

Cultural landscapes, social networks and historical trajectories: A datarich synthesis of Early Bronze Age networks (c. 2200-1700 BC) in Abruzzo and Lazio (Central Italy)

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# Citation

Rossenberg, E. A. van. (2012, November 15). *Cultural landscapes, social networks and historical trajectories: A data-rich synthesis of Early Bronze Age networks (c. 2200-1700 BC) in Abruzzo and Lazio (Central Italy)*. Sidestone press, Leiden. Retrieved from https://hdl.handle.net/1887/20130

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# Cover Page



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(Central Italy)

**Issue Date:** 2012-11-15

# Chapter 1

# Different Bronze Ages: thick, rich, slow

"Another metaphor is to compare archaeological research to working a giant jigsaw puzzle in which there is no picture on the box and from which someone has thrown out most of the pieces." (Bogucki 1999, 10)

"The past is not a three-dimensional jigsaw puzzle buried beneath the archaeologist, or a palimpsest. All such conceptions reduce the past to a monolithic structure, a synchronic structure of spatial relationships." (Shanks & Tilley 1987, 95)

The problem with current forms of archaeological synthesis is that the focus is on the best pieces of the jigsaw. In other words, not only an undefined "someone has thrown out most of the pieces" (Bogucki 1999, 10), but also archaeologists themselves throw out a lot of the remaining pieces. This practice is problematic because it helps to "reduce the past to a monolithic structure, a synchronic structure of spatial relationships" (Shanks & Tilley 1987, 95). It is even more problematic in archaeological synthesis of so-called 'transitional' periods that tend to be characterised by a relatively 'poor' archaeological record, sandwiched between periods with relatively 'rich' records. If in archaeological synthesis not all of the pieces that make up a 'poor' archaeological record are taken into consideration, chances are high that a 'transitional' period is not studied in its own right, on its own terms. Then its position in historical trajectories is misrepresented as a self-evident step to get from one 'rich' period to another, without much relevance of itself. The past, however, is not "one damn thing after another" (Bintliff 2003), not a series of three-dimensional jigsaws making up "synchronic structure[s] of spatial relationships" (Shanks & Tilley 1987, 95), but rather a diachronic, four-dimensional jigsaw making up historical trajectories of network changes. It is in this sense that any period is transitional. In order to avoid synchronic constructs, the aim should be to conceptualise and substantiate historical trajectories as a series of network changes. Such a network approach requires a data-rich take on archaeological synthesis, one that does not focus on the best pieces of the jigsaw alone and definitely not throw out the remaining pieces that have been assembled painstakingly.

#### 1.1 The trajectory of a data-rich (syn)thesis

The four-dimensional jigsaw of a data-rich synthesis is a lot of work, if not overambitious for a thesis project. On the other hand, where does an academic find the time for compiling a data-rich synthesis outside a doctoral trajectory? One way or another the road of this thesis has been a long and winding one, occasionally stepping off well-beaten tracks. It started with a master's dissertation concerned with discourse on the Bronze Age in Italy (Van Rossenberg 1999, 2001) and moved on from there. Originally, the thesis plan was a contextual analysis of Bronze Age metalwork deposition in the Italian peninsula (Van Rossenberg 2002, 2003), following Fontijn's example (2001/2002). However, the lack of a catalogue of Bronze Age axes in Italy created a significant gap in the evidential basis for recognising diachronic patterns, since axes are the class of Bronze Age metalwork that had been selected for deposition most frequently. In addition, so-called 'interpretive' landscape approaches are virtually non-existent in Italian Bronze Age studies and could therefore not be used as a frame of reference for a contextual analysis of metalwork deposition, following continental European examples (Bradley 1990, 2000; Fontijn 2001/2002). Faced with this situation, I decided on taking the scenery route and doing both at the same time, creating the data-rich frame of reference for a contextual study of metalwork deposition myself. As such the thesis project turned into compiling a data-rich synthesis of Bronze Age landscapes and networks, which in the process would make available as many details as possible in an English-language context. The project would not only engage with the tendency to overlook the Italian situation in European Bronze Age studies (e.g. Harding 2000; Kristiansen &

<sup>&</sup>lt;sup>1</sup> The *Prähistorische Bronzefunde* (PBF) catalogue of Final Bronze Age and Early Iron Age axes from the Italian peninsula is a second volume (Carancini 1984), but the first volume cataloguing Early, Middle and Late Bronze Age axes has not been published (yet).

Larsson 2005), but also constitute an attempt at reconciling European and Mediterranean approaches in Bronze Age studies.

Keeping its diachronic perspective from the Early Bronze Age to the Early Iron Age, the thesis project was scaled down from the original focus on the peninsula as a whole to a case study of two Central Italian regions (§1.3). More precisely, the scope of the project was scaled down to a datarich synthesis of Abruzzo and Lazio, a cross-section from one side to the other at the heart of the Italian peninsula (Figure 1.1). Getting familiar with the pieces of the jigsaw from Abruzzo and Lazio by way of a literature review did not pose a major problem, nor did getting a general sense of order of Bronze Age trajectories in these regions (Van Rossenberg 2005, 2005a). Nonetheless, adopting a data-rich approach and taking all pieces of the jigsaw into consideration (and not focusing on the best ones alone) did raise a number of issues with current diachronic accounts. The non-selective focus on all of the details revealed inconsistencies in current generalised accounts of Bronze Age trajectories in Central Italy (with periods as units of analysis). These accounts show discrepancies with a data-rich perspective, interpreting the same trajectories as a series of network changes (in each subsequent phase). Unfortunately, the results of the thesis project are too many to be detailed and included in a single volume. Therefore it was decided to devote the thesis proper to the first part of Bronze Age trajectories, to Early Bronze Age networks and network changes in Abruzzo and Lazio in their Central Italian and wider context. This constitutes the first part of a trilogy, to be followed by volumes on networks and network changes in the Middle Bronze Age (Van Rossenberg forthcoming) and in the Late and Final Bronze Ages (Van Rossenberg in prep.). Together the three volumes will make up a "Slow archaeology of Bronze Age networks and trajectories in Central Italy", a data-rich alternative to current generalised accounts.

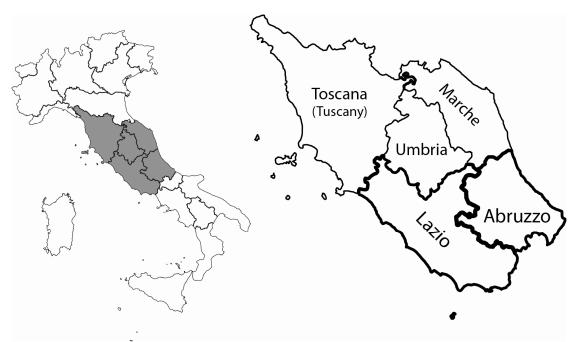


Figure 1.1: map showing the administrative regions of Italy, highlighting the five regions that make up Central Italy, including Abruzzo and Lazio, the main focus of this data-rich synthesis (adapted from http://commons.wikimedia.org/wiki/File:Map of Italy blank.svg).

