or simply were not informed by.

Ideas that would include inequality, individual agency, gender issues and domination came from Marxist archaeology (Trigger 1984), as well as feminist archaeology (Conkey and Spector 1984). Co-residence at departments with cultural and linguistic anthropologists enabled much latent dynamism. Phenomenological thought of Heidegger and the Critical Theory influenced the realm of cultural anthropology first, and soon the paradigm permeated archaeology. Informed by, for instance, neo-Marxist and Michael Foucault’s thought the growing post-processualist influence argued for inclusion of multiple voices and reflexivity, and in turn for inclusion of many different pasts. This was best formulated by Ian Hodder (Hodder 1992, Hodder and Hutson 2003).

So archaeology may be conventionally processualist in a sense that it has a somewhat unifying methodology, but we also have an indefinable group of people who
are working next to, in opposition to, or away from it. There are then few flavors of post-processualist archaeology, which bring different individual concerns (Johnson 1999:179-182). All of these ideas seem to compete in an open market (Wylie 1999, Renfrew and Bahn 2004: 319) – but so did and continue to do so the processualists’ ideas, and there are many different processualisms out there (cf. Pauketat 2000). New Archaeology was not nearly as unified as the stereotypes attacked by later critics would imply – not all processualists were following Hempel’s method and not everyone found Leslie White’s or Julian Steward’s anthropology inspiring (O’Brien, et al. 2005:58). On the contrary, Renfrew (1972) and Clarke (1972) brought together history and evolutionary-functional perspective; and Schiffer’s (2002[1976]) behavioral archaeology chose not to include systemic approach.

The broad critical assessment of the processual tradition implicated in post-processualism is that archaeology cannot be treated as an experimental discipline because of the very lack of objectivity. Vico’s *verum factum* premise is somewhat thus resurrected, and as a commentary we might add Kierkegaard (1992: 131): "Science and scholarship want to teach that becoming objective is the way. Christianity teaches that the way is to become subjective, to become a subject." Since archaeologists are only human, the conclusions they get to will happily be tainted (Hodder 1997; Leone, et al. 1987). Science, once the standard, was hushed into the margin as dehumanizing and subjective (Hodder 1988). In consequence, Hodder’s students Shanks and Tilley, etc. seemingly shed the scientific pretext altogether and embraced various seductive paradigms under the wide-rimmed umbrella of post-processualism. The difference between this one and previous scholarship may have seemed stark at the time, but only at the surface. The diachronic meanings and derived language symbology of the keywords *objective* and *subjective* map out that mechanism:

Past (religious) scholarship: subjective=true objective=agenda
Modern (Enlightenment) scholarship: subjective=biased objective=true
Future scholarship: true belief=true ? objective=none ?

The future actually might be now, our time, the time in which *true belief is knowledge* (Foley 2012, and the figures below from a physics book [Penrose 2004: 21], also Peirce 1902).

Early on within the processual organized statement archaeologists maintained that “to say an archaeology is new is to alienate it from the old, whereas one could more profitably absorb and reorganize the old” (Chang 1967). Similarly, the term *interpretative archaeology* actually was articulated in 1968 by an ethnologist Richard Lee (O’Brien, et al. 2005), during the period of earnest ethno-archaeological work by processualists.
With many of the differences in the extremes, it is just as feasible to look for common ground between processualists and post-processualists. No matter how fiery the dispute could be (Hodder 1991a), both are concerned with how we know about people in the past, whether that knowledge represents the actual past or just a personal mental reconstruction of the past (for which Benjamin [1939, in the main text above] would think is the only possible, cf Childe 1956, Trigger 2001: 566). If seen as churches, or any dogmatic organized congregation – Yes, some processual thought verges on overgeneralization (Turner 1998); and Yes, some post-processualism verges on relativism (Shanks and Tilley 1987), but practical archaeology as seen in the actual excavations’ diaries and reports suggests the strong tacit unity of the two (Regan 1995, Farid 1995, Hodder and Berggren 2001). The unity is also easier to come by when there is a scientific (laboratory) backing of data, which is why climate-induced archaeological research makes sense – except for a particularist study.