# 1.2 Bronze Age studies in Central Italy

Archaeological synthesis of social transformation in Italian Bronze Age studies tends to be abstract and overly generalised (Van Rossenberg 1999, 2001) because of a selective focus on the best pieces of the jigsaw. But why is it necessary to keep stressing that current accounts of Bronze Age trajectories in Central Italy are overgeneralised? Here it should be appreciated that the geographical scope of the case study incorporates the Etruscan and (early) Roman heartlands in the region of Lazio (Figure 1.1). This area has long been recognised as a 'hub' in the world system that integrated continental Europe and the Mediterranean by the time of the Early Iron Age (Frankenstein & Rowlands 1978; Sherratt 1993;

Arafat & Morgan 1994; Guidi 1998; Herring & Lomas 2000), if not earlier. For this reason, plenty of time and resources have been invested, by Italian and non-Italian archaeologists alike, in the study of this particular core area of early state formation in Europe and the Mediterranean, to some extent including a concern with its 'prehistory'. In fact, protohistory (Italian: 'protostoria') has emerged as a subdiscipline in Italian archaeology (Peroni 1994; Bietti Sestieri 1996). This subdiscipline is almost exclusively concerned with the study of the Bronze Age-Iron Age transition in the Italian peninsula, but seldom with Bronze Age trajectories in full (e.g. Bietti Sestieri 2010). The focus on early state formation at the Bronze Age-Iron Age transition has dictated the conceptualisation of Bronze Age trajectories in the field of Italian protohistory. 'Later' (Late-Final) Bronze Age networks tend to be approached mainly in terms of the Early Iron Age outcomes, not in their own right. In a reversal of chronological order 'later' Bronze Age networks are not regarded as the outcome of 'earlier' (Early-Middle) Bronze Age networks and network changes. As a consequence, differences between the 'earlier' Bronze Age and the 'later' Bronze Age are, in the end, based on Early Iron Age outcomes, thus engendering a divide that is not only dichotomous but also ahistorical (Van Rossenberg 1999, 2001), juxtaposing the start of Bronze Age trajectories with its culmination. Instead, the focus should lie on Early to Middle to Late to Final Bronze Age network changes, as constitutive of trajectories that are historically significant in themselves, not 'retrospectively' as a corollary of Early Iron Age outcomes.

## 1.2.1 Between Europe and the Mediterranean

As a consequence of the prominent role of Central Italy in debates on Early Iron Age state formation, it has so far played only a minor role in European Bronze Age studies. This works both ways. On the one hand, distribution maps in archaeological syntheses of Bronze Age Europe often show Central Italy as a blank canvas (e.g. Harding 2000, 78 [fig. 3.1], 265 [fig. 7.9]; see also maps in Coles & Harding 1979; Kristiansen & Larsson 2005). A major reason for this lies in the scarcity of non-Italian language publications about the Bronze Age in Central Italy. On the other hand, scholars of Italian protohistory have created a world of their own, mainly deriving from their focus on the 'later' Bronze Age (or the Bronze Age-Iron Age transition). This has left 'earlier' Bronze Age networks in Central Italy to a large extent unexplored in a wider context, both in continental Europe and the Mediterranean. This two-way sense of disconnection has Central Italy cut off from recent developments in European Bronze Age studies, the latter increasingly concerned with interpretive forms of landscape studies (§2.1). It may not have been entirely unhealthy to have let the 'first' and 'second' generations of 'postprocessual' and 'interpretive' archaeologies pass by in the 1980s and 1990s, as Guidi (1987, 1996, 1996a) has argued from an Italian perspective. However, Bronze Age studies can no longer do without Central Italy in a 'third' generation of theoretical and methodological developments. The main challenge faced by this 'third generation' is to deal with the recent convergence of so-called 'processual' and 'postprocessual' research questions in European later prehistory. Steering clear of 'petite histoire' approaches to archaeological interpretation that have been in vogue over the last two or three decades, now the time has come to bring archaeological synthesis back into the equation.

The call for transnational projects in a pan-European context is a first step, provided that the 'big questions' addressed by such projects are not only theoretically fashionable but also methodologically to the point (Harding 2009). Another prerequisite is that they do not shy away from 'unknown' territiories such as Central Italy, in favour of better known Bronze Ages in Greece and Iberia. It is telling that two such recent transnational projects, "Forging Identities: The Mobility of Culture in Bronze Age Europe" (http://www.forging-identities.com) and "Tracing Networks: Craft Traditions in the Ancient Mediterranean and Beyond" (http://www.tracingnetworks.ac.uk), hardly touch upon Bronze Age networks and trajectories in Central Italy. The secluded status of Italian Bronze Age studies from the wider European context has created difference by default. Similarities with continental European and Mediterranean Bronze Age networks and trajectories are overlooked because of this sense of disconnection. In general, it has been uncommon to adopt a common approach to reconstructing Bronze Age cultural landscapes and social networks in Europe and the Mediterranean. The aim of this thesis project (§1.1) is to reinsert Central Italy in European Bronze Age studies by adopting a 'European' approach, without denying that regional differentiation in Bronze Age networks and trajectories should be acknowledged as part of historically specific situations. This includes appreciating regional differentiation in Bronze Age trajectories in the Italian peninsula itself.

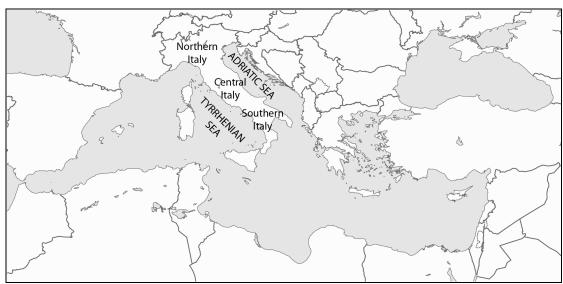


Figure 1.2: map highlighting the central position of the Italian peninsula with respect to Europe, the western and eastern Mediterranean and North Africa (adapted from http://commons.wikimedia.org/wiki/File:Mediterranean Sea location map.svg).

For a start, the differences between Northern Italy, Central Italy and Southern Italy (Figure 1.2) should be recognised, as established in the traditional 'tripartite' regionalisation of the Italian peninsula in Bronze Age studies (Van Rossenberg 1999). The incorporation of the north and the south of the Italian peninsula in the larger spheres (or networks) of continental Europe and the Mediterranean, respectively, has long been appreciated in the study of later prehistory. For instance, the Italian contribution to the pan-European project of the Bronze Age as the first European 'Golden Age' in the 1990s (e.g. Pluciennik 1998; Barber & Van Regteren Altena 1999; Demakopoulou et al. 1999; Eliten 1999) focused on Northern Italy. This larger region is intimately connected to the continent and culturally shared in the circum-Alpine tradition of Bronze Age lake-side settlements. Incidentally, these provided one of the main starting-points for scientific approaches to later prehistory in Europe, including Northern Italy, in the 19th century (Guidi 1987; Marzatico 2004). On the other hand, a key issue in Bronze Age studies of Southern Italy concerns the impact of the 'Mycenaeans' (or generally the Eastern Mediterranean) in the overall context of Mediterranean connectivity (Bietti Sestieri 1988; Bettelli et al. 2006; Jung 2006; Mee 2008; Vianello 2009; Copat et al. 2010). The incorporation of Northern Italy in the continental European sphere and Southern Italy in the Mediterranean sphere leaves Central Italy positioned inbetween those larger networks (Figure 1.2). In a general sense the mediating role of the Italian peninsula as a whole has been acknowledged, but the peculiar situation of Central Italy between the larger spheres of the Mediterranean and continental Europe has received relatively little attention in Bronze Age studies. In particular, the specific role of Central Italy in Bronze Age networks in the Italian peninsula itself, as well as in supra-regional connectivity between Europe and the Mediterranean, has to a large extent been left unexplored.

#### 1.2.2 Emancipating the Early Bronze Age

The relative lack of interest for Central Italy in the wider context of Bronze Age studies is unfortunate, since the region incorporates one of the few areas with copper and tin sources, i.e. the COLLINE METALLIFERE (English: "Metal-Bearing Hills") in Tuscany (cf. Giardino 1998; Harding 2000, 198 [fig. 6.1]). These had probably been exploited since the Copper Age, but definitely more intensively since the Early Bronze Age.<sup>3</sup> Similarly, the 'local' Bell Beaker network connecting Central and Northern Italy tends to be approached in its own regional context (Nicolis & Mottes 1998; Leonini 2004) and is seldom used as a comparandum in a wider European context (Vander Linden 2001/2002, 2006). Taken

<sup>&</sup>lt;sup>2</sup> Cf. Bernabò Brea et al. 1997, i.e. the catalogue accompanying a major exhibition on the Bronze Age in Northern Italy that was partly funded by the Council of Europe.

Although lying immediately outside the geographical scope of the case study proper, the exploitation of copper sources in Tuscany can be linked to Early Bronze Age networks in Abruzzo and Lazio (Chapter 4).

together, the emergence of an Early Bronze Age area of metalwork production in Central Italy (Chapter 4) in relation to a core 'Bell Beaker' region is a significant trajectory, not only in its own regional context but also in a supra-regional context. A closer look at this historical trajectory can both shed light on network changes at the start of the Bronze Age in the Italian peninsula at large and serve as a comparandum for those Late Neolithic/Copper Age-Early Bronze Age trajectories in continental Europe that are characterised by an equally prominent role for Bell Beaker networks. Ideally, such a closer look at network changes that make up the Copper Age-Early Bronze Age transition in Central Italy entails a data-rich synthesis, incorporating as much archaeological evidence as possible. However, Early Bronze Age archaeological records in Central Italy are 'incomplete' (or relatively 'poor'), sandwiched between the 'rich' records of the Copper Age and the Middle Bronze Age. Incidentally, a similar problem is faced by archaeologists in other parts of Europe, including the 'poor' (or seemingly 'incomplete') Early Bronze Age archaeological records in southern Britain (Brück 1999) and the Netherlands (Arnoldussen & Fontijn 2006; Bourgeois & Arnoldussen 2006; Fokkens & Arnoldussen 2008).

The wider geographical scope of this 'Early Bronze Age' problem does not only refer to the methodological issue of archaeological visibility related to so-called 'transitional' periods, or innovations in general (Fokkens 2008). It could also refer to shared characteristics related to a historically specific situation in which distinctive networks emerged at the start of Bronze Age trajectories. Both these issues will be addressed in this thesis, in the attempt at compiling a data-rich synthesis of Early Bronze Age networks and network changes in Abruzzo and Lazio in their Central Italian and wider context. The aim is to explore 'poor' archaeological records of a 'transitional' period, constitutive of a historically significant trajectory nonetheless, in this case the Early Bronze Age in Central Italy. Here it should be stressed that the relative lack of archaeological evidence sits uneasy with a practice that is common in Italian Bronze Age studies. There is a tendency to fill the 'gaps' in 'poor' (or 'incomplete') archaeological records of Central Italy with evidence and patterns taken from Northern Italy and Southern Italy with 'richer' Early, Middle and Late Bronze Age records. The issue that this thesis project therefore has to address, is whether such an interpretive strategy of borrowing is necessary (or inevitable) to fill 'gaps' in Italian Bronze Age studies. It may have constructed peninsulawide similarities where regional differentiation should be expected. Regional differentiation is a major concern in Italian protohistory, hence the 'later' Bronze Age (specifically the Final Bronze Age), focused as this subdiscipline is on ethnogenesis at the Bronze Age-Iron Age transition (Negroni Catacchio 1998), but this has not so much been the case with the earlier phases of the Bronze Age.

The publication of a series of conference proceedings and novel syntheses over the last two decades creates the opportunity to extend the appreciation for regional differentiation from the Final Bronze Age to the earlier phases of the Bronze Age in Central Italy, including the Early Bronze Age (Cocchi Genick 1996, 1998), the Middle Bronze Age (Congresso 1991/1992; Cocchi Genick 1995, 2001, 2002) and the Late Bronze Age (Cocchi Genick 2004; Damiani 2010). At the same time, the deeper problem that 'retrospective' approaches tend to be adopted for reconstructing and conceptualising Bronze Age trajectories in Italian protohistory, cannot be overlooked and should be addressed. To reiterate, this subdiscipline is mainly concerned with the 'later' Bronze Age trajectory of social transformation resulting in Early Iron Age territorial entities, also known as 'protourban' centres (Pacciarelli 2000). These historically significant trajectories resulting in early state formation in Central Italy at the Bronze Age-Iron Age transition tend to be traced back to the Middle Bronze Age, but stop short of the Early Bronze Age and its 'poor' archaeological records. As a consequence, there is a strong tendency to explain 'later' Bronze Age trajectories in terms of their outcome (i.e. in Early Iron Age terms), not in themselves (as the outcome of 'earlier' Bronze Age trajectories). 'Retrospective' approaches have traditionally stressed differences between the 'earlier' Bronze Age and the 'later' Bronze Age in Central Italy. To a large extent, accounts of 'earlier' Bronze Age trajectories have been determined dichotomously, with reference to and starting from 'later' Bronze Age trajectories (if not Early Iron Age outcomes), not the other way around. It cannot be denied that a 'dichotomous' and 'retrospective' approach does acknowledge that Early Bronze Age networks were different from Final Bronze Age networks. However, it does not appreciate that Final Bronze Age networks resulted from Late Bronze Age networks that had emerged from Middle Bronze Age networks and, in the end, had started from Early Bronze Age network changes.

Here it is fair to say that, although a major problem in Italian Bronze Age studies, 'retrospective' approaches to historical trajectories are a more general problem of diachronic interpretation in archaeological synthesis (Chapter 9). Instead, Bronze Age trajectories should be

followed and interpreted in chronological order, not 'retrospectively'. Before making a diachronic comparison, the situation in each subsequent phase of the Bronze Age has to be substantiated and interpreted in its own right and on its own terms, as a 'period piece'. One has to demonstrate (or substantiate) how, in a historically distinctive situation, practices and places were interrelated in cultural landscapes and social networks. This requires a detailed, data-rich form of archaeological synthesis, one that starts from an evidential basis that is more comprehensive than is usually the case in this genre. In turn, keeping the issue of chronological order in mind, each data-rich 'period piece' should be used as a starting-point for diachronic comparison with a subsequent data-rich 'period piece'. In this respect, a data-rich approach appreciates that the situation in one phase sets conditions for the situation in a subsequent phase in historical trajectories, a notion that is lost in 'retrospective' approaches to diachronic comparison. Starting from this notion of consequential order, this thesis aims to emancipate the Early Bronze Age in Central Italy in a data-rich synthesis from later phases of the Bronze Age (if not the Iron Age), in order to understand the historically distinctive character of Early Bronze Age networks and network changes. At the same time, a data-rich understanding of Early Bronze Age networks is a prerequisite for a data-rich understanding of subsequent network changes in Bronze Age trajectories. The emancipation of the Early Bronze Age will have ramifications for current accounts of Bronze Age trajectories in Central Italy and the peninsula as a whole. This thesis is a first step towards a data-rich alternative to generalised diachronic accounts, one that follows chronological order in the trilogy (Van Rossenberg forthcoming & in prep.), different from 'retrospective' approaches ingrained in the field of Italian protohistory.

# 1.3 Different Bronze Ages: the case of Abruzzo and Lazio

The five regions that make up Central Italy are Tuscany, Umbria, Marche, Abruzzo and Lazio (Figure 1.1). Generally, two approaches can be discerned in archaeological syntheses of the Bronze Age in this larger region. At one extreme, book-length 'supra-regional' syntheses usually deal with a single phase of the Bronze Age in Central Italy (or the Italian peninsula) as a whole (Peroni 1971; Cocchi Genick 1995, 1998, 2001, 2002; Damiani 2010). At the other extreme, syntheses of Bronze Age trajectories covering more than one phase (and often including the Early Iron Age) adopt parts of regions as units of analysis (either administrative provinces or micro-regions), seldom one of the five administrative regions at large, let alone Central Italy as a whole. Other forms of supra-regional synthesis that cover Bronze Age trajectories on the scale of Italy as a whole, including Sicily and Sardinia, can be found in handbooks (e.g. Guidi & Piperno 1992; Bietti Sestieri 1996, 2010). By default, these tend to be less detailed (or more selective) than the book-length 'supra-regional' syntheses that deal with a single phase of the Bronze Age in Central Italy (or the Italian peninsula). Articles that focus on the details of one particular element in cultural landscapes (such as cave use, funerary practices, metalwork or settlement patterns) in a single phase or a series of phases making up a Bronze Age trajectory, constitute a final form of synthesis. Such overview articles can be found in the proceedings of the series of recent conferences on the Early Bronze Age (Cocchi Genick 1996), the Middle Bronze Age (Congresso 1991/1992) and the Late Bronze Age (Cocchi Genick 2004) in Italy. At present, syntheses of Bronze Age trajectories covering all of its constituent phases, incorporating as much detail as possible from one administrative region in Central Italy, do not exist.<sup>4</sup> The aim of this thesis project is to fill this gap with a case study in data-rich synthesis of Bronze Age trajectories in two such regions (§1.1).