While post-processualists in the past argued that any understanding of an “objective” past is impossible (Shanks and Tilley 1987), so did antiquarians, culture-historians and many processualists in their time. The academic reality is such that archaeologists of all colors maintain that we should try to do archaeology as best as we can, however difficult it can be to fight biases on all levels (World Archaeological Congress Charter). It could be said that programs wish to remove the biases and come to an objective understanding of the reality of the past(s). Much of archaeology in that sense remains ‘processual’ (or in the case of Bronze Age archaeology ‘culture-historical’), as already mentioned, but aware of criticisms and caveats proposed by the post-processual assessment.

One of the lasting contributions of the many approaches amalgamated under the label post-processualism is the notion that interpretation in archaeology has a narrative quality and that scientific explanations can only go so far. The present text assumes the same position: archaeology is a narrative discipline first; scientific, unified methodology comes second because it is inherently inconsistent.

The site as a case study of a paradigm

At Catalhoyuk, the excavation site directed by Ian Hodder, various specialists are responsible for all sorts of meticulous and often tedious analyses. Data is being presented with flowcharts and complex graphs, conventionally much like during the resolute rise of New Archaeology. Hodder invites discrete interpretations and many different teams from numerous countries and with different methodologies to excavate and interpret Catalhoyuk accordingly. All the data is there for everyone to see and use, and ultimate interpretations may differ considerably (Hodder and Hutson 2003).

In practice multiple voices are not so easy to incorporate, and are not always readily invited to “enrich” interpretation as the theory would suggest. Different teams often find it difficult to conform to the dominant British excavation scheme110, and the whole project might therefore betray a post-colonial undercurrent. The real reason is that

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110 I have been a member of the British team at Catalhoyuk for few years, and have had, on occasion, an opportunity to witness the tension that does not necessarily get to be published, cf. Regan 1998 (excavation diary)
there is only one, central database for the site. Given that “good” archaeology involves taking many samples for chemical, geo-morphological, palinological and archaeo-botanical analyses (to mention just few) – one cannot emphasize the scientific side enough. Even if we are to see archaeology as free-style interpretation, it is very dependent on careful evaluation of C14 dates, careful recording of the excavation process, and establishment of the stratigraphic sequence. The dominant interpretation, however similar or divergent, in the end will be the one coming from the project director and not from the directors of other teams or other archaeologists.

Never the less, the core post-processualist critique won the most points probably with the theoretical formulation of the issue of equifinality as it might affect the perception of cultural, archaeological traces. Hodder in that regard demonstrated that material culture record does reflect social reality, but it can also distort or invert the same social reality it comes to represent – a key ‘Heisenbergian’ point (Hodder and Orton 1976, Hodder and Hutson 2003). It is a useful and constant reminder of the antithetical properties of material culture.

The purpose of this bastardly overview is to show that we tend to forget that all these steps (and it is instructive to see the different concepts as steps that overlap, go back and forth and never really lose much from the previous paradigms, but update for the passage of time) are still very much the part of how we inform our writing in archaeology. New models appear with great promise of sweeping change, but old models easily reappear and reconstitute those new exclusive ones in an endless exchange. Writing archaeology by necessity needs to be without [T]heory, but with [t]heory as global and inclusive as possible. And above all it needs to be about possibilities, which is the value that archaeology uniquely possesses. Otherwise it has the issue with origins – the way the word archaeology mounts a similar problem with its name (ἀρχή//archive = origin, source) that nation-states have with theirs’ (e.g. England = land of the English).

World Archaeology Congress, Kristian Kristiansen, Biehl, Gramsch & Marciniak, Stuart Hall, Australian, South-African, South-American, Other Europe’s scholars are all to aware of the divide between European and American on one side, and other scholarships on the other. The divide expectedly maps onto the political divide of post-colonial world and Davis’s fault lines. Common ground is something that is in the interest of all practitioners, regardless of where or in which language the data is published. The goal is not to show similarities, but one single discipline unjustifiably fragmented. To finalize this idea I use as an example the merging of different concepts in archaeology that, although insisting on their little differences, do not seem to be at odds at all.
The name of our discipline suggests that excavators, academics, and contract archaeologists muddle through *ta archaēa*, which means the old things, the origins, the beginnings. We work with what is left of an assortment of those old things as they are interwoven into the present, we read bits and pieces of past scholarship translating them onto the here and now\(^{112}\). We go into great pains to contextualize those beginnings, but often fail to do the same for the previous research. A destruction layer is incredibly informative, the destruction, the end of the story bears the most evidence and in time conditions other evidence (e.g. Assiros and Kastanas; New Archaeology), but the very destruction as an event is contained inside and takes over the whole destruction layer that might carry much more information.