#### 1.3.1 Geographical considerations

The geographical scope of two regions, in this case Abruzzo and Lazio (Figures 1.1 & 1.3), is a methodological prerequisite for the network approach adopted in this thesis project (§1.4). It is common practice to select micro-regions as units of analysis for the synthesis of Bronze Age trajectories, a symptom of 'retrospective' approaches (§1.2.2). The preference for micro-regions seems dictated by a notion of territoriality that is evident in the Early Iron Age of Central Italy (henceforth, the 'Iron Age model'). The 'protourban' settlements that had emerged in the Final Bronze Age (Pacciarelli 2000) constituted nodes in networks (or 'central places') with a determining role in the

<sup>&</sup>lt;sup>4</sup> One regional synthesis of Abruzzo (D'Ercole 2000) compares the Bronze Age as a whole with the Iron Age as a whole, thereby collapsing several phases of the Bronze Age into a single, 'synchronic' Bronze Age entity that therefore does not reflect the past realities in separate phases. Another regional synthesis of the Bronze Age in Abruzzo (Bietti Sestieri 2003) to a large extent excludes the Early Bronze Age.

organisation of cultural landscapes. The 'retrospective' presumption is that the geographical scale of the 'Iron Age model' is also appropriate for the study of Bronze Age notions of territoriality and central places. However, the scale of the micro-region (or an administrative province) is not such a self-evident starting-point for the reconstruction of Bronze Age landscapes, networks and trajectories. Recent syntheses of the Early and Middle Bronze Ages in Central Italy as a whole (Cocchi Genick 1995, 1998, 2001, 2002) have shown that in these phases notions of territoriality and central places differ considerably from the Early Iron Age (and presumably the Late and Final Bronze Ages). Early and Middle Bronze Age cultural landscapes covered a larger geographical scale than the 'early state modules' in the Early Iron Age. Such diachronic differentiation in notions of territoriality demonstrates that the micro-region cannot be regarded as a self-evident unit of analysis. In order to follow trajectories of network changes from the Bronze Age into the Early Iron Age, the analysis has to be scaled up beyond the micro-region of the 'Iron Age model'.



Figure 1.3: map (adapted from http://it.wikipedia.org/wiki/File:Italy\_topo graphic\_map-blank.svg) of the Italian peninsula, highlighting the location of Abruzzo and Lazio with respect to the APENNINE MOUNTAINS.

A consequence of the preference for sub-regional approach in Italian protohistory is that syntheses of Bronze Age trajectories in the Italian peninsula have focused on regions on either side of the peninsula. The APENNINE MOUNTAINS, commonly regarded as the 'spine' of the Italian peninsula (Figure 1.3), are often used as a convenient natural boundary delimiting units of analysis. As a consequence, mountainous zones tend to be excluded from areas of research. Syntheses of Bronze Age trajectories seldom cross the APENNINES, focused as they are on either the Tyrrhenian side or the Adriatic side of the peninsula. For instance, Pacciarelli (2000) compares Bronze Age-Early Iron Age trajectories in the Tyrrhenian parts of Central and Southern

Italy. He follows the prevalent micro-regional scope in the form of a series of case studies that are spatially separated by long distances and cannot be linked up into larger networks. The same problem can be found in the Dutch "Regional Pathways to Complexity" (RPC) project, explicitly aimed at interregional comparison and synthesis of long-term trajectories in the Italian peninsula (Attema et al. 1998; Burgers 2002; Attema et al. 2010). Both are methodologically not adept to address the issue of the geographical scope of Bronze Age networks, because they are based on micro-regions as units of analysis that are not contiguous but separated by long distances. Similarly, on the Adriatic side of the peninsula, it is common practice to select one of the many valleys with rivers running from the APENNINES to the coast as self-evident micro-regional units of analysis (e.g. Barker 1995; Fratini 1997a, 1997b; Vermeulen et al. 2002; Ardesia 2006).

The preference for sub-regional units of analysis situated on one or the other side of the peninsula does not only limit the scope of analysis, but it also leaves the cross-APENNINE dimension of networks in the Italian peninsula out of the picture. On the one hand, this bias has rightly stressed that the 'spinal' location of the APENNINES would have favoured social interaction over long distances to follow a 'coastal' axis of directionality, connecting the continental European sphere with the Mediterranean sphere (Figure 1.3). On the other hand, it has left cross-APENNINE interaction,

<sup>&</sup>lt;sup>5</sup> In addition, there has been a tendency in the RPC project to adopt the Bronze Age as a single, 'synchronic' unit of analysis in long-term trajectories, rather than its constitutive phases.

connecting the Tyrrhenian and Adriatic sides of the peninsula, to a large extent unexplored. A corollary of the 'coastal' focus in Italian Bronze Age studies is the emphasis on external stimuli for social transformation, to a large extent disregarding the role of cross-APENNINE interaction in Bronze Age network changes. In particular, the 'coastal' impact of seaborne 'Mycenaeans' since the Middle Bronze Age (Bietti Sestieri 1988; Bettelli et al. 2006; Jung 2006; Copat et al. 2010) has long been regarded as the main indicator of the incorporation of the Italian peninsula in supra-regional, so-called 'international' networks covering long distances. Thereby the possibility of 'local', Italian Bronze Age seafaring tends to be disregarded despite the evidence for Neolithic and Copper Age traditions in the Tyrrhenian Sea (e.g. Tykot 1996; Copat et al. 2010) and the Adriatic Sea (e.g. Farr 2006; Forenbaher 2008, 2009). At the same time, the role of 'terrestrial' exchange networks in the distribution of socalled 'Mycenaean' material culture cannot be overlooked (Cazzella & Recchia 2009). Exploring the issue of seaborne connectivity in more detail requires a peninsula-wide approach and lies to a large extent outside the scope of this thesis project, following from the selection of Abruzzo and Lazio as the geographical scope of the case study (Figure 1.1). Taken together, however, these administrative regions make up a cross-section of the Italian peninsula that incorporates the highest peaks of the APENNINES (Figure 1.3). Contrary to sub-regional approaches, this geographical scope creates the opportunity, to appreciate the cross-APENNINE dimensions of Bronze Age networks in Central Italy.

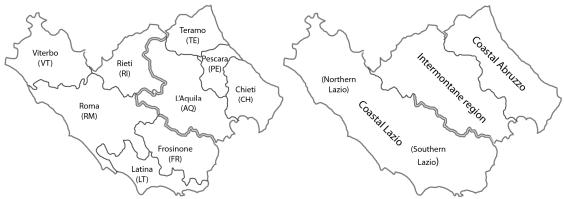


Figure 1.4: map showing (on the left) the constituent administrative provinces of Abruzzo and Lazio and (on the right) the regions used as units of analysis in this study (adapted from http://commons.wikimedia.org/wiki/File:Map of Italy blank.svg).

Instead of taking the two administrative regions as units of analysis, in the case study the nine constituent provinces of Abruzzo and Lazio will be divided between three larger, 'regional' entities (Figure 1.4). The provinces of Teramo (TE), Pescara (PE) and Chieti (CH) make up 'coastal Abruzzo'; Rieti (RI) and L'Aquila (AQ) the 'intermontane region'; Viterbo (VT), Roma (RM), Latina (LT) and Frosinone (FR) 'coastal Lazio'. The latter region will, given its relatively large size, stretching further north than 'coastal' Abruzzo and the intermontane region (Figure 1.4), on occasion be subdivided in the description and analysis of Bronze Age cultural landscapes and social networks in the case study (§1.4). In these cases the larger regional entity is divided between 'northern Lazio' (also known as Southern Etruria) and 'southern Lazio' (Figure 1.4). This subdivides the province of Roma (RM) and takes the lower course of the TIBER river that runs east-west into the Tyrrhenian Sea, as an analytical boundary. This does not only create two sub-regional entities of similar size, but 'northern Lazio' and 'southern Lazio' can also be connected to two sets of cross-APENNINE routes, one through the province of Rieti (RI) (and the region of Umbria) and the other through the province of L'Aquila (AQ) (Figure 1.4). A final geographical consideration is that Bronze Age networks in Abruzzo and Lazio would have extended into adjacent regions, situated immediately outside the geographical scope of the thesis project, i.e. Tuscany, Umbria and Marche to the north (Figure 1.1) and Campania and Molise to the south. The self-inflicted truncation of Bronze Age networks by these analytical boundaries is to some extent remedied by the general introduction of the Early Bronze Age in Central Italy at large that serves as a frame of reference, sketching relevant broader patterns in some detail (Chapter 3).

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<sup>&</sup>lt;sup>6</sup> Here the sub-regional syntheses that have recently become available for the Bronze Age and Early Iron Age in the mountainous parts of Lazio (Belardelli & Pascucci 1996) and Abruzzo (Ialongo 2007), can be incorporated in the case study.

#### 1.3.2 Chronological considerations

The thesis project adopts a long-term approach to studying Bronze Age networks and trajectories in Central Italy (§1.1). It does not question the basic chronological framework of periodisation, in this case the subdivision of the Italian Bronze Age in four main phases (Table 1.1). The examination of absolute and relative chronologies will be limited to the Early Bronze Age in this part of the trilogy. Nonetheless, it does include a consideration of (typo)chronological issues at the Copper Age-Early Bronze Age transition and the Early Bronze Age-Middle Bronze Age transition. Each part of the trilogy deals with a period of the same duration, approximately 350-400 years in conventional (or quasi 'absolute') dates, i.e. the Early Bronze Age, the Middle Bronze Age and the Late-Final Bronze Ages (Table 1.1). The approximate similarity in duration means that, in the end, temporalities of change can be compared with the Early, Middle and Late-Final Bronze Ages as units of analysis.

| English                 | 'Conventional' dates  | Italian                  | The data-rich trilogy   |
|-------------------------|-----------------------|--------------------------|-------------------------|
| Copper Age (CA)         | 4th-3rd millennium BC | Eneolitico (E)           | -                       |
| Early Bronze Age (EBA)  | c. 2200-1700 BC       | Bronzo antico (BA)       | this book               |
| Middle Bronze Age (MBA) | c. 1700-1350 BC       | Bronzo medio (BM)        | Van Rossenberg          |
|                         |                       |                          | forthcoming             |
| Late Bronze Age (LBA)   | c. 1350-1200 BC       | Bronzo recente (BR)      | Van Rossenberg in prep. |
| Final Bronze Age (FBA)  | c. 1200-1000 BC       | Bronzo finale (BF)       |                         |
| Early Iron Age (EIA)    | c. 1000-800 BC        | Prima età del ferro (FP) | -                       |

Table 1.1: Bronze Age chronology in Central Italy (and abbreviations used).

Here it should be noted that the chronological positions of the four phases of the Italian Bronze Age (Table 1.1) do not always align with the 'same' periods in a wider European and Mediterranean context. At present, these 'mismatches' cannot be remedied by an independent chronological framework that is clearly delimited by absolute dates for later prehistory in Italy. Although the numbers of radiocarbon dates for Bronze Age contexts from Central Italy have definitely increased over the last one or two decades (Skeates 1994; Skeates & Whitehouse 1994a, 1995/1996, 1997/1998; Skeates 1999/2000, 2001/2003), still a lot of ground has to be covered before we can speak of a chronological framework based on absolute dates for Bronze Age studies in Central Italy (or the peninsula as a whole). For instance, the systematic radiocarbon dating programme of the University of Groningen is focused on the Iron Age around the Mediterranean (Van der Plicht et al. 2009) and thereby follows the concern in Italian protohistory with the 'later' Bronze Age-Early Iron Age transition (§1.2.2), to the detriment of a better grasp of 'earlier' Bronze Age chronology. In addition, when available, there is a tendency not to publish radiocarbon dates for 'earlier' Bronze Age contexts in full detail, excluding the radiocarbon date itself and limiting information to an undefined 1σ or 2σ date range. The paucity of an absolute chronological framework and related problems will be discussed in more detail in the general introduction, focused on the Early Bronze Age in Central Italy (§3.3).

The absence of an absolute chronological framework turns the 'four-dimensional jigsaw' of Bronze Age studies in Central Italy into one that is predominantly based on typochronology. As a consequence, recent syntheses that are explicitly aimed at refining the existing framework of periodisation have a major impact. Subdivisions have been put forward for typochronologies of Bronze Age ceramics (Cocchi Genick 1999), in particular the Early Bronze Age (Cocchi Genick 1998), the Middle Bronze Age (Macchiarola 1987; Cocchi Genick 1995, 2001, 2002) and the Late-Final Bronze Ages (Domanico 1998; Negroni Catacchio 1998a; Cocchi Genick 2004a; Damiani 2010). It should be appreciated, however, that these subdivisions are not always uncontested. The chronological position of particular subphases is debated and sometimes their validity as a distinctive phase in Bronze Age trajectories has been questioned for Central Italy (or the Italian peninsula as a whole), for instance, subphases at the Early Bronze Age-Middle Bronze Age transition (Chapters 3 & 9). Nonetheless, the increasingly refined typochronologies of Bronze Age ceramics currently provide the best opportunity to refine our understanding of networks and trajectories in Central Italy, given the lack of chronological precision based on absolute dates (see above). Provided that agreement exists (or can be reached) on the order of (sub)phases, the grasp of chronological order in Bronze Age trajectories can be refined on the basis of 'fuzziness' in typochronologies. With the number of subphases that subdivide the four main phases of the Italian Bronze Age (Table 1.1), the degree of overlap between typochronological entities increases. The paradox is that where typochronologies do not fit neatly, it is the resulting overlap between periods, phases and subphases that can put and keep the pieces of a 'four-dimensional jigsaw' in place (Chapter 9).

This potential of 'typochronological fuzziness' is lost in syntheses of the Italian Bronze Age with the tendency to lump several (sub)phases together. In general, taking several (sub)phases of the Bronze Age together as a single unit of analysis increases the generalising character of a basic interpretive framework such as periodisation. In particular, a lack of appreciation for potential overlap between phases distorts in-depth understandings of historical trajectories (as network changes), including notions of continuity and discontinuity in past realities. The data-rich approach adopted in this thesis project breaks with the tendency to follow a generalising approach that takes the four main phases (i.e. Early Bronze Age, Middle Bronze Age, Late Bronze Age and Final Bronze Age) as units of analysis in diachronic comparison (Table 1.1). Instead, it takes subphases as units of analysis and tries to fit these in a 'four-dimensional jigsaw' before generalising about main phases (or periods) in a synthesis of Bronze Age trajectories. Such a 'refined' approach (with subphases as units of analysis) creates the opportunity to appreciate what a 'generalising' approach (with main phases or periods as units of analysis) glosses over, for instance, differentiation in archaeological visibility between (sub)phases of the Bronze Age. It helps to strengthen the notion that the Early Bronze Age, subdivided in two main phases or three subphases on the basis of ceramics typochronology (Chapter 3), constitutes a historical trajectory of network changes in and of itself. At the same time, it departs from syntheses of Bronze Age networks and trajectories on a European scale, which often only make a distinction between an 'earlier' phase and a 'later' phase of the Bronze Age (e.g. Coles & Harding 1979), thereby avoiding more specific issues of 'typochronological fuzziness' rather than exploring them from a network perspective (see above).