Hodder and Shanks for their brand of archaeology suggested the name “interpretative archaeologies”\(^{113}\) in plural, as a better term to describe their endeavor, perhaps acknowledging that divisions are inevitable at the time. Another name that Hodder proposed was “contextual archaeology”, because the “post” in post-processualism – the patronymic – was no longer wanted. The polemical question then arises: why is not the contextual archaeology contextualizing itself? In other words, if we attempt to tie a paradigm (say, processualism) to the wider context of scientific endeavor and the historical current - we thus *humanize* that very paradigm. Whereas paradoxically, when, e.g. Hodder earlier in his career criticized Binford, Renfrew or Schiffer for dehumanizing the artifacts or the whole archaeology, he actually *dehumanized* their theories by stripping them off of their context\(^{114}\). In short: archaeologists are primates, too.

If processual paradigm entered the cognitive phase, as seen in the work of processualists (Flannery and Marcus 1976; Leone and Potter 1988; Renfrew and Zubrow 1994) it happened in parallel with the rejection of the positivist science in the form of post-processualism. The latter involved a strong belief that an individual is an active force, significance of the context is foregrounded as opposed to perhaps forced generalization. It also involved the idea that archaeological interpretation, or any interpretation for that matter, is a political act (Hodder 1984; Leone, et al. 1987; Shanks 1986). The agency theory similarly associated itself with placing people back into the past (Dobres and Robb 2000). The outcome of all the comments is that there is a growing

\(^{111}\) Fill in the blank with your own archaeology; ‘Young Turks’ of archaeology tend to have similar views of their predecessors, however it is fair to say that their irreverence toward ‘elders’ does not last long into their careers. Once academically established they become more respectful of the past scholarship, Michael Shanks’s more recent texts are a good example.

\(^{112}\) See the session of *Society for Social Studies of Science* “Silenced pasts: Archaeological practice and the politics of manifestation” organized by C. Witmore, M. Ratto and M. Shanks, Vancouver, Canada, 2006.

\(^{113}\) Recall how this term was introduced by a processualist.

\(^{114}\) Hodder’s most recent book Entanglement (2012) is an exciting new direction toward integration that perhaps, at this point in his career, is part of his quest for a (already) lasting legacy. This notion might sound silly as Ian Hodder is such a titan of archaeological thought with a huge following, and churning out important texts almost monthly, but I do believe the consideration is valid, though, from the angle of someone who has had a privilege to work on Ian’s project.
social awareness as to what to present in museum displays and general openness to multiple voices representing diversity in gender, class, ethnicity, etc.

Any of the new bodies of critique did not come out of the blue. Some of the important shifts in the science, and the humanity, in general that lead to the review are as follows:
- notion of a pristine environment disappeared,
- hunters and gatherers were not seen as superior ecologists,
- breakthroughs in modern technology around digitization/computerization offered an unprecedented flow of information,
- developmental psychology and modern medicine marked a move away from neo-evolutionism in humanities,
- gender equality and a true connectedness on a global scale seemed possible.

Archaeology seems more openly pluralist, and that perhaps thanks to the new generations’ efforts toward openness. There are still very particularistic studies verging on the dictum of the old Boas’ style that argue the cross-cultural regularities are nonexistent, as well as over-arching grand theories like Renfrew’s “farming/language hypothesis” (Bellwood and Renfrew 2002, cf Kristiansen 2009). Likewise, despite all the expositions it is not entirely clear what really separates Binford’s (1977) middle range theory from Hodder’s (1997) hermeneutic approach, or from Shiffer’s (2002) models in behavioral archaeology.

Like the Balkan nations vis-à-vis the great powers, narcissistic of their respective grudging distinctions, all the competing approaches further the idea that their subject matters are somehow very different. Patty Jo Watson in 1986 advised that archaeology needs to be unified if it is to have credibility and be relevant, but acknowledged that passionate debates among scholars are a must if the discipline’s theory is to go anywhere. It is too easy to suggest that these prescient words could only have come from a female archaeologist, but it would probably be a fair comment on a not so long ago exclusively male discipline (pace Alfred Kidder).