A final concern is the synchronisation of the distinct typochronologies for ceramics and metalwork and the incorporation of Bronze Age metalwork in the 'four-dimensional jigsaw'. Bronze Age depositional patterns tend to dissociate metalwork from ceramics, either in larger hoards of metalwork or as single object depositions (Chapter 4). The latter have been commonly described as socalled 'isolated objects' ("oggetti isolati") in Italian protohistory. This generally dissociative pattern means that ceramics and metalwork typochronologies have largely remained 'floating chronologies' despite attempts at their synchronisation in Italian Bronze Age studies (e.g. Carancini & Peroni 1999). In other words, it often remains unclear which instances of metalwork deposition should be situated in which networks of other places. This problem constitutes a form of 'typochronogical fuzziness' that is cross-classificatory, involving different types of place. Establishing the relationships between different types of place lies at the heart of the network approach adopted in this thesis project (§1.4). The particular issue to be addressed in this thesis is how the three or four phases (or 'horizons') in Early Bronze Age metalwork typochronology (Chapter 4) refer to the two main phases (or three subphases) that in Early Bronze Age ceramics typochronology in Central Italy (Chapter 3). The problem at hand is not one of a lack of pieces available, but establishing the particular places of types of metalwork and ceramics in the 'four-dimensional jigsaw' of Early Bronze Age networks. Suited as a data-rich approach is to pick up on similarities and differences in detail, its added value lies in a better grasp of chronological sequence, appreciating the notion that a prior situation sets conditions for each subsequent phase in Bronze Age trajectories. Only then the position of the Early Bronze Age as a 'transitional' period in historical trajectories can be resolved.

## 1.3.3 Archaeological records

The numbers of pieces for the Early Bronze Age jigsaw in Central Italy are relatively low, but the question is whether these 'poor' archaeological records can be linked to the 'transitional' character of this period in historical trajectories (§1.2.2). The debate concerning archaeological records has relatively recently moved beyond mere source criticism, appreciating underrepresentation ('gaps') and overrepresentation in extant bodies of archaeological evidence. Currently, issues of temporalities and modalities of change are addressed, as well as how these can be approached by taking the structural properties of the archaeological record into account or historical trajectories of transitions and change (e.g. Olivier 2001; Fokkens 2008). At face value, the current state of Early Bronze Age archaeological records in Central Italy shows a high degree of regional differentation (Chapter 3). Archaeological records in the two regions selected for the case study in this thesis project show a pronounced imbalance. In general, the situation in each phase of the Bronze Age is not as well-known in Abruzzo as in Lazio. This imbalance largely results from the focus on 'coastal' Lazio (incorporating Southern Etruria and the city of Rome) as one of the key areas in studies of early state formation in Italian protohistory and world archaeology (§1.2). Regional differentiation in the general intensity of fieldwork and research means that the Early Bronze Age archaeological records of Abruzzo and Lazio

are not on an equal footing in an attempt at data-rich synthesis. However, this imbalance does not prevent a data-rich approach from appreciating whether particular 'gaps' in archaeological records should be regarded as missing pieces of the 'four-dimensional jigsaw' (i.e. absence of evidence) or as a past reality (i.e. evidence of absence). There is no doubt that reinterpretation and final publication of past research, as well as continuing and future research will continue to fill the 'gaps' in Early Bronze Age archaeological records. It remains to be seen, however, whether all of these 'gaps' in archaeological records can be filled in the end.

The possibility has to be appreciated that some of the patterns of underrepresentation and overrepresentation refer to differentiated past realities following from historically specific situations and trajectories. Inherent in the notion of network changes is that trajectories of change create 'gaps', since things in a resulting situation would have been different from the one before. A consideration of the structure of archaeological records, including 'gaps', lies therefore at the heart of the network approach adopted in this thesis project, or in fact the issues that any attempt at inter-regional comparison has to address. There is a tendency in Italian Bronze Age studies to fill 'gaps' in archaeological records, based on the presumption that the presence of one type of place (e.g. a place of burial) in a given micro-region implies the presence of another type of place (e.g. a settlement) in the same micro-region. This presumption denies the possibility of historically specific situations that are not distinguished by such one-to-one relationships between different types of place. Instead, differentiation in the distribution of types of place should not be discounted offhand, but deserves to be explored as a historically specific situation in and of itself. A closer look at 'inconsistencies' in the distribution of types of place does not only have the potential to shed a different light on Bronze Age networks. Similar to 'typochronological fuzziness' (§1.3.2), patterns in uneven distributions can help to put and keep the pieces of the 'four-dimensional jigsaw' in place. Since absence of evidence may have resulted from network changes, 'gaps' are more informative about historical trajectories than often presumed.

# 1.4 Thesis outline: a multi-dimensional jigsaw

To address all of the issues highlighted so far seems too much to ask of a single theoretical and methodological framework. The issues at stake show that archaeological synthesis is complicated and should not be taken light-heartedly. In this thesis I will argue that the answer to resolving a jigsaw that is multi-dimensional and misses many pieces, lies in adopting a network approach, one that refines the concern with networks implicit in archaeological interpretation and synthesis. Archaeologists have been adopting a network approach since the inception of the discipline, although not always explicitly. In particular, a basic interpretive framework such as periodisation is an attempt at connecting archaeological sites and assemblages into a single frame of reference. Attributing sites to a particular period (or phase) implies that these are regarded as part of a network of broadly contemporary places. Similarly, attributing different types of place, such as settlements, seasonal sites and cemeteries, to a single period (or phase) implicitly adopts a relational, 'multi-sited' approach to social life. The presumption is that people's lives were not confined to a single settlement, but followed courses that connected them to a range of places. Both these implicit notions of relationality in archaeological interpretation and synthesis can be made explicit by referring to sites (or rather, places) as nodes in networks. A network approach that interprets places in cultural landscapes as nodes in social networks, converges with the 'multi-sited' methodological concern in archaeological synthesis. In order to put the pieces of the 'four-dimensional jigsaw' in place, archaeological synthesis of Bronze Age networks and trajectories requires that all types of place are taken into consideration simultaneously, with special reference to their spatial distributions.

Chapter 2: Archaeological synthesis of Bronze Age networks and trajectories

The concepts and terminology, theory and methodology used in this thesis project will be elucidated in Chapter 2. It incorporates a critical analysis of the theoretical and methodological frameworks that underlie current landscape and network approaches. I will argue that these have unwillingly created a divergence between forms of archaeological synthesis in European and Mediterranean Bronze Age studies, respectively. The analysis starts with making a basic distinction between (cultural) landscapes and (social) networks. This distinction is analytical, as landscapes and networks are constituted by precisely the same places. Studying landscapes as networks of places is problematic, however, because European landscape approaches and Mediterranean network approaches are selective and generalising.

Both strands of archaeological synthesis focus on particular places and thereby introduce generalised notions of place in the equation. This selective focus is also a major impediment to spatial analysis, which should not deal with places in general, but with 'actual' places as nodes in networks. As an alternative, I will set out to reconcile a study of relationships between places in cultural landscapes with a study of the same places as nodes in social networks. By appreciating the basic complementarity of landscapes and networks, this approach can serve as a starting-point for interpreting historical trajectories as a series of network changes, in terms of changing relationships between 'old' and 'new' places.