Late Bruce Trigger (2006:482) hinted that “many tedious and unproductive debates between processual and post-processual archaeologists might have been avoided, had more attention been paid to [Gordon] Childe’s later theoretical writings.” On the same page Trigger also posed a stimulating question: how far had archaeologists advanced in their understanding of theory beyond Childe’s two pronouncements: “(1) that the world people adapt to is not the world as it really is but the world as people imagine it to be, and (2) that every understanding of the world must accord to a significant degree with the world as it really is, if people and their ideas are to survive?” Not too far of an advance, it would appear, and Childe (1956; 1958) penned his statements in the late nineteen fifties. The time in-between has seen the discipline mature and question its own utility in an uncertain and exposed world of global-scale capitalist economy. Childe’s contemporary, Gregory Bateson in An Ecology of Mind offered his version of the issue: “The major problems in the world are the result of the difference between how nature works and the way people think.”

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115 Childe’s ideas can be traced back, as perhaps every other idea in the humanities, to the Ancient Greeks – Plato’s Cave in Republic poetically presented the same concept.
The story above attempted to show that the history of archaeological thought told this way resembles the process of the so called ‘creative destruction’ (Schumpeter) that is usually reserved for describing dynamics of market economies. Since capitalist market economy is the only show in town it is to be expected that any social setting, including the relatively small world of academic archaeology, can be rendered as a competitive market of ideas. It still strikes one as a paradox that the discipline that is by default engaged with origins would not be more aware of possibilities, its own fragmentation, and the employed language that reproduces it. Possibilities gleaned from the past are therefore assumed as the stuff of archaeology, that require not daily-rational research questions.

In the main text the vagaries of the earliest and soundest of the aforementioned paradigms, the so called culture-historical archaeology, were discussed, and were found as localized in the interest area. The hook is the issue of German archaeological influence, as an extension of its political influence sketched in chapter 3. Added to the other figures and tables at the end of the text should be the facsimile of the whole letter published in Ucko et al. (1972: xi-xii) that communicates familiar concerns for the archaeology of the Ancient Near East. Here, just the gist of the long anonymous letter addressing all of archaeology – that pleads for cooperation in order to answer big archaeological questions – the force is in the last few lines:

[…]human imagination will always be necessary for the understanding of the human species’ evolution and history. For me, as for the ancient Greeks, Clio will ever be a Muse, and the story of humanity a work of human art. It is indeed in artistic quality and clarity that so much that we write today of man falls short and compares ill with the work of some of our forebears. But factual evidence must be the basis; and the recovery of fact is a scientific operation. Time and circumstance have obliterated, mercifully, as some think, the majority of past facts; if we are to elicit truth from what remains, then all available tools must be used at source in concert.
2. Istvan Bona’s *Die mittlere Bronzezeit Ungarns und ihre südöstlichen Beziehungen* (1975)

Generations of scholars in Hungarian and Romanian archaeology have been adding up to the richness of data for the Bronze Age of Caprathian belt. Marton (1907; Banner, Bona, Marton 1957), Tompa (1936), and Patay (1938) recognized a veritable sequence at Toszeg, which aided Childe's synthetic efforts. The site became a pillar of Childe's wider chronology, and thus Toszeg represented the sequence for the Carpathian Bronze Age, as Vinča did for the Balkan Neolithic (Childe 1929), and Knossos for the Minoan world (Evans 1920). Reinecke's system that was made according to the German finds outcompeted other systems, including Childe's (see the segment on Haensel’s system in the text above). In Bavaria and along the Danube to the east, before the bend, it made sense to rely on the sufficiently accurate and neutral periodization, that to the Balkan archaeologists also appeared similar to Vinča's own dominant scholarly sequence (Vinča A, B, C, D with subphases). Holste and Muller-Karpe added further to Reinecke's careful chorological study of closed finds, most importantly metal, which made Reinecke chronology applicable elsewhere, and for instance in the former Yugoslav republics and in Romania it is still preferred, even to absolute chronology.