In order to be reconciliatory, this alternative approach should be data-rich, taking as much archaeological evidence into consideration as possible. In other words, the aim is a "slow archaeology" of Bronze Age trajectories. Starting from this theoretical and methodological framework, the broad classification of four types of place, established in Italian Bronze Age studies, has been followed in the thesis project (§1.1). Step-by-step, metalwork deposition (Chapter 4), burial (Chapter 5), cave use (Chapter 6) and settlement patterns (Chapter 7) will be discussed in detail, phase-by-phase and from two different angles. Each set of places (and/or practices) will first be described as a form of placemaking from the perspective of cultural landscapes, with a focus on spatial and contextual patterns. Subsequently, relationships between the same places will be approached from the perspective of social networks. The resulting data-rich, 'thick' descriptions of each set of places will then be juxtaposed in a 'multi-sited' synthesis, with a focus on spatial and contextual relationships that together substantiate each historical situation as a network of places (Chapter 8). This step-by-step, phase-by-phase, 'multisited' and data-rich approach assembles pieces of the 'four-dimensional jigsaw' into larger multifaceted elements (i.e. networks) that can be used for diachronic comparison (Chapter 9). It creates the opportunity to follow changes from one historical situation into another and to interpret these as network changes. It facilitates a synthesis of Bronze Age networks, network changes and trajectories in their own right and on their own, historically specific terms (this thesis; Van Rossenberg forthcoming & in prep.), different from 'retrospective' approaches in Italian protohistory (§1.2.2).

#### Chapter 3: Introducing the Early Bronze Age in Central Italy

The case study of networks in Abruzzo and Lazio (Chapters 3-8) starts with an introductory chapter that explores the basic interpretive frameworks in the study of the Early Bronze Age in Central Italy. The question is to what extent these frameworks are compatible (or at odds) with the network approach adopted in this thesis. First, I will address the issue of regional differentiation based on an overview of Early Bronze Age archaeological records in Central Italy (§3.1). This underscores the regional and historical peculiarities of the evidential basis for the reconstruction of Early Bronze Age cultural landscapes and social networks in Abruzzo and Lazio. Secondly, the relative chronology based on the most recent typological classification of Early Bronze Age ceramics in Central Italy (Cocchi Genick 1998) will be assessed and explored from a network perspective (§3.2). Here the spatial, relational dimensions implicit in typochronologies will be visualised as a series of 'typochronological networks' (or 'typo-networks'), one (or two) for each of the three subphases of the Early Bronze Age (i.e. BA1A, BA1B, BA2). Typochronological relationships between places (in terms of vessel types shared between their respective assemblages) are used as a proxy for Early Bronze Age networks in Central Italy, in each subphase and diachronic comparison. This exercise does not only appreciate that typochronology is a relational framework, but it also questions the framework of bounded culture-historical entities (i.e. cultural groups and boundaries) reconstructed on the basis of the same ceramics typochronology (Cocchi Genick 1998). The 'floating' chronology based on the typological classification of Early Bronze Age ceramics (§3.2) will at a later stage be juxtaposed and compared with the typochronologies and spatial distributions of Early Bronze Age metalwork in Central Italy (Chapter 4).

The general introduction will proceed with the juxtaposition and comparison of relative with absolute chronologies (§3.3). In the meagre absolute chronological framework for the Early Bronze Age in Central Italy (§1.3.2) so-called 'dating anomalies' stand out and deserve attention, as these seem to be at odds with relative chronologies. The question is whether such dates are simply 'anomalous' or should be regarded as a cautionary tale, not to take relative chronologies for granted. These (typo)chronological issues need to be resolved as part of the attempt at getting the pieces of the 'four-dimensional jigsaw' in place, appreciating and engaging with the currently 'floating' character of relative and absolute chronologies. The final interpretive framework concerns environmental and climatic sequences that are available for closed basins in Abruzzo and Lazio (§3.4). Several major environmental changes took place in the Early Bronze Age, including the eruption of the SOMMA-

VESUVIUS volcano that destroyed villages in the region of Campania, to the south of Lazio, and the onset of drier conditions (a so-called 'dry event'). Given the generally wide geographical impact of climatic and environmental changes, these can be used as another structuring element in getting the pieces of the 'four-dimensional jigsaw' in place. This thesis does not include a separate description of the physical landscapes of Abruzzo and Lazio, Central Italy or the peninsula as a whole (cf. Barker 1981; Guidi & Piperno 1992), apart from the general remarks made above (§1.3.1). Additional specifics of physical landscapes can be found in the descriptive overviews of spatial patterns for each constitutive element of cultural landscapes (Chapters 4-7). This approach appreciates that climate and environment are not simply a backdrop for cultural landscapes and social networks, but an intricate part of historical trajectories.

Chapter 4: From copper to bronze: deposition, exchange and production of Early Bronze Age metalwork

The Copper Age-Bronze Age transition has traditionally been defined by the introduction of tin to the composition of metalwork. This transition does not only refer to a change in the material properties of metalwork, but also to network changes that facilitated the distribution of tin from a limited number of sources. Network changes in the Italian peninsula related to this metallurgical innovation are epitomised by the so-called Early Bronze Age 'hoarding phenomenon' in Central Italy (Carancini 1996; Cocchi Genick 1998; Carancini & Peroni 1999). This 'phenomenon' will be approached as a historical trajectory in this thesis, based on the typochronological sequence of three (or four) 'horizons' and the spatial distributions of hoards consisting of axes, ingots and/or metal-hilted daggers (German: "Vollgriffdolche"; cf. Uenze 1938; Schwenzer 2004). In addition, composition analyses of raw material that are available for the constituent objects of hoards will be compared, in an attempt at reconstructing metallurgical spheres and at relating technological innovations to network changes in Central Italy (§4.1). Subsequently, a spatial and contextual analysis of Early Bronze Age metalwork from Abruzzo and Lazio (§4.2) will provide a starting-point for the interpretation of metalwork deposition as a form of place-making from the perspective of cultural landscapes. This analysis includes single finds of metalwork and thereby remedies the predominant, if not exclusive concern with hoards (i.e. multiple object depositions) in Italian Bronze Age studies (e.g. Cocchi Genick 1998). The patterns that emerge from the spatial and contextual analysis, will then be compared with the specifics available for the same pieces of Early Bronze Age metalwork from Abruzzo and Lazio (§4.3). This comparative analysis of the composition of raw material and the size distributions of classes of metalwork will address the question which metallurgical knowledge was (or became) available in Abruzzo and Lazio in the Early Bronze Age (§4.3). Bringing all of the patterns from these analyses together, the conclusion will entail an attempt at reconstructing the position of Abruzzo and Lazio in relation to Early Bronze Age exchange networks and metallurgical spheres (§4.4).

Chapter 5: Doing away with the dead: the low archaeological visibility of Early Bronze Age burial Apart from the 'hoarding phenomenon' (Chapter 4), the most prominent element in Early Bronze Age network changes in Abruzzo and Lazio is the abandonment of Copper Age places of burial. A spatial and contextual analysis will show that this network change is part of a dramatic change in the archaeological visibility of funerary practices (§5.1). The few details that are available for Early Bronze Age funerary practices in Abruzzo and Lazio will be discussed in terms of evidence for selective burial, based on the age and sex/gender distributions of buried individuals, and in terms of evidence for secondary burial, based on patterns of over- and underrepresentation of particular skeletal elements (§5.2). The patterns that emerge from this analysis can be used to substantiate that the low archaeological visibility of Early Bronze Age funerary practices was a past reality. The same patterns can be linked to changes in notions of ancestorhood. In general, network changes seem to have turned burial into a less prominent form of place-making than before in Copper Age cultural landscapes.

## Chapter 6: Underground place-making: Early Bronze Age cave use

Caves emerge as a distinctive form of place-making from Cocchi Genick's synthesis (1998) of the Early Bronze Age in Central Italy. A spatial analysis will show that cave use in Abruzzo and Lazio did constitute a significant form of place-making in Early Bronze Age cultural landscapes, but not one that was widespread. Based on a diachronic analysis of the respective trajectories of cave use (or place histories), it can be argued that cave use in Abruzzo and Lazio largely followed Copper Age patterns

(§6.1). The uneven distribution of caves with traces of Early Bronze Age use underscores that these places occupied peculiar positions in cultural landscapes, but also that they constituted significant nodes in social networks. These spatial and diachronic patterns will be informed by a so-called polythetic classification of the constituent objects and substances of cave assemblages (§6.2). The resulting polythetic distinctions (i.e. patterns of differentiation and similarities) can be used to interpret cave use as a form of selective deposition. Based on these depositional patterns, the common practice to interpret caves as a single type of place (linked to a single notion of place) will be questioned. The spatial, diachronic, contextual and polythetic analyses can be used to substantiate that caves were distinctive places, occupying particular positions in networks. In turn, these patterns can be used to inform reconstructions of cultural landscapes as a whole and their interpretation as social networks.

Chapter 7: Changing places: Early Bronze Age settlement patterns and mobility

By far the majority of Early Bronze Age places in Abruzzo and Lazio are open-air sites (Italian: 'sito all'aperto', as opposed to caves). Open-air sites tend to be interpreted invariably as settlements in Italian protohistory, but from a network perspective the question is whether different forms of placemaking can be distinguished among open-air sites. First, the spatial distribution of open-air sites will be discussed in relation to other types of place (Chapters 4-6). These 'thick descriptions' of cultural landscapes on sub-regional scales will highlight that 'gaps' in Early Bronze Age archaeological records are not random. The distributions of different types of place are complementary and add up to a zonal structure of cultural landscapes (§7.1). Subsequently, trajectories of change in 'regional' settlement patterns in Abruzzo and Lazio will be discussed based on 'typo-networks' (§7.2), similar to the relational assessment of Early Bronze Age ceramics typochronology in Central Italy as a whole (§3.2). This analysis will incorporate the recent syntheses of settlement patterns in the intermontane FUCINO BASIN (Ialongo 2007) and 'coastal' southern Lazio (Alessandri 2007, 2009). These postdate Cocchi Genick's synthesis of Central Italy (1998) and can therefore help to highlight changes in the structure of connectivity and settlement patterns in Abruzzo and Lazio in more detail (§7.2). This analysis of settlement patterns will be followed by a polythetic classification of the constituent objects and substances of open-air assemblages, including the presence (or absence) of structural remains and features (§7.3). Similar to cave assemblages (§6.2), the resulting polythetic distinctions between groups of assemblages can be linked to distinctive notions of place. This underscores the problematic character of interpreting any open-air site unequivocally as a settlement. Finally, the issue of mobility patterns in Early Bronze Age settlement patterns will be addressed (§7.4). In particular, this analysis concerns socalled 'pastoralist' and 'hunting' signatures in faunal samples, commonly linked to seasonal and/or residential mobility. This analysis will add another dimension to the patterns that emerged from the 'thick descriptions' of cultural landscapes, the diachronic analysis of regional settlement patterns and the polythetic analysis of the specifics of open-air sites. It provides a starting-point for rephrasing patterns of mobility in terms of cultural landscapes and social networks.

Chapter 8: The first fifteen to twenty generations in Central Italy: a synthesis of Early Bronze Age cultural landscapes and social networks

The order in which the four selected elements from Early Bronze Age cultural landscapes will be discussed, has an accumulative effect. The patterns established by the spatial and contextual analyses of metalwork deposition (Chapter 4), burial (Chapter 5) and cave use (chapter 6), set the agenda for the interpretation of settlement patterns (Chapter 7). As a result, the burden in recognising network changes is no longer on the latter alone, different from the focus on settlement patterns in the predominant, 'territorial' form of archaeological synthesis in Italian Bronze Age studies (§1.2). To this end, the summaries of the analyses and interpretations of the constituent elements of cultural landscapes and social networks (§4.5; §5.3; §6.3; §7.5) will include a number of 'multi-sited' questions, concerning relationships of each selected element to other types of place. These questions can only be answered in a 'multi-sited' analysis that is non-selective and takes all forms of place-making into account simultaneously. The first part of this synthesis will consider the Early Bronze Age archaeological records for Abruzzo and Lazio in more detail (§8.1). A comparison of the archaeological visibility of all elements will check for correlations in the presence and/or absence of particular phenomena. This can provide clues for the subsequent 'multi-sited' analysis (§8.2) that will bring the distribution maps of several elements together in a single series of maps by subphase. Based on a 'multi-sited' analysis, a 'gap' can be appreciated better for what it is, a lacuna (i.e. a research bias) or the result of distinctive, uneven spatial distributions, intimately related to the specifics of place-making (i.e. a cultural bias).

Then, bringing the 'multi-sited' analysis together with patterns that could be linked to distinctive notions of place (Chapters 4-7), an attempt will be made to interpret Early Bronze Age cultural landscapes in terms of relational notions of place or cosmologies (§8.3). A 'multi-sited' perspective on the generational changes in social reproduction that would have constituted the trajectories of network changes in this 'transitional' period (§8.4), will conclude the data-rich synthesis of Early Bronze Age networks in Abruzzo and Lazio.

Chapter 9: Thick, rich, slow: implications for the study of Bronze Age trajectories

In the end, What does a data-rich approach to archaeological synthesis of networks and trajectories contribute to Italian Bronze Age studies in particular and to European and Mediterranean Bronze Age studies in general? To underscore the implications of a network approach, the case study of Early Bronze Age networks will be extended to the full Bronze Age sequence in Central Italy. The 'transitional' character of the Early Bronze Age will be substantiated with ample evidence for network changes in the 'rich' Middle Bronze Age archaeological records in Central Italy (§9.1.1). Here socalled 'time-transgressive' issues in typochronological attributions to the Early and/or Middle Bronze Age already encountered in the case-study (Chapters 3-8) will be recalled. These 'transitional' phenomena prompt a consideration of the possibility of a 'time-transgressive' scenario of overlap between the Early and Middle Bronze Ages (§9.1.2). This scenario will be explored in a 'diachronic' comparison between Early Bronze Age networks and two larger cultural spheres that emerged in the Italian peninsula at the start of the Middle Bronze Age, the "Grotta Nuova" sphere in Central Italy (§9.2.1) and the "Protoappenninico" sphere in Southern Italy (§9.2.2). Based on this extension of the case study, I will argue that 'time-transgressive' issues at the Early-Middle Bronze Age transition are not only problematic, but also helpful in the conceptualisation of transitions between periods and (sub)phases as trajectories (§9.2.3). Subsequently, the case study in Early Bronze Age networks and trajectories in Central Italy will be discussed in the wider context of European and Mediterranean Bronze Age studies (§9.3.1). Although interaction over long distances was not a new phenomenon, it does seem that Early Bronze Age networks and trajectories changed the Copper Age (including 'Bell Beaker') structure of connectivity within and toward Central Italy and paved the way for a lot of things to happen and change in the Middle Bronze Age. Then, a brief comparison between 'earlier' and 'later' Bronze Age trajectories in Central Italy will show what a data-rich understanding of the former contributes to an understanding of the latter. Finally, the wider implications of the data-rich approach to archaeological synthesis (Chapter 2) will be charted for Bronze Age studies in general (§9.3.2). Given that so many pieces of the 'four-dimensional jigsaw' are missing or not in the right place yet, we cannot afford to be selective and focus on the best pieces alone, but should take as much pieces into account as possible.