In Hungary, there are in fact two systems that function in parallel (see Coles and Harding 1979: 24-7), that center either on the Danube or on the Tisza. For metal finds another system is utilized altogether (Mozsolicz). B. Haensel (1968) attempted his chronological bridge to include more landmass, from Germany to the Balkans, but it did not quite catch on at first except among his students (see e.g. Horejs). Reinecke is still the reigning clock, however Hungarian scheme taken together is much more detailed, and with the addition of Romanian sequences and Haensel's work in Macedonia it has a real potential to hook onto Aegean and Anatolian sequences, more so than the better geographic candidates - Bulgaria (and Turkey). Bulgarian sequences have not been understood well (cf Bankoff et al. 1992), and publications are not regular. Hungarian archaeological publications for that reason are very useful, the numerous individual burial sites, preserved settlements, clear and organized maps, and good photos of finds render them supreme within the 'local' traditions. Among these volumes the special place is occupied by the synthetic work of Istvan Bona. His regional perspective, as centered on the rivers, that was ushered by Childe (1929) and continued afterwards by Tasic (1984, 1994 [ed]), is a unique work of scholarship. Even though it has major errors in the figures, like doubling of tables (83 and 95) and wrong attribution of finds (see Schalk 1994), the combination of consistently culture-historical textual presentation, uniform maps, decent photos of whole graves, and good photos of finds in groups on the shelves (n.b. with hard-to-find scale information) – makes Bona's volume indispensable. It has the quality that the "digital humanities" would appreciate in that it is a blend of academic and museological presentations with scalable graphics. Source for all the figures below is Bona 1975.
Figure A2.1: Time and space of the finds at the necropolis in Kiralyisentsztvan (Plan 24)

Figure A2.2: Time and space at Deszk (Plan 19); this design will be used later by many. Notice how the Periamos type (top) “transitions” to Vatin type (Gerjen according to Bona).
Figure A2.3: Bronze Industry of the Encrusted Pottery Culture, notice Nos. 14 & 15, among others.
Figure A2.4: Lovasbereny hoard, notice No. 12; Vatya graves (in line, like Belegis graves)

Figure A2.5: “Koszider” bronzes from Vrsac, notice pin 20a
Figure A2.6: Vatin material (Bona 1975: T 201).
Figure A2.7: Ujhartyan Vatya, notice the decoration, compare Ch 9, Cypriote material
Durch sie rechnet er auch einen Teil der nördlichen Gruppen der Kultur der inkrustierten Keramik zur Lovasberény-Gruppe. Deshalb ist seine Verbreitungs-karte ungenau, und da er sich nur auf publiziertes Material stützen konnte, auch unvollständig.

Die Zusammenfassung über die Gefäßformen, den Ursprung dieser Formen und über die Metallfunde entspricht dem Stand der Zeit. Aufgrund der Metallfunde parallelisierte CHILDE die Vatya-Gräberfelder mit der Aunjetitz-Kultur!

Vom Szeremle-Typus (bei ihm Bjelo-Brdo) konnte CHILDE die Vatya-Kultur bereits gut unterscheiden. Nach Zeit und Charakter bietet er einen im großen und ganzen richtigen Abriss unserer Kultur.4


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4 CHILDE, ebenda 278 ff.

Figure A2.8: Ujhartyan Vatya material again, and the comment on Childe’s research.
Figure A2.9: Encrusted pottery, notice “pendants” on No. 8
Figure A2.10: Gyulavarsand cups
Figure A2.11: Gyulavarsand material of “Vatin” type, compare the Vatin table; notice No. 8 (cf looted Omoljica type in the text)
Figure A2.12 Vrsac-Vatin (Bona 1975: T 202)
Figure A2.13: Typical skeuomorphs
Early Bronze Age

Figure A2.14: Early to Middle Bronze Age
3. Vatin, Belegiš, Encrusted pottery

Figure A3.1 ‘Vatin culture’ map (north of Sava and within Serbia only), source: Ljustina 2012.

Figure A3.2 Relative Encrusted pottery culture map (centering on Middle Danube), source: Medovic 1996.
Figure A3.3 Sites with *piraunoi* vessels (portable hearths); Source: Horejs 2001
Figure A3.4 Bronze Age tells (Source: Gogaltan 2000)

Figure A3.5 Vatin dates (Source: Gogaltan 1999)
Figure A3.6 Vatin finds from Milleker collections; wheels, pulley design. Adapted from: Milleker 1905, Ljustina 2012.

Figure A3.7 Pančevo, Vatrogasni Dom (earliest Vatin). Source: Grčki-Stanimirov 1996.
Figure A3.8 [L] Szoreg site material (adapted from Foltiny 1941); [R] Belegis site material (adapted from: Vranić 2002)

Figure A3.9 Vatin site material (adapted from Tasić 1984); vessel from Banjska Stena site (E Serbia), Source: Ljustina 2012.
Figure A3.10 Gomolava representative sequence (from Neolithic), adapted from: Tasic 1974

Figure A3.11 Zidovar sequence (“pre-Vatin” through Late Bronze Age); Source: Ljuština 2012
Figure A3.12 Banatska Palanka vessel; Dubovac vessel (Source: Vrsac Museum)

Figure A3.13 Vrsac – At (notice No. 9), after Pekovic 2010; Dubovac vessel detail, Source: Vrsac Museum
Figure A3.14 vessel type distribution (Source: Reich 2006)
Figure A3.15 vessel type distribution (Source: Reich 2006)
Figure A3.16 Vessel type distribution (Source: Reich 2006)
Figure A3.17 composite map (Source: Reich 2006)

Figure A3.18 Karaburma, graves 277, 266. Adapted from: Todorovic 1977.
Figure A3.19 Belegiš, Stojića Gumno (SG) plan. Source: Vranic 2002.

Figure A3.20 Belegiš SG, incised decoration, “schnur” decoration on urns. Adapted from: Vranic 2002.

Figure A3.21 Belegiš beakers; graves 135, 111. Adapted from: Vranic 2002.
4. Periamoš (Mokrin necropolis)

Figure A4.1 Mokrin relative to Deszk, Periam and other sites (Zlatica/Aranca mean “gold bearing”).

Figure A4.2 Loess terraces [1] and floodplain [2]. Source: Bugarski, J. 1978, Geomorfoloska Karta Vojvodine. Novi Sad.
Figure A4.3 Grave 282 with the [3] Nagyrev-like vessel (Cypriote parallels) and a tankard. Source: Giric (ed) 1971.
Figure A4.4 ‘Zyprische nadeln’ in the grave context. Source: Giric (ed) 1971.
Figure A4.5 Grave 40 Assemblage; photo, one of few similar vessels (parallels in Slovakia, Poland). Source: Giric (ed) 1971.
Figure A4.6 Grave 40 drawing. Source: Giric (ed) 1971.
Fig. 5. Ceramic from Krivodol (1–8), Sâlciuța I (9), Sâlciuța II b (10), Sâlciuța III (11) and Sâlciuța IV (12).

Figure A4.8 Salcuta pottery- Notice No. 12, Periamos type; Source: Georgieva 2007 (see above)
Figure A4.9 Cultural parallels in the Early Bronze Age. Source: Maran 1998
17.1 The spread of technologies of sheet-metal vessels.  
Figure A4.10 Core – margin, adapted from: Sherratt 1994

17.3 Pottery and metalwork: above, Early Minoan 'teapot' from Vasilike, Crete; below, early first-millennium BC bronze spouted vessels from Laristan: the tubular construction of the spout is characteristic of the metal form and skeuomorphic in pottery (Ashmolean Museum); [new photographs].  
Figure A4.11 Skeuomorphs, Iran, Crete. Source: Sherratt 1997
Figure A4.12 Fahlerz, Otomani metal. Source: Sherratt 1997.
4.10 The distribution of copper axes of the fifth and fourth millennia in Romania, compared with potential ore sources. Data from Valpe (1973), Maczek et al. (1953).

4.11 Settlement and resources in part of central Bulgaria during the Copper Age: Karamovo and adjacent copper mines in use at the time.

4.12 The spread of settlement in the fifth millennium in the region around Šabac, Serbia. (Sites marked 'Vinča' include also ones with Lenski affiliations.)

11.2 The contrasting distribution of settlement in north-east Hungary in the Early Copper Age (Tiszapolgár culture) and Early Bronze Age (Hatvan culture). Compiled from Bognár-Kutszan (1972) and Kalicz (1968).

Figure A4.13 (notice Tekeris vis-à-vis Neolithic sites), Fig 14 (Neolithic Vs Bronze).
Source: Sherratt 1997
11.3 The development of the landscape of eastern Hungary during the Quaternary (after Pécsi and others).

Figure A4.14 Tisza ancient river course. Source: Sherratt 1997

2.2 South-east Europe showing routes used in transhumance in recent times (after Ćorijić).

Figure A4.15 Modern transhumance routes. Source: Sherratt 1997.
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